



# Integration Of Tribal Indigenous Knowledge In Curriculum for Sustainable Development

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**Abstract:** Indigenous denotes native, inborn, aboriginal people, those who has common pattern of life in their geographical areas. In this aspect, indigenous knowledge refers to the traditional-knowledge, native people's knowledge, spiritual knowledge, verbal spiritual knowledge, common knowledge, poor people's knowledge, practical knowledge, cultural knowledge as well as situational knowledge, which are based on community practices. This knowledge can be utilized by the communities in various spheres of human activities such as health care, food preservation, child-rearing practices, education, natural resource management and risks management. Such knowledge is also considered as "social capital" for the poor people indigenous knowledge is accepted as intellectual property and is taking new significance in the search of answers to world's most vexing problems, such as disease, famine, ethical conflicts and poverty. Indigenous knowledge has value, for not only the culture, in which it develops, but also extends solutions to the scientists and planners, seeking solutions to community problems. Development professionals treasure this local knowledge, found it extremely useful in solving complex problems of health, agriculture, education and the environment in developed, developing and under developed countries. According to goal 4 sustainable development there are 17 goals out of goal 4 for the education for all, it's a global agenda for all the nation to achieve this our education policy NEP2020 will helps us to achieve the sustainable development goal. Based on NEP2020 which guideline art integrated, sport integrated, experiential learning suggests us to develop curriculum based on Indian ethos, which is relevant to Indian Knowledge System.

**Keywords:** Indigenous knowledge, curriculum, sustainable development

## 1.0. Introduction

### • Indigenous knowledge

Indigenous denotes native, inborn, aboriginal people, those who has common pattern of life in their geographical areas. In this aspect, indigenous knowledge refers to the traditional-knowledge, native people's knowledge, spiritual knowledge, verbal spiritual knowledge, common knowledge, poor people's knowledge, practical knowledge, cultural knowledge as well as situational knowledge, which are based on community practices. This community cantered knowledge is relevant for various kinds of risk management like health care, agriculture, animal husbandry, fishery, education, child-rearing practices and so on.

As defined by World Bank in 1998 -Indigenous Knowledge is situational knowledge that is unique to every culture of society. According to Masango, (2010) - Indigenous knowledge as the totality of all knowledge and practices established on past experiences and observations that are held and used by people Ascher, (2002)-opined that Indigenous people have had their own ways of looking at and relating to the world, the Universe, and to each other. Their traditional education process was carefully constructed around observing

natural processes, adapting modes of survival, obtaining sustenance from human and animal world, and using natural material to make their tools and implements. Indigenous knowledge is an emerging area of study that focuses on the ways of knowing, seeing and thinking that are passed down orally from generation to generation.

Indigenous knowledge (IK) is highly concerned with the synthesis of intelligence to produce the outcomes of culture aimed at maintaining the strength of the society (Sillitoe, 2000). Nakashima (2002) defines IK as “a cumulative body of knowledge, know-how, practices and representations maintained and developed by peoples with extended histories of interaction with the natural environment” (p.9). Based on this definition, the sophisticated forms of know-how upheld by people in their societies form the greatest component of IK. According to Sillitoe (1998), IK forms the basis required to foster local level decision making processes about the fundamental aspects of day-to-day issues.

According to Danielsen et al. (2014), the idea that IK specifically focuses on the immediate and concrete day to day provisions of peoples, alongside the assumption that science tends to come up with generalized explanations, does not hold water. Some academics describe the benefits of IK knowledge such as “non-technical insights, wisdom, ideas, perceptions and innovative capabilities” (Rahman et al., 2017, p.6).

### • Tribal Indigenous knowledge of Jharkhand

In general usage, the word ‘tribe’ denotes a primary aggregate of people living in primitive barbarous condition, usually located in far flung areas. Often words like aboriginals, animists, savage, pre-literate, indigenous were brought in use as its synonym (Hasnain, 2003).

1931, these words were used quite frequently and inter-changeably, but after that, the nomenclature referring to tribes underwent successive modifications and subsequent independence, such words were dropped and the notion of ‘scheduled tribe’ was incorporated in the constitution (Stanley and Kumar, 1995). Henceforth it became widely accepted. Anthropologically speaking, tribe is a group of individuals having common language/dialect, common territory, common economic system, unilineal descent, coherent political organization and distinct oral customary traditions of unique antiquity, which varies sharply from the same of other group/s (Norchi, 2010) However speaking in anthropological connotation, culture refers to the ‘complex whole of knowledge, belief, art, morals, laws, custom and any other capabilities and habits acquired by man as a member of society’ (Tylor, 1871). Culture is also often quoted as the sum total of integrated behaviour patterns, which are characteristics of the members of a society, and are not the result of biological inheritance (Hoebel, 1958).

Speaking about Jharkhand, the Republic of India consists of twenty-nine states and seven union territories. Jharkhand is one among the 29 states which came into existence on 15th November, 2000 after being bifurcated from the state of Bihar (Turner, 2017). Being walled by West Bengal (in the east), Chhattisgarh and Uttar Pradesh (in the west), Bihar (in the North) and Odisha (in the South), the state is well known for its large tribal/indigenous population, which accounts for almost 8.3% of the total Indian inhabitants. Currently, the state boasts of 32 identifiable groups which are under the constitutional criteria of scheduled tribe (Banerjea, 2005). Asur, Birhor, Khairwar, Mahali, Baiga, Chero, Khond, Mal-Paharia, Banjara, Chik-Baraik, Kisan, Munda, Bathudi, Gond, Koda, Oraon, Bedia, Gorait, Kol, Parhaiya, Bhumij, Ho, Kawar, Santhal, Binjhia, Karmali, Korwa, sauriya Pahadiya, Birjhia, Kharia, Lohra, Sawar. These tribal communities can be classified into different groups, on the basis of distinctive criterion/criteria of language/dialect, ethnic morphology, economy, culture, education, religion, population etc. They account for about 26.3% of the total population of the state and are scattered throughout the territorial jurisdiction of Jharkhand (Sikarwar, 2017).

Jharkhand is one of the eastern states, where bulk of tribals live, constituting about 28% of total population. It is a homeland of 32 tribes including 8 primitive tribes. The tribes happened to be primarily rural and their economy is predominantly agricultural, based on natural seasons comprising and exploited on primitive methods. These tribes have rich knowledge about the indigenous practices especially in soil management, seed protection and post-harvest aspect on paddy. This traditional knowledge has been derived from the tribe’s farming experience through trial-and-error method and handed down from previous generation to present generations. Many of these indigenous methods and practices are very human in nature and can play an important role in sustainable suitable agricultural production. This indigenous knowledge may be exploited and blended with existing scientific technologies to explore more sustainable and human friendly methods of agricultural practices. Therefore, there is an urgent need to identify and document existing

indigenous knowledge related to agricultural practices followed in different regions of the country. Keeping this in view, the study was taken up in Jharkhand.

It is a land of tribals, since immemorial tribals are residing in Jharkhand, there are different types of Indigenous knowledge-components viz. community centered knowledge, situational knowledge, local knowledge, traditional knowledge, folk cultural knowledge and knowledge in the form of survival strategies. This knowledge can be utilized by the communities in various spheres of human activities such as health care, food preservation, child-rearing practices, education, natural resource management and risks management. Such knowledge is also considered as “social capital “for the poor people.

Tribal communities and children from Scheduled Tribes also face disadvantages at multiple levels due to various historical and geographical factors. Children from tribal communities often find their school education irrelevant and foreign to their lives, both culturally and academically. While several programmatic interventions to uplift children from tribal communities are currently in place, and will continue to be pursued, special mechanisms need to be made to ensure that children belonging to tribal communities receive the benefits of these interventions.

These ways of understanding reflect thousands of years of experimentation and innovation in topics like agriculture, animal husbandry, child rearing practices, education systems, medicine and natural resource-management among many other categories. These methods of knowing are particularly important in the era of globalization, a time in which indigenous knowledge is accepted as intellectual property and is taking new significance in the search of answers to world’s most vexing problems, such as disease, famine, ethical conflicts and poverty. Indigenous knowledge has value, for not only the culture, in which it develops, but also extends solutions to the scientists and planners, seeking solutions to community problems. Development professionals treasure this local knowledge, found it extremely useful in solving complex problems of health, agriculture, education and the environment in developed, developing and under developed countries

#### • **Theoretical basis for indigenous knowledge**

Constructivism is a teaching and learning approach that theorizes how new knowledge is embedded within pre-existing knowledge and is, therefore, affected by the context in which knowledge is presented (Bada and Olusegun, 2015:66). By following a constructivist approach in the classroom, lessons should pivot around the process of knowledge construction (not transmission), guided by clearly defined learning objectives within context-based activities. Relevance in the classroom immediately connects students' prior knowledge and answers the "Why do we need to know this?" question which leads to a more engaged learning process (Shan, 2011). As a theoretical framework, we build on social constructivism (Vygotsky, 1978), and how an ethnobiological heuristic could be used to scaffold learning across Vygotsky’s „zone of proximal development.

In modern era, if societies truly utilize indigenous knowledge in appropriate ways and incorporate those in the formal education system, the national goal for development will be easily achieved and indigenous societies will be able to achieve the millennium developmental goals. Development would be easily possible through the collaboration with scientific and Indigenous knowledge. Therefore, now a day it is essential to develop a collaborative approach for development. We can proceed further for development through convergence between Indigenous Knowledge with modern Knowledge.

Hence, it will be able to preserve, promote and enhance of the traditional spirit. promote and enhance of the traditional spirit (Hammer, S. and Jerome, A. (2007). As defined by Merriam Webster-Dictionary - Knowledge is the fact or condition of knowing something with familiarity gained through experience. According to Collins English Dictionary- knowledge is association or awareness, consciousness or familiarity gained by experience or learning. Nonaka, (2006) asserted that knowledge is a dynamic human process of justifying personal beliefs towards the truth. He opined that there are two types of knowledge namely, explicit and tacit knowledge. Explicit knowledge can be expressed in the formal and systematic language and shared in the form of data, scientific formula, specifications-manuals and others. On the other hand, tacit

## • Significance of Integration of Tribal Knowledge in curriculum

Actions currently being taken by Indigenous people in communities throughout the world clearly demonstrate that a significant –paradigm shift is under way in which Indigenous knowledge and ways of knowing are recognized as constituting complex knowledge systems with an adaptive integrity of their own (Barnhardt and Kawagley 2004). Indigenous communities around the world are constantly struggling to maintain their rights, their traditions and their knowledge, in a system still dominated by a western worldview. They face the challenge of living in two worlds, the indigenous and the non-indigenous one, in constant tension with each other, with the latter having more power in shaping the former. For centuries, indigenous populations have suffered from invasion and oppression, and oftentimes they have seen their knowledge eclipsed by western knowledge, imposed on them through western institutions.

Yet, indigenous populations have managed to survive for centuries adapting in many different ways to adverse climate conditions and managing to create sustainable livelihood systems. Diverse forms of knowledge, deeply rooted in their relationships with the environment as well as in cultural cohesion, have allowed many of these communities to maintain a sustainable use and management of natural resources, to protect their environment and to enhance their resilience; their ability to observe, adapt and mitigate has helped many indigenous communities face new and complex circumstances that have often severely impacted their way of living and their territories. In Uganda, the National Council of Science and Technology has initiated a process to highlight the importance of TK in agricultural and health sectors. A national workshop on the topic resulted in a Kampala Declaration on Indigenous Knowledge for Sustainable Development, and steps to integrate TK into the country's Poverty Eradication Action Plan and other official processes (Gorjestani 2004).

The World Conference on Science, organized by UNESCO and the International Council for Science (ICSU), in its Declaration on Science and the Use of Scientific Knowledge, explicitly recognized the importance of TK and the need to respect and encourage its use for various forms of human endeavour (ICSU 2002). It is particularly instructive that the United Nations Committee on Trade and Development (UNCTAD), which essentially deals with international economic relations, has also given TK considerable importance. Since 2000 when its member States decided to address the issue of the use and protection of TK, it has promoted work on the subject, including bringing together 250 experts from 80 countries in October-November 2000, to deliberate on the subject. The book coming out of that has a series of articles dealing with diverse aspects of the role of TK in human welfare and sustainable development (Twarog and Kapoor 2004).

Indigenous perspectives, which will be written into the national curriculum to ensure that all young Australians have the opportunity to learn about, acknowledge and respect the culture of Aboriginal people and Torres Strait Islanders. (National Curriculum Board, 2009, p 13. Indigenous Knowledge Systems in Conserving the Nature Lai Chau Province's Department of Forest Protection (DFP) has adopted the Ban Banh model to change their approaches to forest protection improved significantly since then. In general, re-greening results have improved because the local people know which indigenous trees to use under what conditions. Indigenous Knowledge Systems in Medicine.

Each of the communes in the upland knows how to use about 300 to 700 medicinal plants for several purposes (On, 2003). Most of the upland households can use tens to hundreds of medicinal plants which are available in the communities to heal normal diseases such as headache, diarrhoea, fever, etc. Several communities in the uplands are involved in collecting, processing and selling medicinal plants. With the enormous benefits and large demand, in recent years a large amount of wild medicinal plants has been harvested to supply to domestic pharmaceutical companies and export to China. It is estimated that 400 - 500 species of medicinal plants have been harvested in a unsustainable way. Many species have been overexploited and are therefore exhausted (On, 2003). Clearly, the consequent biodiversity loss means an erosion of indigenous knowledge, which is a serious problem. Indigenous Knowledge Systems in Food Production. Indigenous Knowledge and Climate Change Indigenous peoples live in the most vulnerable ecosystems.

Ranging from circumpolar Arctic, high -mountains zones, floodplains, tropical rainforests, desert margins, small islands and low-coastal areas, indigenous territories are directly affected by the current ecological crisis responsible for issues such as climate change and loss of biodiversity. Among the climate change threats,

indigenous peoples from Asia identify the intensification of typhoons, monsoons and flooding, sea-level rise and salinization of freshwater (Tebtebba Foundation, 2009). Indigenous populations have suffered from the consequences of desertification, extensive drought and rainfall declines (Conway, 2009; Nyong et al. 2007), while the life of indigenous peoples in the Arctic is threatened by the melting of the stable ice, necessary to carry out hunting and fishing activities (Salick and Byg, 2007). Similarly, Kronik and Verner (2010) identified in the case of indigenous groups from Latin America and the Caribbean, phenomena such as the melting of glaciers, the intensification of hurricanes, the rise of the sea-level and changes in the rainfall patterns.

**Indigenous Knowledge and Disaster Risk Reduction** The integration of indigenous knowledge in disaster risk reduction has been slow compared to other disciplines (McAdoo et al., 2009). Indeed, only recently, research on disaster risk reduction has not only demonstrated the high value of indigenous traditional knowledge in preventing and mitigating the effects of natural disasters, but also in relation to early warning, preparedness, response and post-disaster recovery (Rautela and Karki, 2015). Indigenous groups around the world adopt different strategies depending on the natural hazards to which they are more subject. For this reason, sometimes indigenous groups from different countries, but who live in areas with similar weather conditions, use similar strategies. Among the strategies that have been observed by researchers, there are prevention strategies based on weather forecasting and the modification of agricultural practices to limit damages to crops and other interventions to prevent the population and the livestock from all sorts of harm. Mercer et al. (2007) in their analysis of indigenous groups living in Small Island Developing States in the Pacific, point out that some of the territories that, in recent years, have been the most affected by natural hazards, grouped these strategies into general categories that include 1) land use planning; 2) building methods; 3) food resilience; 4) social resilience; 5) and environmental resilience

#### • **Relationship between tribal Indigenous knowledge and sustainable development**

All most all the development actors have now recognized the value of participatory approaches in decision making for sustainable development. Indigenous knowledge provides the basis for grassroots decision-making. It is recently found that the indigenous knowledge of ecological zones, natural resources, agriculture, aquaculture, forest and game management is far more sophisticated than previously assumed (Posey, 1995). Indigenous peoples' traditional model of education is a balanced and complementary model acceptable to the local community. It is an education system gradually developed from the accumulated knowledge of many generations. It leads to the development of a whole person in a dynamic family and community context. It incorporated principles of holism, integration, respect for the spiritual and natural world order, and the balance. On an individual scale, it encompassed total preparation of the total person for living a total life (Obomsawin, 1988). A closer look at the local traditions in a country reveals the methods by which the cultural and ecological balance is maintained. Culture is defined by the ecological conditions and the traditional institutions that help to sustain the community (Mishra, 1994). This promotes a situation of “constructive dependence” instead of “destructive dependence” of so-called modern development. Evidence of this is found in various myths, taboos, rules and regulations that form part of the local culture and ethos.

Traditional knowledge (TK) (or other co-terminous terms such as indigenous knowledge, and local knowledge) generally refer to the long-standing information, wisdom, traditions and practices of certain indigenous peoples or local communities. In many cases, traditional knowledge has been orally passed for generations from person to person. Some forms of traditional knowledge are expressed through stories, legends, folklore, rituals, songs, art, and even laws. Other forms of traditional knowledge are often expressed through different means. One distinction that is often made between TK and modern or “western” knowledge is that unlike the latter, TK does not separate “secular” or “rational” knowledge from spiritual knowledge, intuitions, and wisdom. It is often embedded in a cosmology, and the distinction between “intangible” knowledge and physical things is often blurred. Indeed, holders of TK often claim that their knowledge cannot be divorced from the natural and cultural context within which it has arisen, including their traditional lands and resources, and their kinship and community relations.

The term “sustainable development” (SD) first came to vogue in the report of the World Commission on Environment and Development, *Our Common Future*. It was here defined as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs”. Many limitations of this definition have been pointed out, including that it is predominantly anthropomorphic (focusing only on how development should sustain human needs, and not considering the needs of other

species), that it does not adequately take equity into account, and that it is in this form not possible to operationalize. A more detailed definition is that it is a collection of methods to create and sustain development which seeks to relieve poverty, create equitable standards of living, satisfy the basic needs of all peoples, and establish sustainable political practices, while ensuring that there are no irreversible damages to natural resources and nature. Whatever the definitions, countries and communities realize that SD can be operationalized only through a set of indicators and criteria for assessing the impact of development processes and projects. Following up from a number of international conferences and treaties on the subject, several countries have begun to use these to gauge whether they are on the path of sustainability

Education for Sustainable Development allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. ... Education for Sustainable Development requires far-reaching changes in the way education is often practised today.

Education is seen as a big force; a force that not only contributes to national development, but also sustainable development. It is a key to development, be it social, economic, political or environmental. Education promotes development of knowledge and skills required to achieve sustainable development (SD). It encourages promotion of economic well-being, social equity, democratic values and much more. Education for Sustainable Development (ESD) enables people and citizens to learn as to how to preserve earth resources which are limited in availability. The ESD has the objective of empowering present and future generations to meet their needs using a balanced and integrated approach to the economic, social and environmental dimensions of SD.

#### • Possibilities of Integration of Tribal Knowledge in curriculum

Heritage conservation refers to the combined whole of preservation of both the material aspects as well as non-material aspects of culture. Among the material aspects, tangible things like the special huts/ houses of the tribal/s, agricultural implements, dresses, ornaments, hunting and gathering equipment's, idols and deities, day to day household items like utensils, cooking devices, totemic symbols, totem pole, worship place (sarna), place of cemetery (sasandiri/hadgadi), place of gathering (akhra), market place, rice beer (hadia), market place, art and craft etc. are some of those, which need special attention. In context to the non-tangible traits and complexes of culture, the life-style and panache of the tribals, needs to be identified and conserved. Speaking socially - the totemic clan setup, prohibitive clan committees, parha panchayat, clan exogamy, ways of acquiring marital mate, kin-groups, kinship usages, preferential and proscriptive forms of marriage etc., are the ones which needs to be preserved. Connoting economically - tribals display a wonderful balance between ecology and economy. In this context, their totemic values, traditional folk-medicinal knowledge and practices like jani-shikaar need special addressal. Religiously - tribals display a wonderful cohesion between themselves and the super-natural entity. In this context, religious taboos, animism, animatism, nature-worship (prakriti-puja), totemic practices, ancestral worship, sacred groves, pre-agricultural and post-agricultural rituals, birth and death rituals, matrimonial practices, concomitant forms of black-magic and white-magic, sorcery, knowledge of witch-doctors, ritualistic practices of the religious head (pahan), sacred and profane beliefs etc., are the ones needy of conservation.

Apart from these, there are a lot of festivals that need to be revived in view of their diminishing ambience such as Karma, Sohrai, Buru, Parva, Maghe Parva, Phagu, Sarhul, Chaandi, Jatra Parva, Hareli, Japaad, Dohrai, Saakraat, Bhagsim, Maghi, Horo, Jomnana, Kolom, Gangi-Adeya and Punnu-Adeya. Adding on to the list, is the legacy of the martyrs and forerunners of Jharkhand like - Baba Tilka Manjhi, Bindrai and Sindrai, Birsa Munda, Budhu Bhagat, Chand-Bhairav, Ganpat Rai, Jaipal Singh Munda, Jatra Tana Bhagat, Lako Bodra, Nilambar-Pitambar, Sheikh Bhikhari, Sido-Kanhu Murmu, Smt. Sinagi Dai, Tikait Umrao Singh, Vishwanath Sahdeo etc., which are also among the prized possessions of the tribal state. Due to the growing influence of Hindi, English and a few other languages, tribal languages/dialects like Santhali, Mundari, Kharia, Ho, Kurukh, Nagpuri, Kurmali, Khortha and Panch Pargania are loosing their roots. They need to be put in the priority-list of preservation. Tribals of Jharkhand also possess rich folkloric tradition. Associated attributes like folk-stories, folk-tales, folk-myths, folk-songs, folk-dance, folk music, folk-proverbs, folk-idioms, folk-phrases, folk-riddles, folk welcome-songs, folk-abuses etc. are waning-away rapidly, and need special attention. Apart from these, the traditional games, customary laws, paintings, beliefs, youth-dormitories, tattoo body art (godna), oral-traditions, knowledge of using natural resources, and usage of indigenous technology in various fields, are also important.

Table: 1

Application of Indigenous Knowledge	Possibility of Integration in curriculum	Pedagogy as per NEP
Biology	Indigenous Medicinal practices, agriculture, seed preservation, Food Preservation, Forest management, Animal Husbandry,	discovery, and activity-based
Chemistry	Specific minerals which are found in Jharkhand Iron, copper, Mica, silver	inquiry-based, discovery-based, discussion-based, and analysis-based learning
Physics	Traditional transport system communication system	Critical thinking, creativity,
Geography	Natural resources of Jharkhand, Mountain system, River system, Vegetation	creative, collaborative, and exploratory activities for students for deeper and more experiential learning
Polity	Tribal administrative system like parha panchayat, Munda Manki, Majhi pargana	develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, Fundamental Duties and Constitutional values
value	Moral value, spiritual value, Aesthetic value, Social value, Economic value, Recreational value, spiritual value, Association value, Biological value	Instilling knowledge of India and its varied social, cultural, and technological needs, its inimitable artistic, language, and knowledge traditions, and its strong ethics in India's young people is considered critical for purposes of national pride, self-confidence, self-knowledge, cooperation, and integration
Environment	Biodiversity Park, Tiger reserve, Bird sanctuaries	Design Thinking, Holistic Health, Organic Living, Environmental Education, Global Citizenship Education (GCED)
Art and craft	Sohray painting, kohbar, jado patiya, straw art, mural painting, sculpture art	Excursion, field trips
Song and Dance	Fagua, udasi, pavas, karama,sohrai Jhoomar, lujhari, domkach, khemta	films, theatre, storytelling, poetry, and music - and by drawing connections with various relevant subjects and with real-life experiences
History	Ancient, Medieval, Freedom struggle personalities like sido kanho, fulo jhano, Tilka Majhi,National freedom struggle in Jharkhand,organization of Jharkhand movement.	inquiry-based, discovery-based, discussion-based, and analysis-based learning
Spiritual connection	Indigenous Festival karma sarhul	, self-knowledge, cooperation, and integration
Trade and Commerce	Export and import business	cross-curricular pedagogical approach
Language	Regional language santhali, kudukh, Mundari, Khortha, Nagpuri, Panch parganiya	story-telling-based pedagogy
Vocational subject	Pottery making, Handloom	ideas, applications, and problem solving. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more

		experiential learning
Sports	Indigenous sports sekkor by Ho tribes	in pedagogical practices to help in developing skills such as collaboration, self-initiative, self-direction, self-discipline, teamwork, responsibility, citizenship, etc.

### • NEP 2020 guidelines for Integration

This National Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower. The Policy envisages that the curriculum and pedagogy of our institutions must develop among the students a deep sense of respect towards the Fundamental Duties and Constitutional values, bonding with one's country, and a conscious awareness of one's roles and responsibilities in a changing world. The vision of the Policy is to instil among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen.

Indian culture and philosophy have had a strong influence on the world. These rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system. These elements must be incorporated taking into account the local and global needs of the country, and with a respect for and deference to its rich diversity and culture. Instilling knowledge of India and its varied social, cultural, and technological needs, its inimitable artistic, language, and knowledge traditions, and its strong ethics in India's young people is considered critical for purposes of national pride, self-confidence, self-knowledge, cooperation, and integration.

The Foundational Stage will consist of five years of flexible, multilevel, play/activity-based learning and the curriculum and pedagogy of ECCE as mentioned. The Preparatory Stage will comprise three years of education building on the play, discovery, and activity-based pedagogical and curricular style of the Foundational Stage, and will also begin to incorporate some light text books as well as aspects of more formal but interactive classroom learning, in order to lay a solid groundwork across subjects, including reading, writing, speaking, physical education, art, languages, science, and mathematics. The Middle Stage will comprise three years of education, building on the pedagogical and curricular style of the Preparatory Stage, but with the introduction of subject teachers for learning and discussion of the more abstract concepts in each subject that students will be ready for at this stage across the sciences, mathematics, arts, social sciences, and humanities. Experiential learning within each subject, and explorations of relations among different subjects, will be encouraged and emphasized despite the introduction of more specialized subjects and subject teachers. The Secondary Stage will comprise of four years of multidisciplinary study, building on the subject-oriented pedagogical and curricular style of the Middle Stage, but with greater depth, greater critical thinking, greater attention to life aspirations, and greater flexibility and student choice of subjects. In particular students would continue to have the option of exiting after Grade 10

The key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system towards real understanding and towards learning how to learn - and away from the culture of rote learning as is largely present today. The aim of education will not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21st century skills. Ultimately, knowledge is a deep-seated treasure and education helps in its manifestation as the perfection which is already within an individual. All aspects of curriculum and pedagogy will be reoriented and revamped to attain these critical goals. Specific sets of skills and values across domains will be identified for integration and incorporation at each stage of learning, from pre-school to higher education. Curriculum frameworks and transaction mechanisms will be developed for ensuring that these skills and values are imbibed through engaging processes of teaching and learning. NCERT will identify these required skill sets and include mechanisms for their transaction in the National Curriculum Framework for early childhood and school education. Reduce curriculum content to enhance essential learning and critical thinking. Curriculum content will be reduced in each subject to its core essentials, to make space for critical thinking and more holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning. The mandated



content will focus on key concepts, ideas, applications, and problem solving. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more experiential learning.

Art-integration is a cross-curricular pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects. As a part of the thrust on experiential learning, art-integrated education will be embedded in classroom transactions not only for creating joyful classrooms, but also for imbibing the Indian ethos through integration of Indian art and culture in the teaching and learning process at every level. This art-integrated approach will strengthen the linkages between education and culture. Sports-integration is another cross-curricular pedagogical approach that utilizes physical activities including indigenous sports, in pedagogical practices to help in developing skills such as collaboration, self-initiative, self-direction, self-discipline, teamwork, responsibility, citizenship, etc. Sports-integrated learning will be undertaken in classroom transactions to help students adopt fitness as a lifelong attitude and to achieve the related life skills along with the levels of fitness as envisaged in the Fit India Movement.

It is well understood that young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue. Home language is usually the same language as the mother tongue or that which is spoken by local communities. However, at times in multi-lingual families, there can be a home language spoken by other family members which may sometimes be different from mother tongue or local language. Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language. Thereafter, the home/local language shall continue to be taught as a language wherever possible. This will be followed by both public and private schools. High-quality textbooks, including in science, will be made available in-home languages/mother tongue. All efforts will be made early on to ensure that any gaps that exist between the language spoken by the child and the medium of teaching are bridged. In cases where home language/mother tongue textbook material is not available, the language of transaction between teachers and students will still remain the home language/mother tongue wherever possible. Teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction. All languages will be taught with high quality to all student. The reduction in content and increased flexibility of school curriculum - and the renewed emphasis on constructive rather than rote learning - must be accompanied by parallel changes in school textbooks. All textbooks shall aim to contain the essential core material (together with ideas, applications, and problem solving. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more experiential learning deemed important on a national level, but at the same time contain any desired nuances and supplementary material as per local contexts and needs. Where possible, schools and teachers will also have choices in the textbooks they employ - from among a set of textbooks that contain the requisite national and local material - so that they may teach in a manner that is best suited to their own pedagogical styles as well as to their students and communities' needs; a language does not need to be the medium of instruction for it to be taught and learned well.

Effective learning requires a comprehensive approach that involves appropriate curriculum, engaging pedagogy, continuous formative assessment, and adequate student support. The curriculum must be interesting and relevant, and updated regularly to align with the latest knowledge requirements and to meet specified learning outcomes. High-quality pedagogy is then necessary to successfully impart the curricular material to students; pedagogical practices determine the learning experiences that are provided to students, thus directly influencing learning outcomes. The assessment methods must be scientific, designed to continuously improve learning and test the application of knowledge. Last but not least, the development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning. Thus, curriculum, pedagogy, continuous assessment, and student support are the cornerstones for quality learning. Along with providing suitable resources and infrastructure, such as quality libraries, classrooms, labs, technology, sports/recreation areas, student discussion spaces, and dining areas, a number of initiatives will be required to ensure that learning environments are engaging and supportive, and enable all students to succeed.

## • Conclusion

According to goal 4 sustainable development there are 17 goals out of goal 4 for the education for all, it's a global agenda for all the nation to achieve this our education policy NEP2020 will helps us to achieve the sustainable development goal. Based on NEP2020 which guideline art integrated, sport integrated, experiential learning suggests us to develop curriculum based on Indian ethos, which is relevant to Indian Knowledge System, which includes various indigenous knowledge practices to develop value of sustainable development. Jharkhand is land of tribal where almost 32 tribals are found and 8 are primitive tribe since immemorial they were practice this indigenous knowledge, on various field like agriculture, forest management, agriculture practices, animal husbandry, art and craft, tribal paintings medicinal practices, if we include these curriculums in our education, Then our learning become more relevant, experiential, contextual which will lead to problem solving attitude. By this way if we integrate tribal indigenous knowledge we can preserve, promote indigenous knowledge for sustainable development.

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