बिहार सरकार
ग्रामीण कार्य विभाग

पत्रांक–BRRDA(HQ)-PMGSY- 265/2021 – 3059(अनु०) /पटना, दिनांक– 04.08.2025

प्रेषक,

अभय झा, भा0प्र0से0,
अपर मुख्य कार्यपालक पदाधिकारी–सह–सचिव,
बिहार ग्रामीण पथ विकास अभिकरण, पटना।

सेवा में,

सचिव
विशेष सचिव
अभियंता प्रमुख–सह–अपर आयुक्त–सह–विशेष सचिव
अभियंता प्रमुख
संयुक्त सचिव
सभी मुख्य अभियंता
सभी अधीक्षण अभियंता
सभी कार्यपालक अभियंता

विषयः–मुख्य सचिवों के पंचम राष्ट्रीय सम्मेलन के Sub Themes पर Feedback Note उपलब्ध कराने के संबंध में।

प्रसंगः–योजना एवं विकास विभाग, बिहार सरकार का पत्रांक–यो11/P-8/2025 4122, दिनांक–18.07.2025

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के माध्यम से सूचित किया गया है कि मुख्य सचिवों की पंचम राष्ट्रीय सम्मेलन नवम्बर 2025 में प्रस्तावित है। इस सम्मेलन का मुख्य Theme "Human Capital for Vikisit Bharat" है। इस संदर्भ में नीति आयोग के द्वारा सम्मेलन के सभी Sub Themes पर सभी भा0प्र0से0 के पदाधिकारियों एवं राज्य के विभिन्न सेवा के पदाधिकारीयों से Template -2 (प्रपत्र संलग्न) में Feedback Note की मांग की गई है। जिसे प्रासंगिक पत्र में अंकित Web Portal- https://bspb.bihar.gov.in/feedback/registef.aspx के माध्यम से योजना एवं विकास विभाग, बिहार, पटना को उपलब्ध कराये जाने का अनुरोध किया गया है।

उपरोक्त के आलोक में User Manual संलग्न करते हुए अनुरोध है कि Web Portal पर Register कर Sub Themes पर अपना–अपना मंतव्य प्रदान करने की कृपा की जाय।

अनु0–यथोक्त।

विश्वासभाजन

(अभय झा)
अपर मुख्य कार्यपालक
पदाधिकारी–सह–सचिव,
बिहार ग्रामीण पथ विकास अभिकरण।

PTO

ज्ञापांक– BRRDA(HQ)-PMGSY- 265/2021 -3059 /पटना, दिनांक– 04.08.2025

प्रतिलिपि–अपर मुख्य सचिव, ग्रामीण कार्य विभाग, बिहार, पटना को सादर सूचनार्थ समर्पित।

अपर मुख्य कार्यपालक
पदाधिकारी–सह–सचिव,
बिहार ग्रामीण पथ विकास अभिकरण।

बिहार सरकार

योजना एवं विकास विभाग

पत्रांक: यो11/P-08/2025 4122 /यो0वि0,पटना,दिनांक 18 जुलाई,2025

प्रेषक,

के0 सेंथिल कुमार
प्रधान सचिव

सेवा में,

अपर मुख्य सचिव/प्रधान सचिव/सचिव,
सभी विभाग, बिहार, पटना
सभी जिला पदाधिकारी,
बिहार ।

स्मार पत्र

विषय: मुख्य सचिवों के पंचम राष्ट्रीय सम्मेलन के Sub Themes पर Feedback Note तथा State Specific Note उपलब्ध कराने के संबंध में।

संदर्भ: योजना एवं विकास विभाग का पत्रांक 3483 दिनांक 27.06.2025

महाशय,

उपर्युक्त विषयक एवं प्रासंगिक पत्र के संबंध में कहना है कि मुख्य सचिवों के पंचम राष्ट्रीय सम्मेलन नवम्बर 2025 में प्रस्तावित है। इस सम्मेलन का मुख्य Theme "Human Capital for Vikisit Bharat" है। इसके अन्तर्गत कुल 05 Sub Themes एवं संबंधित नोडल विभाग निम्न प्रकार है:-

Main Theme: "Human Capital for Viksit Bharat" (Overall Central Nodal: Department of School Education & Literacy, GoI) State Nodal: Planning and Development Department, Bihar, Patna			
SN	Sub-theme	Nodal Ministry/Department	State Nodal Department
1	Early Childhood Education: Laying the Foundation	Ministry of Women & Child Development	Social Welfare Department
2	Schooling: Building Blocks	Department of School Education & Literacy	Education Department
3	Skilling: Future ready Workforce	Ministry of Skill Development & Entrepreneurship with Department of Agricultural Research & Education (DARE)	Labour Resource Department
4	Higher Education: Knowledge Economy	Department of Higher Education with Department of Agricultural Research & Education (DARE)	Education Department
5	Sports & Extracurricular: Beyond Classrooms	Department of Sports with Department of Youth Affairs	Sports Department

(37

नीति आयोग के द्वारा सम्मेलन के सभी Sub Themes पर सभी भा0प्र0से0 के पदाधिकारियों एवं राज्य के विभिन्न सेवा के पदाधिकारियों से Template-2 (प्रपत्र संलग्न) में Feedback Note तथा राज्य नोडल विभागों से Template-1 (प्रपत्र संलग्न) में State Specific Note की मांग की गई है।

प्रासंगिक पत्र के द्वारा सभी पदाधिकारियों से, अधिकतम संख्या में Feedback Notes **दिनांक 01.08.2025** तक तथा राज्य नोडल विभाग से State Specific Notes **दिनांक 10.08.2025** तक Web Portal- https://bspb.bihar.gov.in/feedback/register.aspx के माध्यम से योजना एवं विकास विभाग, बिहार, पटना को उपलब्ध कराने हेतु अनुरोध किया गया है। अबतक कुल 170 Feedback Notes तथा शून्य State Specific Note प्राप्त है।

उल्लेखनीय है कि दिनांक 01.08.2025 को मुख्य सचिव, बिहार के द्वारा इसकी समीक्षा प्रस्तावित है।

उपरोक्त के आलोक में स्मारित करते हुए अनुरोध है कि मुख्य सचिवों के पंचम राष्ट्रीय सम्मेलन के सभी Sub Themes पर Feedback Notes तथा State Specific Notes वेब पोर्टल के माध्यम से योजना एवं विकास विभाग, बिहार, पटना को उपलब्ध कराने की कृपा की जाय, ताकि Consolidated Feedback Notes तथा State Specific Note ससमय National Conference of Chief Secretaries के पोर्टल पर अपलोड किया जा सके एवं संबंधित केन्द्रीय नोडल मंत्रालयों/विभागों को भेजा जा सके।

अनु0-1. **CEO, नीति आयोग का पत्र**
2. **सभी Sub Themes पर Concept Notes**
3. **Template-2 एवं Template-1**
4. **User Manual**

विश्वासभाजन

18/7/2025

(के0 सेंथिल कुमार)
प्रधान सचिव

ज्ञापांक: यो11/P-08/2025 4122 /यो0वि0,पटना,दिनांक 18 जुलाई,2025

प्रतिलिपि: मुख्य सचिव, बिहार के विशेष कार्य पदाधिकारी/प्रधान सचिव, योजना एवं विकास विभाग, बिहार, पटना के आप्त सचिव को सूचनार्थ प्रेषित।

18/7/2025

प्रधान सचिव

Human Capital for Viksit Bharat

Concept Note for Sub Theme 1 - Early Childhood Education: Laying the Foundation

5th National Conference of Chief Secretaries

Nodal Ministry: Ministry of Women and Child Development, Government of India

TABLE OF CONTENT

Fifth National Conference of Chief Secretaries

Theme: Human Capital for Viksit Bharat

Concept Note

Sub theme: Early Childhood Education: Laying the Foundation

A. INTRODUCTION

The Government of India envisions transforming the country into a developed nation by 2047, marking 100 years of independence. This vision is anchored on four pillars of human development: Shishu (Infant), Balya (Child), Yuva (Youth), and Vyaska (Adult), reflecting a life-cycle approach to nurturing human capital. Recognizing human capital as the cornerstone of economic growth, innovation, and social progress, this vision calls for integrated and sustained investments in health, nutrition, education, and skills. Achieving a Gross National Income (GNI) per capita of over USD 18,220, as per World Bank standards, will require a whole-of-government approach that ensures convergence across sectors, fosters equity, promotes industrial and digital modernization, and strengthens institutional capacities. Building a unified and future-ready ecosystem that empowers every individual from birth to adulthood is imperative for positioning India as a global knowledge superpower and Viksit Bharat by 2047.[1]

Investing in the early years of life is widely recognized as one of the most cost-effective and impactful strategies to ensure sustainable human capital development, with long-term benefits for education, health and economic productivity. According to World Health Organization (WHO, 2018), every $1 invested in early childhood development interventions can yield a return of up to $13 to a nation's economy. [2] The earlier the investment is made in a child's life, the greater the potential gain. Early childhood development is also key to upholding the right of every child to survive and thrive. 90% of the brain development happens prior to the age of six and the first 1000 days from gestation to age two represents a critical window of opportunity for cognitive, language, socio-emotional and physical development.[3] To enable this, adequate nutrition interventions as well as early stimulation are equally important. As per the Population Projection Report 2021, India had approximately 16.1 crore (161 million) children in the zero to six years age group, which constituted about 11.8% of the total population and timely and appropriate targeting of this groups can give long term dividends as envisaged under Viksit Bharat[4].

India's commitment to improving nutrition outcomes began with the launch of the Integrated Child Development Services (ICDS) in 1975, followed by the enactment of the National Food Security Act (NFSA), 2013, which made nutrition a legal entitlement. Building on these foundations, POSHAN Abhiyaan was launched on 8th March 2018 to reduce malnutrition across the country, through ICT application, convergence, community mobilization, behavioral change and Jan Andolan, capacity building, incentives, awards, and innovations. These efforts were further consolidated under Mission POSHAN 2.0 in 2021, merging SNP, Scheme for Adolescent Girls, and POSHAN Abhiyaan into a unified framework. The focus shifted from calorie-based supplementation to age-appropriate, balanced diets with diet diversity and inclusion of

[1] World Bank. (2023). New World Bank country classifications by income level: 2023-2024. World Bank Blogs.
[2] World Health Organization, UNICEF, & World Bank Group. (2018). Nurturing care for early childhood development: A framework for helping children survive and thrive to transform health and human potential. World Health Organization. https://www.who.int/publications/i/item/9789241514064
[3] Brown, T. T., & Jernigan, T. L. (2012). Brain development during the preschool years. Neuropsychology Review, 22(4), 313–333. https://doi.org/10.1007/s11065-012-9214-1
[4] Office of the Registrar General & Census Commissioner, India. *Sample Registration System Statistical Report 2021*. Ministry of Home Affairs, Government of India.

micronutrients, fortified rice, and millets. The nutrition norms under Schedule-II of the NFSA Act were recently revised and notified on 25th January 2023 to incorporate quality protein measured using the Protein Digestibility Corrected Amino Acid Score (PDCAAS), total fats, optimal levels of carbohydrates, a cereal-pulse ratio and seven essential micronutrients, calcium, iron, zinc, vitamin A, dietary folate, vitamin B6, and vitamin B12, for improved dietary balance and nutritional impact.

The Constitution of India, under the Directive Principles of State Policy (Article forty-five) outlined the "The State shall endeavor to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years." The 86th Constitutional Amendment Act, 2002, recast this goal by substituting a new Article 45, directing the State to "endeavor to provide early childhood care and education for all children until they complete the age of six years," thereby recognizing Early Childhood Care and Education (ECCE) as a state responsibility. The same amendment also inserted clause (k) into Article 51A, making it a fundamental duty of every parent or guardian "to provide opportunities for education to his child or ward between the ages of six and fourteen years."[5] The word 'care' has been added to this concept to emphasize the importance of the pre-natal as well as the postnatal years. The Right of Children to Free and Compulsory Education (RTE) Act in 2009, mandated free and compulsory education to children from six to fourteen years, but children below the age of six years were left out from the ambit of this right.[6] However, Section eleven of the RTE Act mandated appropriate government to make necessary arrangements for provision of free pre-school education, with a view to prepare children above the age of three years and to provide ECCE for all children until they complete the age of six years.

At the policy level, ECCE was first discussed in the National Policy on Education (NPE) in 1986. The National ECCE Policy 2013 established a visionary commitment to universal ECCE access, which was reiterated by the National Education Policy (NEP) 2020. NEP introduced the new curricular structure of 5+3+3+4, including ECCE starting at age three as a part of the school continuum, acknowledging the first five years of schooling as the foundational stage of learning. Para 1.4 envisages that "ECCE shall be delivered through a significantly expanded and strengthened system of early-childhood education institutions consisting of (a) standalone Anganwadis; (b) Anganwadis co-located with primary schools; (c) pre-primary schools/sections covering at least age five to six years co-located with existing primary schools; and (d) stand-alone pre-schools- all of which would recruit workers/teachers specially trained in the curriculum and pedagogy of ECCE."

Globally, India is a signatory to both the Convention on the Rights of the Child (CRC) 1989 and Education for All (EFA) 1990 which has postulated ECCE as the very first goal to be achieved for Education. Further, Sustainable Development Goal four (Target 4.2) calls upon countries to ensure by 2030 that all girls and boys have access to high-quality early childhood development, care, and pre-primary education. The Incheon Declaration for Education 2030[7] also encourages the provision of at least one year of free and compulsory quality preschool education for all children. The Tashkent Declaration and Commitments to Action for Transforming Early Childhood Care and Education in November 2022[8] committed to equitable and inclusive quality ECCE services

[5] The Constitution (Eighty-Sixth Amendment) Act, 2002| National Portal of India. (n.d.). Retrieved from https://www.india.gov.in/my-government/constitution-india/amendments/constitution-india-eighty-sixth-amendment-act-2002

[6] The Right of Children to Free and Compulsory Education Act. (N.D.). The Right of Children to Free and Compulsory Education Act, 2009. Retrieved from https://www.education.gov.in/hi/sites/upload_files/mhrd/files/upload_document/RTE_Section_wise_rationale_rev_0.pdf

[7] Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. (2015). (report). Incheon Declaration. Retrieved from https://uis.unesco.org/sites/default/files/documents/education-2030-incheon-framework-for-action-implementation-of-sdg4-2016-en_2.pdf

[8] https://www.unesco.org/sites/default/files/medias/fichiers/2022/11/tashkent-declaration-ecce-2022.pdf

for all. Under India's presidency of G20 nations The Leaders' Declaration[9] recognized the importance of investment in supporting human capital development and accelerate the full and effective implementation of the 2030 Agenda for Sustainable Development. This underscores the importance of foundational learning (literacy, numeracy, and socioemotional skills) as the primary building block for both education and future employment.

To advance commitments and bring greater policy attention to the agenda of Early Childhood Education, as part of the 5th National Conference of Chief Secretaries under the overarching theme of "Human Capital for Viksit Bharat," the Ministry of Women and Child Development (MWCD) has taken up the sub-theme "Early Childhood Education: Laying the Foundation." This concept note aims to provide a comprehensive overview of the current landscape of ECCE in India, highlight key challenges, propose actionable solutions, and outline a strategic way forward. The note will cover a focus on Early Childhood Education (ECE), Nutrition, and Mother & Child Care, emphasis on age group zero to three years, Community Mobilization and Adequate Infrastructure

B. CURRENT SITUATION

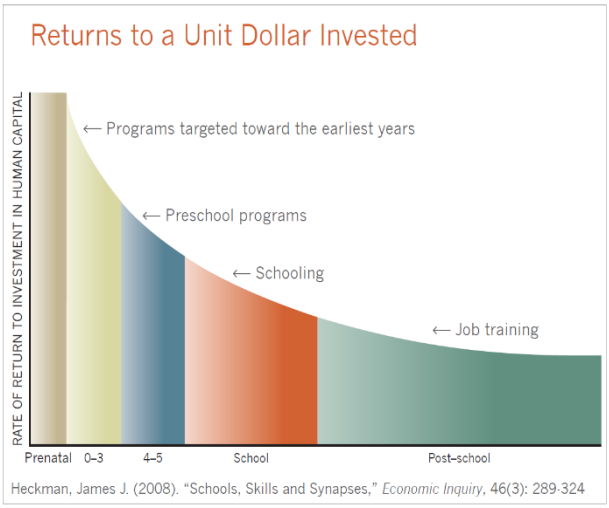
Investing Early: The Lifelong Returns of Prenatal Care and High-Quality ECCE

The prenatal period is a critical window of development, during which maternal health, nutrition, and care profoundly influence fetal brain development, cognitive functioning, and long-term learning outcomes, as emphasized by global frameworks such as the WHO Nurturing Care Framework and supported by neuroscience research on early brain development.[10] [11] Children do not begin learning only when they enter kindergarten or pre-primary classes at the age of 3 or 4 to be taught colors, shapes, or letters[13]. Learning is an innate, continuous process that begins at conception, driven initially by biological mechanisms such as epigenesis, and plays a crucial role in helping humans adapt to their environment from the earliest stages of life[13]. For healthy brain development during the early years, children require a safe, secure, and nurturing environment, combined with adequate nutrition and responsive stimulation from parents or caregivers. This period presents a critical window of opportunity to lay the foundation for lifelong health, learning, and well-being, with benefits that extend into the next generation.[12] In the earliest days of life, neural connections in a child's brain can form at a remarkable rate, up to 1 million per second.[13] Research confirms that caregiver-child interactions during this period are crucial for early development and have long-lasting effects. From the very first months, quality time spent smiling, touching, talking, storytelling, listening to music, reading, and playing with the baby helps build and strengthen these vital neural pathways.

A substantial body of Indian and global evidence indicates that preschool attendance significantly contributes to the development of both cognitive and non-cognitive skills in children across developing and developed countries alike.[14] [15] Participation in early childhood programs has been

[9] https://www.g20.in/content/dam/gtwenty/gtwenty_new/document/G20-New-Delhi-Leaders-Declaration.pdf
[10] World Health Organization, UNICEF, & World Bank Group. (2018). Nurturing care for early childhood development: A framework for helping children survive and thrive to transform health and human potential. World Health Organization. https://www.who.int/publications/i/item/9789241514064
[11] Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). From neurons to neighborhoods: The science of early childhood development. National Academy Press.
[12] UNICEF. (2017). Early Moments Matter for Every Child. New York: United Nations Children's Fund. https://www.unicef.org/documents/early-moments-matter-every-child
[13] Center on the Developing Child, Harvard University, 'In Brief: The science of early childhood development', http://developingchild.harvard.edu/resources/inbrief-science-of-ecd
[14] McCoy, D. C., Zuilkowski, S. S., Yoshikawa, H., & Fink, G. (2017). Early childhood care and education and school readiness in Zambia. Journal of Research on Educational Effectiveness, 10(3), 482–506.
[15] Rao, N., Sun, J., Chen, E. E., & Ip, P. (2017). Effectiveness of early childhood interventions in promoting cognitive development in developing countries: A systematic review and meta-analysis. Hong Kong Journal of Paediatrics (new Series), 22(1), 14–25.

linked to improved school readiness, enhanced learning outcomes and reduced school dropout rates. Moreover, the quality of ECCE services has been found to have a lasting positive impact on child outcomes over time, particularly in low- and middle-income countries.[16] [17] In the Indian context, studies from States like Bihar and Uttar Pradesh have shown that children aged seven to eighteen years who had attended early childhood programs were more likely to remain enrolled in school compared to their peers who did not.[18] Researchers in Vellore found that those who received eighteen to twenty-four months of structured, high-quality ECE had significantly higher IQ at ages five and nine compared to a control group.[19] Heckman's evidence shows that waiting until age three to begin early-childhood programmes leaves significant economic value on the table. In his analysis of the iconic Perry Preschool intervention, which served only three- and four-year-olds, Heckman estimated a 7-10% annual rate of return in higher earnings, better health and lower crime. When he and colleagues later examined a high-quality birth-to-five programme with similarly intensive supports, the payoff jumped to about 13% per year, nearly doubling the lifetime benefit–cost ratio relative to preschool-only models. These findings underpin the "Heckman Curve," which shows returns to human-capital investments decline with each year of delayed intervention; early skill formation in the first 1 000 days raises the productivity of later schooling and training[20]. Lancet 2024 emphasizes on the need to transition from first 1000 days to the next 1000 days of a child's life (from two to five years of age) to promote nurturing and caring environments, establish healthy behaviors, and build on early gains to sustain or improve trajectories of healthy development[21]. These findings underscore the critical importance of not only expanding access to ECCE but also ensuring its quality to maximize long-term educational and developmental gains.



Current Interventions for children below the age of six years

The MWCD in collaboration with state governments has been implementing the Anganwadi services programme through ICDS for the last fifty-years. This is one of the world's largest integrated service delivery programme for children below the age of six-years. In recent years through Saksham Anganwadi and Poshan 2.0, the government's flagship initiative launched during the fifteenth Finance Commission period with the objective of addressing the critical foundations of human capital development i.e., nutrition, health, and early learning among the most vulnerable sections of society. By targeting children (zero to six years), pregnant women, lactating mothers

[16] Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., Perez-Escamilla, R., Rao, N., Ip, P., Fernald, L. C., & MacMillan, H. (2017). Nurturing care: Promoting early childhood development. The Lancet, 389(10064), 91–102.
[17] Rao, N., Sun, J., Pearson, V., Pearson, E., Liu, H., Constas, M. A., & Engle, P. L. (2012). Is something better than nothing? An evaluation of early childhood programs in Cambodia. Child Development, 83, 864–876. https:// doi. org/ 10. 1111/j. 1467- 8624. 2012. 01746.x
[18] Hazarika, G., & Viren, V. (2013). The effect of early childhood developmental program attendance on future school enrolment in rural North India. Economics of Education Review, 34, 146–161.
[19] Koshy, B., Srinivasan, M., Srinivasaraghavan, R., Roshan, R., Mohan, V. R., Ramanujam, K., John, S., Kang, G. (2024). Structured early childhood education exposure and childhood cognition – Evidence from an Indian birth cohort. Scientific Reports, 14(1). https://doi.org/10.1038/s41598-024-63861-8
[20] Heckman, J. J. (2012, December 7). Invest in Early Childhood Development: Reduce Deficits, Strengthen the Economy [PDF]. The Heckman Equation Initiative. Retrieved from heckmanequation.org
[21] Draper, C. E., Yousafzai, A. K., McCoy, D. C., Cuartas, J., Obradović, J., Bhopal, S., Fisher, J., Jeong, J., Klingberg, S., Milner, K., Pisani, L., Roy, A., Seiden, J., Sudfeld, C. R., Wrottesley, S. V., Fink, G., Nores, M., Tremblay, M. S., & Okely, A. D. (2024). The next 1000 days: Building on early investments for the health and development of young children. *The Lancet*, *404*(10467), 2094–2116. https://doi.org/10.1016/S0140-6736(24)01389-8

and adolescent girls, the scheme makes strategic investments in the early stages of the life cycle where returns on human capital are highest.

The scheme provides a comprehensive package of six services namely, Supplementary Nutrition Programme (SNP), Pre-school Non-formal Education, Nutrition and Health Education, Immunization, Health Check-up, and Referral Services to approximately 8.8 Crore Children through an extensive network of nearly 14 lakh AWCs. Monthly growth monitoring of children aged zero to six years, including height and weight measurements, is conducted to assess their nutritional status, facilitate timely referral for at-risk children, and provide parental counselling on appropriate nutrition and childcare practices. SNP is provided to beneficiaries for 300 days a year to bridge the gap between actual and recommended dietary intake. The provision includes fortified rice and mandatory integration of millets to enhance nutritional value. To further promote diet diversity, initiatives like Poshan Vatikas (nutrition gardens) are being encouraged, utilizing locally grown fruits, vegetables, and herbs. As India marks fifty years of the ICDS since its launch in 1975, the programme continues to serve as a cornerstone for holistic child and maternal development, fostering cognitive growth, school readiness, improved nutrition, and long-term well-being. The scheme plays a vital role in achieving India's vision of Viksit Bharat, while simultaneously advancing the 2030 Agenda for Sustainable Development.

ECCE ideally consists of flexible, multi-faceted, multi-level, play-based, activity-based, and inquiry-based learning, comprising of alphabets, languages, numbers, counting, colours, shapes, indoor and outdoor play, puzzles and logical thinking, problem-solving, drawing, painting and other visual art, craft, drama and puppetry, music and movement. It also includes a focus on developing social capacities, sensitivity, good behaviour, courtesy, ethics, personal and public cleanliness, teamwork, and cooperation. The overall aim of ECCE will be to attain optimal outcomes in the domains of: physical and motor development, cognitive development, socio-emotional-ethical development, cultural/artistic development, and the development of communication and early language, literacy, and numeracy.

Para 1.5 of the NEP 2020 envisages "For universal access to ECCE, AWCs will be strengthened with high-quality infrastructure, play equipment, and well-trained Anganwadi workers/ teachers. Every Anganwadi will have a well-ventilated, well-designed, child-friendly and well-constructed building with an enriched learning environment". Accordingly, 2 lakh AWCs have been approved for upgradation under the 'Saksham Anganwadi' initiative, featuring amenities such as Poshan Vatika (nutri-gardens), RO/water filters, rainwater harvesting, LED screens, and Building as Learning Aid (BALA) paintings. To ensure adequate infrastructure, the construction cost of Anganwadi Centres has been revised through convergence with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), fifteenth Finance Commission funds, and MWCD. Additionally, the cost norms for Drinking Water and Sanitation facilities have been enhanced. Further, to encourage play based pedagogy and ensure availability of quality Teaching Learning Material at AWCs the annual budget for each AWC's PSE kit was increased from Rs. 1000 to Rs. 3000. This additional allocation, complemented by community-driven initiatives like DIY toy workshops, empowers AWWs to transform AWCs into vibrant early learning hubs.

Further, the Mission also introduced the 'Poshan Bhi Padhai Bhi' (PBPB) initiative on 10th May 2023, with a budget of 476 Cr[22], aimed at transforming AWCs into vibrant learning hubs that provide play-based, inclusive early childhood education. It places strong emphasis on equipping AWCs with quality infrastructure, diverse learning materials, and well-trained Anganwadi

[22] Facilitator guidebook developed by NIPCCD for training of Anganwadi Workers under Poshan Bhi Padhai Bhi. (n.d.). Retrieved from https://www.pib.gov.in/PressReleseDetailm.aspx?PRID=2100645

Workers (AWWs). The training, conducted by the National Institute of Public Cooperation and Child Development (NIPCCD), follows a Two-Tier Training Model, where State-Level Master Trainers (SLMTs) receive a two-day training (Tier 1), and AWWs undergo a three-day training (Tier 2). As on date, 40,507 SLMTs and 5,48,431 AWWs have been trained under PBPB. In support of this, two national curriculum frameworks were launched: Navchetana, the National Framework for Early Childhood Stimulation (Birth to three Years), and Aadharshila, the National Curriculum for ECCE (three to six years).

Navchetana focuses on responsive caregiving, early stimulation, and monthly age-specific activities that can be delivered at home or at the AWC, with a particular emphasis on inclusion, screening, and referrals for Divyang (children with disabilities). The MWCD is leveraging the Poshan Tracker to empower AWWs through continuous digital support and coaching. Aligned with Navchetana, videos demonstrating age-appropriate activities from the thirty-six-month stimulation calendar with 140 targeted activities, are being developed to help AWWs conduct structured home visits and engage caregivers. These digital resources, along with existing nutrition training videos, will soon be accessible via the Poshan Tracker.

Further, Aadharshila is aligned with the National Curriculum Framework for Foundational Stage (NCF-FS) 2022 and aims to facilitate comprehensive development across multiple domains. It includes a forty-eight-week structured calendar with five-plus-one days of play-based learning per week, and a mix of in-centre, at-home, indoor, and outdoor activities with a focus on inclusion of Divyang children. As part of the digital training efforts, daily learning prompts based on Aadharshila are being sent to all AWWs through the Poshan Tracker app. These include two ECCE activity videos and one voice note summarizing the day's activities for children aged three to six years at AWCs. Over 230 unique videos, 180+ voice notes, and 1,000+ activity PDFs have been uploaded in Hindi, with translations into other languages currently in progress.[23] Dedicated interface for supervisors, to effectively manage the performance of AWWs, is launched. Further, to provide visibility to caregivers a beneficiary module is available as well. Also, the Ministry is in the process of finalizing Early Childhood Stimulation Indicators, to be assessed during home visits as per Navchetana, and ECCE Assessment Indicators, to be assessed quarterly at the Anganwadi Centre as per Aadharshila. The provision of a progress report at the end of each year, as well as a Certificate upon graduation from the Anganwadi Centre, is also under development as part of the efforts.

Community engagement and Social and Behaviour Change Communication (SBCC) are central to the Mission. Fixed monthly ECCE Days are organized at AWCs to engage families and communities, along with large-scale advocacy during Poshan Maah and Poshan Pakhwada. These campaigns have facilitated crores of awareness activities nationwide, focusing on ECCE, nutrition, and early stimulation including Shiksha Chaupal, play-based learning demonstrations, DIY toy fairs, and special home visits.

In 2022, the erstwhile National Creche Scheme was reorganized and renamed as the Palna Scheme[24] under the sub-scheme 'Samarthya' of Mission Shakti, with the primary goal of supporting working mothers by providing quality crèche facilities for children aged 6 months to 6 years in a safe and secure environment. The scheme emphasizes nutritional support, health and cognitive development, growth monitoring, and immunization, and is accessible to all mothers,

[23] Poshan Tracker app aims to enhance Anganwadi Worker's capacity to deliver optimal early childhood care and education services to all children. (n.d.). Retrieved from https://www.pib.gov.in/PressReleasePage.aspx?PRID=2117760

[24] Palna Scheme under Mission Shakti. (n.d.). Retrieved from https://www.pib.gov.in/PressReleasePage.aspx?PRID=2119769#:~:text=Creche%20Operation%20under%20Palna%20Scheme,the%20mothers%20in%20the%20area

regardless of employment status. Under Palna, two types of crèches are supported: Standalone Crèches and Anganwadi-cum-Crèches (AWCCs), each staffed according to Mission Shakti guidelines. As on 31.10.2024, a total of 10,609 AWCCs have been approved in 34 States/UTs by the Ministry. Out of which 1,241 are operational in 18 States/UTs. As on 31.10.24, 20,991 beneficiaries have been provided services under Palna Scheme.A key additional objective of Palna is to monitor compliance with Section 11A of the Maternity Benefit Act, which mandates that establishments with 50 or more employees provide a crèche facility—a provision amended and enforced by the Ministry of Labour & Employment.

Several Indian States have introduced innovative ECCE initiatives. Telangana[25] has extended AWC hours, and it has also renamed Anganwadi Workers as Anganwadi Teachers, enhanced remuneration and conducted graduation day celebrations, as part of rebranding and perception change campaign efforts. Meghalaya[26], with support from the Asian Development Bank (ADB)., is enhancing human resources by engaging women from Self Help Groups (SHGs) as educators. Odisha[27] has adopted a dedicated State ECCE Policy, Council and programs like Aam Kuni Pila to strengthen institutional support. Maharashtra's Aarambh[28] programme is a noteworthy initiative aimed at empowering parents, caregivers, and community members to provide nurturing care and a stimulating environment for children from birth to six years of age. The programme promotes responsive caregiving, appropriate nutrition, positive health-seeking behaviors, hygiene practices, and a safe, stress-free environment, along with early stimulation for children aged zero to three years and early learning opportunities for those aged three to six years within the home setting. Its core strategies include customized messaging during home visits, regular mothers' meetings, community-based events such as *Palak Melawa* (parents' gatherings), and peer-led engagement through SHGs and digital platforms. Further, eleven States / UTs are providing uniforms to children at AWCs, twenty-three States/UTs have conducted DIY toy workshops to promote low-cost, indigenous learning materials, also eleven States/UTs have implemented extended ECCE hours (four plus hours).

In convergence with the Department of School Education and Literacy (DoSE&L), Ministry of Education (MoE), out of 9,16,145 Government and Government-aided schools with Grade 1, a total of 4,64,545 schools (50.70%) has some form of preschool education facility. Among these, 2,12,566 schools have only co-located AWCs, 78,393 schools have both co-located AWCs and Balvatikas, and 1,73,586 schools have only Balvatikas (as per UDISE 2023-24). Twenty-two States/UTs are conducting joint activities between Anganwadi Workers (AWWs) and school teachers, and seven States/UTs have initiated joint training programmes for them. To strengthen this collaboration, a joint advisory was issued by DoSE&L and MoWCD on 2nd April 2025, focusing on the co-location of AWCs and improving the delivery of ECCE and Foundational Literacy and Numeracy (FLN) services across the country.

DoSE&L, MoE has launched a National Mission called "National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat)" on 5th July, 2021 for ensuring that every child in the country necessarily attains foundational literacy and numeracy by the end of Grade 2, by 2026-27. Followed by launch of the National Curricular Framework for the Foundational Stage (NCF-FS) on 20th October 2022, play-based learning-teaching materials

[25] WDCW Department - Government of Telangana. (n.d.). Retrieved from https://wdcw.tg.nic.in/Pre_School_Education.html#:~:text=Pre%2DSchool%20Education,-Pre%2DSchool%20Education&text=Accordingly%2C%20the%20State%20Government%20has,honorarium%20of%20AWWs%20and%20AWHs.

[26] Department of Planning, Government of Meghalaya. (2023, February). Indigenous Peoples Plan (report). (Asian Development Bank), India: Early Childhood Development Project in Meghalaya. Retrieved from https://www.adb.org/sites/default/files/project-documents/55350/55350-001-ipp-en.pdf

[27] Odisha State Policy on Early Childhood Care and Education 2017

[28] Aarambh for ECD – Early moments matter. (n.d.). Retrieved from https://aarambhforecd.com/

(LTM) such as Jaadui Pitara and e-Jaadui Pitara were introduced to support holistic and age-appropriate early learning. With the adoption of the recommendations of the NEP 2020, three years of ECCE have been integrated into the foundational stage of schooling. States like Himachal Pradesh[29] and Punjab[30] have added three-years of pre-primary education across the state. The MoE has also encouraged states to align with the RTE Act by revising the age of entry to Grade 1 to six years, promoting developmentally appropriate learning.

Under Samagra Shiksha Abhiyan in several states the Department of School Education has jointly designed the ECCE curriculum with Department of Women and Child Development (WCD). The states of Himachal Pradesh, Karnataka, Punjab, Sikkim have also hired dedicated teachers for the pre-primary sections in schools[31]. Kerala's Varnakoodaram[32] program provides theme-based, activity-driven curriculum focusing on comprehensive child development, despite challenges in standardization and parental awareness. As per the UDISE Plus 2023-24[35] data, nearly 2.0 lakh private schools provide pre-primary education. However, this does not provide the complete coverage of children enrolled in the private sector. A large number of private preschools /play schools/nursery schools etc are still not registered in any system. Currently there is no regulatory mechanism for the private sector hence the scale and quality of the programmes implemented is an unknown.

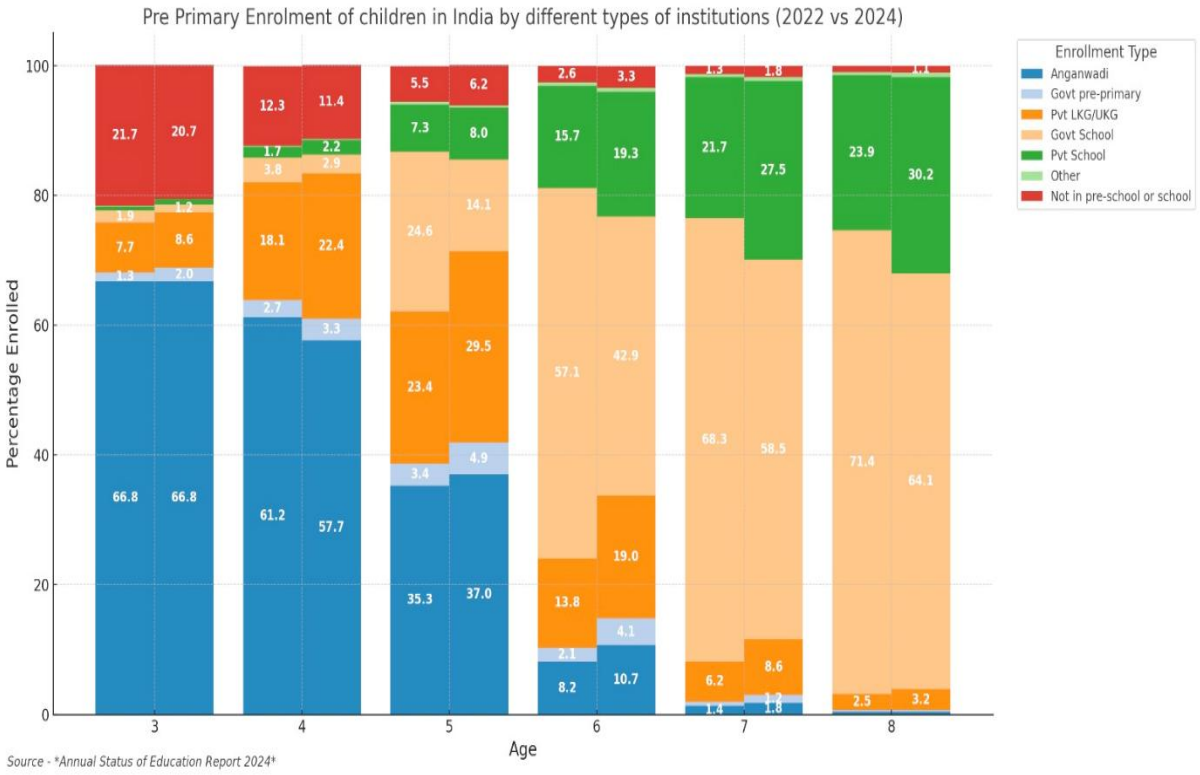
Several civil society organizations are involved in implementation of ECCE programmes for the most marginalized or invisible communities e.g. communities living in remote locations, families on the move, families on construction sites, agricultural labour who are temporary migrants and others. Currently there is no data that provides the extent of coverage and quality of services delivered. While several labor laws mandate for employers to provide early childhood development services including daycare to working parents, there is no data on this provisioning of services as well. There is no mechanism for monitoring and ensuring quality standards for the services delivered.

Status and Gaps in Preschool Enrollment and Early Childhood Education Access in India

Preschool services are also provided by 4.4 lakh pre-primary sections/Balvatika in government schools, as well as around 1.77 lakh[33] private Lower Kindergarten (LKG) and Upper Kindergarten (UKG). Additionally, numerous non-governmental organizations (NGOs) across India provide ECE services, mainly targeting children from economically weaker sections, migrant families, and rural areas. However, the exact number of children enrolled in these programmes remains undocumented. Annual Status of Education Report (ASER) Report 2024 indicates a steady increase in preschool exposure among children aged three, four, and five between 2018 and 2024, with nearly 80% of three-year-olds and 85% of four-year-olds enrolled in ECE programs by 2024[34]. States such as Odisha, West Bengal, Gujarat, and Karnataka demonstrate especially strong AWC engagement, with over 75% of children aged three and four enrolled in these centers. While AWC enrolment of three-year-olds increased from 57% in 2018 to 67% in 2024, over 20% of three-year-olds nation-wide still remain unenrolled in any institution. According to World Bank data (2019), India's gross enrolment ratio in pre-primary education stands at 63%, which is significantly lower compared to neighboring countries such as Sri Lanka (69%), Pakistan (81%),

[29] Himachal sarva shiksha abhiyan & Rashtriya madhyamik shiksha abhiyan. (n.d.). http://samagrashiksha.hp.gov.in/Content/98
[30] India, T. O. (2024, February 12). Govt schools to have nursery classes. The Times of India. https://timesofindia.indiatimes.com
[31] Samagra Shiksha PAB minutes 2024-2025 https://dsel.education.gov.in/pab-minutes?field_financial_year_target_id=335&field_states_target_id=All
[32] Kumar, D. V. (2024, December 24). Kerala's preschool revolution: The Varnakoodaram story. The South First. Retrieved from https://thesouthfirst.com
[33] UDISE 2023-24
[34] Pratham Education Foundation, ASER Centre. (2025). Annual Status of Education Report (Rural) 2024. New Delhi: ASER Centre. Retrieved from https://asercentre.org/aser-2024/

Nepal (87%), and China (89%).[35] As per National Family Health Survey (NFHS-5) data, children age five years who attended pre-primary school during the school year 2019-20 is 18.1 % in urban and 12% in rural.[36] Importantly, around 30% of children by age eight are enrolled in private schools, reflecting a clear shift in parental aspiration and signaling the need to systematically study and understand the role, quality, and practices of private ECE providers to inform equitable policy and program design.



The Global Landscape

The global ECCE landscape reveals a diverse set of approaches and investments. In terms of budget allocation, upper middle- and high-income countries allocate more than 10% of their education budget for ECCE whereas Lower Middle-Income Countries allocate less than 5% of their education budget for ECCE. South Africa has included provision of quality ECD in its National Development Plan. In its 2025 budget, an additional R10 billion was allocated for ECD expansion. South Africa has set a benchmark of R36 (USD $ 2) per day per child for provisioning of ECD services, currently it has made a provision for R24 per child per day, through an additional budget allocation of USD $556 million dedicated for ECD. This will potentially benefit 7 lakh children.[37]. In terms of legal frameworks for ECCE, Brazil offers constitutional grounding; UK, US and China utilize acts of law, while South Africa operates at the policy level. These models reflect the approaches taken by comparable middle-income countries as well as high income countries, providing a frame of reference for India.

[35] World Bank (2019), Indonesia: Access to High Quality Early Childhood Education Crucial for Continued Progress on Human Capital Development.
[36] NFHS-5 2019-21
[37] National Treasury & Republic of South Africa. (2025). Budget Overview (report). Retrieved from https://www.treasury.gov.za/documents/National%20Budget/2025May/review/May%202025%20Budget%20Overview.pdf

Parameters	India[38]	China	Brazil[39]	South Africa[40]	USA[41]
% of Education budget allocated for ECCE	3-4%[42]	17%[43]	11%	2%[44]	12%
Number of children served	88 million	40 million[45]	8.9 million	2 million	0.8 million
Number of educators	1.33 million	3.4 million[46]	0.6 million	0.3 million	NA
Number of institutions	14,01,054	2,74,000[47]	NA	84,090	17,711

Through national, regional[48] and global[49] commitments, governments across the Europe and Central Asia (ECA) region have committed to universalizing access to quality, inclusive preschool to support holistic development and to provide every child with the opportunity to thrive. Diversification is recognized as a transformative strategy to advance early learning due to its potential to rapidly expand access to quality preschool and meeting the needs of the most marginalized and vulnerable.[50] The process of diversification has emerged in Europe and Central Asia as a response to a range of policy challenges related to inclusion, quality, displacement, and financial sustainability, among others. Several countries in designing their ECD programmes for children below the age of six-years have adopted a differentiated service delivery approach including day care programmes for children below the age of two years; play groups for children for children three to five-year-old and one year of compulsory pre-primary education before children start formal learning from Grade1. Diversification is a flexible, adaptive and inclusive approach to planning which supports children's learning and development, responds to families' evolving needs, and builds the resilience of ECD systems by offering a range of models within an integrated system. A diversified system enables increased equity and participation by marginalized groups. By ensuring that the models available meet the needs of all communities. It also enables more efficient use of financial resources. By investing in efficient and cost-effective models which deliver quality and inclusive services, governments can expand provision sustainably and increase the social returns from investment. By maintaining the flexibility to adapt to changing demographics and needs, systems are better able to respond to social or environmental shocks.

C. CHALLENGES

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[42] Centre for Budget and Governance Accountability & Save the Children (September 20, 2022). *Cost of Universalising Early Childhood Education in India*.
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[44] https://www.treasury.gov.za/documents/National%20Budget/2023/review/FullBR.pdf. Pg 87
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[47] Tone, S. (2024, November 13). China passes landmark preschool education law. https://www.sixthtone.com/news/1016183
[48] Council Recommendation of 22 May 2019 on High-Quality Early Childhood Education and Care Systems; Council Recommendation on the Revision of the Barcelona Targets on early childhood education and care Dec 2022
[49] UNESCO (2022) Tashkent Declaration and Commitments to Action for Transforming Early Childhood Care and Education 16 November 2022
[50] UNESCO (2022)

1. **Persisting Undernutrition Among Young Children:** Despite progress under *Saksham Anganwadi* and *Poshan 2.0*, several issues continue to hinder improvement in nutrition indicators. As per Poshan Tracker data of May 2025[40], 37.55% of children (2.71 crore) are stunted, 5.36% (38.7 lakh) are wasted, and 16.03% (1.15 crore) are underweight in the zero to five age group. Scientific studies consistently show that under nutrition, particularly stunting, begins to set in soon after six months of age, coinciding with the period when complementary feeding should be initiated alongside continued breastfeeding. Inadequate quantity, quality, and frequency of complementary foods during this critical window have been strongly linked to early growth faltering. According to findings from the Lancet Series on Maternal and Child Nutrition (2013) and WHO research, the first 1,000 days, from conception to two years, is the most crucial window for physical and cognitive development.[51] [52] Reversing stunting after the age of two to three years is extremely difficult, as the damage to brain development, immunity, and physical growth becomes largely irreversible. Data from Poshan Tracker further reinforces this, showing that 39.6% of children aged six months to three years are stunted, with only a slight reduction to 31% in the three to five years group, indicating that once stunting is established, it is largely irreversible[40]. Similarly, underweight prevalence shows only slight improvement (from 15.4% to 13.6%), indicating that early deficits in growth and nutrition persist into later childhood[40]. In contrast, wasting, an indicator of acute malnutrition, slightly increases from 4.9% to 5.5%, suggesting ongoing vulnerability to illness or food insecurity beyond infancy[40]. These trends highlight the urgent need for targeted nutrition, health, and caregiving interventions before and during the first three years of life, as this period offers the greatest opportunity to prevent irreversible damage and build a foundation for long-term well-being and human capital development.
2. **Suboptimal Infant and Young Child Feeding Practices:** According to NFHS-5[38], 41.8% of children under age three were breastfed within one hour of birth and 63.7% of children under six months were exclusively breastfed. Moreover, the transition to complementary feeding also remains suboptimal, only 45.9% of children aged six to eight months received solid or semi-solid food along with breast milk, and just 11.3% of children aged six to twenty-three months received an adequate diet as per minimum acceptable standards. These gaps in infant and young child feeding practices contribute significantly to early under nutrition and stunting.
3. **Insufficient Focus on the zero to three Years Age Group:** The zero to three years age group, a critical window for brain development, often receives inadequate attention. Many parents remain unaware of the importance of exclusive breastfeeding, timely introduction of quality and adequate complementary feeding from six months, and early stimulation. Caregiving is largely perceived as a maternal duty, limiting the active involvement of fathers and other caregivers. Moreover, home environments frequently lack age-appropriate stimulation and responsive interactions. Further, there is a need for more crèches in both public and private sector and bringing in protocols for providing ECCE at the crèches.
4. **Absence of a Minimum Quality Standards in ECCE**: The ECCE sector in India lacks minimum quality standards across service providers in key areas such as curriculum, educator qualifications, infrastructure, and learning outcomes. This has led to significant disparities between public and private centres, and across urban and rural regions. In the absence of clear guidelines, many private providers adopt inappropriate, academically driven pedagogies that undermine children's developmental needs. A study by Centre for Early Childhood Education and Development (CECED, 2014) found that private schools often prioritize early instruction in reading, writing, and arithmetic over age-appropriate, play-based learning focused on school

[51] Victora, C.G., et al. (2013). "Maternal and child undernutrition and overweight in low-income and middle-income countries." The Lancet, 382(9890), 427–451.
[52] *WHO (2014)*. Global Nutrition Targets 2025: Stunting Policy Brief.

readiness[53]. This practice undermines the developmental needs of three to six-year-old children. With the rapid expansion of private ECE provision, the absence of accreditation mechanisms and weak enforcement of policy guidelines pose a significant challenge to ensuring quality and consistency in early childhood education (MWCD, 2013a)[54]. Although the National ECCE Council was notified in 2014[55] to provide strategic direction, it remains underutilized. Reviving and empowering this body to develop and enforce broad-based minimum standards over narrow, rigid prescriptions, alongside establishing accreditation and monitoring mechanisms, is critical to ensuring equitable, inclusive, and developmentally appropriate ECCE for all children. This is essential to safeguard children's developmental rights, build public trust, and drive accountability in the ECCE ecosystem

5. **Equity in ECCE Service Delivery:** Significant disparities in the quality and reach of ECE services affect children from lower-income, rural, and marginalized communities, particularly girls. Further in urban areas, especially urban slums there is gap in ECCE facilities. These early gaps in access and learning opportunities widen over time, leading to long-term educational and social inequalities. Achieving equity demands targeted efforts, strong oversight, and adequate investment to ensure all children start their educational journey on equal footing.
6. **Quality Concerns in ECCE Delivery for three to six years:** Quality of ECCE remains a concern, requiring sustained efforts for better developmental outcomes in Anganwadis, Balvatikas and private run pre-schools. Although State/UT curricula recommend three to four hours of daily instructional time, actual implementation across States/UTs varies significantly. According to the Central Square Foundation's (CSF) report, Building Strong Foundations: Examining Early Childhood Education in India, no ECE activity was observed in 23% of classrooms[85]. In those where activities did take place, they lasted an average of thirty-five minutes during a two-hour observation[85]. Individual activities averaged thirteen minutes, with 86% lasting under twenty minutes and 45% under ten minutes, indicating a fragmented and insufficient delivery of ECCE in practice[85]. According to the India Early Childhood Education Impact (IECEI) Study, 2018, despite regular attendance in preschool, children's school readiness levels at age five remained below curriculum expectations, even upon entering Grade 1, highlighting critical gaps in the quality and effectiveness of early childhood education delivery[56]. Limited access to continuous capacity building programmes for pre-school/ balvatika teachers and Anganwadi workers including refresher trainings in play-based learning, along with the absence of structured academic supervision, weakens professional development. India ranks last among forty-five countries in the Economist Intelligence Unit's 2012 survey on ECCE quality, highlighting significant gaps in service standards.[57] One of the key reasons for this lag is the low budgetary priority accorded to ECE compared to other levels of education. This underinvestment contributes to persistent issues of poor quality and inequitable access, limiting the developmental potential of millions of young children.
7. **Low Parental Awareness, Engagement and Community Ownership:** Despite growing access to preschool services, around 83% of parents equate quality ECE with rote academic activities, reflecting low awareness of the importance of holistic development and the role of home-based learning[58]. While many parents express active interest in their child's learning,

[53] Centre for Early Childhood Education and Development (2014). Quality and Diversity in Early Childhood Education: A View from Andhra Pradesh, Assam and Rajasthan. Ambedkar University Delhi.
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[58] Central Square Foundation. (2023). *Building strong foundations: Examining early childhood education in India*. Central Square Foundation.

there remains a limited understanding of what quality ECCE entails, such as school readiness, developmentally appropriate practices, and the role of both educators and families[85]. Parental participation in ECCE events, home based learning, and Parent-Teacher Meeting (PTM) like platforms is low, underlining the need for stronger community ownership through Panchayati Raj Institutions (PRIs) and SHGs, and changing perceptions of AWCs as high quality ECE centres.

8. **Gaps in Inclusive ECCE for Divyang Children**: Despite the Ministry's efforts, such as the release of the Anganwadi Protocol for Divyang Children, ramp construction at AWCs, and training under PBPB, ensuring meaningful inclusion of children with disabilities in ECCE remains a significant challenge. A major gap lies in the early identification, appropriate stimulation, and timely referral of children with developmental delays and disabilities. Most AWWs are not adequately trained or equipped with the necessary skills or tools to recognize diverse developmental needs. Additionally, specialized training is needed to carry out ECCE interventions that are adapted for children with disabilities, particularly in low-resource settings. Moreover, the lack of inclusive and developmentally appropriate play materials and learning aids at AWCs limits the ability to offer engaging and suitable activities for Divyang children. Looking through the different data bases it is evident that children with disabilities are not adequately covered in these programmes. As per UDISE Plus 2023-24[35] only 0.21% of children with disabilities (CwD) are enrolled in pre-primary education in schools. While children with severe disabilities may require medical support, many can benefit from community-based, inclusive early learning if provided with the right environment, tools, and support.
9. **Human Resource and Capacity Building Gaps:** Balvatika Teachers/ Anganwadi workers handle multiple responsibilities including non-core duties like election and census work, often affecting classroom engagement (three to six years) and home visits by anganwadi workers (zero to three years). Only 32% of schools with Balvatikas have dedicated ECE teachers, and multi-grade classrooms are common, further straining the quality of early education[85]. Limited avenues for recognition, career progression, and continuous professional development may influence the motivation and engagement levels of teachers and Anganwadi Workers (AWWs). Current remuneration and honorarium structures can be further aligned to reflect the critical role they play in laying the foundation for lifelong learning. Strengthening support systems, investing in their capacity building, and enhancing opportunities for career advancement will be instrumental in further improving the quality and reach of early childhood care and education.
10. **Financial Constraints in ECE Provision:** Inadequate and uneven financing remains a key barrier to expanding and improving ECE in India. Current public investment is insufficient to meet the quality standards needed for universal access, infrastructure development, and workforce support. India allocates only 0.1% of its Gross domestic product (GDP) and 0.39% of the total government budget to ECE, translating to roughly 3–4% of the education budget (CBGA & Save the Children, 2022).[59] In low-income countries, budget allocations for pre-primary education are as low as 2% of total education spending, whereas other Low- and Middle-Income Countries (LMICs) typically allocate under 5%, with some reaching up to 6.5% (UNESCO, 2022).[60]
11. **Infrastructure, Material Gaps in Anganwadi Centres:** Infrastructure and material constraints further affect ECCE quality. There is no dedicated funding for ECCE Day, vital for community mobilization, and Pre-School Education (PSE) kit allocations are inadequate. Access to safe play equipment and inclusive, culturally relevant Teaching Learning Materials

[59] Centre for Budget and Governance Accountability & Save the Children (September 20, 2022). *Cost of Universalising Early Childhood Education in India*.
[60] UNESCO (Nov 18, 2022). *Press release: Budget allocation to pre-primary education in low-income countries stands at 2% of total education budgets*.

(TLMs), especially for children with disabilities, remains limited. Infrastructure also poses challenges. Over 25% of AWCs still function from rented spaces, often lacking a child friendly environment, especially in urban areas with space constraints. Many AWCs lack spacious, ventilated classrooms, safe play areas, electricity, and functional toilets. Only 61% have permanent electricity, and 73% have toilets. Additionally, interactive spaces and activity corners remain underdeveloped due to space limitations.

12. **Convergence between WCD, Health and Education Departments**: There is need for improved ground-level coordination between Women and Child Development (WCD), Health, and Education departments. Key opportunities for convergence, such as during Village Health, Sanitation and Nutrition Days (VHSNDs), joint home visits, ECCE Days, PTM, and community-based events, are underutilized. Strengthening inter-sectoral convergence is critical for delivering integrated services covering health, nutrition, and early learning.
13. **Absence of a Unified and Consolidated ECCE Data System**: Although digital platforms such as Poshan Tracker and UDISE+ have expanded routine monitoring of ECCE, current oversight still centres mainly on attendance, infrastructure, and meal provision. The CSF, 2023 report highlights that classroom practices, teaching quality, and child learning outcomes are rarely tracked, and review meetings seldom address pedagogy or provide teachers with ECCE-specific feedback[85]. Compounding this challenge is the absence of a unified national ECCE data system: information remains fragmented across multiple ministries/ departments/ schemes and institutions, preventing a comprehensive view of access, quality, outcomes, and workforce capacity. Without an integrated ECCE dashboard, evidence-based decision-making, inter-ministerial coordination, and progress tracking toward universal, high-quality ECCE for every child aged zero to siz remain severely constrained.

D. POSSIBLE SOLUTIONS

1. **Strengthening Nutrition Interventions in the First 1,000 Days:** To address early childhood undernutrition effectively, especially during the critical six to twenty-four-month window, multiple programmatic interventions must be strengthened. A key step is the capacity building of Anganwadi workers with focused training in nutrition counselling, growth monitoring, and early childhood stimulation, supported by structured and regular home visits. Leveraging the Navchetana module and tools, AWWs and Accredited Social Health Activists (ASHAs) can be equipped to provide timely, culturally appropriate guidance on complementary feeding, hygiene, developmental milestones and early stimulation. Additionally, parental engagement, particularly with mothers and caregivers, must be prioritized through community platforms, mothers' group meetings, Community Based Events (CBE) and ECCE sessions at AWCs. Nutrition service delivery should be improved by revising the cost norms of SNP to reflect the enhanced nutritional standards and inflationary changes. Moreover, Take-Home Ration (THR) should be expanded to explicitly include children who are severely underweight or suffering from moderate acute malnutrition (MAM) to ensure sustained nutritional rehabilitation at the community level. Performance-linked incentives for AWWs and AWHs can boost service delivery. Scaling up crèches offers young children a secure, development-friendly space while enabling working mothers to participate in the workforce. Forming parent support groups and involving fathers and other caregivers can enhance home-based care and shift traditional caregiving norms.
2. **Focused Interventions for the zero to three Age Group:** Early Childhood Development, Care, and Education (ECDCE) in the first three years of life must support the holistic development of children, addressing their physical growth, emotional well-being, social skills, and cognitive abilities through nurturing care and responsive engagement. For this age group, monthly or fortnightly meetings at the Anganwadi with the mother or caregiver to discuss nutrition and early stimulation activities may be considered as a supplement to home visits.

Each home visit should be (i) well-planned with a fixed, reasonable duration; (ii) be scheduled in advance so that fathers can participate alongside mothers or other caregivers; and (iii) include simple toys and take-home learning kits that the Anganwadi Worker (AWW) uses to demonstrate age-appropriate play activities families can easily replicate. There is now substantial evidence demonstrating that home visits offering nutritional counselling, necessary supplements, and cognitive stimulation significantly benefit young children[61]. These interventions have been linked to improved cognitive development during early childhood and higher earnings in adulthood[62].

3. **Enhancing ECCE Workforce Capacity and Professionalization:** To strengthen ECCE delivery, continuous training, increased pay, and professional growth is essential, along with mainstreaming their roles as early educators to enhance motivation, accountability, and quality of services. This includes creating a dedicated cadre of early childhood educators at the grassroots level. A large-scale randomized experiment was conducted to study the impact of augmenting staffing in the world's largest public early childhood program: India's ICDS. It was seen that adding a half-time worker doubled net preschool instructional time and led to 0.29σ and 0.46σ increases in math and language test scores after eighteen months for children who remained enrolled in the program, and corresponding increases of 0.13σ and 0.10σ for the larger population of all children enrolled at baseline. Rates of child stunting and severe malnutrition were also lower in the treatment group for children who remained enrolled. A cost-benefit analysis suggests that the benefits of augmenting ICDS staffing are likely to significantly exceed its costs.[63]

   Institutional partnerships with training institutes and academic bodies can help build a skilled workforce through regular refresher trainings based on updated ECCE pedagogy, inclusion, and child development research. Aligning these trainings with the National Skills Qualifications Framework (NSQF) will ensure standardized certification of competencies while providing formal recognition of the skills of pre-school teachers including AWWs. Blended training models using digital platforms like Poshan Tracker can ensure wider and flexible reach, especially in remote areas.
4. **Improving Infrastructure and Learning Environment:** Addressing infrastructure gaps is critical. Investments in buildings, safe outdoor play areas, and unified Teaching Learning Materials at Balvatikas, Anganwadis and standardised TLM kits at pre-schools with inclusive, age-appropriate materials are needed. Many urban areas lack open spaces, play grounds, reach of anganwadis/ balvatikas/ pre-schools. There is a need to integrate child-friendly planning into urban development policies by ensuring the inclusion of accessible, safe, and open public play spaces for children aged zero to six years. Incorporating dedicated early childhood spaces into urban planning is essential for ensuring equitable access to early learning and play opportunities in rapidly urbanizing areas. Creating inclusive and developmentally supportive environments will need sustained funding, local resource development, and strong monitoring to ensure equitable access for all children.
5. **Fostering Informed Parenting and Community Ownership for Quality ECCE**: Enhancing the quality of ECCE hinges on building jagrook (self-aware, well-informed) parents and mobilising strong community ownership. Regular parent-orientation sessions at AWCs and Balvatikas, paired with monthly Parent-AWW/Teacher meetings, can demystify what good play-based learning looks like, highlight school-readiness milestones, and equip families with simple, home-learning activities which can be shared via IT tools (Poshan Tracker or

[61] Yousafzai, A. K., Rasheed, M. A., Rizvi, A., Armstrong, R., & Bhutta, Z. A. (2014). Effect of integrated responsive stimulation and nutrition interventions in the Lady Health Worker programme in Pakistan on child development, growth, and health outcomes: A cluster-randomised factorial effectiveness trial. *The Lancet, 384*(9950), 1282–1293. https://doi.org/10.1016/S0140-6736(14)60455-4

[62] Hoddinott, J., Maluccio, J. A., Behrman, J. R., Flores, R., & Martorell, R. (2008). Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults. *The Lancet, 371*(9610), 411–416. https://doi.org/10.1016/S0140-6736(08)60205-6

[63] Alejandro J. Ganimian; Karthik Muralidharan; Karthik Muralidharan; Augmenting State Capacity for Child Development: Experimental Evidence from India: https://econweb.ucsd.edu/~kamurali/papers/Working%20Papers/TNICDS_ECE%20(Current%20WP).pdf

WhatsApp). Community platforms such as VHSNCs, SHGs, PRIs, and youth groups should be engaged to champion ECCE through village meetings, folk media, and local events, while mass-media and SBCC campaigns reinforce key messages at scale. Establishing model ECCE centres and exhibitions allows parents to see best practices first-hand and encourages peer learning. Quality assurance must be underpinned by digital monitoring tools, periodic social audits and community scorecards, and accessible feedback mechanisms that invite parents to raise concerns or suggestions, creating a continuous improvement loop. When these efforts are supported by strong inter-sectoral convergence, they cultivate informed parental engagement, collective community responsibility, and a child-centred ECCE ecosystem that leaves no child behind.

6. **Strengthening Convergence for Holistic ECCE Delivery**: Achieving high-quality and equitable ECCE requires robust inter-sectoral convergence between key ministries, MWCD, MoE, and Ministry of Health and Family Welfare (MH&FW). A possible solution lies in institutionalizing joint planning and review mechanisms at national, state, and district levels to align targets, budgets, and actions across departments. Clear Standard Operating Procedures (SOPs) should be developed for integrated service delivery. Joint training modules for Anganwadi Workers, ASHAs, ANMs, and primary teachers should be developed to ensure consistent messaging and practices across early learning, nutrition, and health. Inter-miniterial IT Tools should be integrated to allow real-time data sharing for child growth monitoring, disability screening, and learning outcomes. A unified ECCE digital dashboard should be created to facilitate data-driven decisions, monitor cross-sectoral progress, and ensure accountability.
7. **Advancing Support for Inclusive ECCE**: Convergence with health systems under the Rashtriya Bal Swasthya Karyakram (RBSK) and the Department of Empowerment of Persons with Disabilities (DEPwD) is essential to promote inclusive ECCE. Embedding a simplified disability-screening module within the Poshan Tracker can enable AWWs to identify developmental delays early, initiate timely referrals, and ensure follow-up care, while simultaneously updating real-time data on growth, nutrition, and learning outcomes. This approach must be complemented by specialized training for inclusive ECCE delivery, provision of adapted toys and age-appropriate teaching–learning materials, and linkage with community-based rehabilitation services. Active engagement of families and the broader community, through accessible information and inclusive home-based practices, will be key to building a responsive, equitable, and supportive ECCE ecosystem for every child.
8. **Integrating Equity and Establishing a Unified Framework in ECCE**: To address disparities in access and quality of ECCE, it is essential to implement an equity-focused strategy that includes targeted outreach to underserved geographies, inclusion of marginalized groups, gender-sensitive interventions, and community mobilization. Simultaneously, the development of a unified national framework is imperative to standardize ECCE delivery across sectors. This should include minimum standards for curriculum, educator qualifications, pedagogy, infrastructure, safety, and inclusive practices. A tiered accreditation and monitoring system should be established under a central nodal agency, with scope for decentralized implementation by States/UTs. Public and private providers alike must be brought under this framework to ensure quality assurance, accountability, and grievance redressal mechanisms across the board.

E. WAY FORWARD

1. **Launch of a Dedicated National Mission on ECCE**: To drive systemic transformation and elevate ECCE as a national priority, the Government should launch a dedicated “National

Mission for Early Childhood Development, Care and Education (ECDCE)" with clear vision, objectives, and measurable outcomes aligned to the NEP, 2020. This Mission should be anchored in a multi-sectoral framework, co-financed by Centre and States, and enabled through institutional mechanisms for convergence, accountability, and innovation.

2. **Repositioning ECCE as a Strategic Public Investment:** The goal is to elevate ECCE quality for better child growth, school readiness, and long-term educational outcomes. Repositioning ECCE as a public good and strategic investment demands legal reforms, potentially a constitutional amendment to Article 21A, to extend guarantee of free and compulsory education under the RTE, 2009 to all children aged zero to six years thereby recognizing it as a fundamental right. This should be complemented by a national five-year ECCE strategy with clear milestones. A national institution for ECCE research and innovation should be established to support evidence-based reforms, while strong Centre–State coordination mechanisms must be institutionalized through joint planning, co-financing, and convergence with allied sectors, particularly education and health. States/UTs should be encouraged to innovate within a national framework, with support for scale-up of successful models.
3. **Rebranding Anganwadi Centres into ECCE Hubs**: A critical next step is repositioning Anganwadi Centres as vibrant ECCE hubs for children aged zero to six years, centres not only for nutrition delivery but for Bal Samagra Vikas or holistic child development. This will require community-wide rebranding efforts and appointment of dedicated ECCE teachers at the grassroots level. Upgrading AWCs into Saksham Anganwadis with child-friendly infrastructure, safe buildings, functional toilets, electricity, drinking water, and stimulating play-based learning environments (with inclusion of out- door games like, swing, sea saw, slides) will provide every child with a joyful and developmentally supportive early learning experience. Additionally, provision of uniforms for children aged three to six years can enhance a sense of belonging, boost participation, and reinforce the visibility and identity of ECCE as a vital stage in the continuum of education.
4. **Strengthening Human Resources and Institutional Capacity**: There is a need for institutional support for zero to three years, either by strengthening Standalone Crèches/ Anganwadi-cum-Crèches or expanding AWC hours to support and enable women-led development. Institutional capacity needs to be strengthened through academic partnerships and continuous training of Teachers, AWW and AWH, supported by national certification and optimized workloads to focus on learning for three to six years and home visits for zero to three years. Integration of IT-enabled tools, such as the ECCE Assessment Module and AI / ML chatbots will help monitor child development milestones and service quality, enabling data-driven decision-making.
5. **Prioritizing Prenatal and Infant Care within ECCE**: Recognizing the prenatal period as the foundational stage of ECCE, policy must prioritize early stimulation alongside existing interventions on maternal health, nutrition, and counselling. Strengthened convergence between health, nutrition, and education systems, complemented by community engagement, can ensure holistic support for the child's development from conception onwards. The revision of SNP cost norms is critical to enabling the delivery of quality, diverse, and nutrient-dense food that aligns with the updated nutritional standards for different beneficiary groups, as outlined in the amended Schedule II of the NFSA, 2023.To maximize impact, the programme must also explicitly include severely underweight and MAM children under THR, enabling targeted nutritional support and continuity of care at home.
6. **Deepening Convergence with Education and Health:** Stronger MoWCD–MoE convergence is underway through co-location guidelines, joint AWW–teacher activities (ECCE Days, PTM, annual days, etc), joint training, unified TLMs, creation of APAAR ID and transfer certificates to ease preschool-to-school transition. Celebrating preschool completion will enhance ECCE visibility. Effective convergence with the health department is critical to enhancing ECCE outcomes by enabling early identification and management of malnutrition and developmental

delays through joint training of frontline workers, strengthened use of Community Management of Acute Malnutrition (CMAM) and Anganwadi Protocol for Divyang Children, and timely referrals, as good health and nutrition are foundational to the cognitive, socio-emotional, and physical development essential for early learning.

7. **Mobilizing Communities for ECCE Ownership**: Community mobilization remains central through a whole-of-society, whole-of-government approach, with initiatives like Jan Andolan activities, including school annual day, sports day, FLN Mela, ECCE Day (zero to six years) and Poshan Maah, leveraging folk media, local artists, VHNSCs, SHGs, and PRIs. A large-scale nationwide campaign is crucial to enhance the visibility of ECCE and to sensitize families and communities about its significance, starting from the prenatal stage, to ensure a strong foundation for every child's growth and lifelong development. To increase awareness of ECCE, appointment of brand ambassadors may be considered. ECCE Days (zero to six years), which currently focus primarily on children aged three to six years, should be expanded to cover the entire zero to six year's age group with age-appropriate activities, ensuring early stimulation, responsive caregiving, and inclusive participation of caregivers from infancy onwards. Model AWCs and ECCE exhibitions can drive peer learning. Toys play a vital role in early stimulation and learning in ECCE; promoting the use of age-appropriate, indigenous toys for children aged zero to three and three to three years, with active involvement of SHGs in their production and promotion, can enhance cognitive and socio-emotional development while supporting local livelihoods.
8. **Expanding creche and Day care centres**: To support the developmental needs of young children and enable greater workforce participation among women, particularly in urban and low-income settings, it is essential to significantly expand access to affordable, high-quality crèche and day care services. This expansion can be driven through SHG-led crèches, public–private partnerships, and the creation of quality ECCE jobs for women linked to urban employment schemes and MGNREGS. Strengthening implementation mechanisms, ensuring convergence with WCD and labor welfare initiatives, and embedding child care facilities into urban planning and workplace policies will be critical to creating an enabling ecosystem for young children and working families.
9. **Strengthening Parental Engagement and Home-Based Learning**: The rise in parental education, as highlighted in ASER 2024[50], presents a valuable opportunity to engage families as active partners in the care and development of children aged zero to six years through awareness campaigns and home-based learning models that promote consistent parental involvement. Educated mothers, willing to volunteer, should be identified and meaningfully engaged to support and extend ECCE and caregiving services at the community level.
10. **Enhanced Budgetary Allocation:** Despite ECCE's critical role in shaping human capital, financing for the sector remains fragmented and insufficient. There is an urgent need to substantially increase the budget allocation for ECCE, ensuring dedicated, ring-fenced funding that supports infrastructure, human resources, training, learning materials, monitoring, and innovation. At the UNESCO Conference on ECCE held in Tashkent in 2022, countries, including India, committed to allocating at least 10% of total education spending to pre-primary education and to ensuring parity in salaries and working conditions between preschool and primary education personnel[8]. A national benchmark for investment for every child in this age group needs to be established as is seen in South Africa (USD $2[39] per child per day).
11. **Harnessing IT Tools for Comprehensive ECCE Monitoring**: To ensure transparency, accountability, and continuous quality improvement in ECCE, it is imperative to leverage digital tools for robust monitoring. Poshan Tracker can be effectively utilized as a centralized platform to monitor ECCE service delivery, tracking child-wise data on enrolment, attendance, growth indicators, early stimulation activities, and home visits. This real-time information equips frontline workers and supervisors to take timely, data-driven actions and strengthens governance at all levels. Additionally, mobile-based applications can be developed for parents

and caregivers to provide feedback, access learning content, and receive reminders, ensuring greater transparency, responsiveness, and community engagement.

To achieve system-wide visibility, registration of all ECCE centres, public, private, NGO-run, or CSO-supported, on UDISE+ should be made mandatory. This would create a unified national database on ECCE enrolment, and infrastructure, enabling evidence-based policymaking and equitable resource allocation. Further, the creation of APAAR (Automated Permanent Academic Account Registry) ID for every child from the foundational stage onwards should be ensured. APAAR IDs will allow seamless tracking of a child's development journey across systems, from ECCE to school education, ensuring continuity and portability of educational and health records.

Additionally, other ECCE service providers should be encouraged to adopt interoperable IT solutions aligned with national frameworks. Private institutions and civil society actors can be guided to build simple, secure platforms that support monitoring, early learning assessments, and disability screening. Collectively, these IT-enabled interventions can foster a connected, inclusive, and responsive ECCE ecosystem that empowers parents, supports frontline workers, and puts every child on a path to lifelong learning.

Developing a unified and integrated ECCE dashboard is essential to ensure comprehensive, real-time monitoring and evidence-based planning. The dashboard should capture key indicators related to access, quality, learning outcomes, and workforce development across all ECCE service providers, public, private, and those run by CSOs. It must facilitate disaggregated data analysis by geography, age, and socio-economic background to enable targeted interventions and policy decisions.

12. **Leveraging IT-Based Convergence for Integrated Early Childhood Services**: The integration of digital platforms across nutrition, health, and early learning services offers a transformative opportunity to strengthen the delivery and monitoring of ECCE. A strong case exists for deeper convergence of IT tools, particularly by integrating the Poshan Tracker with e-Jaadui Pitara, to provide age-appropriate play-based learning resources, behaviour change content, and interactive guidance for caregivers directly through mobile-enabled interfaces. This convergence can support parental engagement, offering coaching on responsive caregiving, early stimulation, and positive nutrition practices for children aged zero to six years. Additionally, PT can be integrated with tools under the RBSK to enable early screening for developmental delays and disabilities, facilitating timely referrals and follow-up support.
13. **National ECCE Council:** The Government of India notified the resolution for the formation of the National ECCE Council under the MWCD, as part of the National ECCE Policy (*The Gazette of India*, March 15, 2014 [Phalguna 24, 1935] – Part I, Section 1, No. 1-1/2013-ECCE)[79]. The Council is mandated to guide training systems, curriculum frameworks, quality standards, and research to enhance early childhood development for all children under six years. Initially an advisory and oversight body, it is envisioned to evolve into an autonomous regulatory institution. The NIPCCD will act as its knowledge partner and provide logistical support. Regional ECCE Councils may be set up in NIPCCD regional centres in partnership with State Councils for Education Research and Training (SCERTs)/State Institutes of Education and Training (SIETs), and universities. States are also encouraged to establish State ECCE Councils to ensure systemic coherence. The Council will be chaired by the Minister, Ministry of Women and Child Development. Reactivating and empowering this body is essential for the next phase of regulatory reforms. Drawing on cross-sectoral expertise in education, child development, health, and nutrition, the Council can draft and enforce minimum quality standards, covering curriculum frameworks, educator qualifications, infrastructure, and child-centred learning outcomes, without imposing rigid, one-size-fits-all norms. By building state capacities, instituting robust accreditation and monitoring mechanisms, and embedding quality assurance into law and policy, a revitalised Council can help make equitable, high-quality ECCE a right for every child in India.

14. **Establishing a Grievance Redressal Mechanism for ECCE**: To ensure accountability, transparency, and responsiveness in ECCE service delivery, a dedicated grievance redressal mechanism must be institutionalized at all administrative levels. Use of IT-enabled tools can enable timely registration, tracking, and resolution of complaints from parents, caregivers, Anganwadi Workers/teachers, and community members. A toll-free helpline can ensure inclusivity. Grievances may relate to infrastructure gaps, teacher absenteeism, discriminatory practices, quality of teaching–learning materials, or service delivery delays. Periodic audits of grievance data can inform systemic improvements, while anonymity and protection for complainants must be guaranteed. Additionally, officers at block/district level and public display of redressal timelines will further strengthen trust and accountability in the ECCE ecosystem.

Finally, the Mission continues to prioritize maternal and child health through strengthened supplementary feeding, growth monitoring, nutrition and health education, Infant and Young Child Feeding (IYCF) practices, and timely home visits, already reducing stunting, wasting and under nutrition rates in children. There is a need to create a supportive ecosystem for child care, nutrition, early education, and overall development, with active involvement of families and the community, reflecting the vision of Viksit Bharat, where collective responsibility and joint efforts drive transformative change. Ensuring equitable quality across the ECCE sector, whether public or private, urban or rural, is essential. A unified national framework outlining quality standards, curriculum norms, educator qualifications, and monitoring systems must be established to address existing disparities. National research institutions, training bodies, and regulatory mechanisms should be leveraged to guide and implement these reforms across all settings, with a strong focus on strengthening public systems to ensure access and equity for every child. Unlocking ECCE's full potential requires shifting from welfare to a rights-based, development-focused approach, underpinned by robust legal, financial, and institutional reforms for universal, inclusive, and high-quality ECCE in India.

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Theme 5th CS Conference: Human Capital for Viksit Bharat

Concept Note: Schooling – Building Blocks

Introduction

The vision of "Viksit Bharat," articulated by the Hon'ble Prime Minister, aims to transform India into a developed[1] nation by 2047, coinciding with the 100th year of its independence. This ambitious goal necessitates continuous goal setting and achievement across all sectors. The strategy is built upon four pillars of human development- Shishu (Infant), Balya (Child), Yuva (Youth), and Vyaska (Adult), specifically encompassing Mahilaye (Women) and Annadata (Farmers). Achieving Viksit Bharat demands a holistic approach, integrating economic growth with social equity, global competitiveness, environmental sustainability, industrial modernization, good governance, and India's emergence as a global knowledge superpower. Crucially, a "whole of government" approach is essential to foster a unified, resilient, and future-ready ecosystem for India's human resources, from infancy to a skilled adult workforce. At the very foundation of this human capital formation lies quality school education, serving as the essential "building block."

India stands at a pivotal moment to harness her demographic dividend, defined by the United Nations Population Fund as the economic growth potential arising from a larger working-age population relative to non-working ages. With 48.43% of its population in the 3 to 29 age group[2] and a median age[3] of 28.7 years- significantly lower than that of the USA, China, and many other nations, India possesses a substantial window of opportunity. Over 60% of its population is currently in the working-age group (15 - 59 years), projected to peak at 68.9% by 2030[4], presenting an unparalleled demographic advantage for becoming Viksit Bharat. However, realizing this potential is contingent upon ensuring accessible, quality education and skilling opportunities for every child aged 3-18 years across the country.

The National Education Policy (NEP) 2020 marks a transformative shift in the 21st century's educational landscape. This path breaking policy envisions a radical transformation in school education, aiming for "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, thereby making India a global knowledge superpower." Accordingly, NEP 2020 advocates for an evolved pedagogy that is experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and, critically, enjoyable. It is designed to equip India's youth to navigate the diverse national and global challenges of the present and future.

Furthermore, the NEP 2020 emphasizes the paramount importance of quality education across all stages of school education. Quality education is not merely a life-changing experience; it is a mind-crafting and character-building endeavour that profoundly impacts citizenship. Therefore, ensuring every child has access to quality education is the foundational step in empowering them to acquire fundamental skills, progress to advanced learning, and ultimately contribute to the creation of a "Viksit Bharat."

Current Situation: A robust and high-quality schooling system is fundamental for India to realize its vision of a 'Viksit Bharat'. Schooling is the initial and most critical stage in nurturing the cognitive, social, and emotional capabilities of India's future workforce and citizens. To this end, a wide range of interventions and initiatives have been undertaken across all levels of school education. These include:

1) **Improving Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER):** India boasts one of the world's largest school education systems, encompassing 14.72 lakh schools, over 98

[1] By World Bank Standards, this implies reaching Gross National Income per capita of USD > 18,220 by 2047
[2] UN Population Division
[3] United Nations Population Fund (UNFPA), 2024
[4] UN Population Statistics 2022

lakh teachers, and 24.80 crore students from pre-primary to higher secondary levels. This vast system caters to students from diverse socio-economic backgrounds, with government schools constituting the majority at 69.14%, followed by private (22.5%), aided (5.5%), and other schools (2.86%). Substantial advancements have been made in ensuring universal access to elementary education, primarily attributed to sustained government initiatives such as the Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan, which were subsumed under the Samagra Shiksha scheme in 2018 to provide an integrated framework for school education from pre-primary to senior secondary. This is evidenced by a Gross Access Ratio (GAR)[5] of 97.83% for primary and 96.57% for upper primary schooling facilities. The current strategic imperative is to realize the NEP 2020's objective of attaining a 100% GER from pre-school through secondary levels by 2030. Furthermore, improving the NER is crucial, as age-appropriate admissions optimize learning outcomes by ensuring children are developmentally ready for the curriculum, leading to more effective instruction and reduced learning difficulties.

Structure	**GER**	**NER**
Foundational[6]	77.7	74.0
Preparatory	96.5	71.4
Middle	89.5	64.4
Secondary	66.5	50.9

UDISE+ 2023-24

2) **Basic Schooling Facilities:** Over the past decade, substantial progress has been made in saturating schooling facilities. Through centrally sponsored schemes like Samagra Shiksha and various initiatives at the State and UT level, efforts are underway to provide essential amenities in government schools. The focus is on strengthening existing schools, facilitating new openings, and ensuring critical infrastructure, including toilets, drinking water, ramps, handrails, boundary walls, etc. The strategic objective is to attain 100% saturation of these basic facilities by 2025-26.

Schooling Facility	**2013-14**	**2023-24**
Total Government Schools	**10,95,374**	**10,17,660**
Drinking Water	83.2	98.4
Girls Toilet	90.6	97.1
Boys Toilet	85.7	94.8
CwSN friendly toilets	-	34.4
Hand wash	39.3	94.8
Library	77.9	92.7
Electricity	48.9	92.4
Ramps	65.2	85.1
Play ground	61.6	79.3
Medical checkups	65.86	75.16

Source: UDISE+

3) **Saturation of aspirational facilities in schools:** Realizing the NEP 2020's objective of a 100% Gross Enrolment Ratio (GER) across all educational strata necessitates robust aspirational infrastructure at the secondary level. Although considerable advancement has been achieved over the past six years, UDISE+ data indicates persistent gaps in facility saturation. For example, functional computers are available in only 50.9% schools. Accordingly, a targeted outlay of Rs. 5,989.91 crores have been sanctioned to furnish 91,456 Secondary/Senior Secondary schools with essential ICT laboratories, Smart Classrooms, and Science laboratories (including integrated labs). In a further push, and aligning with the Budget 2025 announcement, fifty thousand new Atal Tinkering Labs (ATLs) are slated for establishment in government

[5] Samagra Shiksha AWP&B 2025-26

[6] GER & NER at Foundational stage is calculated using both Pre-Primary enrolments in formal and enrolments in Anganwadi's from MoWCD

schools over the next five years, aimed at cultivating curiosity, innovation, and a scientific temper. Currently, only 33,155 out of 302,864 secondary schools have ATLs. Furthermore, the BharatNet project will provide broadband connectivity to all government secondary schools in the rural areas.

Facility (Figures in %)	2018	2024
Lab facilities for Higher Secondary Schools (Total No. 69,041)		
Physics Lab	31.49	76.26
Chemistry Lab	31.09	76.53
Biology Lab	28.65	74.61
Mathematics Lab	8.79	43.10
Lab facilities for Secondary/Higher Secondary Schools (Total No. 1,22,247)		
Integrated Science Lab	37.39	50.17
ICT Lab (Grade VI and above)	-	30.25
Computer Lab	51.65	60.32
Smart Classroom (Grade VI and above)	-	38.62
Internet	6.5	46.2

Source: UDISE+

4) **Special emphasis on Socio-Economically Disadvantaged Groups (SEDGs):** To facilitate learning for all students, the scope of school education has been broadened to facilitate multiple pathways to learning involving both formal and non-formal education modes. Open and Distance Learning (ODL) Programmes is being implemented by the National Institute of Open Schooling (NIOS) and State Open Schools[7] for meeting the learning needs of young people in India who are not able to attend a physical school. Additionally, different government and state initiatives significantly broadens educational access vital for Socio-Economic Disadvantaged Groups. The Samagra Shiksha scheme significantly expands educational access beyond traditional schooling by providing crucial residential facilities. This includes Kasturba Gandhi Balika Vidyalaya (KGBV) and Netaji Subhash Chandra Bose Awasiya Vidyalaya (NSCBAV), which are vital for children from Socio-Economic Disadvantaged Groups. Currently, 5,133 KGBVs are enrolling 712,986 students, and 1,126 NSCBAVs accommodate 106,045 students. A decision has also been taken to saturate all KGBVs with ICT and Smart Classrooms. Further, in a collaborative effort with the Ministry of Tribal Affairs, Samagra Shiksha has significantly expanded hostel facilities for tribal students, sanctioning 243 hostels across 16 states under the PM JANMAN scheme and an additional 604 hostels across 22 states under the DAJGUA scheme.

5) **Focus on Foundational Literacy and Numeracy (FLN):** Significant progress toward universal Foundational Literacy and Numeracy (FLN) by Grade 2 is being driven by initiatives like the NIPUN Bharat Mission (launched July 5, 2021), redefined NEP 2020 Lakshyas, and the annual Vidya Pravesh School Preparation Module (since 2022-23). This focus is further strengthened by the inclusion of Balvatika/pre-primary sections in nearly 6 lakhs of 12.29 lakh primary schools with a focus on having at least one year of pre-primary education in a school-based pre-school class/balvatika for the age group 5 to 6, alongside the extension of PM POSHAN to Balvatikas. ASER 2024 confirms NIPUN Bharat's positive impact, showing significant improvement in foundational literacy and numeracy skills, particularly strong in government schools, which underscores the critical need to extend these efforts into higher grades.

6) **Formulation of new curriculum and textbooks:** Adhering to the principles of NEP 2020, the National Curriculum Frameworks (NCFs) for the Foundational Stage and School Education

[7] State Open Schools are in 11 States i.e., Andhra Pradesh, Assam, Chhattisgarh, Haryana, Himachal Pradesh, Punjab, Madhya Pradesh, Rajasthan, Sikkim, Telangana and West Bengal.

have been developed, with States and UTs currently in various stages of adoption and contextualization. A notable innovation to emphasize experiential learning is the Learning Teaching Material, Jadui Pitara and its digital version, which states are adopting or contextualizing. Moreover, new textbooks for Grades 1 to 8 have been developed aligned with these NCFs, specifically incorporating local content and flavour.

State Curriculum Framework	Status of Implementation
SCF- Foundational Stage	• 11 States Published/contextualized: Andhra Pradesh, Assam, Goa, Gujarat, Jharkhand, Maharashtra, Meghalaya, Nagaland, Rajasthan, Uttarakhand & Uttar Pradesh • 2 State/UT- Translation of NCF-FS: Ladakh in Bhoti language; West Bengal in Bengali • 6 States/UT in process: Chhattisgarh, Delhi, Jammu & Kashmir, Mizoram, Odisha & Tripura
SCF- School Education	• 2 States prepared SCF-SE: Maharashtra & Rajasthan • 2 State/UT- Translation of NCF-SE: Ladakh in Bhoti language; West Bengal in Bengali • 13 States in process: Andhra Pradesh, Assam, Chhattisgarh, Delhi, Goa, Gujarat, Jammu & Kashmir, Jharkhand, Manipur, Nagaland, Odisha, Tripura & Uttarakhand

7) **Promoting multilingualism in schools:** Multilingual education is gaining widespread adoption across the country, with 56% mandating teaching of local languages, and 67% adopting regional languages as the first language. To support this, the National Curriculum Framework for School Education (NCF-SE) has been translated into nine languages. In alignment with NEP 2020, the primary language for the foundational stage will also be the home language/mother tongue/local language. Additionally, primers have been developed in 117 regional languages**,** and textbooks for Grades One and Two are now available in twenty-two scheduled Indian languages. Digital platforms like PM e-Vidya, along with initiatives such as the Tamil TV Channel, ULLAS Channel, and Bhasha Sangam on DIKSHA, are actively promoting language learning through accessible, multilingual content. Furthering these efforts, the Bharatiya Bhasha Summer Camp, a nationwide festival celebrating multilingualism, was launched across all schools on May 19 2025.

8) **Integration of Skilling:** NEP 2020 aims to integrate skill education programmes into mainstream education in a phased manner, beginning with exposure to skilling at an early age i.e., in the middle and secondary school. The centrally sponsored schemes of the government such as the Samagra Shiksha, PM SHRI and STARS[8] schemes are significantly enhancing skill education by incorporating practical provisions. These include provisions such as tools and equipment, hands-on student training, pre-skill exposure at the middle school level, internships with local artisans, and 10 bagless days. The goal is to provide rich, practical learning experiences. Currently, 28,342 schools offer skill education to 31.94 lakh students across 101 job roles in 25 different sectors. Moreover, National Skill Qualification Framework (NSQF)-compliant skill modules are available as an additional subject for students in Grades 9 and 10, becoming a compulsory elective for those in Grades 11 and 12.

9) **Continuous Professional Development of Teachers:** To ensure the sustained professional growth of teachers, multiple initiatives have been undertaken. Prominently, National Initiative for School Heads and Teachers Holistic Advancement (NISHTHA) program delivers integrated training across all school stages effectively leveraging the DIKSHA online platform.

[8] STARS implemented in 6 States i.e., Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha and Rajasthan

Concurrently, 613 District Institutes of Education and Training (DIETs) are undergoing phased upgrades to Centres of Excellence to innovate teacher training through modern pedagogy, continuous professional development, and ICT integration. Furthermore, State Councils of Educational Research and Training (SCERTs) are being transformed into model centers of innovation and research, equipped with aspirational resources for infrastructure, digital technology, curriculum review, skill education, and collaborative research.

10) **Leveraging technology for educational management:** Significant strides have been made in using technology for data and evidence-based management within India's education system. The Rashtriya Vidya Samiksha Kendra (RVSK) serves as a central hub, aggregating and analyzing school education data from VSKs nationwide to inform policy and program decisions. VSKs are now operational across the CBSE, NCERT, and nearly all States and Union Territories (excluding Bihar, Kerala, and West Bengal), with RVSK integrating 30 States/UTs to track attendance for approximately 884,000 schools, 4.15 million teachers, and 102.6 million students. This technological advancement also supports the implementation of the APAAR ID, with 13.70 crore (55%) IDs already generated. Furthermore, 3.73 lakh e-content pieces are available on DIKSHA in 126 Indian and 7 foreign languages.

11) **PM ScHool for Rising India (PM SHRI):** The scheme's core intent is to prepare over 14,500 PM SHRI Schools by comprehensively strengthening them to embody all NEP 2020 initiatives. These schools are envisioned to emerge as exemplar institutions over time, providing vital leadership and guidance to other schools in their vicinity. Currently, 13,076 schools have been selected from 33 States, UTs, and KVS/NVS/NCERT, comprising 1,305 Primary, 3,102 Elementary, 3,135 Secondary, and 5,534 Senior Secondary schools.

12) **Ensuring equitable education for Children with Special Needs (CwSN):** Significant progress is underway to ensure equitable and accessible education for all, including children with special needs (CWSN), aligning with NEP 2020. Under Samagra Shiksha, provisions for CWSN cover 18.53 lakh children, with an approved outlay of Rs. 699.11 crores for 2025-26. This includes separate stipends for CWSN girls, annual block-level camps for early identification with mandated data maintenance by States/UT data under the RPwD Act, and equipped Block-level Resource Centers for rehabilitation and training. These efforts are further bolstered by digital initiatives like PM e-Vidya's DTH ISL channel (Channel 31), the PRASHAST Mobile App for disability screening, and audiobooks/ISL content on DIKSHA.

Issues and Challenges:

1) **Educational Disparity:** India faces a significant human capital challenge, starkly highlighted by the gap between its low Mean Years of Schooling (7.33 years) and high Expected Years of Schooling (13.3 years). Compounding this imbalance is a notably low Gross Enrolment Ratio (GER), particularly evident at the Secondary level (66.5%). To attain the NEP 2020 goal of 100% Gross Enrolment Ratio (GER) from pre-school to secondary level by 2030, available capacity of secondary/senior secondary schools needs to be considerably upgraded if all children in upper primary schools are to be accommodated. For this purpose, a comprehensive school, block, and district-level analysis needs to be conducted to accurately determine actual gaps in intake capacity across various grades.

2) **Bridging the NER gap:** The consistently lower NER across all levels, notably at 50.9% for Secondary education, indicates that a substantial number of age-eligible children are either out of school or enrolled in grades not corresponding to their age. This widespread age-grade disparity, whether due to late entry, grade repetition, or early dropouts, creates heterogenous classrooms, making it challenging for teachers to deliver age-appropriate curriculum effectively. Consequently, this leads to suboptimal learning outcomes, exacerbates existing

learning gaps, and contributes to increased dropout rates as students feel disengaged or out of place. So far, 30 States and UTs have taken out notifications for age of admission in grade 1 as 6 years.

3) **Student Dropout challenges:** A significant number of children, unfortunately, drop out across various levels, particularly during transitions between schools and in instances of migration. UDISE+ indicates approximately 1.54 crore potential dropouts nationwide in 2023-24. The National Sample Survey (2023-24) has also revealed that there are 1.90 crore out of school children in the country i.e., 48.9 lakh never enrolled in schools and 1.42 crores dropped out of school. Further, as per UDISE+ the dropout rate at the Foundational, Preparatory and Secondary stage is 3.7%. 5.2% and 10.9%, respectively. The dropout rate for girls at the foundational and secondary stage is much lower than the boys while it is slightly higher than the boys in the middle stage. A contributing factor to this challenge is the fragmented school system, which leads to around 1.07 crore students leaving school due to the unavailability of admission at higher levels.

Structure	Overall Dropout Rate	Dropout Rate	
		Boys	Girls
Preparatory	3.7	3.9	3.5
Middle	5.2	5.2	5.3
Secondary	10.9	12.3	9.4

UDISE+ 2023-24

4) **Multiple Category of Schools:** India is also home to the largest and most complex education system with ten different school categories running parallelly i.e., Primary (1-5)- 50%; Upper Primary (1-8)- 23.3%; Upper Primary (6-8)- 6.1%; Secondary (1-10)- 5%; Secondary (6-10)- 2.9%; Secondary (9-10)- 1,9%; Higher Secondary (1-12)- 5.2%; Higher Secondary (6-12)- 2.7%; Higher Secondary (9-12)- 1.8%; and Higher Secondary (11-12)- 1.1%. This structural complexity means approximately 73.4% of students undergo an admission process at least three times during their schooling, potentially adding significant disruption to their educational journey.

5) **Single Teacher and Zero Enrolment Schools:** UDISE+ data reveals that within government schools, 4302 primary schools and 543 upper primary schools have zero enrolment, and a substantial number are single-teacher schools (86470 primary schools and 10548 upper primary schools). These conditions create suboptimal learning environments and represent a significant inefficiency in resource allocation, particularly in remote areas. It would serve students better to have multi-grade and multi-teacher schools, as this will lead to better learning experiences and improvement of Learning Outcomes.

6) **Infrastructure and resource gap:** A significant challenge to achieving educational goals, especially the widespread implementation of NEP 2020 initiatives and the scaling of programs like PM SHRI, is the pervasive infrastructure and resource gap across many schools. As per UDISE+ 2023-24, only 50% schools have integrated labs while 30% have ICT labs and 38% have Smart Classrooms. This would require raising of resources both at the state and national level.

7) **Learning Outcomes:** While the PARAKH Rashtriya Sarvekshan 2024 indicates a positive recovery trend from the learning losses evidenced in the National Achievement Survey (NAS) 2021, significant foundational learning gaps persist across key subjects. In NAS 2021, language proficiency in Grades 3, 5, and 8 stood at a concerning 62%, 55%, and 53% respectively, with Mathematics even lower at 57%, 44%, and 36%. Although PARAKH 2024 shows improvement with language reaching 64%, 57%, and 54% for Grades 3, 5, and 9, and Mathematics at 60%, 46%, and 37% for the same grades, these levels still indicate a substantial proportion of students

lacking adequate proficiency in fundamental skills as they progress through the schooling system. Further corroborating this, recent ASER 2024 results highlight the improvement in performance of students in Grades 3, 5 and 8, who are enrolled in government schools, in reading levels as well as basic arithmetic. With a focus on Competency Based Assessment for Holistic Development, the focus is on implementing Holistic Progress Card at all levels.

8) **Teacher Vacancies and Capacity Gaps:** A notable challenge is the number of vacant teaching positions across government schools, with 15.11% at the elementary level, 13.13% at the secondary level, and 11.99% at the senior secondary level. These vacancies lead to an increased burden on existing staff, compromised student-teacher ratios, and often, a detrimental impact on the quality and continuity of instruction. Compounding this, there are also significant vacancies of teacher educators in State Councils of Educational Research and Training (SCERTs) and District Institutes of Education and Training (DIETs), presently at 35.48% and 41.31% respectively, which critically undermines efforts to provide quality pre-service and in-service professional development for teachers nationwide. Other systemic issues are also adding to this challenge such as: limited rollout of the 4-year Integrated Teacher Education Programme (ITEP), Quality concerns in Teacher Education Institutions (TEIs), lack of linkages between in-service training and career progression, etc.

9) **Low coverage of Skilling at the Secondary level:** Presently, only 2.5% of the total students enrolled in Grades 6 to 12 are covered under Skill Education. There is need to expand the reach and to make the skill education option more acceptable through integration of skill education programmes into mainstream education, beginning with exposure to skill education from the middle stage. This would lead to emphasizing the dignity of labour and importance of various vocations involving /Indian arts and artisanship.

10) **Low coverage of Children with Special Needs:** Despite overall enrolment gains, a critical challenge persists in providing comprehensive and inclusive schooling for Children with Special Needs (CWSN), reflected by their mere 0.85% enrolment. This limited coverage stems from inadequate accessible infrastructure, insufficient specialized teacher training, a dearth of assistive devices, and limited individualized support within mainstream schools. Overcoming this requires targeted efforts to cultivate truly inclusive learning environments, ensuring every CWSN not only accesses but also receives quality, tailored education. Special efforts are required to reduce the high dropout rates of CwSN at upper primary and secondary levels.

11) **Private Schools:** While governments focus on education reforms in government schools, a large number of students study in self-financed private and government aided schools, where, beyond the 5 to 10% schools, there is much to be desired in terms of quality holistic education. No nation-wide school education reform can be complete without including these schools in its scope.

Way Forward: Possible Solutions/ Issues for Deliberation

- **Boosting Education Investment:** To fully realize India's demographic potential and foster a globally competitive workforce, achieving NEP 2020's 6% GDP target for education investment is crucial. This necessitates increased funding for school education, exploring innovative financing and PPPs. Further, Central government funding to States/UTs must be linked to performance and demonstrable outcomes for efficient resource utilization.

- **Capacity development for spending:** Past trends indicate that States and UTs frequently do not fully utilize their approved financial outlays, with expenditure ranging from 50 to 90% of the allocated budget under Samagra Shiksha. Hence, there is a need to enhance their fund utilization capabilities to ensure expenditure is in closer alignment with the allocated budget.

- **Improve Education Index and HDI Ranking:** To significantly improve India's Education Index score (currently 0.372) and rank in the Human Development Index, all States and UTs must prioritize: maintaining high age-specific enrolment ratios, promoting continuous reskilling/upskilling, and critically, demonstrably enhancing learning levels across all educational stages. While the Expected Years of Schooling (EYS) has commendably risen to 13.3 over the last four years, significant ground still needs to be covered to reach the 2030 target of 15 years and eventually reach the 18-year EYS benchmark, which is characteristic of developed nations.

- **Enhance Infrastructure for 100% GER:** To achieve 100% GER by 2030, upgrading existing schools and construction of additional classrooms are imperative. States and UTs must urgently plan sufficient higher secondary infrastructure, necessitating a comprehensive analysis of intake capacity gaps at school, block, and district levels.

- **School availability and Continuity:** Simplify the existing ten parallel school categories to reduce admissions-related disruption and improve student transitions. An analysis of school enrolment and drop out data indicates lower dropouts in areas where students have access to composite schools offering a continuum of education from grades 1 to 12.

- **Developing secondary/higher secondary schools on the lines of PM SHRI schools:** Drawing on the experience of PM shri Schools in saturating facilities under the identified 22 parameters, the States and UTs may explore various funding opportunities duly dovetailing Government of India schemes to saturate all the remaining government secondary and higher secondary schools on similar lines.

- **Strengthen Identification & Re-enrolment:** Enhance existing efforts like house-to-house enumeration, based on UDISE+ data, APAAR ID, etc., to identify school drop outs and never enrolled children and effective utilization of resources under various schemes/initiatives to ensure all children in the 6 to 18 age group are enrolled in age-appropriate classes.

- **Sustaining and Extending FLN Efforts:** Building on NIPUN Bharat's success, development of Foundational Literacy and Numeracy (FLN) must be vigorously sustained and extended into preparatory and middle grades. This requires continuous monitoring, targeted remedial support for lagging students, and adaptive teaching methods to consolidate foundational skills as students advance.

- **Strengthening the Middle Stage:** The middle stage of education (Grades 6-8) needs special attention. These critical years bridge foundational learning and secondary education, directly impacting India's 2047 Viksit Bharat goals. The future of today's 10-year-olds hinges on their experiences in the next 3-5 years. Investing in this stage is crucial for securing their trajectory and, by extension, the nation's future.

- **Address Teacher and Teacher Educator Vacancies and capacity gaps:** Urgently fill all vacant teaching and teacher educator positions in schools, SCERTs, and DIETs. This requires streamlined, time-bound recruitment, rational deployment for equitable distribution, and avenues for career progression, to retain qualified teacher/educators, especially in remote areas. Simultaneously, strengthen SCERT and DIET capacity and infrastructure to enhance teacher preparation and continuous professional development. The capacity of teachers needs to be mapped against the standards prescribed by NPST and effectively utilized the platform of NMM to enhance the same.

- **Leverage AI for Pedagogical Enhancement:** With established state digital education platforms and NCERT's DIKSHA Personalized Adaptive Portal, the immediate priority is a

collaborative effort to determine how Artificial Intelligence (AI) can be effectively leveraged to support and improve pedagogical practices. This includes exploring AI for personalized learning, teacher support, content delivery, and adaptive assessments. Capacity building of teachers may be focus on innovative and world-class pedagogy that includes AI and other frontier technologies such as AR/VR among others.

- **Mainstream Skill Education:** Integrate skill education programs into mainstream education from the middle school stage, making them an integral part of the curriculum. This could include introducing short-term internships, local industry exposure days, and real-world, project-based modules in collaboration with MSMEs, rural enterprises, and district skilling centres.

- **Maximizing Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) coverage**: Despite a reported enrolment of about 11 crores students in Balvatika and Grades 1 to 8 in 10.35 lakh government and aided schools under the PM POSHAN scheme, only 8.31 crore i.e., 76% are actually availing mid-day meals on any given school day. A concerted effort to boost daily meal uptake is essential to maximize the scheme's impact on student well-being and learning outcomes.

- **Equivalence of Boards:** PARAKH assessment centre is collaborating with 34 States Boards, CISCE and CBSE for reforming assessment as per NEP 2020. There is also need to achieve Equivalence of Boards with respect to curriculum and assessment to ensure comparability and consistency in educational standards across all recognized school boards in India to promote student mobility and parity in academic performance. Boards should also become awarding bodies and assessment authority for skilling so that National Credit Framework can be effectively harmonized with NCF-SE.

- **Life skills and holistic personality development:** Integrating holistic education aspects such as climate and lifestyles for the environment, human values, and social/national service with existing curricular frameworks will help nurture students with a balance of IQ, EQ and SQ, which are vital in the 21st century. This can be achieved by expanding the activities and improving the outcomes of Eco Club for Mission LiFE.

- **Involving families and communities for educational development:** Many of today's parents are beneficiaries of the last decade's efforts to universalize elementary education. Building on this and based on the context and age, locally appropriate efforts to bring parents, especially mothers, on to the education stage is needed. The School Management Committees (SMCs) provide a suitable platform for community involvement and need to be encouraged to more actively associated with the day to day functioning of the schools.

- **Creating robust mentorship and career advisory platforms and ecosystem for high school students:** This would address the issue of handling stress of competitive exams and entrance exams, thereby enabling students to opt for career pathways that are aligned with their innate interests rather than parental/peer/societal pressure.

- **Effective use of social media:** There is a need to prioritize digital literacy and guide students towards positive, purposeful content that fosters learning and creativity. This would also require implementing clear boundaries and monitoring, including age-appropriate platforms and screen time limits.

- **Include Private Schools in Reforms:** Develop policies and frameworks to bring self-financed and government-aided private schools into the ambit of nationwide education reforms, ensuring quality and holistic education standards across all school types. The focus should also be on

establishment and strengthening of State School Standards Authority (SSSA) for transparent affiliation and academic audits, as envisaged in NEP 2020.

- **Governance reforms for systemic transformation:** Effective governance is vital for improving education by optimizing instructional time, ensuring data-driven accountability, and achieving equitable teacher deployment. This means implementing reforms like digital timetabling and academic calendars to maximize teacher "Time-on-Task" and ensure efficient use of mandated instructional hours. Simultaneously, leveraging technology such as digital attendance and e-monitoring apps strengthens accountability and drives performance. Furthermore, governance reforms are crucial for equitable teacher deployment across districts, using data-driven models to address uneven distribution and ensure balanced workloads and adequate academic support in schools.

- **Effective coordination with Ministry of Women and Child Development (WCD):** Children enter grade 1 from different streams ranging from pre-primary sections in schools to 3 years in Anganwadi or direct entry to grade 1 leading to a wide disparity in their learning levels at the entry stage. This necessitates effective coordination with the WCD to ensure an equivalence of learning levels for all students as they transition into Grade 1.

- **Convergence with Health Department:** The platform provided by School education, where children spend 12 to 15 years, can be leveraged for better health of children, including mental wellness, in collaboration with the Health Department for effective implementation of initiatives such as the Rashtriya Bal Swasthya Karyakram (RBSK), Anemia Mukt Bharat, National Deworming Day, etc.

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Fifth National Conference of Chief Secretaries

"Human Capital for Viksit Bharat"

Concept Note for Sub-Theme 3

Skilling: Future Ready Workforce

Nodal Ministry/Department: Ministry of Skill Development and Entrepreneurship (MSDE), Government of India in collaboration with the Department of Agricultural Research and Education (DARE)

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

Theme 5th CS Conference: Human Capital for Viksit Bharat

Concept Note: Skilling Future Ready Workforce

1. Introduction

1.1. India today stands at the threshold of a transformative era, an ***Amrit Kaal,*** marked by unprecedented opportunities to shape a ***Viksit Bharat***, a developed and inclusive India by 2047. This vision of our Hon'ble Prime Minister is rooted in building a resilient economy, world-class infrastructure, a skilled and empowered workforce, and a just and inclusive society. By 2047, India is poised to become a $30 trillion economy, with a projected population of about 1.6 billion and a working-age population of 1.12 billion, making India the largest workforce globally[1].

1.2. India's economy meets four transformative disruptions: accelerated digitalisation, shifting global supply chains to reliable and cost-efficient destinations, the green transition along with circular production, and ageing workforces in advanced economies. Harnessing this window demands a skilling esosystem that is not only **future-oriented** and industry-aligned but also upgrades agriculture with precision, climate-smart and agri-logistics skills, ensuring rural communities' benefit. An inclusive, demand-responsive ecosystem focusing on **new age skills** will position India as a preferred destination for technology-led investment and a leading exporter of skilled talent.

1.3. The National Education Policy (NEP) 2020 has been pathbreaking as it envisions creation of a holistic, flexible, multidisciplinary education system that nurtures critical thinking, creativity, and practical skills. By integrating vocational training at every stage of education, it aims to create a future-ready workforce that can adapt to the changing demands of the economy, both domestic and global. The policy advocates early integration of vocational education in schools, offering modular and flexible learning opportunities, integration of vocational education in higher education by formulating National Higher Education Qualifications Framework (NHEQF) and providing both technical and soft skills for holistic development of youth.

1.4. Yet, despite demonstrable progress, formidable gaps persist. Employment outcomes vary widely across districts; women and marginalised groups are under-represented in advanced manufacturing and technology job roles; agriculture and Micro, Small and Medium Enterprises (MSMEs) remain on the periphery of formal skilling; and digital inequity constrains uptake in underserved, remote and aspirational districts.

1.5. In this context, the sub-theme "Skilling: Future Ready Workforce" underscores the importance of a unified national approach to equipping youth with employable skills blending both skilling in the context of emerging technologies and ensuring such technologies permeate to grassroot level recognising the integral role of agriculture in India's economy and workforce, facilitating lifelong learning, and creating employment-ready ecosystems.

2. Current Situation:

2.1. Pre-2014, India's skill development landscape was fragmented and scattered, with institutions spread across ministries, lacking standardization, regulation, industry connect, and aspirational pathways. However, post-2014, significant reforms have been implemented, that have led to a more organized, regulated, and industry-aligned skill development ecosystem, fostering greater employability and international competitiveness.

[1] Decoding India Vision 2047: Niti Aayog's Strategy for a Developed Bharat

2.2. A comprehensive set of interventions are being implemented across the skilling ecosystem. These efforts can be broadly grouped under the following thematic area:

A. Policy and Regulatory Architecture

a. India's early skilling system was fragmented, prompting the launch of the National Skills Qualification Framework (NSQF) in 2013 for standardized, competency-based training. The National Credit Framework (NCrF) followed, enabling credit-based recognition of academic, vocational, and experiential learning through Multiple Entry and Multiple Exit (MEME). Integrated with NSQF and the Academic Bank of Credits (ABC), NCrF promotes mobility and lifelong learning. Micro-credentials on SIDH further support flexible upskilling, especially for gig workers, women returnees, and those entering sectors like AI, EVs, and Green energy.

b. **Convergence under NEP:** Aligned with NEP 2020, MSDE and UGC are integrating vocational education into higher education to bridge academics with industry-relevant skills and boost employability. This includes embedding skill modules in undergraduate curricula, credit-bearing courses with Awarding Bodies, promoting B.Voc programs, and enabling credit transfers via ABC. Similar initiatives of integration of vocational education in the school education are envisaged in partnership with Department of School Education & Literacy, Ministry of Education (MoE). The goal is to mainstream skill-based education across 1,100+ universities and 40,000+ colleges in line with economic needs.

c. **Awarding Body (AB) Reforms:** To simplify and decentralise skilling certifications while aligning with industry standards, NCVET is reforming the AB ecosystem. It accredits industry-led bodies and now also recognises State Boards, Institutes of National Importance (INIs) and other institutions for curriculum, assessment, and certification. With 130+ recognised ABs, the focus is on streamlining approvals, strengthening governance, ensuring quality, diversity and customizability to enhance employability and workforce mobility.

B. District Skill Committees (DSCs): Chaired by district administrations, DSCs are critical for bottom-up, demand-driven skilling. Comprising local industry, training providers, academia, and civil society, they align training with district economic priorities and youth aspirations through local feedback and labour market insights.

a. District Skill Development Plans (DSDPs): Prepared by DSCs, DSDPs map skilling needs and employment trends. By 2024, over 700 districts had developed DSDPs to aid scheme targeting, course rationalisation, and demand forecasting.
b. State Skill Development Plans (SSDPs): SSDPs consolidate district inputs into a strategic State-level blueprint, promoting convergence and partnerships. As of 2024, 18 States had formalised SSDPs, enabling coordinated planning and governance.

C. Industry Alignment and Future-Readiness

a. **Industry Consultations:** Given the advancement in technology, job market requirements are dynamic and are changing at a fast pace. In order to keep the training curriculum aligned with industry demand, regular industry consultations are organised by MSDE. These consultations are being organised across prominent sectors such as IT/ITeS, Automotive, Semiconductor, Banking and Financial Services (BFSI), Pharmaceuticals, Hospitality, etc. More than 120 industries have participated in 13 industry consultations to align curriculum and pedagogy with market needs.

b. **Industry-led Training Models:** To make skilling demand-driven and employment-oriented, MSDE is actively promoting deeper industry participation across the skilling value chain. Industries are increasingly being engaged as curriculum co-creators, practical assessors, and

ABs, ensuring that the training imparted reflects current workplace requirements and emerging industry trends.

c. **Industry Co-creation:** Industries are being onboarded as ABs with 45 Original Equipment Manufacturer (OEM) qualifications being recognized from Google, IBM, Hero Moto Corp Limited, Samsung, Tata Motors, etc.

d. **On-the-Job Training (OJT):** OJT has been made a mandatory component of the job roles, as per recommendation of the industry for exposing the candidates to real life situation and make them job ready. Accordingly, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 4.0 mandates OJT as part of the training duration as defined by NCVET. The provision applies to all the applicable job roles taken up under Short-Term Training (STT) and Special Projects (SP).

e. **India's Apprenticeship Ecosystem:** Apprenticeship bridges education and industry through hands-on learning. MSDE is making it more inclusive and future-ready by expanding into sectors like AI, Fintech, Semiconductors, and Green Energy. New formats—hybrid, remote, and OJT—enable participation from MSMEs, startups, and gig workers. Stipends are disbursed via DBT to ensure transparency, with incentives for women, youth, and marginalised groups. Since 2016, over 43.7 lakh apprentices have been engaged by 51,000+ establishments (as of 31 May 2025). From July 2025, UGC-mandated Apprenticeship Embedded Degree Programmes (AEDP) will embed up to 50% apprenticeship within degrees, with credit recognition under NCrF and tripartite agreements linking students, institutions, and industry—advancing NEP 2020's vision for employability through experiential learning.

f. **Inclusion of New-Age Sectors:** To meet future workforce needs, over 500 job roles in sectors such as Industry 4.0, Artificial Intelligence, Machine Learning, Precision Engineering, Cybersecurity, Electric Mobility, and Renewable energy have been introduced, equipping youth with skills for India's innovation-driven and globally competitive economy.

D. ITI Modernization:

Industrial Training Institutes (ITIs) are key to long-term skilling, with industry involvement through the Dual System of Training (DST) and Flexi- Memorandums of Understanding (MoUs) for classroom and On-the-Job learning. The ₹60,000 crore National ITI Upgradation Scheme embeds industry in governance via a blended model: ₹30,000 crore from the Centre (including World Bank and ADB), ₹20,000 crore from States, and ₹10,000 crore from Industry. It will upgrade 1,000 ITIs through a hub-and-spoke model led by industry Special Purpose Vehicles (SPVs), focusing on high-growth sectors like EVs, Green energy, Precision manufacturing, etc. Anchor industry partners will manage curriculum, infrastructure, trainers, and placements, with each hub linked to 3–5 spoke ITIs. National Skill Training Institutes (NSTIs) are also being developed as global-standard Centres of Excellence for trainer development and innovation through international and industry partnerships.

E. Access and Inclusion

a. **Aspirational District Coverage**: To address challenges in the 112 Aspirational Districts, MSDE is implementing targeted skilling to improve human development. Efforts include expanding short- and long-term training, setting up Model Skill Centres, and using local ITIs and Jan Shikshan Sansthans (JSS). Youth are trained in local livelihoods like agri-processing and handicrafts, and in emerging sectors (e.g., logistics, hospitality, and electronics repair).

b. **Inclusive skilling ecosystem**: MSDE has launched targeted measures for Persons with Disabilities (PwDs) and women. For PwDs, initiatives include customised Qualification Packs (QPs), assistive tech, accessible digital content, inclusive infrastructure, sensitised trainers, and partnerships with disability organisations. For women, who now make up over 45% of the total

candidates trained under PMKVY, support includes DBT stipends, transport, crèches, counselling, and special drives in non-traditional sectors like Drone piloting. Skilling is also linked to Self-Help Group (SHG) and State Rural Livelihood Mission (SRLM) led entrepreneurship. Outreach to the third gender is underway to ensure inclusion, among the most marginalised, to ensure no one is left behind.

c. **NER Special Pilot:** The North Eastern Region (NER) faces geographic and infrastructural challenges but holds potential in agri-based value chains, tourism, textiles, and handloom. MSDE has launched a special pilot using context-specific delivery models like mobile training units, vernacular content, and partnerships with State Skill Development Missions (SSDMs) and community colleges. Focus areas include increasing women's participation and aligning training with market linkages like organic food processing and eco-tourism, while integrating with other Government of India (GoI) and state programs and schemes.

d. **Multilingual content:** To ensure that learners can access skilling opportunities irrespective of linguistic background, learning content has been made available in around 12 languages under PMKVY and PM Vishwakarma schemes. Over 600 trainee and trainer handbooks have been translated into eight regional languages to enhance learning outcomes. with most of the courses being at least bi-lingual.

F. Technology Enablement

Skill India Digital Hub (SIDH): SIDH is MSDE's unified digital public infrastructure that manages the entire skilling lifecycle, from Aadhaar-based e-KYC and attendance to certification, DBT, and post-placement tracking, on a secure, cloud-native platform. It integrates legacy portals and offers onboarding APIs for Central and State schemes, providing each learner with a personalized dashboard for applications and upskilling. Features like Public Finance Management System (PFMS) linked DBT, DigiLocker based certificate exchange, real-time employer validation, and Digital Personal Data Protection (DPDP) Act 2023 aligned data security ensure privacy and accuracy.

Key Achievements: Over 90 lakh users have registered on the platform, with 55 lakh completing e-KYC, and over 40 lakh candidates enrolled under PMKVY, PM Vishwakarma, and other schemes. The platform hosts 550+ digital courses and integrates 133 Central and State schemes, ensuring convergence, transparency, and broad access across the skilling ecosystem.

G. Innovative Financing Mechanisms

a. **Skill Loans:** To help youth access fee-based skilling in high-demand and new-age sectors, MSDE has revamped the Skill Loan Scheme launched in 2015 by the Hon'ble Prime Minister. It offers collateral-free loans up to ₹7.5 lakh, with no processing fee and flexible repayment, for NSQF or non-NSQF courses by verified training entities on the SIDH, aligned to course duration and employability outcomes.

b. **Skill Voucher Pilots:** To improve efficiency and equity in skill financing, MSDE is piloting Skill Voucher models, shifting from training provider-driven to candidate-centric, demand-side mechanisms. This empowers candidates to choose training providers and courses aligned with their aspirations, local jobs, and career goals.

c. **Skill Impact Bond:** Performance-linked financing for outcomes-based skilling piloted with an investment of US $14.4 million to train 50,000 youth—60 % of them women—over four years; National Skill Development Corporation (NSDC) and the Michael and Susan Dell Foundation (MSDF) provided US $4 million in upfront risk capital among others, with the British Asian

Trust acting as transaction manager. Repayment was tied to verified outcomes—certification, placement, and retention—ensuring a strong focus on quality and jobs.

H. Quality Assurance and Ecosystem Reforms

a. **Trainer Ecosystem Strengthening:** Standardised Training of Trainers (ToT) frameworks have been developed for continuous professional development. More than 1 lakh trainers and assessors have undergone training and been onboarded. Craft Instructor Training Scheme (CITS) certified candidates along with Defence Instructors have been recognised as deemed trainers.

b. **Curriculum Upgradation:** In order to meet the dynamic demand of the job market and catering to the needs of **new age** sectors, MSDE continuously upgrades the curriculum for various training programs. For example, to strengthen agriculture sector, around 14 NSQF-aligned qualifications focused on applications of drone technology such as Kisan Drone Operator, Drone Technician, and other emerging job functions in the drone ecosystem have been approved. Further 300+ Micro-credential (MC) and National Occupation Standards (NOS) based courses have been introduced across various sectors including agriculture. The curriculum for each job role, including those in the agriculture domain, is designed and developed in alignment with market demand and industry requirements, in close collaboration with sectoral experts and industry stakeholders.

c. **Cross utilisation of infrastructure:** The Ministry is leveraging quality infrastructure from other departments to improve training delivery. Under PMKVY 4.0, Skill Hubs are set up in educational institutions, including Institutes of National Importance (INIs) such as Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), National Institutes of Technology (NITs), etc. Schools such as Jawahar Navodaya Vidyalayas (JNVs), Kendriya Vidyalayas (KVs), Sainik Schools, Eklavya Model Residential Schools (EMRS), etc. are also used. Industry training infrastructure supports apprenticeship training under NAPS. For example, IIT, Jammu and IIT, Nagpur imparted skilling in Drone Manufacturing and Assembly Technician. Sainik School, East Siang, Kalikiri, Ghorakhal and Bhubaneswar provided training in Software Programmer under PMKVY 4.0.

I. Global Mobility and Internationalization

In line with Hon'ble Prime Minister's vision of making India the Skill Capital of the World, a large unmet demand for various jobs has been identified across 16 countries through a global skill gap study. Further, MSDE is enhancing global employability through international partnerships, with MoUs currently active with seven countries, focussing on curriculum development, trainer exchange, and mutual qualification recognition. It also supports Migration and Mobility Agreements and Labour Mobility Agreements led by Ministry of External Affairs, embedding skill components like language training, PDOT, and certification in agreements with eight countries. To facilitate international mobility and enhance global competitiveness, 30 Skill India International Centres (SIICs) are being established as one-stop hubs for creating a trusted, transparent skilled workforce supply chain. In parallel, five National Centres of Excellence (NCoEs) with world-class infrastructure are being set up, with international partnerships to enable knowledge exchange, joint research, faculty training, and cross-border mobility.

J. Sector-Specific Focus

a. **Agriculture and Allied Sectors:** Agriculture, employing over 40% of India's workforce, is transforming through climate action, technology, and value chain shifts. However, an acute shortage of skilled labour, given that less than 10% of the 25+ crore population engaged in agriculture has received formal skill training, poses significant challenges across production,

processing, distribution, and marketing. To modernise the sector and boost rural livelihoods, targeted skilling in drone operations, mechanisation, agro-processing, and sustainability is underway. Institutions such as Krishi Vigyan Kendras (KVKs), Agricultural Technology Management Agency (ATMA), and Farmer Producer Organisations (FPOs) deliver short-term, NSQF-aligned courses on precision farming and climate-resilient practices, integrated with SIDH for certification. Focus areas include solar pump maintenance, dairy, fisheries, and beekeeping, with convergence across Ministry of Rural Development (MoRD), Ministry of Agriculture and Farmers' Welfare (MoA&FW), and Ministry of Panchayati Raj (MoPR), building a tech-enabled, climate-ready agri-workforce for Viksit Bharat.

b. **Traditional Sectors:** India's traditional sectors, comprising handicrafts, handlooms, artisanal trades, and rural livelihoods remain a vital source of employment, especially in semi-urban and rural areas. To preserve, modernise, and scale these vocations, the GoI has launched focused skilling interventions under schemes such as PM Vishwakarma and JSS.

c. **PM Vishwakarma**, launched in Sept 2023, supports 18 traditional trades, including blacksmithing, carpentry, pottery, tailoring, etc., through skill upgradation, toolkit assistance, digital and financial literacy, and market linkages. As on 15 June 2025, 23 lakh+ candidates have been trained across 678 districts in the country, with special emphasis on certification through Recognition of Prior Learning (RPL) and formal credit facilitation for self-employment. The scheme underlines the importance of providing wage loss support to encourage upskilling. Around ₹940 crore have been transferred to trainees through DBT.

K. Cluster Focus

MSDE promotes clusterization by targeting sector-specific skills in industrial corridors, aligning skilling needs with local value chains. It customizes training infrastructure and courses to regional workforce catchments in sectors like Automobiles, EVs, Textiles, and Pharmaceuticals.

L. Convergence with Ministries

MSDE leads national skill development efforts by bridging manpower gaps and enhancing vocational and technical training through skill upgradation, new-age skilling, and innovation. Central to this is convergence with Ministries/Departments under a Whole-of-Government approach. MSDE partners in flagship schemes like PM Vishwakarma (MSME), PM JANMAN (MoTA), National Green Hydrogen Mission (MNRE), PM SVANidhi (MoHUA), etc., while providing common norms for costing, accreditation via NCVET, and a national assessor pool. Sectoral schemes like Samarth (Textiles) and RKVY (Agriculture) leverage these services to certify candidates without duplicating systems. To maximize the impact of skilling, structured mechanisms should also be developed to connect trained individuals with schemes like PMFME, NRLM, and AC&ABC for financial and infrastructural support. Convergence with Ministry of Education schemes—across both school and higher education—will also be critical to integrate skilling with formal education and ensure seamless learner mobility.

M. Training of Defence personnel under Agnipath scheme

To enable employment for Agniveers post their 4-year service, their defence-acquired skills are being mapped to industry-relevant skills. They will be awarded 'Kaushal Praman Patra' based on qualifications and experience gained. Over 60% of defence trades are mapped with Craftsmen Training Scheme (CTS) trades: Army (40), Navy (28), and IAF (2), benefiting over 1 lakh enrolled Agniveers.

3. Challenges

3.1. Limited coverage of formal skilling: Only 4.4[2] percent of India's population aged 15–29 years possesses a recognized vocational certificate, a stark contrast to South Korea (96%)[3], Japan (80%)[4], and Germany (75%)[5]. This gap restricts productivity, limits integration into the formal labour market, and constrains the availability of job-ready talent in emerging sectors. Enhanced focus on Recognition of Prior Learning (RPL) and integration of vocational education within mainstream curricula is essential, though current coverage remains inadequate for the scale of need.

3.2. Lack of Dynamic Demand Planning and Labour Market Intelligence: India's skilling ecosystem remains unresponsive to fast-evolving labour market trends driven by automation, AI, and new technologies. Skill gap studies are infrequent and lack a mechanism for real-time updates. Only 41% of ITI and 29% of polytechnic graduates are deemed employable[6]. The absence of a unified Labour Market Information System (LMIS) that integrates high-frequency datasets, such as GST, e-Shram, and Invest India, prevents evidence-driven planning. Sectors such as aerospace underscore this challenge, where academic outputs remain misaligned with high-end industrial demand. Gujarat's District Skill Coordinators model illustrates how localised labour market insights can improve planning and responsiveness.

3.3. Industry Co-ownership in Skilling: Despite multiple MoUs between industry and government, industry involvement in curriculum design, training delivery, and hiring remains limited. Apprenticeship programs have yet to reach critical mass.

3.4. Limited Integration between Skilling and Education: India has a unique opportunity to unlock the full potential of its youth by strengthening the integration between education and skilling. Building flexible, well-defined pathways between general education and vocational training can enhance career mobility, increase the appeal of vocational education, and promote lifelong learning. The National Education Policy (NEP) 2020 envisions such integration, and with focused efforts, institutions can adopt credit-based systems that enable smooth progression from certificate to diploma and degree levels. Advancing this alignment will empower learners with greater choice and mobility, and foster a more holistic, outcome-driven learning ecosystem.

3.5. Low Aspirational Value of Vocational Education: Vocational training is often viewed as a secondary option due to unclear progression pathways from certificates to diplomas/degrees and weak links to wages or career growth. Limited visibility of success stories, inadequate career counselling, and scarce recognition for skilled trainers reduce its appeal. The absence of short, stackable courses in areas like project management, product development, and small-business finance further hinders upward mobility and enterprise creation, dampening youth interest.

3.6. Trainer Shortage and Capacity Gaps: The quality and availability of skilled trainers are major bottlenecks. Many trainers lack formal industry experience or exposure to modern pedagogies and technology. The absence of a standardised skills practitioner framework and limited performance-linked incentives hinder the development of a dynamic and diverse training

[2] PLFS Data, 2022-23

[3] Government of India, Ministry of Education, 2021. *Reimagining Vocational Education and Skill Building* Concept Note prepared for Shikshak Parv on 17 September 2021.

[4] Mehrotra, S. & Sharma, H., 2024. The reality of Skill India Mission: Short courses, no employable skills and a lack of jobs. The Wire

[5] Government of India, Ministry of Education, 2021. *Reimagining Vocational Education and Skill Building* Concept Note prepared for Shikshak Parv on 17 September 2021.

[6] India Skills Report 2025 published by CII

workforce. Retired professionals and industry experts are also not adequately integrated into the ecosystem.

3.7. Access to quality skilling especially for marginalised communities: Marginalised groups, including SC/STs, women, PwDs, and people from remote areas, have limited access to skilling programs due to poor connectivity, physical isolation, and lack of supportive infrastructure. Centres in these regions often lack modern tools such as simulation labs, AR/VR devices, or even reliable internet, while persons with disabilities are further excluded due to inaccessible buildings and absence of assistive technologies. These factors create significant entry barriers, deepen the urban-rural skill divide, and reduce the overall effectiveness and inclusivity of the skilling system.

3.8. Gender Barriers and Low Female Participation: Women's participation in skill training is restricted due to digital exclusion, socio-cultural norms, disproportionate burden of unpaid care responsibilities**,** mobility constraints, lack of safe and inclusive infrastructure, and limited childcare support. Socio-cultural norms also limit career options for women. Gender-targeted initiatives have been proposed but are yet to achieve scale and impact.

3.9. Harmonization with Global Mobility Framework: India has a demographic edge and is positioned to fill global skill shortages. However, lack of mutual recognition of qualifications and limited language training results in low global placements. Though Skill India International Centres (SIICs) are being developed, greater institutional and G2G effort and support from Ministry of External Affairs is required to unlock international skilling opportunities at scale.

3.10. Fragmented Governance and Institutional Convergence: With over 20 Central Ministries involved in delivering skilling schemes, the system is highly fragmented. Coordination across central and state levels is limited, and data flow is often not smooth. A unified "Whole of Government" governance model is still in early stages of implementation.

3.11. Skilling needs in Agriculture and allied sector: Agriculture and allied sectors employ 43% of India's workforce but contribute only 18 percent to GDP[7], indicating under-employment and low productivity. With less than 10% of its 25 crore-strong workforce formally trained, there is acute need to 'formalize the informal'. Current training curriculum has limited exposure to emerging practices like precision farming, digital agriculture, agri-logistics, value chain management, soil-water management, drones, AI, IoT, climate-smart methods, etc. and industry linkages remain weak. Infrastructure in rural skilling centres remains inadequate and career pathways are unclear, especially for women, smallholders, and marginalised groups. Skilling must cover the entire agri-value chain, from cultivation and post-harvest management to food processing, livestock integration, and export compliance. Effective models will require convergence among MSDE, state agencies, and the 731 Krishi Vigyan Kendras (KVKs), complemented by blended learning and rigorous outcome tracking to create a future-ready agricultural workforce.

4. Way forward: Possible Solutions/ Issues for deliberations

4.1. Integrating vocational and mainstream education system to create a unified learning ecosystem: Although a policy framework exists to enable seamless mobility between mainstream and vocational education, its adoption and implementation remain limited. Promoting awareness among youth and engaging academic institutions is essential to ensure effective use of these pathways. Simultaneously, scaling up micro-credentials and expanding the use of the Academic

[7] Department of Agricultural Research & Education

Bank of Credits (ABC) are critical to building a flexible, learner-centric system that supports Multiple Entry and Multiple Exit options and lifelong learning.

4.2. Upgrade physical infrastructure and upskilling the trainer pool: To address rapid technological shifts and evolving shop floor needs, training infrastructure and trainer capabilities must be upgraded. The ITI enhancement programme with an investment of ₹60,000 Crore is being designed with an objective of initially upgrading 1,000 ITIs. A structured system for ongoing capacity building, certification, industry exposure, and performance-linked incentives is essential. Recognition and reward mechanisms will boost trainer motivation, retention, and instructional quality, strengthening overall skilling value chain. Periodic refresher courses and Training of Trainers (ToT) programs may be institutionalized to ensure continuous upskilling and reskilling of trainers across all sectors. Developing Master Trainers to expand grassroots-level skilling is equally important for all sectors, including agriculture, where KVKs can play a pivotal role in creating a pool of skilled trainers to scale agri-skilling efforts.

4.3. Enable State-Led Skilling Ecosystems and Innovations: States play a pivotal role in driving decentralised skilling innovations by aligning interventions with local economic strengths. Some states have built robust ecosystems with migration support, language training, and international employer linkages, while others hold untapped potential. A cluster-based approach—focusing on high-employment sectors within geographic or industrial clusters—can strengthen both skilling and apprenticeship delivery by directly linking training with demand. Embedding apprenticeships and job matching into local MSME ecosystems enhances workforce absorption. Special focus must be given to women, the Northeast, and aspirational districts through targeted initiatives, flexible delivery models, and mobility support. Empowered SSDMs and District Skill Committees, backed by sector-specific partnerships and a performance-linked incentive framework, are critical to enabling innovation, convergence, and replication across states.

4.4. Establishing CoEs to skill in futuristic sectors: Centres of Excellence (CoEs) should be established in emerging sectors such as AI, robotics, cybersecurity, renewable energy, biotech, advanced manufacturing, drones, semiconductors, aerospace, and green mobility. These innovation hubs will integrate advanced infrastructure, expert faculty, and industry-aligned curricula, while also supporting content and faculty development. Decentralised CoEs will reduce regional disparities, foster local innovation, and serve as hubs for high-end skilling, research, incubation, and policy experimentation.

4.5. Revising the Common Cost Norms: Skilling programmes currently operate under Common Cost Norms that were developed several years ago. As the sectoral landscape and job roles have evolved, existing norms are now misaligned with the requirements of new-age and emerging sectors, many of which demand substantial investments in advanced infrastructure and highly specialised trainers. As a result, these outdated cost structures act as a barrier to private sector participation and innovation in training delivery. There is, therefore, an urgent need to revisit and rationalise the cost norms to reflect current market realities and attract meaningful investment into high-growth, future-oriented skilling domains.

4.6. Introducing and scaling-up outcome-based financing models like Skill Impact Bond: Scaling quality skilling initiatives requires a significant boost in both public and private investments. To ensure sustainable financing and greater accountability, it is crucial to expand outcome-based funding models such as skill vouchers, skill bonds, and co-financing mechanisms. These instruments not only align incentives with measurable results but also encourage greater participation from industry and philanthropic partners, driving innovation, efficiency, and impact across the skilling ecosystem. Leveraging the learnings from first Skill Impact Bond (SIB), more such bonds can be launched covering short term training and entrepreneurship.

4.7. **Promote Market-Aligned and Modular Curriculum Development:** Curriculum development must be industry-academia led to align with emerging job roles and market demands. A dynamic system to assess workforce needs and skill gaps is essential. MSDE has engaged NCAER to standardise this process, which should be institutionalised for real-time demand-supply insights. Emphasis should be on customized courses, micro-credentials, and hybrid learning formats to support flexible, stackable, and lifelong learning pathways. This will keep skilling relevant, adaptive, and inclusive across sectors and employment stages.

4.8. **Promoting international mobility and strengthening Skill India International Centres (SIICs):** To promote international mobility and overseas employment, it will be critical to enhance the availability of international-standard training facilities, accredited trainers aligned with global qualification frameworks, and robust testing, assessment, and certification systems. Skilling programs must also incorporate international standards, including language and soft skills. Collaborations with international employers, diaspora networks, and accreditation bodies should be strengthened to tap into global labour demand. States have a pivotal role in this effort—while Kerala, Andhra Pradesh, Karnataka, and Tamil Nadu already have advanced ecosystems supporting global mobility, others like Uttar Pradesh, Bihar, Chhattisgarh, and the North Eastern States hold immense untapped potential for preparing youth for overseas employment. SIICs must be scaled up and strengthened to deliver internationally benchmarked training, with globally aligned curricula, recognized certification pathways, and active engagement with international recruiters and foreign governments.

4.9. **Partnership with international Assessment and Certification agencies**: Partnership with international Assessment and Certification agencies needs to be established to integrate global standards and benchmarks in skilling programs. This will provide globally recognized certificates to the youth and will enhance their employability for both domestic as well as international job market.

4.10. **Upgrade Traditional Sector and Agricultural Skilling through Local Body Engagement:** Empower ULBs, PRIs, and SHGs to implement skilling in traditional crafts, agriculture, and allied sectors through NSQF-aligned, vernacular training and market linkages. Launch agriculture-focused skilling covering precision farming, soil-water management, drones, organic farming, cold storage, and agri-supply chains. Successful models like FICCI's SSC-certified training for women in Northeast clusters (food processing, textiles, beauty) should be scaled. The Indian Council of Agricultural Research (ICAR), via KVKs, is already skilling rural youth and farmers; these efforts must be expanded through structured convergence. This will enhance the employability of rural youth, promote agri-entrepreneurship, and make KVKs central to India's rural skilling ecosystem. KVKs should also function as Incubation-cum-Skill Development Centres to promote rural entrepreneurship by fostering networks among FPOs and SHGs at the Gram Panchayat level, enabling unified branding and marketing of their agricultural and value-added products. Additionally, KVKs need to implement NSQF-compliant courses with flexibility in duration and content to suit different target groups. Further KVKs may develop modules aligned with the interests and aptitude of school students to build early awareness and engagement in agri-based livelihoods. Their domain-specific strengths should be identified and leveraged to promote select KVKs as Centres of Excellence, enabling them to serve as model hubs for specialised agri-skilling and innovation.

4.11. **Promote Whole-of-Government Support for Local Entrepreneurship:** There is a need to adopt a unified approach across central ministries, state departments, financial institutions, and incubation networks to support the entrepreneurial aspirations of skilled youth. This includes streamlined access to credit, mentorship programs, incubation support, market access, and compliance facilitation through common service platforms. Additionally, dedicated handholding support through mentorship, access to credit, business advisory services, and market linkages is

essential to ensure successful enterprise establishment and sustained growth. In this regard, dedicated units may be created within KVKs to provide mentorship, business advisory, and credit linkage support to assist trainees in setting up or scaling their enterprises.

4.12. Institutionalise Employer Co-ownership of Skilling and Promote Industry partnership in Course Design: Industry participation must span all stages: curriculum design, training, and assessments. Sector-specific industry councils at district/state levels should be incentivised via procurement preferences and tax benefits. Industry can contribute digital content to SIDH, deliver expert lectures, and support hybrid skilling through bootcamps and school sessions. Joint domain-based assessments by corporate and government, recognition of voluntary industry faculty, and digital campaigns can align skilling with market needs. A "Skill Inspector" model with certified auditors can enhance quality, compliance, and certification.

4.13. Recognise and Certify Informal and Prior Learning: Expand the scope of RPL to include informal work, gig economy skills and community-based training. Streamline onboarding of non-standard training providers into the NSQF system with simplified certification pathways.

4.14. Strengthen SIDH as a Foundational Public Infrastructure: SIDH should function as the unified digital backbone for skilling, supporting registration, certification, job matching, and monitoring. Like National Payments Corporation of India (NPCI) in payments, it can anchor a common skill taxonomy and integrate systems such as ABC, RPL, and open architecture, enabling public and private innovation. Inspired by Gujarat's federated F-SIDA model, SIDH should unify verified, real-time, and interoperable data across departments. It must also serve as a one-stop platform for demand-based skilling, facilitating industry consultations, leveraging AI to analyse job trends and feedback, validating course content, and enabling co-branded certifications recognised by both government and industry.

4.15. District-Led Skill Demand Planning: Institutionalise development of District Skill Development Plans through more than 750 District Skill Committees (DSCs) based on PM Gati Shakti data, industry inputs, investment plans, and migration trends. These plans shall flow into State and national level skill development plans aligning resource allocation under PMKVY and other schemes.

4.16. Drive Gender, Disability, and Social Inclusion: Create Inclusion Challenge Funds and support infrastructure (hostels, transport, accessible centres) to boost the participation of women, PwDs, and other marginalised groups. "Inclusion Facilitators" should be appointed at the block level to support enrolment and retention.

4.17. Promote Lifelong Skilling and Enabling Women Entrepreneurs through National Missions: Launch a "Learn for Life" mission targeting women returnees, gig workers, artisans, and ex-servicemen, embedding digital literacy, career guidance, and mobility services into skilling. Promote employability through short courses on project management, product development, supply chain, and entrepreneurship. Empower women entrepreneurs by integrating business planning, financial management, and digital literacy modules into skilling programs. Partner with NRLM, SRLMs, and mentor networks to provide financial and market linkages.

4.18. Enhance Job Linkages and Placement Support: Institutionalise district-level placement drives, integrated with National Career Services (NCS), e-Shram, and SIDH. Placement providers must be evaluated based on verifiable employment outcomes. Job fairs should be aligned to real-time labour market demand.

4.19. Technology and AI enabled assessment: Introduction of digital and AI based assessment tools shall enable scalability, consistency and accuracy in the assessment process. Further, such tools shall also enable simulations of work environment scenarios and will make assessments

more engaging. Courses which are more feasible to assess through digital tools shall be prioritized while other courses may continue with manual / hybrid mode of assessments.

4.20. Development of advanced skilling institutions in PPP mode: there is a need to encourage private sector to develop advanced skilling institutions in PPP mode. These institutions could be either green field institutions or upgradation of existing facilities. This would require various incentives for private sector like allowing CSR funds for this purpose, tax incentives, recognition in various forums etc.

4.21. Promote "CEO in a Box": Approach to enable entrepreneurship at scale is required to empower entrepreneurs operating at a small scale with readymade business solutions to sustain their business and scale it up. This will leverage local opportunities, enable local economy and will help in generating employment opportunities.

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शिक्षा मंत्रालय
MINISTRY OF
EDUCATION
सत्यमेव जयते

5th National Conference of Chief Secretaries on
"Human Capital for Viksit Bharat"

Concept Note for Sub-Theme 4
Higher Education: Knowledge Economy

Nodal Ministry/Department: Department for Higher Education, Government of India in collaboration with the Department of Agricultural Research and Education.

1. Introduction

The **5th National Conference of Chief Secretaries**, proposed for November 2025, is being convened at a pivotal moment in India's development journey. With the overarching theme, *"Human Capital for Viksit Bharat",* the Conference seeks **to strengthen Centre-State collaboration by identifying best practices and strategies for inclusive, sustainable development across regions**. One of its five pillars, "Higher Education: Knowledge Economy", is being led by the Department of Higher Education, Ministry of Education and the Department of Agricultural Research and Education.

Knowledge economy is not a new concept for India as it has always been the land of knowledge seekers and creators. From Aryabhata's mathematical innovations to Surya Siddhanta's astronomy and to the interdisciplinary learning embedded in Vedic traditions, education in India has historically integrated ethics, inquiry, and real-world application. Drawing from this legacy, the Government of India has continued to prioritize knowledge as a catalyst for national development through education reforms, research investments, and skill-building initiatives.

The National Education Policy (NEP) 2020 marks a major milestone in this journey, with its focus on flexible curricula, interdisciplinary learning, and integrated academic and skilling pathways. The theme of *"Higher Education: Knowledge Economy"* reflects this vision of building an innovation-led, future-ready economy by transforming India's higher education ecosystem. A knowledge economy thrives on research and innovation and skilled human capital, both of which are core attributes of higher education.

By aligning education, research, and industry requirements, India can unlock innovation, build future-ready skills, and accelerate inclusive, sustainable growth, paving the way for Viksit Bharat 2047.

The overarching aim of the *Higher Education: Knowledge Economy* pillar aims to transform India's higher education system as a key driver of national progress and global relevance. This includes: (1) Raising per capita income by leveraging research, innovation, and skilling, particularly in employment-intensive sectors like agriculture, (2) Preparing institutions and learners to thrive in a tech-driven, interconnected world and (3) Solving critical challenges through research-led innovation in areas such as climate change, health, agriculture and digital transformation.

These goals can be achieved by focusing on inter-linked strategic priorities such as preparing tech-ready human capital, promoting interdisciplinary learning, elevating State Public Universities (SPUs) to global standards, strengthening industry-academia collaboration, and the internationalization of education. Advancing these priorities will require robust and sustainable financing across the higher education landscape.

2. Current Situation

India is uniquely placed to become a global knowledge leader, **with over 65% of its population under the age of thirty-five** and a rapidly expanding higher education ecosystem. With more than **58,000 Higher Education Institutions (HEIs) catering to over 4.3 crore students**, these institutions are at the forefront for skilling the nation's youth. HEIs are not only shaping the workforce but are also driving innovation. Their role as both talent incubators and knowledge creators makes them central to India's knowledge economy.

To further catalyze this momentum, the Government of India has **established nine Research Parks**[i] at premier institutions and is **in process of setting up another thirteen**. To democratize research opportunities, the University Grants Commission (UGC) has issued guidelines on setting

up R&D cells in every HEI, with around **6,000 R&D Cells already been established**. Additionally, to foster a culture of research and innovation in the country, aligned with the Lab to Market philosophy, initiatives like the Anusandhan National Research Foundation (ANRF)[ii] and the Prime Minister's Research Fellowship (PMRF)[iii] reflect India's growing commitment to strengthening its research ecosystem. ANRF aims to fund high-quality, interdisciplinary research across institutions and foster a culture of discovery and innovation. The PMRF will award over 10,000 fellowships over the next five years to nurture India's brightest research talent and future thought leaders. Together, these efforts are building a strong foundation for a vibrant, future-ready knowledge economy.

Additionally, the **establishment of over 15,000 innovation councils**[iv] across HEIs is fostering a culture of entrepreneurship, applied research, and hands-on skill development, equipping students to solve real-world challenges. The flagship One Nation, One Subscription (ONOS)[v] scheme is democratizing access to global academic resources. With a continued focus on Research and Development, HEIs are steadily emerging as the backbone of India's research and innovation-led growth.

Complementing the growth in higher education, India has also focused on nurturing innovation from the foundational level. Over **10,000 Atal Tinkering Labs have been established** across 722 districts in the country, fostering a spirit of curiosity and creativity among school students. This dual emphasis on strengthening both school-level innovation ecosystems and higher education institutions lays the foundation for India becoming a knowledge economy.

In parallel, India is deepening its global academic footprint. Internationalization efforts such as the Study in India programme[vi], joint and dual degree offerings, and the entry of top global universities like Deakin University in GIFT City, Gujarat are positioning India as a preferred destination for learners and collaborators worldwide. Outbound engagement is also growing through international campuses of Indian institutions (e.g., IIT Madras in Zanzibar) and cross-border research partnerships. These developments are enhancing quality, promoting two-way mobility, and reinforcing India's ambition to become a global knowledge hub.

As the economy changes, higher education needs to align more closely with the skills needed in the workforce. Currently, 53% of graduates are employed in roles that do not adequately match their skill levels (Economic Survey 2024-25)[vii], pointing to a significant opportunity for better alignment between academic pathways and evolving industry needs. Sectors such as Electric Vehicle (EV), digital commerce, green energy, and advanced manufacturing are expanding rapidly, and institutions are actively embedding industry exposure into academic frameworks to match this growth.

The National Education Policy (NEP) 2020 has also set the tone for stronger industry-academia collaboration. To this effect, the UGC guidelines on Sustainable and Vibrant University-Industry Linkage System[viii] encourage HEIs to establish long-term partnerships with industry for collaborative research, internships, curriculum co-design, and placements. The All India Council for Technical Education (AICTE)'s Internship Policy[ix] has made internships mandatory for all technical education students, enabling industry exposure for them. Moreover, the guidelines on Apprenticeship Embedded Degree Programme[x] promote the integration of certified apprenticeships within degree programmes, ensuring learners gain industry-recognized practical experience alongside academic learning. These developments are further supported by a growing shift toward interdisciplinary learning, which encourages students to engage with emerging domains through a blend of technical, ethical, and contextual lenses, key for industries operating at the intersection of technology and society.

In the agriculture sector, the National Agricultural Higher Education Project (NAHEP), initiated by the Indian Council of Agricultural Research (ICAR) in 2019, has created a scalable model for

structured engagement in agricultural universities. These efforts are fostering internships, joint research, and innovation closely aligned with national priorities-making both HEIs and industry critical partners in India's socio-economic transformation. While greater public-private collaboration is still needed to match global R&D leaders, India's cost-effective innovation model holds strong promise, reflected in its 3rd rank globally in science and engineering publications[xi], 6th in patent applications[xii], and 39th position on the 2024 Global Innovation Index[xiii].

To unlock this potential and sustain innovation-led growth, India is actively preparing its human resources to thrive in a rapidly evolving, technology-driven world. National missions such as Skill India, IndiaAI, the National Quantum Mission, and sector-specific programmes like Semicon India and the BioTech and Deep Health Missions are equipping students with cutting-edge competencies. Agricultural HEIs are evolving in parallel, with ICAR and Centre for Advanced Agricultural Science and Technology (CAAST) integrating AI, robotics, and precision farming across 16 universities, embedding innovation directly into rural and food systems.

As this transformation accelerates, it is crucial to ensure that all HEIs across the country are equally developed and contribute optimally to nation building. This vision requires focused efforts that percolate to institutions at every level. SPUs, which serve over 80% of students in the higher education system, play a pivotal role in this process. While many SPUs have made measurable progress in access and research visibility, there is a need to strengthen these institutions through sustainable financing models and long-term institutional support. Agricultural SPUs are also uniquely positioned to contribute to food security, climate resilience, and rural innovation. With sustained investments in quality, governance, and global engagement, SPUs can emerge as inclusive engines of growth and vital pillars of India's knowledge-driven future.

3. Challenges and Issues to be resolved

While India's higher education system has made remarkable progress in expanding access, fostering innovation, and deepening global engagement, there are areas requiring to be further strengthened. Bridging systemic gaps across institutions, curricula, industry linkages, and governance will be essential to unlock the higher education ecosystem's full potential of fuelling a knowledge economy.

A. Preparing a Tech-Ready Human Resource

As India positions itself as a global technology and innovation hub, its higher education system must rapidly adapt to evolving skill demands, emerging technologies, and workforce expectations. Addressing the following challenges is essential to building a tech-ready, future-proof talent pipeline:

i. **Meeting the Rising Demand for Skilled AI Professionals:** AI and tech roles are outpacing training systems. As per the World Economic Forum's Future of Jobs Report 2025, 39% of key job-market skills are expected to change by 2030, with technological skills (AI, big data, cybersecurity) growing fastest highlighting that AI proficiency makes individuals more adaptable.[xiv]
ii. **Advancing Faculty Capacity in Frontier Technologies:** Faculty upskilling in frontier technologies, like AI, robotics, and quantum tech is essential. Upgrading labs and digital infrastructure will boost research and global skill readiness.
iii. **Adapting to Rapidly Changing Skill Requirements:** Sectors like EVs and carbon markets require interdisciplinary skills. Curricula need to evolve continuously to keep pace with technological shifts.
iv. **Enabling Lifelong Learning and Skills Recognition:** Lifelong learning needs formal pathways and skill-based recognition. Linking job growth to skill proficiency, not just tenure, will foster a future-ready workforce.

v. **Bridging the Gender Gap in Tech and Science Technology Engineering and Mathematics (STEM) Fields:** Despite growing opportunities, women remain underrepresented in emerging tech domains such as AI, robotics, and engineering. Enhancing participation will require targeted efforts in mentorship, scholarships, and workplace inclusion.

As technical specialization deepens, the interface between academia and industry is essential.

B. Strengthening Industry-Academy Collaboration

To better integrate academic output and industry needs, India's higher education system must strengthen its engagement mechanisms, align research with application, and build the institutional capacity required for sustained, outcome-oriented collaboration:

i. **Standard Engagement Templates:** Industry-academia collaboration requires to be promoted at every level in HEIs. A standard template will facilitate the institutions that are lagging in this endeavour.
ii. **Faculty Capacity and Curriculum Delivery:** After the introduction of new curricula and interdisciplinary learning, there is a need for capacity building to improve pedagogy, enhance practical tools, and create awareness about new knowledge sets for both new and existing faculty members.
iii. **Funding and Financial Architecture:** A sustainable financial model is key to ensure that core activities such as updating curriculum, training faculty, necessary infrastructure and engagement with industry partners happen consistently.
iv. **Technology Readiness Level (TRL):** Academia often focuses on early-stage research (up to TRL 4), while industry seeks near-ready solutions (TRL 8 and above). This TRL gap, which is discovery vs. application, hinders collaboration, with many Indian academic projects ending at the proof-of-concept stage, falling short of industry needs for tested, market-ready innovations.
v. **Commercialization of Research Initiatives:** Despite increasing research output, many academic innovations fall short of becoming viable market solutions. Key gaps include the lack of structured mentorship to help researchers refine ideas, understand user needs, and build practical solutions. There is also limited exposure to concepts like scalable models of prototypes/innovations, market size, and fundraising strategies. Further, many HEIs lack the networks or support systems needed to connect innovation with societal or industry needs.

Fostering interdisciplinary thinking and practice can help bridge the lab-to-market gap more effectively.

C. Promoting Interdisciplinary Learning

Enabling interdisciplinary learning requires a systemic shift in how institutions design curricula, assess outcomes, and structure internal collaboration. Moving beyond traditional silos will depend on building flexible ecosystems, empowered faculty, and forward-looking academic governance:

i. **Curriculum Design for Integrated Learning Pathways:** Traditional curriculum structures, though rigorous, often follow rigid disciplinary silos that limit holistic exploration. Introducing modular, theme-based, and project-oriented curricula can empower students to traverse domains and address real-world challenges.
ii. **Need to build enabling infrastructure for Interdisciplinary Ecosystems:** Delivering quality interdisciplinary education requires more than curriculum reform, it needs flexible learning spaces like labs, studios, research infrastructure, and digital platforms.

iii. **Need to modernize Assessment to Reflect 21st-Century Learning Outcomes:** Assessment mechanisms should evolve alongside pedagogy. Current models do not fully capture interdisciplinary learning outcomes.

iv. **Overcoming Departmental Silos to Enable Intra-Institutional Collaboration:** A major barrier to effective interdisciplinary education is the compartmentalization of academic departments within institutions. Most departments/faculties of HEIs continue to operate in isolation that restrict the optimal use of resources for fostering collaboration and integrating cross-disciplinary learning and research.

v. **Empowering Faculty and Institutions for Systemic Transformation:** Faculty and institutional leadership are central to the success of interdisciplinary education. However, many lack structured opportunities to build capacity in cross-disciplinary pedagogy and collaborative teaching.

Internationalization efforts can reinforce these reforms by embedding global perspectives into teaching and learning.

D. Advancing the Internationalization of Education

India's ambition to become a global education hub is gaining momentum, but realising this vision requires addressing persistent barriers related to perception, policy execution, infrastructure, and student experience-both within institutions and across systems:

i. **Branding and Perception:** India has transformed its higher education infrastructure drastically in the last decade. However, there needs to be greater focus on enhancing branding and outreach. Despite its rich academic heritage and diverse culture, perceptions about limited infrastructure and quality concerns persist among potential students and parents abroad. Improving this brand will not only enhance global visibility but also contribute to better performance in international rankings.

ii. **Cultural Adaptation and Support Infrastructure:** International students and faculty sometimes encounter challenges in adjusting to cultural norms, language differences, and administrative processes that differ from their home countries.

iii. **Internationalization of Indian Knowledge Systems (IKS):** India has a special opportunity to share its rich and ancient knowledge, from areas like philosophy, maths, medicine, yoga, and the environment, with the world. By integrating IKS in regular courses and research in a way that connects with today's global context, India can offer something unique to international students and HEIs. This can help promote cultural exchange, build stronger academic ties, and increase India's soft power around the world.

iv. **Financial Considerations and Access:** Internationalization requires adequate financial resources to support infrastructure, faculty development, scholarships, and international collaborations.

v. **Admission Processes:** International students often face challenges navigating India's admission system, especially regarding competitive exams, as they are primarily designed for Indian education system, reflecting curricula and standards that differ from the learning outcome of foreign applicants.

vi. **Global Research Presence:** There is a need to invest in robust research infrastructure, support faculty exchange, and take part in more international collaborations. This will help raise India's visibility in global research and deepen its role in solving shared challenges.

vii. **Regulatory Coordination and Implementation:** India has implemented policies to promote internationalization, including opening of foreign university campuses, joint degree programs, twinning etc. To further streamline procedural challenges, tailored regulations and active state government involvement in logistics, transport, and administration are essential for seamless academic mobility and collaboration.

While the above challenges focus on global visibility and collaboration, the imperative to elevate quality and relevance is even more urgent in State Public Universities, which educate over 80% of India's higher education students. Ensuring that learners in these 500+ institutions receive globally benchmarked education is key to achieving nationwide impact and inclusive growth.

E. Elevating State Public Universities (SPUs) to global standards

As the backbone of India's public higher education system, SPUs need to overcome deep-rooted structural and capacity constraints. Unlocking their potential requires coordinated efforts in faculty recruitment, infrastructure modernization, governance reform, and stronger links with industry and global partners:

i. **Faculty Recruitment and Development:** There exists a tremendous opportunity to strengthen faculty capacity through timely recruitment and talent development initiatives.
ii. **Infrastructure Improvement:** There is scope for modernizing infrastructure and enhancing research facilities, through upgradation of classrooms, laboratories, and digital tools.
iii. **Research and Global Collaboration:** There is a felt need to upgrade institutional frameworks to support cross-disciplinary collaboration and global engagement. Strengthening research facilities and fostering national and international partnerships through joint programmes, exchanges, and academic networks can enhance innovation, visibility, and relevance in a global context.
iv. **Sustainable Funding and Financing Models:** Over 85% of SPU budgets are directed towards salaries and pension, limiting innovation and infrastructure growth. Diversifying revenue beyond government grants and streamlining research funding access can enhance financial resilience.
v. **Strengthening Institutional Leadership and Governance:** Strong and responsive leadership is key to unlocking the full potential of HEIs. Clearer governance structures, streamlined decision-making, and robust internal quality systems can make academic processes more efficient and outcome-focused. Providing greater autonomy and fostering integrated leadership, especially in specialised institutions like agricultural universities, can support long-term planning, innovation, and academic excellence.
vi. **Employability with Industry Collaboration:** With less than 25% of SPUs having active industry ties, expanding partnerships can enhance curriculum relevance through co-design, internships, and faculty exchanges.

While India's higher education system holds immense promise, unlocking its full potential has scope of improvement in capacity and execution. From preparing a tech-ready workforce to elevating SPUs, the challenges span curriculum reform, faculty development, industry collaboration, global integration, and institutional governance. These are not isolated issues, but interconnected levers essential to transforming higher education into a true engine of innovation, inclusion, and global relevance.

As we move forward, addressing these systemic challenges through targeted, state-led interventions and collaborative frameworks will be vital. The following section outlines key areas of deliberation and possible pathways to unlock the full potential of higher education in driving India's knowledge economy.

4. Possible Solutions/Key Issues for Deliberation

The stakeholder consultations may deliberate on the following points to find solutions for the above-mentioned challenges:

i. Development of a Template/Framework for Industry-Academia Partnerships

a. Formulating a national/state-level template to guide partnerships between industry and academia, involving governance models, accountability, and performance indicators.
b. Ensuring adaptability to local industrial ecosystems and technological trends.
c. Conducting a thorough pre-assessment, clear projections, and a well-defined timeline with expected outcomes.
d. Opening of industry-led centres or departments within HEIs, where collaboration with industries can facilitate development and delivery of market relevant courses.

ii. Driving Research Excellence and Academic Innovation

a. Developing Centres of Excellence (CoEs) and Research and Innovation parks within SPU clusters to lead global research collaborations and publication in top-tier journals.
b. Building dedicated tech and AI Skill centres focused on AI, ML, data science, and other frontier technologies.
c. Introducing targeted fellowships and research grants for students to pursue multidisciplinary research aimed at solving complex, real-world problems.
d. Launching global talent return programmes to attract Indian researchers and academicians from abroad through fellowships and visiting appointments.

iii. Creating Translational Research Zones (TRZs) and State Innovation Anchors

a. Bridging the Technology Readiness Level (TRL) gap by enabling SPUs to collaborate with industry and state innovation councils in developing shared Technology Readiness Zones (TRZs).
b. Establishing spaces for testing, validating, and piloting innovations beyond proof-of-concept (TRL 5-7), while de-risking technologies, attracting co-investment, and enabling joint IP ownership for scalable commercialization.

iv. Formulating a Strategic Roadmap for Interdisciplinary Education at every level

a. Deliberating on the development of a comprehensive roadmap to institutionalize interdisciplinary education across HEIs, in alignment with the NEP 2020.
b. Establishing interdisciplinary "Innovation Sandboxes" within universities to solve real-world challenges.
c. Catalyzing Interdisciplinary Tech-Innovation Ecosystems in State Universities.
d. Initiating structured consultations with universities, faculty bodies, industry experts, and regulatory authorities to co-create interdisciplinary programme frameworks tailored to national priorities and regional requirements.

v. Agri-Tech Skilling and Reforming Agricultural Universities in States

a. Enabling Agricultural Universities (AUs) to take the lead in new areas like climate-smart farming, and precision agriculture.
b. AUs can partner with industries to develop training models that are rooted in local needs.

vi. **Creating Systems to Track Emerging Job Trends and Offering Reskilling and Upskilling Programs for Working Professionals**

a. Enabling HEIs to act as 'skill observatories', collecting data on changing job trends and helping governments and industries adjust training programs accordingly.

vii. **Developing a Single Window Database for Agriculture-Industry Linkages**

a. Creating a centralised database to better connect industries and MSMEs in the agricultural and allied sectors.
b. Integrating information on skill needs and qualification packs for job roles to facilitate scalable academia-industry collaboration, and leveraging this platform to streamline communication, and match talent demand with supply.

viii. **Building World-Class Governance and Leadership in SPUs**

a. Formulating and adopting State-specific Higher Education Vision @2047 that aligns with national education policies and schemes in ways that match contextual priorities on the ground.

ix. **Sustainable financial models for SPUs**

a. Establishing State Higher Education Finance Agencies (State HEFAs) to provide competitive financing for world-class infrastructure and labs in SPUs.
b. Institutionalizing revenue diversification through industry-relevant self-financed programmes, strategic alumni contributions, etc.
c. Creating policy enablers to attract CSR funding and exempt SPU research activities from commercial taxation and utility tariffs.
d. Monitoring outcome metrics such as number of interdisciplinary degrees launched, percentage increase in SPU research citations, number of joint patents filed, international student enrolment etc.

x. **Customizing Admission Processes for international students**

a. Developing alternative admission pathways for international students, such as tailored entrance criteria or bridging programmes.
b. Strengthening institutional support through Offices for International Affairs at every HEI to provide pre-arrival guidance, onboarding, and ongoing assistance.

xi. **Enhancing Global Branding of Indian Education**

a. Promoting India as a preferred study destination through coordinated branding efforts, alumni networks, and showcasing the diversity and affordability of academic offerings.
b. Deliberating on building a unified Study in India brand with digital platforms, country-specific outreach strategies, and collaboration with embassies.

xii. **Promoting Global Higher Education Corridors (GHEC)**

a. Exploring the development of integrated education zones where industry bodies, research parks, and campuses of foreign HEIs can co-exist and collaborate.
b. Deliberating on mechanisms for land allocation, shared governance models, and incentives for participation.
c. Discussing lab-to-market pathways, incubation infrastructure, and replicable pilot models at state or regional levels.

It is important to mention that to address the challenges of the education ecosystem, several initiatives have been undertaken by the Government of India. These include NEP 2020, NCrF, regulatory provisions issued by UGC and AICTE, schemes like SWAYAM, SWAYAM+, KAPILA, NATS, ONOS, PMRF, SPARC, GIAN etc., and establishing institutional support like

AI Centres of Excellence (CoE), Anusandhan National Research Foundation (ANRF), Research and Innovation Parks, etc. Further, the State Governments have also taken many initiatives in this direction, including those aimed at creating a technology-ready workforce and fostering stronger Industry-Academia linkages. Accordingly, the deliberations and suggestions should factor in the existing policies and interventions while also identifying new interventions that may be undertaken in alignment with the existing national policies and state-level initiatives. Establishing State Implementation Task Forces can further play a key role to ensure coordinated execution, effective monitoring, and alignment of emerging interventions with both national and state-level education priorities. The same maybe explored during deliberations.

5. Way Forward

To strengthen India's knowledge economy, a synergic effort is required with centre and states coming together to build a future-ready higher education ecosystem. This includes establishing AI Skill Centres, Centres of Excellence, and deep-tech hubs, while scaling faculty development and reskilling programmes through robust industry-academia partnerships. Strengthening SPUs as regional innovation anchors through interdisciplinary curriculum, skilling integration, and translational research zones, could align learning with real-world challenges and emerging job trends.

Institutional capacity needs to be enhanced through sustainable financing models and standardized collaboration frameworks. Agricultural universities need to be modernized and aligned with global benchmarks to lead in agri-tech and food security. Further, streamlining admissions for international students, and strengthening India's global education brand could boost international collaboration and mobility.

These efforts will position states to drive world-ready talent, research excellence and innovation-led growth through higher education-advancing the vision of Human Capital for Viksit Bharat.

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Endnotes

[i] Dedicated facilities set up at leading institutions like IITs and IISc to promote R&D, industry collaboration, and startup incubation through shared infrastructure and co-location with corporate partners.
[ii] An apex research body operating under the Department of Science and Technology (DST), Government of India, to provide high-level strategic direction for research, innovation, and entrepreneurship across natural sciences, engineering, environmental science, health, agriculture, and social sciences, in line with NEP 2020.
[iii] Supports exceptional PhD scholars in science and engineering with fellowships and research grants to drive cutting-edge innovation.
[iv] A unit in higher education institutions that promotes innovation and entrepreneurship through support and collaboration.
[v] Provides nationwide access to high-impact international research journals and articles, empowering students, faculty, and researchers across publicly funded institutions to advance knowledge, innovation, and self-reliance
[vi] A Government of India initiative that aims to attract international students by showcasing India's academic strengths, cultural diversity, and affordable, high-quality education.
[vii] https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf
[viii] https://www.ugc.gov.in/pdfnews/4915310_Sustainable-and-Vibrant-University-Industry-Linkage-System.pdf
[ix] https://aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf
[x] https://www.aicte-india.org/sites/default/files/Final%20Draft%20guidelines%20TE-AEDP.pdf
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[xiv] https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf

HUMAN CAPITAL FOR VIKSIT BHARAT

Concept Note for Sub Theme 5 –

Sports & Extracurricular: Beyond Classrooms

Fifth National Conference of Chief Secretaries

Nodal Ministry/Department: Ministry of Youth Affairs and Sports

TABLE OF CONTENTS

1. Introduction

India is on the cusp of a historic transformation as it marches towards the goal of Viksit Bharat (Developed India) by 2047. With over 65% of its population below the age of 35, India's demographic dividend offers a unique opportunity to position itself as a global leader. The Chief Secretaries Conference 2025, themed "Human Capital for Viksit Bharat," is convened to deliberate and strategize on harnessing this demographic potential, especially in the context of India's aspirations to host the Olympics 2036 and Commonwealth Games 2030.

The Ministry of Youth Affairs and Sports recognizes that building robust human capital requires a holistic approach not only for sports excellence but for developing an overall sports culture integrating education, health, skills, civic engagement, global exposure, and world-class infrastructure. This concept note outlines the four sub-themes that will guide the conference deliberations:

- Modernizing Infrastructure
- Promoting FIT India
- Volunteerism for Nation Building
- Unlocking Talent for International Engagement

2. Context

India's current sports and wellness ecosystem is steadily evolving, driven by flagship initiatives like the Khelo India Scheme and the Fit India Movement. Multiple sports infrastructure projects have been sanctioned, along with the establishment of Khelo India Centres, State Centres of Excellence, and Accredited Academies to promote grassroots participation and athlete development. Fitness awareness is growing through nationwide campaigns, school-based programs, and digital tools like the Fit India Mobile App. Volunteerism is being actively promoted to instill civic responsibility and community participation among youth through platforms like MY Bharat. Simultaneously, focused efforts are being made to unlock talent for international engagement through the International Youth Exchange Programme (IYEP), providing the youth with valuable global exposure by facilitating cultural, educational, and developmental exchanges with partner countries.

Despite its proven benefits, sports and fitness remains an underutilized investment avenue, even though every $1 invested in sports can yield $3–$124 in social returns (UNESCO, 2023). Integrating sports and extracurricular activities into the core of school education is vital to unlocking India's demographic potential and nurturing well-rounded individuals from an early age. Age-appropriate sports, fitness, and group activities from early childhood (3 years and above) can be introduced through playful learning, school-based physical education, and community engagement to build foundational motor skills, social behavior, and lifelong interest in active lifestyles. A strong foundation in physical activity and creative expression during early childhood and schooling not only enhances cognitive development but also instills discipline, teamwork, and resilience. Embedding these elements into the curriculum, as envisioned in the NEP 2020, bridges the gap between academic learning and life skills, creating a holistic educational experience that caters to diverse talents and aspirations. This shift will enable schools to act as incubators of potential, shaping youth who are physically, emotionally, and intellectually prepared for advanced education and the future workforce.

To fully harness this potential, strong collaboration is required not only between States/UTs and Central Government but also among key Government Departments such as Health,

Education, and Urban Affairs. The first step is modernizing infrastructure to ensure safe, inclusive, and accessible spaces that promote participation in sports and extracurricular activities. In parallel, promoting the FIT India Movement will embed fitness and wellness into everyday life, cultivating healthy habits from an early age. Institutionalizing volunteerism for nation building is equally crucial to foster civic responsibility, leadership, and a sense of community among the youth. Lastly, by unlocking talent for international engagement through structured talent scouting, skilling pathways, and global exposure, India can shape a generation of youth that not only contributes meaningfully at home but also represents India confidently on the world stage.

3. Modernizing Infrastructure:

Introduction

The modernization of sports infrastructure aims to enhance India's sports culture by creating inclusive, accessible, and high-quality play spaces for all. By upgrading existing facilities and developing modern sports and fitness complexes across the country, the initiative reinforces the idea that every child must play and sports must be for playing and not always winning, as a fundamental aspect of youth development. It focuses on ensuring that individuals from all sections of society have access to safe, well-equipped environments that encourage sports culture, active lifestyles, nurture potential, and promote widespread participation in sports as an integral part of daily life.

Current Situation

India has made significant strides in the development of sports infrastructure over the past decade, largely driven by initiatives like the Khelo India Scheme. As part of the mission to revive the sports culture at the grassroots level:

- 327 Sports Infrastructure projects have been sanctioned across the country, under the component ‘Creation and Up-gradation of Sports Infrastructure’ of the Khelo India Scheme.
- 1048 Khelo India Centres and thirty-four Khelo India State Centre of Excellence have been notified across the nation.
- 306 academies have been accredited under the Khelo India Scheme.

Challenges and Issues to be resolved

Despite the policy push, several challenges persist in the modernization of sports infrastructure.

- There is a significant urban-rural divide in terms of facility availability and quality. Many rural districts lack basic sports infrastructure or have facilities in a state of disrepair.
- Issues of land acquisition, bureaucratic delays, and lack of coordination between central and state agencies hinder timely execution.
- Financial constraints and underutilization of allocated funds due to procedural inefficiencies have slowed progress.
- Maintenance and management of infrastructure remain weak due to lack of trained personnel and sustainable funding models. There is inadequate integration of technology and data systems for monitoring and evaluating infrastructure effectiveness and usage.
- The existing sports infrastructure is primarily geared towards competitive sports, lacking inclusivity and failing to promote fitness and mass participation at the community level.

- Most sports infrastructure under schools and municipal corporations remains underutilized, limiting community access and overall impact on public fitness.

Possible Solutions/ Issues for deliberation

To overcome these challenges, a multi-pronged and collaborative strategy is required.

- Funding and resource allocation should be equitable and need-based, ensuring balanced development of sports infrastructure across regions.
- Public-private partnerships (PPPs) can be leveraged to bring in investment, technical expertise, and efficient management practices.
- Repurpose underutilized spaces into open gyms, walking tracks, and fitness zones. Promote pedestrian and cycle-friendly infrastructure through dedicated lanes and green corridors.
- Involving local communities and Panchayati Raj Institutions can ensure better ownership and upkeep of infrastructure.
- Capacity-building programs for sports administrators, coaches, and maintenance staff will help ensure the long-term sustainability of facilities.

Way Forward

- Urban planning in cities and towns should integrate inclusive, accessible, and eco-friendly sports and fitness infrastructure.
- Promote modular and mobile sports infrastructure in rural areas such as open gyms, portable sports kits, and multi-purpose play areas to overcome space, resource, and accessibility constraint.
- Collaboration with MoHUA and its scheme to develop sports friendly infrastructure such as parks, cycling tracks, and open gyms in urban areas, and ensure every village has at least one playground for equitable access to fitness facilities.
- Sports and fitness infrastructure should be planned and constructed with the principle that every child must have the opportunity to play, focusing on participation and enjoyment rather than just winning, and ensuring universal access for all age groups and communities.
- Real time monitoring to ensure transparency, timely execution, and accountability in infrastructure projects.
- Design inclusive sports and wellness infrastructure that encourages participation across all age groups and ensures accessibility for women, persons with disabilities, and marginalized communities, with the core principle that every child must play and sports must be for enjoyment, camaraderie, and physical fitness, and not always winning.

4. Promoting FIT India:

Introduction

The Fit India Movement, launched by the Government of India, is a national initiative that urges people to embrace healthier and more active lifestyles. Reinforcing Prime Minister Narendra Modi's message that "Fitness is not just a word but a necessary condition for a healthy and prosperous life," the campaign highlights that "Fitness is easy, fun, and free." It aims to combat rising cases of obesity and lifestyle-related diseases by promoting regular physical activity, nutritious eating, and mental well-being. Acknowledging the rising challenges of stress, anxiety, and excessive screen time, the movement equally prioritizes mental well-being through practices like mindfulness, yoga, and digital detox initiative. Through schools, workplaces, and community engagement, Fit India is building a culture of preventive health and long-term wellness across the nation.

Current Situation

The Fit India Movement has gained significant momentum across the country, engaging citizens through a variety of initiatives and platforms, reflecting widespread public engagement.

- Activities like Fit India Quiz and Fit India Week are annually held to create awareness about fitness in schools and colleges. Further, Sundays on Cycle have attracted over 4,00,000 citizens across 7,500+ locations, encouraging active lifestyles at the community level, and Fit India Carnival, first of its kind initiative has been introduced to make fitness fun, easy and free to public. A Fit India Star Rating System for schools, colleges, and universities has been introduced.
- Fit India actively commemorates National Sports Day, International Yoga Day, and other significant occasions in collaboration with schools, colleges, and SAI Centres to promote the concept of holistic fitness.
- The Fit India Mobile App (FIMA) has been downloaded by over 10,00,000 users, providing digital support for fitness tracking and motivation.
- Fit India allocates budget for fitness infrastructure and awareness programs.
- Fit India leverages mass media, social media, and the Fit India mobile app to encourage fitness tracking and engagement, making it a Jan Andolan.
- National fitness guidelines (benchmarked by age, gender, occupation) are being developed and a National Fit India Framework is being designed to integrate sectors such as health, education, and sports.

Challenges and Issues to be resolved

Despite its growing popularity, the Fit India Movement faces several key challenges.

- Significant urban-rural divide in awareness and participation, with rural and remote areas often lacking access to fitness resources or events.
- Sustained individual motivation remains a barrier, as initial enthusiasm may wane without continuous community engagement or incentives. Additionally, schools and institutions in its current curriculum, may struggle with time, space, and budget constraints that limit participation in fitness programs.
- Technological access also varies, preventing uniform use of tools like the Fit India Mobile App.
- Limited coordination between government departments, schools, local authorities, and influencers can hinder the efficient execution of initiatives.

Possible Solutions/ Issues for deliberation

To address these challenges, a targeted and inclusive strategy is essential.

- Consider nominating Nodal Officers under the Chief Secretary/Principal Secretary (Sports) to implement MoYAS programs and reward 3/5-Star certified institutions.
- Implement a nationwide, theme-based weekly engagement model combining fitness, mental health, cleanliness, digital detox, nutrition, and community bonding to embed holistic wellness into daily lifestyles across age groups and regions, while also instilling values like sharing, empathy, and social responsibility in children.
- Foster inter-departmental collaboration by integrating Fit India into school curricula and health programs through coordinated efforts across health, education, sports, rural development, and women & child welfare departments, in line with National Education Policy (NEP) 2020.
- Promote a holistic sports culture that encourages participation not only for competitive excellence but also for enjoyment, fitness, and overall well-being, by

integrating sports into daily life through schools, community programs, and public awareness initiatives.

- Promote Fit India certifications in schools, mandate fitness and yoga sessions, conduct inter-school challenges, engage Parent Teacher Associations (PTAs), and leverage NSS/NCC units in colleges to lead community fitness drives under Unnat Bharat Abhiyan.
- Drive a Jan Andolan by engaging fitness icons, leveraging mass and digital media, enhancing the Fit India App, deploying mobile fitness vans in rural areas, and promoting fitness through local festivals and events.
- Bridge the urban-rural fitness divide by developing Rural Fitness Clusters using existing infrastructure and schemes, incentivizing rural internships for fitness coaches, and supporting local innovations like folk-dance-based fitness programs and community-led celebrations.
- Localize guidelines by translating fitness content into regional languages and addressing state-specific issues like malnutrition in tribal areas and urban obesity.
- Empower local bodies through Fit District/Village programs, link with flagship schemes Swachh Bharat, Poshan Abhiyaan etc, and mobilize ASHAs, Anganwadi workers, and community leaders as fitness ambassadors.
- Engage in grassroots outreach, offer incentives to clubs, promote the Fit India Workplace Certification, utilize CSR funds to develop fitness infrastructure, and collaborate with wellness start-ups to boost awareness

Way Forward

The way forward for the Fit India Movement lies in deepening its integration into everyday life and institutional frameworks.

- Infrastructure like parks, cycling tracks, and community gyms should be expanded, particularly in under-served areas.
- Technology should be leveraged not just for tracking but also for personalized guidance, community challenges, and behavioural nudges.
- Annual Fit India audits and recognition for best-performing institutions can motivate sustained participation.
- Encourage multi-sport participation until age 14 to ensure holistic physical, cognitive, and emotional development, before transitioning to specialized training based on individual aptitude and interest.
- Promote and incentivize corporates and private entities to support widespread citizen engagement integrating fitness into daily routines through community programs such as marathons and events like Raahgiri, local festivals, digital campaigns, and partnerships with influencers, with regular assessments and feedback loops.
- Introduce incentives such as fitness-linked academic credits, workplace rewards, and public recognition to encourage sustained behavioural change.
- Encourage schools and workplaces to adopt low-cost, flexible fitness models like short activity breaks, open gyms, and yoga sessions without increasing their operational burden.
- Make fitness a mandatory and assessable component of the school curriculum in alignment with NEP 2020, promoting participation in multi-sport or fitness activities from an early age.
- Maximize the use of existing infrastructure such as gyms and wellness centres in schools, colleges, government offices, and corporates by making them hubs for Fit India activities beyond academic and work hours.

5. Volunteerism for Nation Building

Introduction

Volunteerism is a catalyst for civic engagement and social innovation. Mobilizing India's youth for volunteer activities can address developmental challenges, foster social cohesion, and nurture future leaders. India is continuously growing and marching towards Viksit Bharat @2047 and the youth are in centre of this journey of nation building. To revolutionize and implement the ideas through new age volunteerism, Prime Minister launched 'Mera Yuva Bharat' (**MY Bharat**) platform for the youth of the country on 31 October 2023.

Current Situation

To optimally tap constructive and creative energies of the youth, the Department of the Youth Affairs pursues the twin objective of personality-building and nation-building. Following are the key strategies of department to capacitate and encourage volunteering for Nation Building.

- Department of Youth Affairs has developed a digital platform (https://mybharat.gov.in/) as one stop service platform for Youth of the country. Platform enables the creation of youth profile, participation in various volunteering and learning activities, getting mentorship from experts, connect with other youth etc. Several engagement programs including Experiential Learning Programs (ELPs) are hosted on the platform. The platform also provides web space to other Ministries, Organizations, Industries, Youth clubs etc. for conducting various engagement programs. More than 1.76 crore youth have registered on the platform.
- MY Bharat an autonomous organization under the Department, having physical presence in every district of the country, works at the ground level to organize various programs like Padyatras, Youth Utsavs, plantation and cleanliness etc. to institutionalize volunteerism at ground level. Various mega events like Viksit Bharat Young Leaders Dialogue (VBYLD) and Viksit Bharat Youth Parliament (VBYP) which start at block level and culminate at national level are conducted to inculcate a sense of understanding on Government policies and involve youth thinking in decision making.
- The National Service Scheme (NSS) is a central scheme under the Department, which involves student volunteers from higher secondary schools and universities in various community activities to promote personality development and inculcate social responsibility. Various activities such as village adoption, blood donation and cleanliness drives are conducted by these NSS volunteers. Approx 26.5 lakh student volunteers in 33 thousand knowledge institutions are connected with NSS. Every volunteer under NSS is supposed to contribute 120 hours of service in a year.

Challenges and issues to be resolved

Though the volunteering is into the roots of our youth since time and memorial, its ways and methods are to be evolved to keep pace with technology and emerging landscapes.

- Youth today face increased academic pressure, personal responsibilities, and time constraints, leaving little room for volunteering.
- With the rise of digital consumption, young people are becoming less involved in community-based activities and social causes.
- Lack of innovative approaches in youth engagement for nation-building activities, with current models often failing to align with the evolving interests, aspirations, and digital habits of today's youth.
- Volunteering is often not incentivized reducing its perceived value.
- Many volunteers face challenges related to travel, food, and other expenses, which are usually not reimbursed by organizing bodies.

- Youth is not exposed to cultural traditions especially in urban areas.
- There is a lack of information on volunteer activities on real time basis.

Possible Solutions/ Issues for deliberation

- Possible solutions include leveraging digital technology for new age volunteerism such as portals like https://mybharat.gov.in/. Portals have to be made more user friendly with activities of youth interest and space for uploading media.
- Adopt youth-centric and tech-enabled engagement models that leverage social media, gamification, digital platforms, and experiential learning to make nation-building activities more appealing, relevant, and aligned with the interests and lifestyle of today's youth.
- Youth clubs will be activated at village/block level with modest funding, linked to panchayats and local bodies.
- Corporate Social Responsibility (CSR) and Public-Private Partnership can be better leveraged for experiential learning activities which provide all-round development as well as give exposure to various business activities.
- Integration of volunteerism with National Missions such as Swachh Bharat Abhiyan, Ek Bharat Shreshtha Bharat, Har Ghar Tiranga, Mission Life (Lifestyle for Environment), and Jal Jeevan Mission.
- NSS participation mandatory with the key focus on health, fitness, team building etc. at the higher secondary and undergraduate levels and NSS performance should be included as part of academic transcripts.
- There has to be a policy on incentivizing volunteer activities with academic credits or preference in job opportunities. Hours dedicated to volunteerism may be formally recognized through a Certificate of National Youth Service, and partnerships with the private sector can be explored to provide incentives or rewards in lieu of volunteer hours, thereby enhancing motivation and participation.
- Annual national volunteer awards to recognize innovation, impact, and inclusiveness.

Way Forward

Along with the conventional ways and methods, new age volunteerism opportunities have to be worked out utilizing conventional wisdom, innovative approaches, digital tools and artificial intelligence.

- Complement conventional volunteerism with new-age opportunities by leveraging digital tools and artificial intelligence for wider and smarter engagement.
- Inculcate volunteerism based on Indian ethos, emphasizing Seva-Bhaav (spirit of service) and Kartavya Bodh (sense of duty) to build character and responsibility.
- Align volunteerism with youth aspirations to foster growth, belonging, patriotism, and build strong human capital for the nation.
- As per the spirit of nation building, Yuva Gram Sabhas can be introduced as youth-led platforms parallel to Gram Sabhas to address local youth issues like fitness, sports, skill development, and volunteerism.
- The AI and data analytics empowered My Bharat Portal should serve as a one-stop solution for youth-centric events, collaborations, volunteer opportunities, and knowledge sharing enabling seamless participation, capacity building, and dissemination of best practices across the country.
- Volunteerism Impact Index to be developed to assess impact of volunteerism.

6. Unlocking Talent for International Engagement

Introduction

The Department of Youth Affairs endeavours to create an international perspective among the youth in collaboration with other countries and International Agencies/organizations to involve them in promoting exchange of ideas, values, and culture amongst the youth of different countries and also to promote peace and understanding. To achieve this objective, the Department signs Memorandum of Understanding (MoU) with various countries and international organizations to strengthen and encourage cooperation on youth matters through participation in events and activities, in consultation with Ministry of External Affairs (MEA), Government of India. International Youth Exchange Programme (IYEP) with friendly countries are taken up on reciprocal basis to provide international exposure to the youth of India and exchange of major learning experiences.

In terms of its standing in international competitive sports, though India has steadily improved its position, yet country currently ranks 71st out of 206 nations in terms of Olympic medals. This underscores the need to unlock and nurture talent to enhance the country's performance at the international level.

Current Situation

- As part of its international outreach, the Department of Youth Affairs currently maintains 30 active MoUs on youth cooperation with countries including Armenia, Bahrain, Bangladesh, etc.
- Under these MoUs, International Youth Exchange Programs (IYEPs) are taken up with the objective to provide international exposure to the youth of India, promote exchange of ideas, values and culture exchange amongst the youth of different countries, exchange major learning experiences among the youth, etc.
- During the last 5 years, a total of 73 Indian youth delegates participated in 12 international events organised in different countries, providing them with valuable international exposure and cross-cultural learning experiences.
- The Department has signed two multilateral MoUs on youth cooperation with BRICS and the Shanghai Cooperation Organization, enabling broader regional collaboration and youth engagement on multilateral platforms.
- India's sporting landscape has witnessed significant development, particularly in disciplines such as badminton, boxing, wrestling, shooting, and athletics, leading to improved medal prospects on the international stage.
- Key initiatives like Khelo India, Target Olympic Podium Scheme (TOPS), and the establishment of National Centres of Excellence (NCOEs) have contributed to targeted athlete development.
- Despite these efforts, challenges persist. Talent identification mechanisms remain fragmented, with many promising youths unable to advance due to limited exposure, inadequate infrastructure, and systemic inefficiencies, including governance gaps within National Sports Federations (NSFs).
- Additional barriers such as regional disparities, gender imbalances, and the lack of integration between sports, health and education continue to hinder the full conversion of potential into international success.

Challenges and Issues to be resolved

Despite notable progress, several critical challenges continue to impede the effective identification and development of talent for international engagement. These challenges are outlined below:

- There shall always be a limit of numbers on physical exchange and hence more digital ways are to be explored for exchange and learning.
- There is a lack of systematic and nationwide scouting mechanisms, particularly at the school and district levels, leading to missed opportunities for talent discovery.
- Access to quality sports infrastructure remains uneven, with rural and tier-2/3 regions facing significant deficits in facilities and equipment.
- There is a shortage of qualified coaches, as well as essential support professionals such as physiotherapists, sports psychologists, and performance analysts.
- Indian youth and junior athletes have limited participation in international competitions, which delays their readiness to compete at the global level.
- Funding inconsistencies and the absence of clearly defined athlete development pathways hinder long-term progress.
- Rigid academic systems offer limited flexibility, often forcing students to choose between education and sports during critical development stages.
- IYEP fosters global exposure and leadership, but sustained engagement with youth delegates is crucial to convert short-term visits into long-term contributions in development, diplomacy, and innovation.
- Effective implementation of IYEP requires coordination and support from central and state departments, as well as arrangements involving high-level dignitaries and visiting institutions.

Addressing these challenges is essential for building a sustainable and high-performing ecosystem capable of consistently producing world-class talents for the international arena.

Possible Solutions/ Issues for deliberation

To address the identified challenges and build a robust ecosystem for international engagement, a set of targeted strategic interventions needs to be undertaken. These measures aim to strengthen talent development pathways, enhance institutional support, and foster collaboration across sectors:

- Youth to be nurtured as ambassadors of change**,** excellence and fitness, building international youth networks to strengthen cooperation and amplify India's voice globally.
- Leverage cultural entities like SPIC-MACAY to introduce youth to Indian culture, traditions, and the Guru-Shishya parampara from early childhood, fostering a strong cultural foundation that not only nurtures identity but also prepares them to represent India confidently on global platforms, thereby unlocking talent for international engagement.
- More exchange programs have to be conducted as well as soft diplomacy is to be explored for exposing richness of Indian culture like culinary, linguistic etc. to the world.
- Enhanced coordination with central and state departments, and visiting institutions, can enrich delegate experiences through well-executed logistics, deeper cultural immersion, and impactful exchanges that reflect India's youth development and soft power.
- Developing a real-time, digital national athlete tracking system that enables systematic scouting and monitoring at the block, district, and state levels.

- Establishing & tapping regional talent with regional based high-performance centres equipped with world-class facilities, sports science support, and multidisciplinary teams to nurture elite athletes.
- Implementation of a comprehensive National Coaching Development Programme, including structured certification pathways, performance-based incentives, and opportunities for international exposure and training.
- Institutionalizing regular international exchange programmes, exposure tours, and participation in junior/youth-level championships to enhance global competitiveness and cross cultural adaptability.
- Partner with educational boards such as CBSE, State Boards, and UGC to design flexible academic frameworks that support international engagement for students and athletes.
- Encouraging private sector engagement in sports and youth development by offering CSR-linked incentives, launching recognition schemes, and promoting Public-Private Partnership (PPP) models for grassroots infrastructure and talent support.

Way forward

To achieve sustained international engagement in sports, a long-term, athlete-centric ecosystem must be institutionalized which requires:

- Strategic alignment among national sports federations, state bodies, educational institutions, and private stakeholders.
- Technology-driven talent monitoring and performance analytics.
- Inclusion of communities to widen the talent pool.
- Early and structured exposure to international formats, sports science, and mental conditioning.
- In consultation with the Ministry of External Affairs, MoUs on youth cooperation may be signed with more friendly countries and international organizations to expand global opportunities for youth, promote knowledge exchange, and foster international collaboration and leadership.

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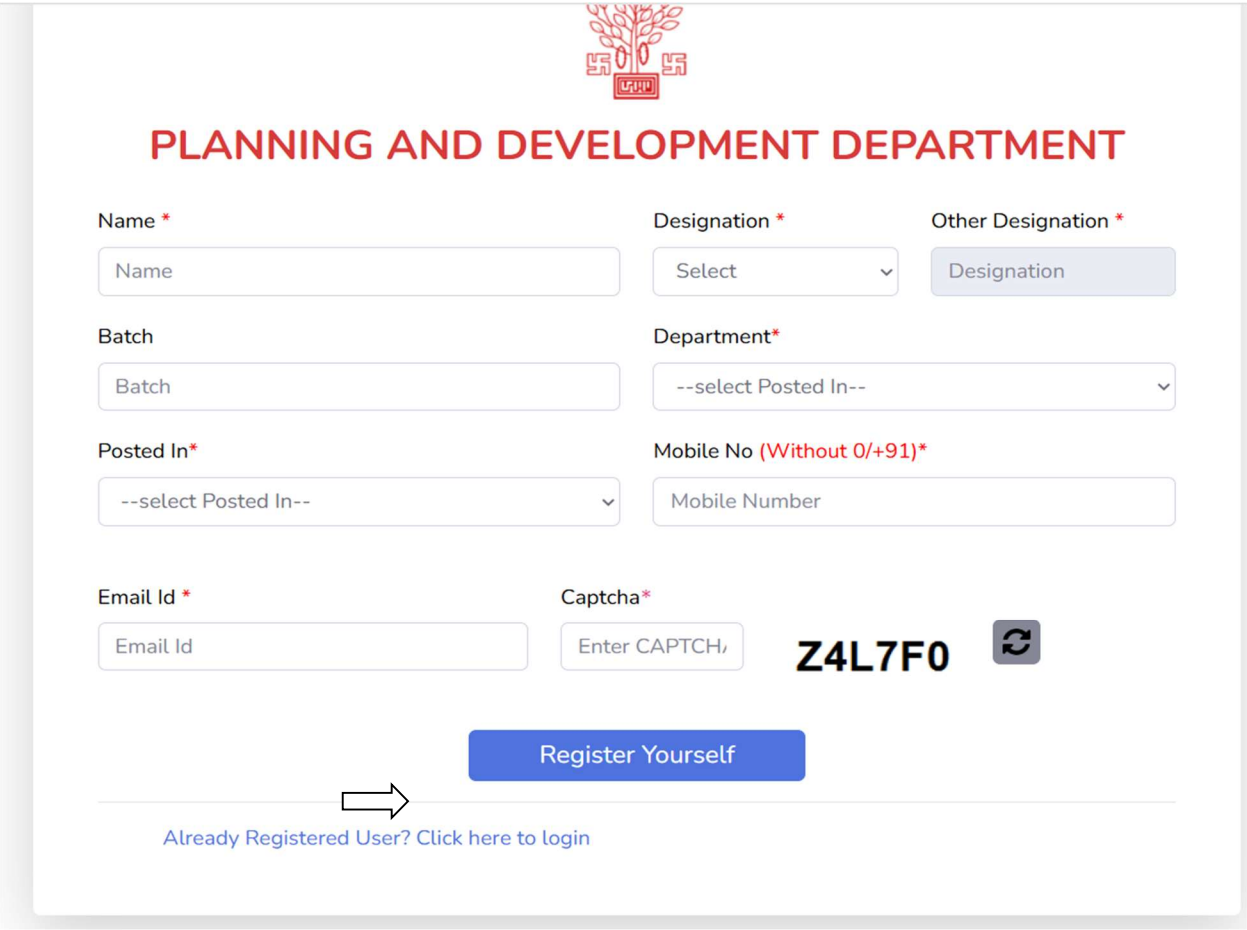

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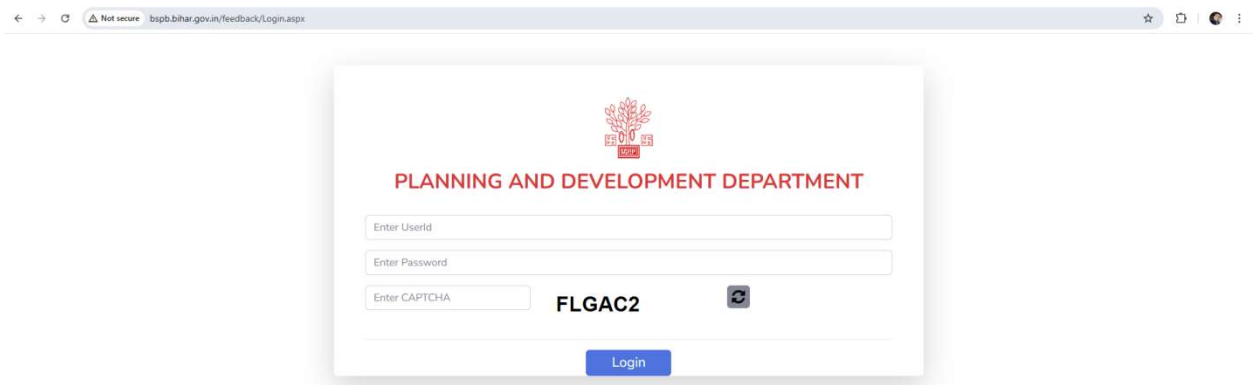

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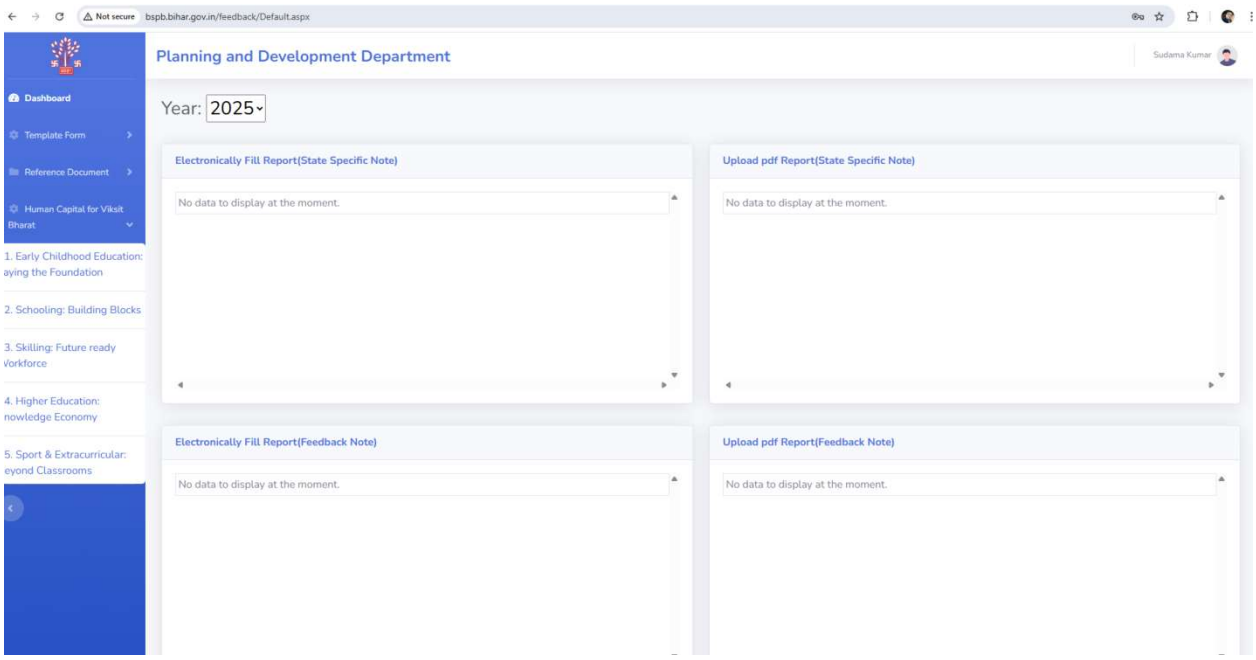

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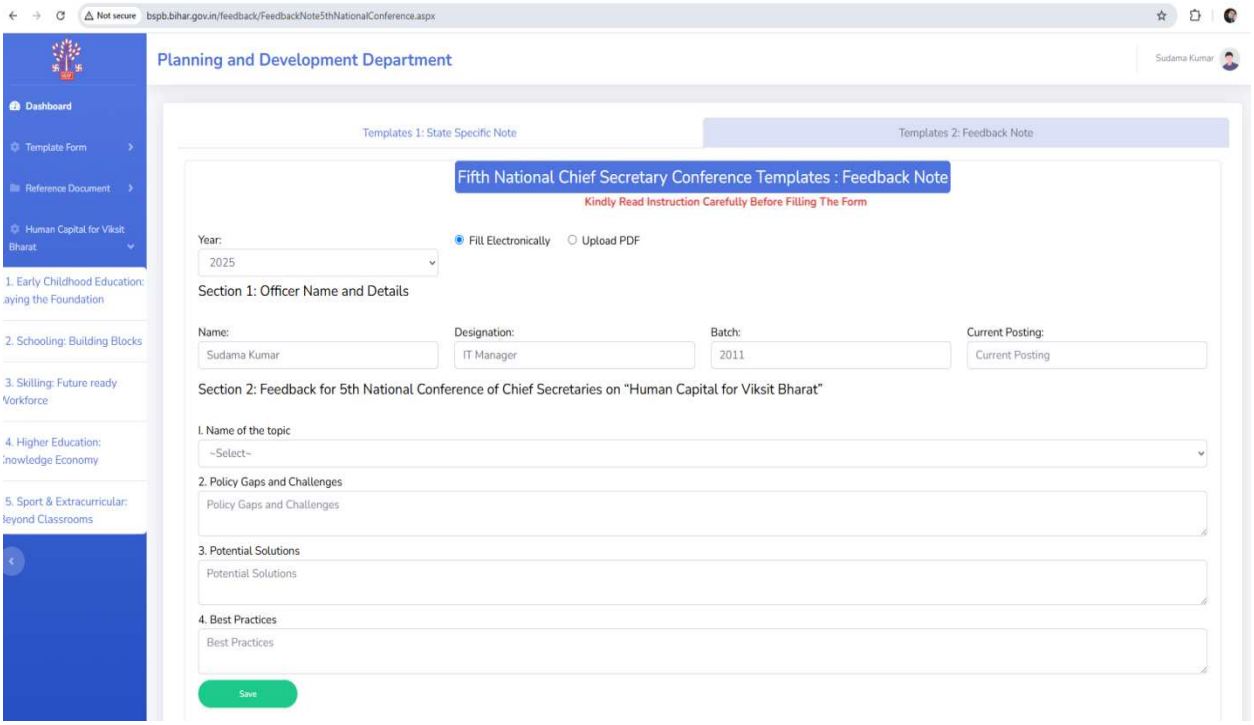

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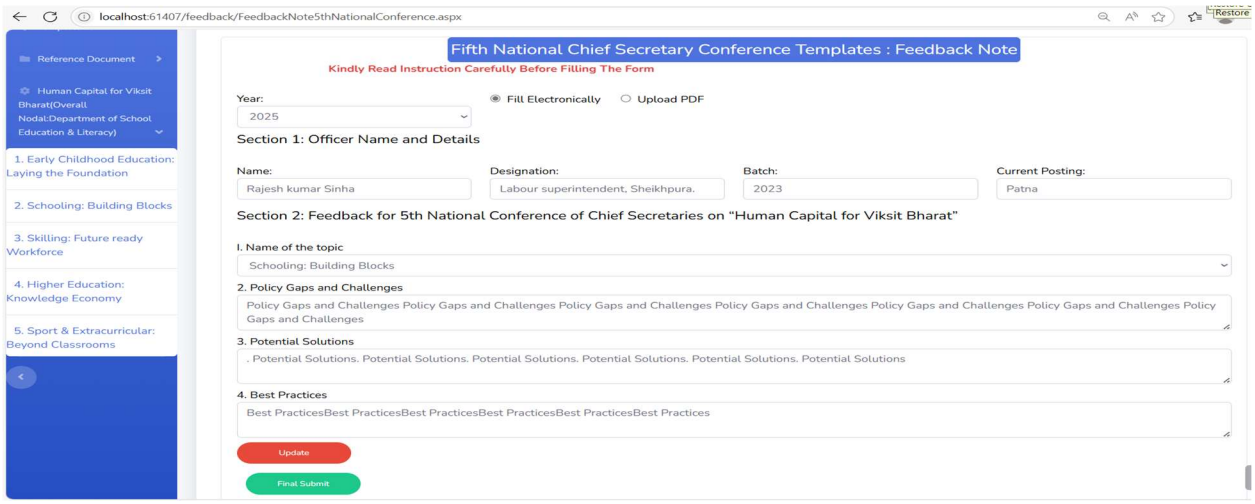

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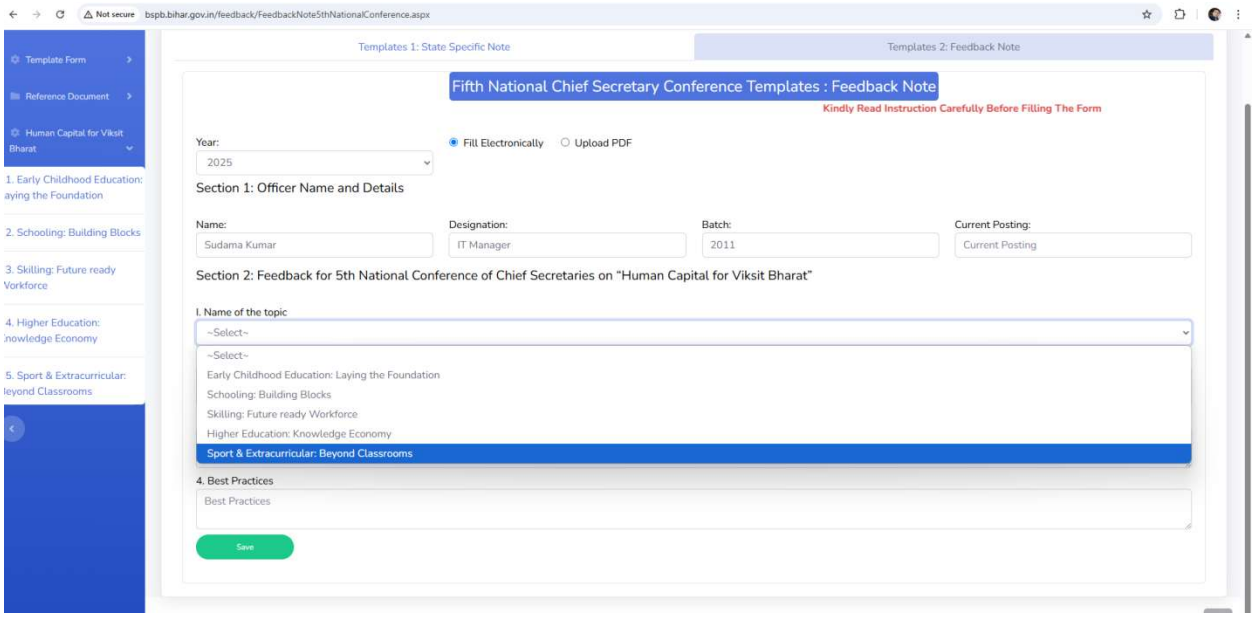

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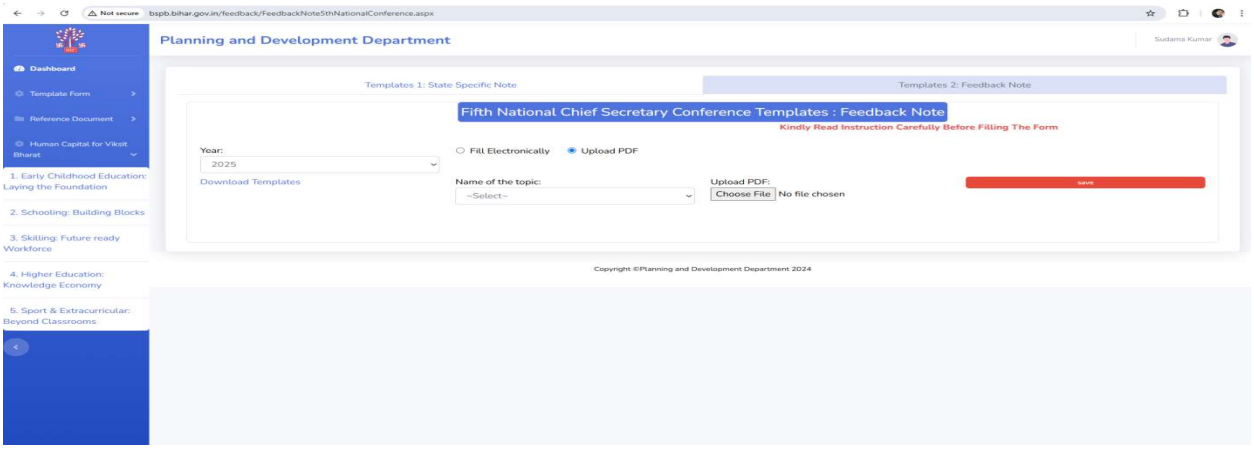

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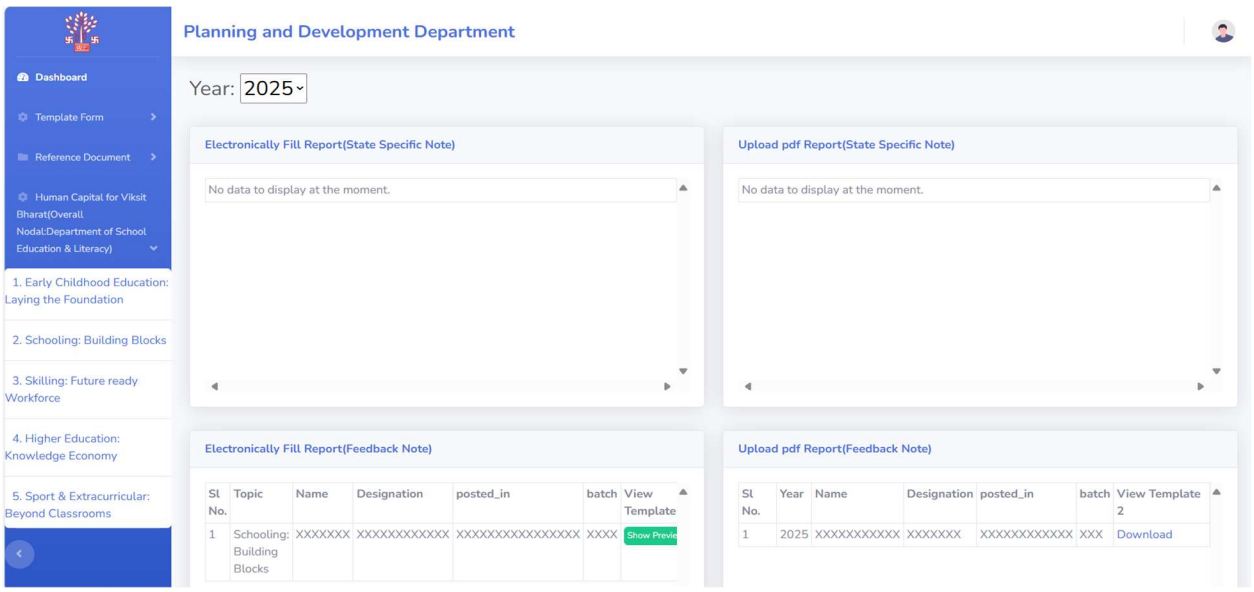

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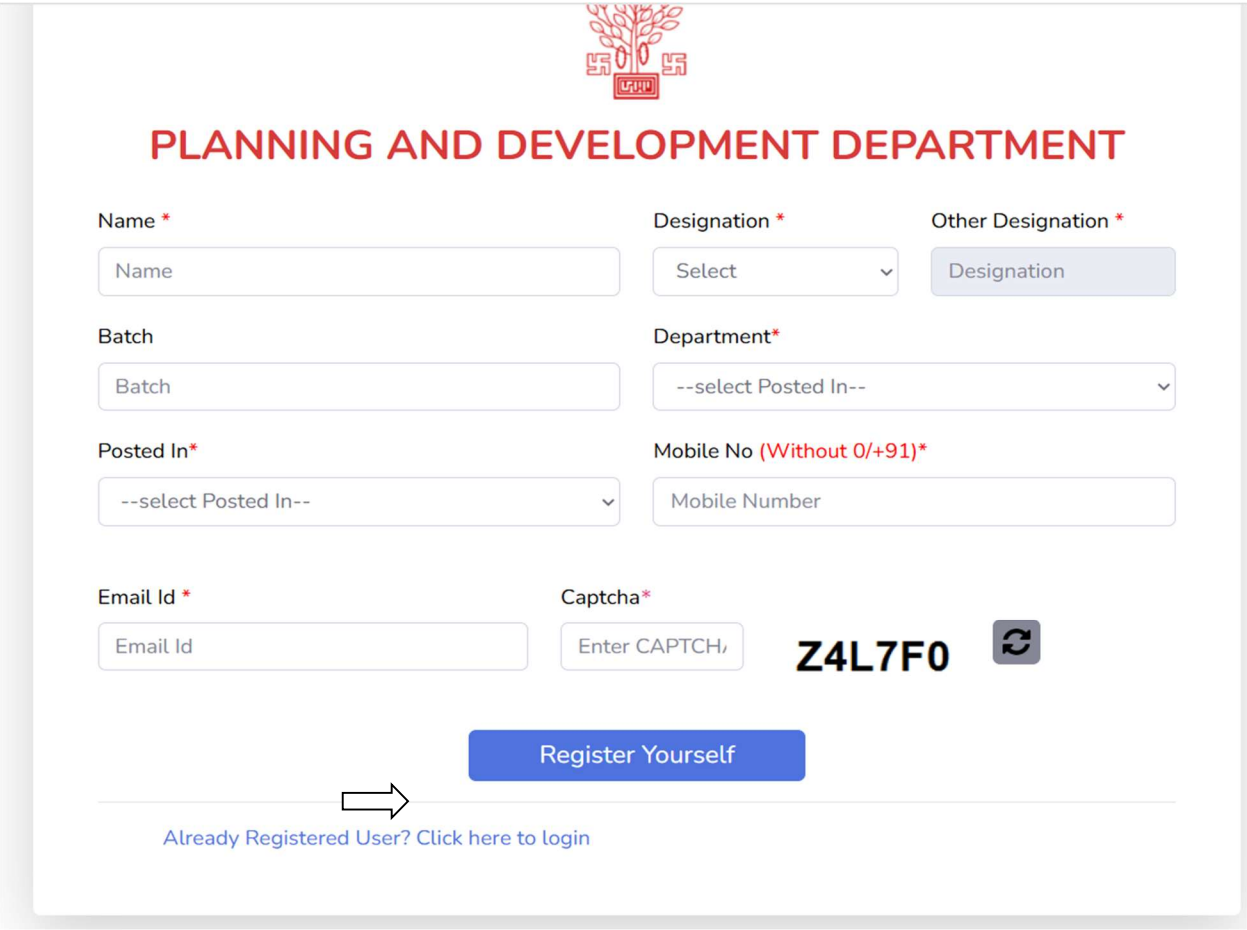

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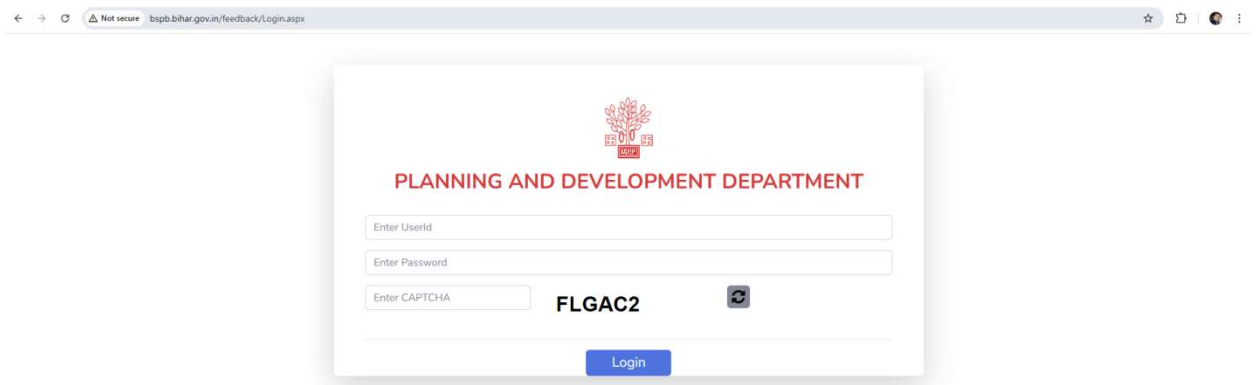

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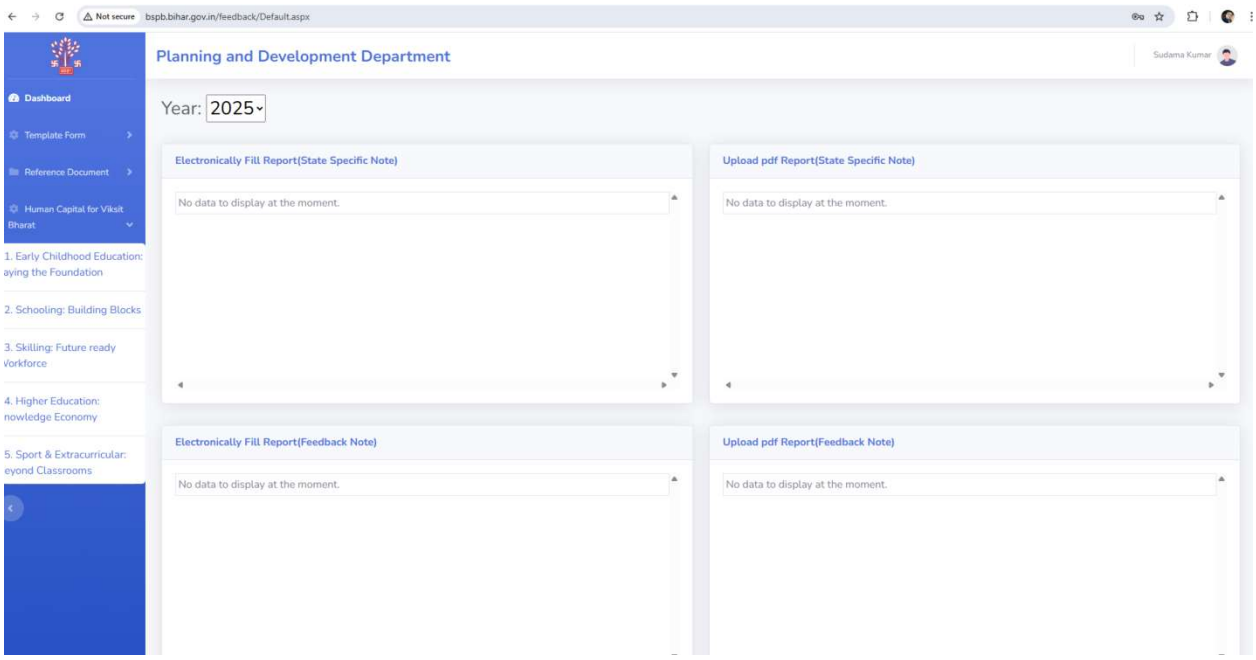

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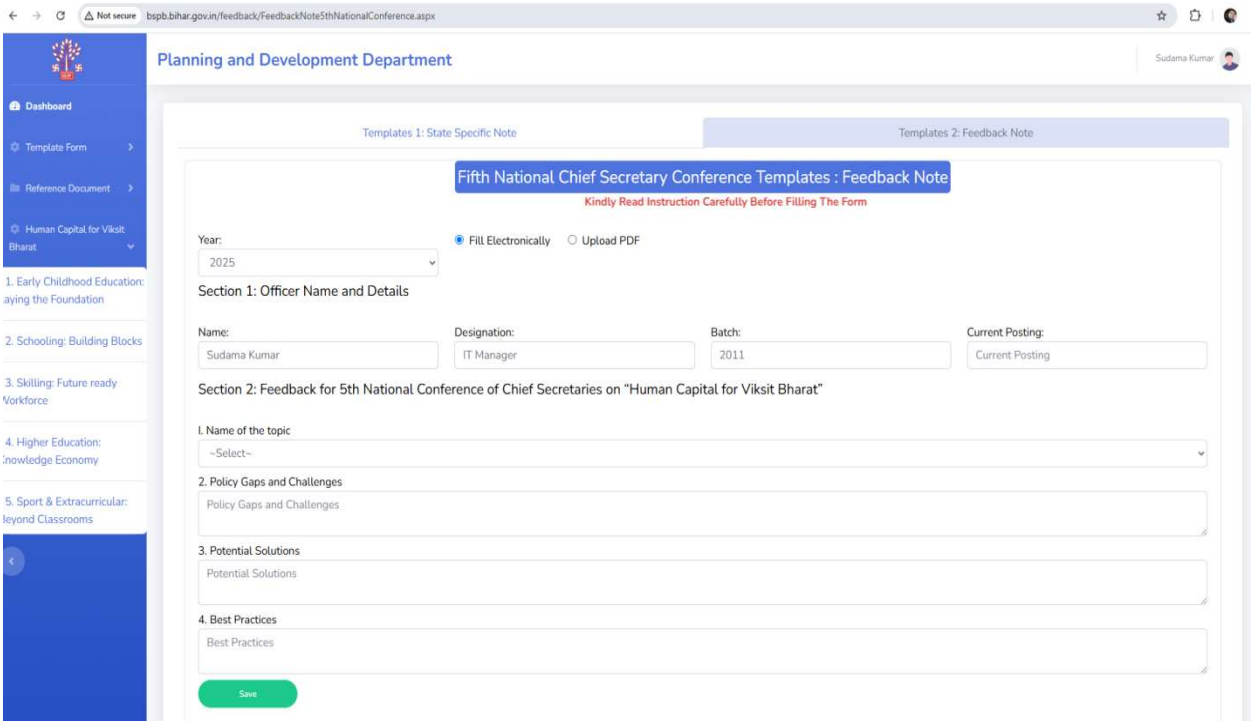

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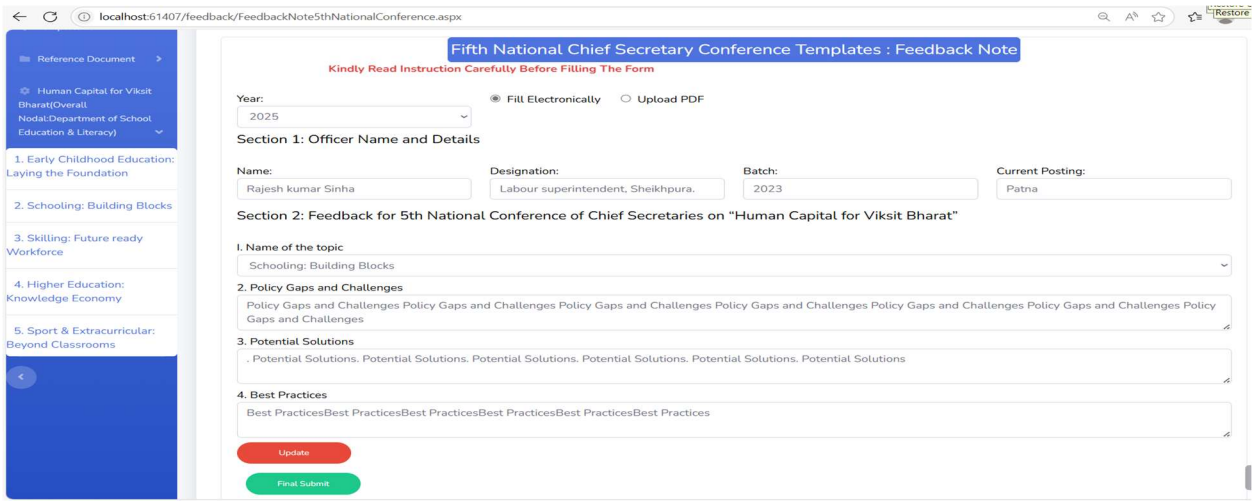

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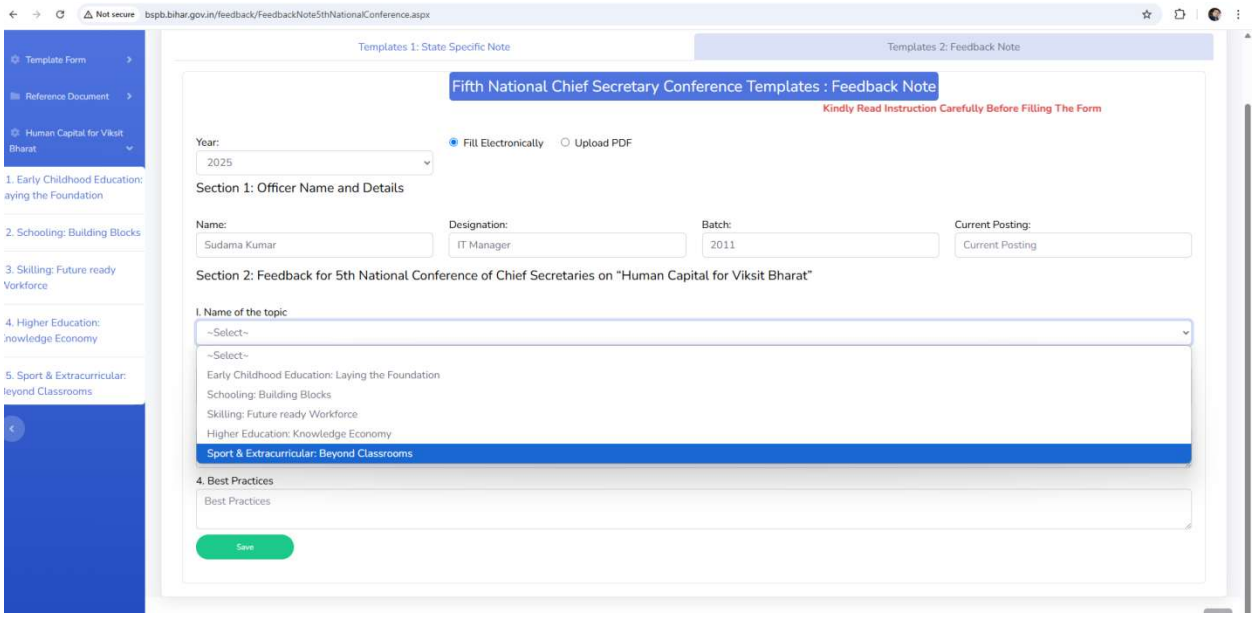

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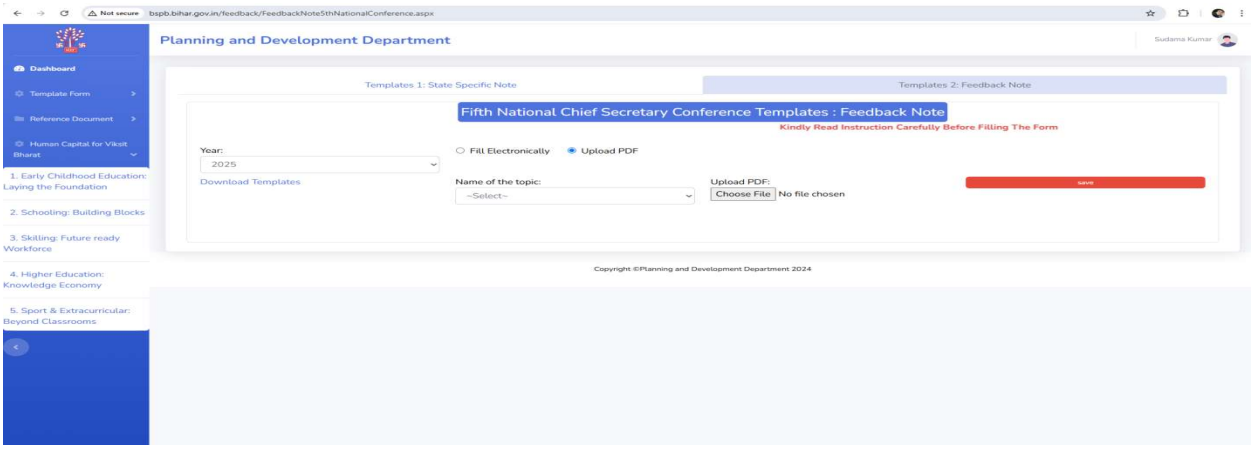

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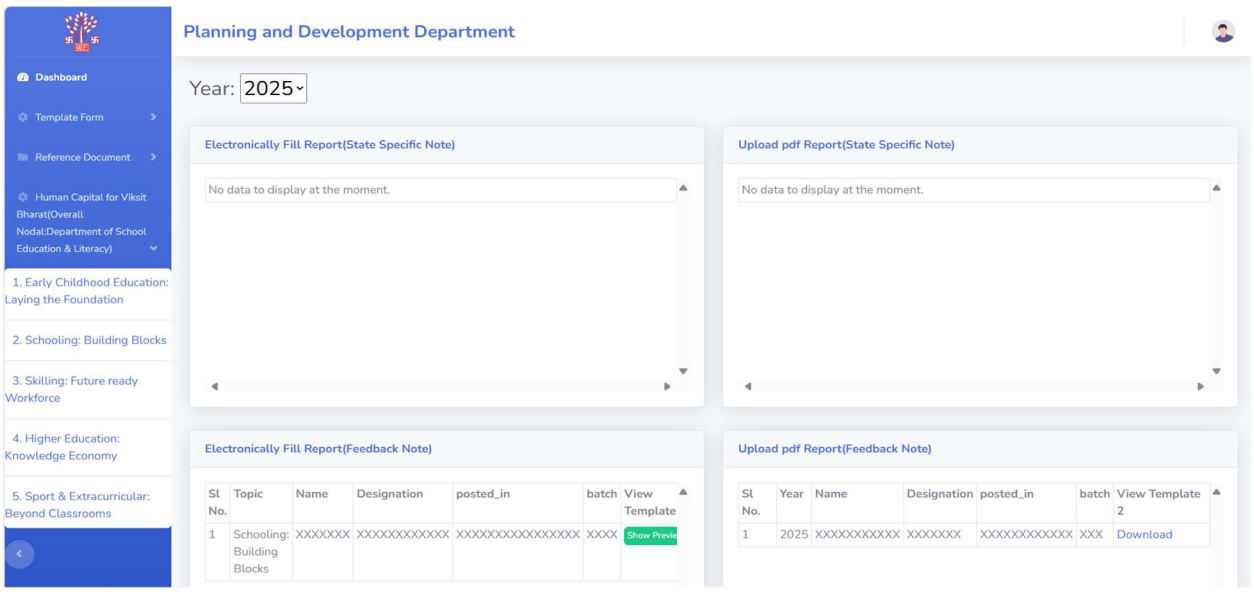

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Templates : State Specific Note & Feedback Note

Template 2: Feedback Note (by all IAS officers / State Department Officers)

Section 1: Officer Name and Details :

- Name
- Designation
- Batch
- Current Posting

Section 2: Feedback for Third National Chief Secretary Conference

1. Name of the topic

(Choose from the topics of the conference)

2. Policy Gaps and Challenges

(Current policy challenges, administrative and implementing challenges with respect to the topic selected)

3. Potential Solutions

(Can potentially highlight new technology solutions, scope for convergence with other schemes/ programmes etc.)

4. Best Practices

(Highlights the practices which are sustainable, replicable, scalable, monitorable etc. Can also highlights the block/district/ State level practices)

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Instructions for filing feedback note:

1. References :
    - In-text citing as well as the listing of all the references used for compiling the data and information.
    - Hyperlinks can be added in the document
2. Documentation style:
    - Microsoft Word - Paper Size A4 with one inch margin from all four sides
    - Font: Times New Roman
    - Font Size: Title 14 pt; Section Heading - 12 pt; Body Text 11 Pt ;
    - Line Spacing : 1.25
    - Use additional spacing for section heading with spacing (After) - 6 pt