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NITI Aayog

SCHOOL EDUCATION SYSTEM IN INDIA

Temporal Analysis and Policy Roadmap for Quality Enhancement

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NITI Aayog

SCHOOL EDUCATION SYSTEM IN INDIA:

Temporal Analysis and Policy Roadmap for Quality Enhancement

EDUCATION DIVISION

May 2026

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Foreword

India's aspiration to become a *Viksit Bharat* by 2047 rests fundamentally upon the strength and capabilities of its human capital. The education imparted during the school years shapes not only individual opportunity but also the collective resilience and dynamism of the nation. It is in these formative years that confidence, competence and character are forged; qualities that ultimately determine workforce readiness, productivity, and the broader trajectory of economic and social advancement.

Over the past decade, India has made significant strides in expanding access to school education. Enrolment at the elementary stage (Classes I to VIII) is now near universal, infrastructure provisioning has improved considerably, and institutional coverage extends across diverse and previously underserved geographies. As this phase of expansion matures, our national priority must now decisively shift towards enhancing quality, improving efficiency, and strengthening systemic coherence. The central task before us is to translate enrolment into meaningful learning outcomes and to convert years of schooling into enduring human capital formation.

The National Education Policy 2020 provides a comprehensive and forward-looking framework to guide this transformation. Its emphasis on foundational literacy and numeracy, integrated school complexes, sustained teacher professional development, competency-based assessment, and technology-enabled governance reflects a clear recognition that educational reform must be structural, systemic and sustained. The imperative before us is to ensure consistent and effective implementation across States and Union Territories.

This milestone Report offers a decade-long perspective on the progress of school education between 2014–15 and 2024–25. Drawing upon empirical evidence and institutional experience, it presents a balanced assessment of achievements alongside areas requiring renewed focus. The policy recommendations set out a phased and pragmatic pathway to strengthen institutional capacity, improve learning outcomes, and enhance coordination across levels of government.

Investment in human capital yields dividends across generations. Strengthening school education is therefore central to India's long-term development strategy. Ensuring that every child acquires foundational competence, critical thinking ability, and the capacity for higher learning will shape the depth, inclusiveness and sustainability of India's future progress.

I commend the Education Division for its meticulous and rigorous analysis. I am confident that the policy directions outlined in this Report will guide sustained and collective efforts to transform school education in pursuit of India's long-term development aspirations.

(Suman Bery)

Place: New Delhi
Date: 23rd February, 2026

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February 20, 2026

MESSAGE

The strength of a nation is dependent on the opportunities it creates for its children. School education lies at the heart of this responsibility. It shapes not only academic outcomes, but also confidence, character, and the ability to participate meaningfully in society. As India advances towards its vision for 2047, ensuring that every child receives quality education is both a moral commitment and a national priority.

The idea expressed in the phrase "सा विद्या या विमुक्तये" (knowledge is that which liberates) captures the enduring purpose of education beyond employment. School education must therefore serve as an instrument of empowerment, particularly for those from disadvantaged and underserved communities. Improving systemic and institutional governance structures, enhancing teacher professional development, strengthening student learning outcomes and ensuring consistent implementation across States will be essential to building a school system that is inclusive, accountable, and capable of nurturing every learner.

This report offers a structured pathway to advance the strengthening of school education. It provides 33 policy recommendations under 13 sub-themes that draw upon the deliberations held during the National Workshop on Quality Education conducted on 28th February 2025, as well as the extensive research and analytical work undertaken by the team over the past year.

I appreciate the sustained efforts of the Education Division in bringing this work to completion. I would like to acknowledge the leadership of Dr. Sonia Pant, Programme Director (Education) in bringing this report to fruition. I commend the excellent work of the Research and Analysis Team led by Dr. Shashank Shah, Director and Senior Specialist (Education), Nisha Sharma and Tarini Gupta, Consultants (Education), for their commitment and diligence in shaping this important initiative.

Strengthening school education is not only a policy objective; it is an obligation to the next generation. With sustained focus and collective effort, we can build a system that is inclusive, human values-based, capable, and aligned with India's broader developmental goals.

(Vinod Paul)

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MESSAGE

India stands at a defining moment in its development journey. With the largest school-going population in the world, the quality and effectiveness of our school education system will decisively catalyse the country's ability to become Viksit Bharat @ 2047. Spanning over 14 lakh schools, nearly 25 crore students and over 1 crore teachers across diverse geographies, India's school education system is the largest in the world and operates at a scale that demands both institutional coherence and sustained reform. The generation that will enter the workforce in 2047 is already born, and will be going through various phases of the school education over the next decade. Hence, ensuring the quality of our school education system is an urgent imperative for nurturing high quality human capital for a Viksit Bharat.

Over the past decade, access has expanded, and the institutional footprint has deepened across regions. The present phase calls for strengthening the effectiveness of delivery, ensuring that classroom processes, teacher development, assessment systems, and school leadership collectively advance meaningful learning. As India moves towards its long-term development goals, the school education system must evolve in a manner that is both equitable and performance-oriented.

This report provides a comprehensive view of the school education ecosystem over the past decade and outlines broad strategic directions for the way forward. It brings together evidence on enrolment patterns, institutional distribution, teacher availability, governance structures, and learning trajectories to inform policy prioritisation and coordinated action across levels of government.

Sustained progress will depend on disciplined execution, effective Centre-State collaboration, and grassroots level implementation through continuous strengthening of district and school-level capacity. With aligned policy intent and focused implementation, the system can translate scale into enduring capability.

I congratulate Dr. Sonia Pant, Programme Director, Education, for her leadership in bringing this report to fruition. I commend the substantive intellectual contribution and analytical direction provided by Dr. Shashank Shah, which have strengthened this work. I acknowledge the rigorous research and analytical contributions of Ms. Nisha Sharma and Ms. Tarini Gupta.

I am confident that the policy recommendations across systemic and academic thematic areas will inspire coordinated action across institutions and States. By strengthening school education and nurturing students with ability and nobility, we invest in the enduring capacity of the nation and create pathways for every child to participate fully and contribute in India's development journey.

20th February, 2026

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(B.V.R. Subrahmanyam)

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Message

This Report has been shaped by the valuable insights and perspectives shared by institutions and individuals committed to strengthening school education in India. A key milestone in its preparation was the National Workshop on Quality Education, organised by NITI Aayog on 28th February 2025. The workshop brought together over 150 participants including senior officials from the Centre and States, multilateral partners such as UNICEF, and national bodies including NCERT, NUEPA, and CBSE. Their reflections on the current challenges, best practices, and policy priorities significantly informed the analysis presented in this Report. A brief stakeholder consultation was also held with representatives from UNESCO, NCERT, and civil society organisations during the final stages of preparation.

The analytical foundation of this Report is anchored in a temporal study of the school education system from 2014-15 to 2024-25. The rigorous examination of datasets over the past decade has enabled a comprehensive understanding of sectoral progress, persisting gaps, and opportunities.

We are deeply grateful to Shri Suman Bery, Vice Chairman, NITI Aayog, for his guidance and for graciously contributing the Foreword. We also express our sincere appreciation to Dr. Vinod Kumar Paul, Member (Education), NITI Aayog, whose leadership at the National Workshop and continued support have been invaluable. We express our profound gratitude to Shri B.V.R. Subrahmanyam, CEO, NITI Aayog, whose vision, guidance, and steadfast support have strengthened the direction and depth of this work. We acknowledge the valuable guidance provided by Dr. I. V. Subba Rao, Distinguished Fellow, NITI Aayog.

The Education Division at NITI Aayog has worked with exceptional dedication to uphold the analytical rigour and policy relevance of this Report. I warmly acknowledge the exemplary efforts of the Research and Analysis Team led by Dr. Shashank Shah, Senior Specialist, Ms. Nisha Sharma and Ms. Tarini Gupta. I would also like to acknowledge the contributions of the other members of the Education team in enriching this report.

This Report makes a meaningful contribution to strengthening India's school education system by promoting academic quality and systemic coherence. We believe that the ideas presented in this Report will support the development of a confident and capable generation that will contribute to realising India's vision of becoming a Viksit Bharat by 2047.

Sonia Pant 20.02.26
Dr. Sonia Pant

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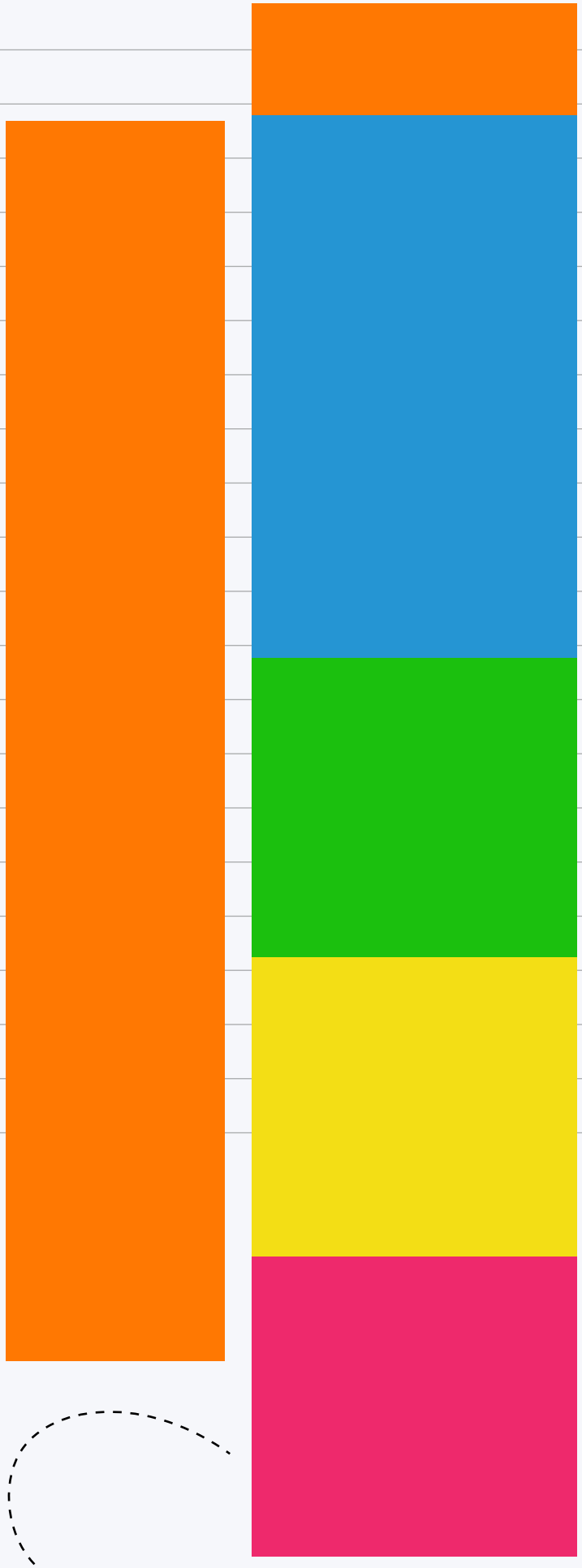

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List of Abbreviations

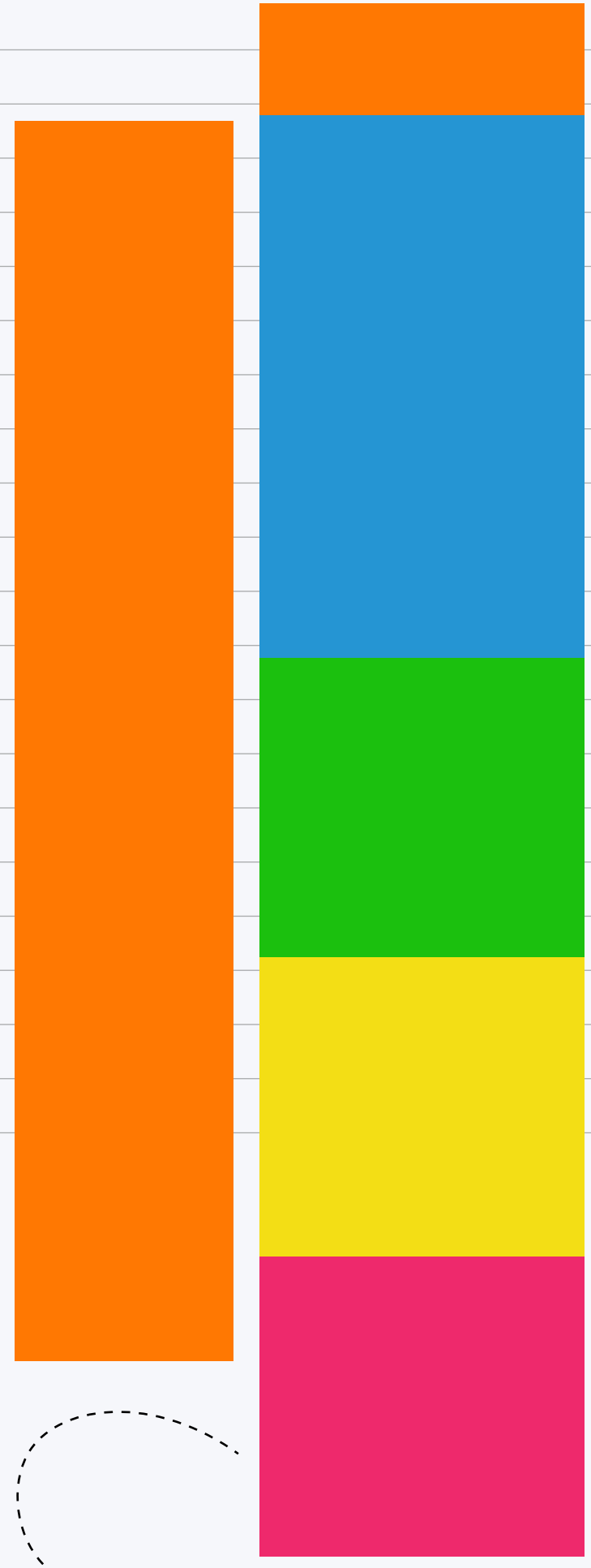
Abbreviation	Full Form
ABC	Academic Bank of Credits
AICTE	All India Council for Technical Education
AMB	Anemia Mukta Bharat
ASER	Annual Status of Education Report
ASUs	Academic Support Units
ATLs	Atal Tinkering Labs
AWC	Anganwadi Centre
AWW	Anganwadi Workers
BaLA	Building as Learning Aid
BBBP	Beti Bachao Beti Padhao
BE	Budget Estimate
BEO	Block Education Officer
BRP	Block Resource Persons
CBOs	Community-Based Organisations
CBSE	Central Board of Secondary Education
CIET	Central Institute of Educational Technology
CPD	Continuous Professional Development
CRCs	Cluster Resource Centres
CRP	Cluster Resource Person
CSOs	Civil Society Organisations
CTS	Child Tracking System
CwSN	Children with Special Needs
DBT	Direct Benefit Transfer
DEO	District Education Officer
DIET	District Institute of Education and Training
DIKSHA	Digital Infrastructure for Knowledge Sharing
DoSE&L	Department of School Education & Literacy
DPEP	District Primary Education Programme
DPOs	Disabled People's Organisation
DSERT	Department of State Educational Research and Training

Abbreviation	Full Form
DSDPs	District Skill Development Plans
ECCE	Early Childhood Care and Education
EFA	Education for All
EMIS	Education Management Information System
EMRS	Eklavya Model Residential Schools
EWS	Early Warning System
FLN	Foundational Literacy and Numeracy
GCED	Global Citizenship Education
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIS	Geographic Information System
GLP	Graded Learning Program
HBE	Home Based Education
HDI	Human Development Index
HPC	Holistic Progress Card
HRMIS	Human Resource Management Information System
ICDS	Integrated Child Development Services
ICT	Information and Communication Technology
IERPs	Inclusive Education Resource Person
IEP	Individualised Education Plan
IGNOU	Indira Gandhi National Open University
ISL	Indian Sign Language
ITIs	Industrial Training Institutes
JJM	Jal Jeevan Mission
KGBVs	Kasturba Gandhi Balika Vidyalayas
LFP	Low Fee Private School
LMS	Learning Management System
MeitY	Ministry of Electronics and Information Technology
MDG	Millennium Development Goal
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MOE	Ministry of Education
MSDE	Ministry of Skill Development and Entrepreneurship
MSME	Ministry of Micro, Small & Medium Enterprises
MWCD	Ministry of Women and Child Development
NAS	National Achievement Survey

Abbreviation	Full Form
NCERT	National Council of Educational Research and Training
NCF	National Curriculum Framework
NCF-FS	National Curriculum Framework for Foundational Stage
NCF-SE	National Curriculum Framework for School Education
NCSL	National Centre for School Leadership
NCPFECCE	National Curricular and Pedagogical Framework for ECCE
NCrF	National Credit Framework
NCVET	National Council for Vocational Education and Training
NEP	National Education Policy
NETF	National Educational Technology Forum
NFHS	National Family Health Survey
NUEPA	National University of Educational Planning and Administration
NIEPID	National Institute for the Empowerment of Persons with Intellectual Disabilities
NIOS	National Institute of Open Schooling
NIPCCD	National Institute of Public Cooperation and Child Development
NIPUN	National Initiative for Proficiency in Reading with Understanding and Numeracy
NISHTHA	National Initiative for School Heads' and Teachers' Holistic Advancement
NPST	National Professional Standards for Teachers
NSDC	National Skill Development Corporation
NSQF	National Skills Qualifications Framework
OCR	Optical Character Recognition
ODOP	One District One Product
PAB	Project Approval Board
PARAKH	Performance Assessment, Review, and Analysis of Knowledge for Holistic Development
PBPB	Poshan Bhi Padhai Bhi
PHCs	Primary Health Centres
PIG	Performance Incentive Grants
PLCs	Professional Learning Communities
PLFS	Periodic Labour Force Survey
PM POSHAN	Pradhan Mantri Poshan Shakti Nirman
PM SHRI	Pradhan Mantri Schools for Rising India
PRIs	Panchayati Raj Institutions
PTR	Pupil-Teacher Ratio
RBSK	Rashtriya Bal Swasthya Karyakram
RE	Revised Estimate

Abbreviation	Full Form
RIDF	Rural Infrastructure Development Fund
RKSK	Rashtriya Kishor Swasthya Karyakram
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RPWD	Rights of Persons with Disabilities
RTE	Right to Education
SATH-E	Sustainable Action for Transforming Human Capital - Education
SBM	Swachh Bharat Mission
SCERT	State Council of Educational Research and Training
SCCs	School Complex Centres
SDMIS	Student Database Management Information System
SDMC	School Development and Management Committee
SDP	School Development Plan
SEDG	Socio-Economically Disadvantaged Groups
SEL	Social and Emotional Learning
SHWP	School Health and Wellness Programme
SMC	School Management Committee
SPNIWCD	Savitribai Phule National Institute of Women and Child Development
SQAAF	School Quality Assessment and Assurance Framework
SSA	Sarva Shiksha Abhiyan
SSDMs	State Skill Development Missions
SSSA	State School Standards Authority
STEM	Science, Technology, Engineering, and Mathematics
SWAYAM	Study Webs of Active-Learning for Young Aspiring Minds
TaRL	Teaching-at-the-Right-Level
TEIs	Teacher Education Institutions
Tele-MANAS	Tele Mental Health Assistance and Networking Across States
TLMs	Teaching Learning Materials
ULBs	Urban Local Bodies
UDISE	Unified District Information System for Education
UGC	University Grants Commission
UNESCO	United Nations Educational, Scientific and Cultural Organization
VEC	Village Education Committee
VSK	Vidyalaya Shiksha Samiti
WASH	Water, Sanitation and Hygiene
WIFS	Weekly Iron and Folic Acid Supplementation

EXECUTIVE SUMMARY



Executive Summary

"Education, to be complete, must be human; it must include not only the training of the intellect but the refinement of the heart and the discipline of the spirit. No education can be regarded as complete if it neglects heart and spirit."[1]

Dr. Sarvepalli Radhakrishnan

As India moves towards the goal of becoming a Viksit Bharat by 2047, the quality and reach of its school education system will play a decisive role in shaping social and economic progress. The National Education Policy (NEP) 2020 provides a comprehensive framework for achieving universal access, raising learning standards, and ensuring equity across all stages of schooling. This Report reviews the present state of the system, identifies the challenges that must be addressed, and recommends policy interventions and implementation roadmap to achieve this vision.

Drawing on data from the Unified District Information System for Education (UDISE) 2014-15 to UDISE+ 2024-25, Performance Assessment, Review and Analysis of Knowledge for Holistic Development (PARAKH) Rashtriya Sarvekshan 2024, National Achievement Survey (NAS) 2017, 2021, and the Annual Status of Education Report (ASER) 2024, this Report presents a detailed picture of the sector. India's 14.71 lakh schools serve over 24.69 crore students. While near-universal access has been achieved at the primary stage, enrolment at the higher secondary level, with a national Gross Enrolment Ratio (GER) of 58.4% and variations across States, presents a significant opportunity to further expand participation. Strengthening transition rates at each stage, particularly after upper primary, through integrated school complexes can help ensure smoother progression and sustained engagement in schooling.

Learning outcomes show signs of recovery across grades. Foundational literacy and numeracy have improved following the pandemic, and ongoing initiatives provide a strong platform to consolidate gains and move towards higher benchmarks. National Surveys indicate that students are increasingly able to perform foundational tasks, with continued efforts needed to deepen conceptual understanding and real-life application of knowledge. Focused strategies in rural areas, tribal communities, and economically disadvantaged households can accelerate equitable learning gains. Infrastructure expansion has been significant, with most schools now equipped with electricity and toilets. Further investments in inclusive facilities for children with special needs and expansion of digital access, particularly in smaller and remote schools, can help create more enabling learning environments across the country.

A major impetus for this Report came from the National Workshop on Quality Education, convened by NITI Aayog on 28 February 2025 at the Dr. Ambedkar International Centre, New Delhi. Chaired by Dr. V.K. Paul, Member (Education), NITI Aayog, the workshop brought together over 150 participants, including Principal Secretaries from several States, SCERT Directors, national education bodies, policy makers, international agencies such as UNESCO, civil society organisations, and teachers. A Special Address was delivered by Shri Sanjay Kumar, Secretary, Department of School Education & Literacy, Govt. of India. Four thematic panels examined key reform areas: strengthening

1 *Radhakrishnan, S. (1956). Occasional speeches and writings. New Delhi.*

foundational learning, empowering teachers as instructional leaders, building effective school leadership, and leveraging technology for learning. States shared innovations and candidly discussed implementation hurdles, offering a rich base of ideas for collaborative action. A subsequent stakeholder consultation with representatives from government, UNICEF, and NGOs further informed and strengthened the finalisation of this Report.

The opening chapter of this Report traces the historical evolution of school education in India, outlines major policy milestones since Independence, and presents an analytical overview of the current landscape in access, quality, equity, and funding. The second chapter describes the methodology and stakeholder consultations, drawing on national datasets and State-level inputs to frame the analysis. The third chapter provides a decadal analysis of the institutional landscape, enrolment trends, and the quality of education, highlighting how patterns have evolved over time and where critical gaps persist. The fourth chapter provides a synthesis of key challenges: fragmented school structures, foundational learning deficits, inequities in inclusion, gaps in teacher and leadership ecosystems, infrastructure disparities, and governance weaknesses.

The concluding chapter provides a consolidated set of policy recommendations with a phased implementation roadmap: short-term, medium-term, and long-term, accompanied by clearly defined responsibilities for national, state, and local actors, along with measurable performance indicators. The 33 policy recommendations aim to move the system beyond incremental adjustments towards sustained, structural transformation. They are grounded in the conviction that every child, regardless of geography or background, must have access to schools that provide not only infrastructure but also the knowledge, skills, and human values required to lead purposeful lives.

Taken together, the evidence shows that while India has made steady progress in strengthening school education over the years, the unfinished agenda remains significant. Reaching the goal of Viksit Bharat will require quality education to be seen not merely as a sectoral responsibility, but as a societal mission. This effort must draw in a broad set of contributors, governments at all levels, academic institutions, civil society organisations, philanthropy, industry, and local communities. Incremental change will not be sufficient; meeting the aspirations of a resurgent India will demand a system-wide transformation of school education. Such a transformation calls for a shared sense of purpose, sustained political and administrative resolve, and coordinated action, with the Central and State Governments working in close partnership, and local governments playing an active role.

The vision for Viksit Bharat@2047 will be realised only when classrooms become spaces where potential is recognised early, talent is nurtured consistently, and ambition is met with opportunity. With collective effort, the promise of universal, high-quality and values-based school education can be fulfilled, laying the foundation for a generation that is confident, capable, and committed to shape our nation's future.

A. SYSTEMIC RECOMMENDATIONS

1. Reform School System and Ensure Structural Continuity

1A. Strengthen School Provisioning through Composite Schools and Evidence-Based Rationalisation

1B. Operationalise School Complexes as Institutional Anchors for Equity, Continuity, and Resource Efficiency

2. Strengthen School Infrastructure

2A. Ensure Universal Access to Foundational Infrastructure

2B. Integrate Digital Infrastructure into Teaching, Learning, and School Governance

2C. Strengthen Laboratories, Libraries, and Resource Centres for Experiential Learning

3. Reform Governance and Enhance Administrative Capacity

3A. Rationalise Governance Structures and Enhance Local Autonomy

3B. Strengthen Institutional Capacity and Administrative Cadres

3C. Reform School Supervision and Academic Support Structures

3D. Develop Effective School Leadership through Structured Training and Decentralised Empowerment

3E. Strengthen State School Standards Authorities and Operationalise State School Quality Assessment and Assurance Frameworks

4. Institutionalise a "Whole-of-Society" Approach through State and District Task Forces on School Quality

4A. Establish State and District Task Forces on School Quality

5. Strengthen School Management Committees and Institutionalise Bottom-Up Planning

6. Elevate Teacher Deployment, Professional Capacity, and Career Progression

6A. Strengthen Teacher Deployment, Workforce Planning, and Time-on-Task Governance

6B. Improve Teacher Preparation, Subject Expertise, and Professional Development

7. Strengthen and Expand Digital and Broadcast-Based Learning for Inclusive Education

8. Promote Equity and Inclusion

8A. Strengthen Contextualised Support for Socially and Economically Disadvantaged Students

8B. Enhance Gender-Inclusive Systems

8C. Prevent and Address Dropouts through Education Continuity and Re-Entry Pathways

8D. Facilitate Education Continuity for Migrant and Mobile Populations

B. ACADEMIC RECOMMENDATIONS

1. Transform Pedagogy, Assessment, and Foundational Learning

1A. Shift from Textbook Completion to Foundational Mastery and Level-based Instruction

1B. Sustain Foundational Learning and Extending FLN Beyond Grade 3

1C. Contextualise and Localise Curricular Content for Inclusive Learning

1D. Institutionalise Competency-Based Assessments to Inform Pedagogy

2. Promote Holistic Education and Student Wellbeing

2A. Institutionalise School Health, Nutrition, and Preventive Care

2B. Strengthen School-Based Physical Health and Fitness

2C. Institutionalise Mental Health and Socio-Emotional Learning Systems

2D. Strengthen Holistic Education in Schooling

3. Strengthen Vocational Education and Skill Integration in Schooling

3A. Mainstream Vocational Education as an Aspirational and Integrated Pathway in Schooling

3B. Build Market Linkages and Enhance Regional Relevance of School-based Vocational Education

4. Strengthen ECCE

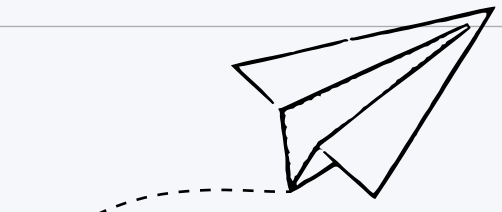
4A. Integrate ECCE with the Formal School System and Ensure Smooth Transitions

4B. Establish a Unified ECCE Governance and Implementation Framework

4C. Invest in ECCE Workforce Development and Professionalisation

5. Integrate Artificial Intelligence for Pedagogical Innovation and System Readiness

Chapter I
SCHOOL EDUCATION IN INDIA: INTRODUCTION



Chapter I

School Education in India: Introduction

Education in India has never been confined to classrooms or curriculum; it has long served as the moral and intellectual anchor of our civilisation. From ancient Gurukuls, where learning was guided by experiences and spiritual reflection, to the evolving forms of modern schooling, education has been the medium through which values are lived, identities are shaped, and the social fabric of society is held together across generations.

The legacy continues through an education system that spans every corner of the country, as reflected in UDISE 2024-25, which reports over 14.71 lakh schools serving more than 24.69 crore students. As India prepares to commemorate 100 years of Independence in 2047, its progress will not be measured by the number of schools or students in a classroom, but rather by what happens inside those classrooms, how every child is empowered to shape their life, and in doing so, the future of the nation.

The NEP 2020, in alignment with the national aspiration of Viksit Bharat @2047, reimagines school education as the foundation of a just, inclusive, and future-ready society rooted in cultural values, yet responsive to the demands of the 21st century. To achieve this transformation, India must focus on strengthening school education through universal access, adequate infrastructure, quality education, teacher training, and effective use of technology.

To understand the challenges and aspirations of school education today, it is important to reflect on where we began. This chapter traces the evolution of the Indian school education system, from ancient learning traditions to the most recent NEP 2020.

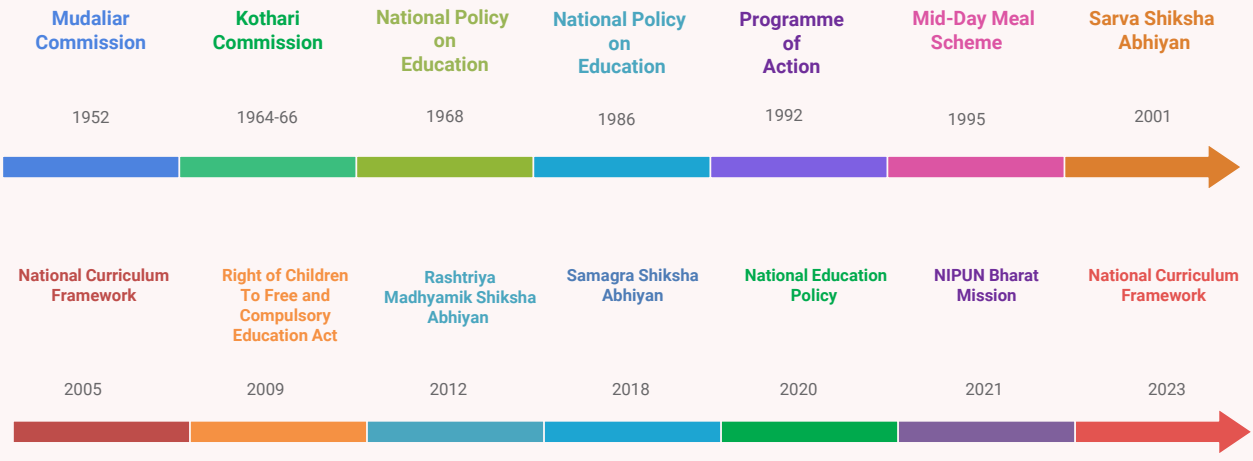


Figure 1.1: Timeline of Educational Policies and Interventions Post Independence

1.1 Evolution of Education in India

1.1.1 Ancient India

In ancient India, Vidya (knowledge) was regarded as the foundation of both individual growth and societal progress, combining both intellectual training with moral discipline and spiritual insight. Knowledge was described as life's most reliable companion - "नास्ति विद्यासमो बन्धुर्नास्ति विद्यासमः सुहृत्। नास्ति विद्यासमं वित्तं नास्ति विद्यासमं सुखम्॥" greater than friendship, wealth, or pleasure. It was revered as sacred, captured in the dictum "विद्या परं दैवतम्," which elevated education to the status of divinity itself. The tradition also stressed the progressive impact of learning: "विद्या ददाति विनयम् विनयाद्याति पात्रताम्। पात्रत्वाद्धनमाप्नोति धनाद्धर्मं ततः सुखम्॥" Knowledge gives rise to humility, humility to worthiness, worthiness to prosperity, prosperity to righteousness, and righteousness to lasting happiness. These ideals reveal that education in ancient India was not a utilitarian pursuit but the supreme wealth and guiding principle of civilisation.

1.1.2 Colonial Influence and the Reorientation of Indian Education

This indigenous and holistic approach was disrupted during the colonial era, when education was restructured to serve administrative goals. Elphinstone's Minutes (1823) and Macaulay's Minute on Education (1835)[2] institutionalised a model that marginalised vernacular knowledge systems and reoriented learning toward clerical and English-medium proficiency. As a result, education lost its rootedness in local culture, equity, and experiential learning.

1.1.3 Post-Independence Rebuilding and Constitutional Vision

Post-colonial India faced several challenges in the field of education, including inadequate infrastructure, limited access to quality education, and the poor quality of teachers. Socio-economic disparities further impacted access and quality, yet Education became the driving force of development for a nation that had to rebuild from scratch.

> *"If the poor boy cannot come to education, education must go to him."*[3]
>
> ***Swami Vivekananda***

Taking inspiration from our thought leaders, the Indian Constitution, under Article 45, made a commitment to make elementary education (for students ages 6-14) free and universal by 1960. While progress in areas such as literacy and universalisation of elementary education was gradual, sustained efforts by the Government, irrespective of the frail socio-economic conditions, were responsible for our continued improvement in the sector.

In pursuit of our constitutional goals, early commissions were constituted to plan and subsequently strengthen various aspects of school education. Mudaliar Commission, 1952, introduced General Science as a compulsory subject, promoted using mother tongue as the medium of instruction, and focused on improving teacher training, service conditions, and the provision of educational and vocational guidance in schools.[4]

2 *Woodrow, H. (1862). Macaulay's minutes on education in India, written in the years 1835, 1836 and 1837. C. B. Lewis at the Baptist Mission Press.*
3 *Vivekananda, S. (1948). Our duty to the masses. In The complete works of Swami Vivekananda (Vol. 4). Advaita Ashrama.*
4 *Government of India, Ministry of Education. (1953). Report of the Secondary Education Commission: October 1952-June 1953 (A. L. Mudaliar, Chair). Government of India.*

1.1.4 Education in the First Three Five-Year Plans (1951-1966)

The first three Five-Year Plans[5] were instrumental in translating constitutional and philosophical commitments into concrete educational programmes. The First Plan (1951-1956) prioritised universal primary education, expansion of teacher training, and adult literacy, especially for rural and disadvantaged groups. Special attention was given to improving access for girls and Scheduled Castes and Scheduled Tribes (SC/STs).

The Second Plan (1956-1961) responded to the nation's industrial aspirations by expanding technical and vocational education, particularly through engineering colleges and polytechnic institutions. At the same time, it maintained a continued focus on elementary education and adult literacy.

Building on the first two plans, the Third Plan (1961-1966) emphasised the universalisation of elementary education, improvement of secondary schooling, and strengthening of curriculum and teacher education. It also introduced state-level education planning units, which created a more coordinated framework for implementation and paved the way for the landmark Kothari Commission.

1.1.5 Expansion through National Policies and Planning (1968-1995)

The Kothari Commission[6] (1964-1966), significantly shaped Indian education. It stated that *"India's destiny is being made in its classrooms."* Although implementation faced delays, its recommendations led to improvements in vocational, agricultural, teacher, and science education, and laid the foundation for the National Policy on Education (NPE).[7]

Formulated in 1968 through the recommendations of the Kothari Commission, the NPE was India's first comprehensive policy on Education.

It proposed the following:

1. Adoption of the three-language formula.
2. Provision of free and compulsory education up to the age of 14.
3. Prioritisation of investment in science education and teacher training.
4. Allocation of 6% of the national income to education.

The National Policy on Education 1986 (later revised in 1992) reinforced these priorities with a sharper focus on access, equity, and quality. It aimed at universalisation of elementary education, targeted school infrastructure, and introduced 'Operation Blackboard'[8] with the explicit goal of ensuring that primary schools had the bare minimum amenities. The policy also introduced Navodaya Vidyalayas to nurture rural talent, expanded vocational education at the secondary level, and strengthened teacher education through DIETS and SCERTs. It also advocated for decentralised planning through Panchayati Raj Institutions (PRIs).

India's policy trajectory during this period was also shaped by the emerging global commitment to universal education. The *Education for All (EFA)* programme, launched at the 1990 World Education Conference in Jomtien, Thailand, recognised education as a fundamental human right and underscored the need to move beyond enrolment to address quality, relevance, and equity.[9] In the Indian context, these principles reinforced the drive towards universalising elementary education, improving literacy, and enhancing learning outcomes, and subsequently informed flagship initiatives such as the District Primary Education Programme (DPEP) and the Sarva Shiksha Abhiyan.

5 *Ministry of Statistics and Programme Implementation. Five Year Plans (Statistical Year Book India, Chapter 7). Government of India.*
6 *Education Commission, 1964 -1966, Vol. I, Ch. 1, Sec. 1.01*
7 *Government of India. (1986). National Policy on Education 1986. Ministry of Human Resource Development.*
8 *Government of India, National Council of Educational Research and Training. (1988). Operation Blackboard: Essential facilities at the primary stage — Norms and specifications.*
9 *Key conference outcomes in education: World Conference on Education for All, Jomtien, Thailand, 5-9 March 1990.*

Apart from recommending curricular and structural reforms, efforts were made to address the socio-economic barriers that denied access to marginalised communities. The Mid-day Meal Scheme (1995) encouraged all primary schools to provide cooked mid-day meals. The initiative significantly improved the academic performance of rural school children by improving attendance, reducing absenteeism and dropout rates. Additionally, the scheme lowered financial burden on families.

1.1.6 Towards an Inclusive Education System (2000-2010)

The early years of the new millennium marked a decisive shift in India's education policy towards universalising access and addressing long-standing inequities. The Sarva Shiksha Abhiyan (SSA),[10] launched in 2001-02, was a flagship programme that aimed to provide useful and relevant elementary education for all children in the 6 to 14-year age group by 2010. It sought to bridge social, regional and gender gaps through active community participation in school management. The key objectives of SSA were as follows:

- Ensure that every child in the 6-14 age group has access to a neighbourhood school, with special focus on reaching out to children from disadvantaged and marginalised groups.
- Reduce dropout rates and ensure that all children complete eight years of elementary schooling.
- Promote equity and inclusion by bridging gaps in enrolment, retention, and learning outcomes across gender and social categories.
- Improve the quality of teaching and learning through teacher training, curriculum reform, improved learning materials, and continuous assessment.
- Provide adequate physical infrastructure (classrooms, toilets, drinking water, boundary walls, ramps, etc.) and learning resources in all schools.
- Ensure inclusive education by integrating children with disabilities into mainstream schools and providing appropriate support services.
- Involve local communities, parents, and School Management Committees (SMCs) in planning, implementation, and monitoring of school activities.

India's commitment was reinforced by its role as a signatory to the United Nations Millennium Declaration (2000), which set Millennium Development Goal (MDG) 2 to achieve universal primary education by 2015.[11] The MDG target called for every child, boys and girls alike, to complete a full course of primary schooling. In alignment with this goal, SSA was scaled up nationally, and the Mid-Day Meal Scheme was expanded to boost enrolment, attendance, and retention, particularly among children from disadvantaged groups.

This period also overlapped with the United Nations Decade of Education for Sustainable Development (2005-2014), led by UNESCO.[12] The initiative encouraged the integration of principles and practices of sustainable development into curricula, teacher training, and school activities, fostering environmental awareness, social responsibility, and civic engagement from the early years of schooling.

Building on these global and national commitments, the Right of Children to Free and Compulsory Education Act (RTE), 2009 made education a justiciable right, guaranteeing free and compulsory education for all children aged 6-14 years. It mandated 25% reservation in private schools for children belonging to economically weaker sections and disadvantaged groups. Moving further, India became one of the 135 countries to make education a fundamental right in April 2010, with the National Commission for Protection of Child Rights monitoring its implementation.

10 *Ministry of Education, Government of India. Sarva Shiksha Abhiyan framework for implementation*
11 *United Nations General Assembly. (2000). United Nations Millennium Declaration (Res. 55/2).*
12 *United Nations. Shaping the future we want: UN Decade of Education for Sustainable Development (2005-2014).*

The post-RTE years saw a consolidation of earlier gains in access and infrastructure, accompanied by a sharper focus on quality and learning outcomes. The Rashtriya Madhyamik Shiksha Abhiyan (RMSA), launched in 2009 and scaled up during this period, sought to extend the universalisation agenda to the secondary stage. It aimed to ensure a secondary school within a reasonable distance of every habitation, upgrade infrastructure, improve teacher quality, and enhance student retention.[13]

1.1.7 From Consolidation to Transformation (2010-2020)

The decade following the enactment of the RTE 2009, saw a consolidation of earlier gains in access and infrastructure, alongside a growing recognition that quality and learning outcomes required urgent attention. RMSA, launched in 2009, was scaled up during this period to expand access to secondary education, upgrade infrastructure, improve teacher quality, and raise retention rates.

In 2015, the adoption of Sustainable Development Goal 4 (SDG 4) at the global level broadened the education agenda to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. SDG 4 went beyond enrolment targets to include specific goals for free and quality primary and secondary education, early childhood care and education, vocational and tertiary education, and teacher development, with a strong focus on marginalised groups. These priorities are closely aligned with India's emerging emphasis on universal access, foundational learning, equity, and skill development. By the end of this period, the need for a unified, outcome-oriented approach to school education had become evident, setting the stage for the launch of Samagra Shiksha in 2018.

The launch of Samagra Shiksha brought a much-needed shift in how school education is planned and delivered across India. Instead of treating pre-primary, elementary, and secondary education as separate concerns, it brought them all under a single, unified framework. The programme integrated three major schemes: SSA, RMSA, and Teacher Education into one integrated programme. The scheme focused on improving learning outcomes, supporting teacher development, and bridging social and gender gaps.[14]

1.1.8 National Education Policy (NEP) 2020: Laying the Foundation for 21st Century Schooling

While these reforms expanded access and created a more coherent system, they also revealed a deeper challenge: ensuring that all children develop core cognitive capacities, including foundational literacy and numeracy, as well as higher-order skills such as critical thinking and problem-solving, alongside social, ethical, and emotional dispositions. This recognition set the stage for NEP 2020.

NEP 2020 seeks to transform the education system so that it prepares learners not only for academic achievement but also for meaningful participation in society, charting a pathway towards inclusive and high-quality education for all children by 2040. Key provisions of the policy are as follows:

(i) Foundational Literacy and Numeracy as a National Mission

The Policy mandated achieving universal foundational literacy and numeracy by Grade 3 by 2025, to be implemented through the NIPUN Bharat Mission.[15] State/UT Governments are required to prepare implementation plans with stage-wise targets and robust tracking mechanisms.

13 *Ministry of Education, Government of India. Rashtriya Madhyamik Shiksha Abhiyan (RMSA).*
14 *Press Information Bureau. (2025, February 4). Leap in rural school enrolment: Key Findings (ASER) 2024 [Press release]. Ministry of Education, Government of India.*
15 *Press Information Bureau. (2021, July 5). Union Education Minister launches NIPUN Bharat Programme today [Press release]. Ministry of Education, Government of India.*

(ii) Revised School Structure

The Policy replaces the existing 10+2 model with a 5+3+3+4 curricular structure covering ages 3-18, aligning school stages with child development needs:

- Foundational Stage (3 years pre-school/Anganwadi + Grades 1-2)
- Preparatory Stage (Grades 3-5)
- Middle Stage (Grades 6-8)
- Secondary Stage (Grades 9-12)

(iii) Curriculum and Pedagogy Reform

The Policy emphasises reducing curricular content to core concepts, fostering critical thinking, and promoting experiential, inquiry-based, and application-oriented pedagogy. Arts, sports, and vocational education are to be integrated into the mainstream curriculum to promote holistic development.

(iv) Early Childhood Care and Education (ECCE)

The Policy envisages universal access to quality ECCE for all children aged 3-6 years by 2030.[16] Anganwadi centres are to be strengthened, co-located with primary schools where possible, and integrated within school complexes to ensure school readiness.

(v) Language Policy

The Policy stipulates that, wherever possible, the medium of instruction until at least Grade 5, and preferably till Grade 8 and beyond, will be the mother tongue or home/local language. The three-language formula is retained with flexibility, and bilingual proficiency is encouraged through high-quality language teaching.

(vi) Equity and Inclusion

The Policy provides for targeted interventions to address the needs of socio-economically disadvantaged groups (SEDGs), including SC/ST, OBC, minorities, children with special needs (CwSN), and girls. It mandates the creation of Special Education Zones and a Gender-Inclusion Fund.

(vii) Teacher Recruitment and Professional Development

The Policy mandates a four-year integrated B.Ed. degree as the minimum qualification for teachers, transparent and merit-based recruitment, structured career progression pathways, and continuous professional development for all teachers.

(viii) Assessment Reforms

The Policy calls for a shift from high-stakes, rote-based examinations to competency-based assessments focused on the application of knowledge. It establishes the National Assessment Centre, Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH), to set norms and guide student assessment at all levels.

16 *Ministry of Education, Government of India. Early childhood care and education (ECCE): Background note*

(ix) Vocational Education

The Policy mandates the integration of vocational education from Grade 6 onwards, with opportunities for internships and practical exposure to local trades and skills.

(x) Use of Technology

The Policy provides for the promotion of digital and online learning through platforms such as Digital Infrastructure for Knowledge Sharing (DIKSHA) and the National Educational Technology Forum (NETF), to enhance pedagogy, accessibility, and teacher training.

(xi) Infrastructure and Support Systems

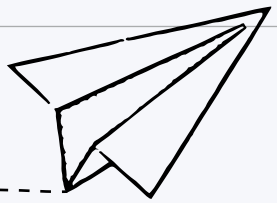
The Policy mandates ensuring adequate, inclusive, and safe infrastructure, including barrier-free access for CwSN, digital enablement of classrooms, and provision of adequate teaching and learning materials.

1.1.9 Conclusion

Over the past five years, NEP 2020 has brought about significant changes to the school education system. The NIPUN Bharat Mission has been rolled out to achieve foundational literacy and numeracy for all children, and several States have started implementing school complex and cluster models to support decentralised planning. Curriculum renewal has moved forward with the release of the National Curriculum Frameworks, and teachers are receiving continuous professional training through National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA)[17] and digital platforms such as DIKSHA.[18] The creation of PARAKH has begun the shift towards competency-based assessments that focus on actual learning. While progress varies across States, these reforms collectively are shaping a more inclusive and outcome-focused education system, aimed at ensuring quality learning for every child by 2047.

17 *Ministry of Education, Government of India. NISHTHA: National Initiative for School Heads' and Teachers' Holistic Advancement.*
18 *Ministry of Education, Government of India. DIKSHA: Digital Infrastructure for Knowledge Sharing.*

Chapter II
METHODOLOGY AND STAKEHOLDER CONSULTATIONS



Chapter II

Methodology and Stakeholder Consultations

This Report draws on multiple sources of evidence, combining data analysis with inputs from the field and consultations with key stakeholders in school education. The aim was to capture both the quantitative trends and on-ground experiences that shape implementation. The findings are based on official data, discussions with central and state agencies, and contributions from institutions and experts working in the sector.

2.1 Analytical Framework and Data Sources

The analysis is based on multiple national datasets that collectively provide a detailed picture of India's school education system. The *Unified District Information System for Education Plus (UDISE+)* provides the primary statistical base, covering school-level data on enrolment, infrastructure, teachers, and management. Learning outcomes have been studied using *PARAKH* and the *National Achievement Survey (NAS)*, while insights from the *Annual Status of Education Report (ASER)* help situate learning levels within broader social and household contexts.

The data is reviewed across a ten-year period (2014-15 to 2024-25) to capture temporal changes in access, equity, and quality. This exercise helped build a coherent view of progress and emerging challenges across States.

2.2 Analytical Approach

The study follows a mixed-method approach. Quantitative indicators were analysed to understand trends in enrolment, transition, pupil-teacher ratios, and availability of basic facilities. Alongside, qualitative insights were drawn from state case studies, official correspondence, and the deliberations held during the stakeholder consultations.

This combination allowed the Report to interpret data not as isolated figures but as reflections of institutional realities, how policies translate into classrooms, how schools function within their communities, and how teachers and students experience change. In many cases, the numerical trends were read alongside narratives from States to understand why similar interventions produced different outcomes in different contexts.

2.3 Stakeholder Consultations

Consultations were a central component in the preparation of this Report. The National Workshop on Quality Education, held on 28 February 2025 at the Dr. Ambedkar International Centre, New Delhi, served as the primary platform for dialogue and collaboration.[19] The workshop was chaired by Dr. V. K. Paul, Member (Education), NITI Aayog, and attended by Shri Sanjay Kumar, Secretary, Department of School Education & Literacy (DoSE&L), Government of India.

19 *Source : NITI-State Workshop Series Compendium*

It brought together over 150 participants, including the Director, National Council for Education Research and Technology (NCERT); Chairperson, Central Board of Secondary Education (CBSE); Vice-Chancellor, National University of Educational Planning and Administration (NUEPA); Joint Secretary, DoSE&L; and Principal Secretaries and Secretaries of School Education Departments from more than 15 States and UTs, as well as Directors, SCERTs. Representatives from international agencies, such as UNESCO, development partners, and non-governmental organisations, also participated, ensuring a constructive exchange among policy leaders, administrators, and field practitioners.

Four thematic panels framed the deliberations:

1. **Getting the Basics Right:** Focussed on Early Childhood Care and Education (ECCE), Foundational Literacy and Numeracy (FLN), and school infrastructure.
2. **Teachers as Instructional Leaders:** Examined professional development, mentorship, and leadership among teachers.
3. **Nurturing School Leadership:** Explored governance reforms, school rationalisation, and community participation.
4. **Technology for Education:** Examined digital learning, AI, and scalable innovations for equity and access.

Each panel drew on the collective experience of government institutions and non-government organisations. The participation of the State Governments ensured that systemic perspectives were captured, and the contributions of NGOs and development partners added lessons from practice and innovation.

An additional stakeholder consultation was convened on 2nd December 2025, as part of the finalisation process for this Report. The meeting was convened by Dr I.V. Subba Rao, Distinguished Fellow, NITI Aayog. Representatives from the NCERT, UNICEF, and the Central Square Foundation (CSF) participated in the consultation.

2.4 Case Studies and State Inputs

Case studies on good practices by States and UTs were collected through NITI Aayog's *NITI For States Portal* and submissions made by States and UTs.

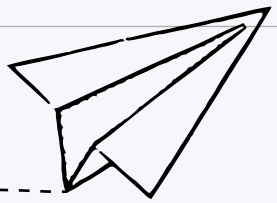
2.5 Integration of Evidence and Consultation Insights

Quantitative analysis and stakeholder feedback were integrated throughout the drafting process. Patterns observed in national datasets informed the structure of the consultations, while the insights gathered during the workshop helped interpret the data more meaningfully. For example, the prevalence of small and single-teacher schools was discussed alongside States' rationalisation efforts during the workshop, and NAS results were analysed in light of classroom-level issues raised by teachers and SCERTs. This iterative process ensured that the findings are grounded in both numbers and lived realities. It also enabled the Report to reflect the diversity of India's education system, where challenges are often shared, but solutions must remain context-specific.

2.6 Conclusion

The preparation of this Report reflects a collaborative exercise that brings together evidence, experience, and reflection from across India's education landscape. The data provide the foundation, but it is the dialogue with those implementing policy on the ground that gives meaning to the analysis. The insights from the National Workshop on Quality Education have shaped not only the understanding of key issues but also the direction of the recommendations that follow.

Chapter III
SCHOOL EDUCATION IN INDIA: A TEMPORAL ANALYSIS

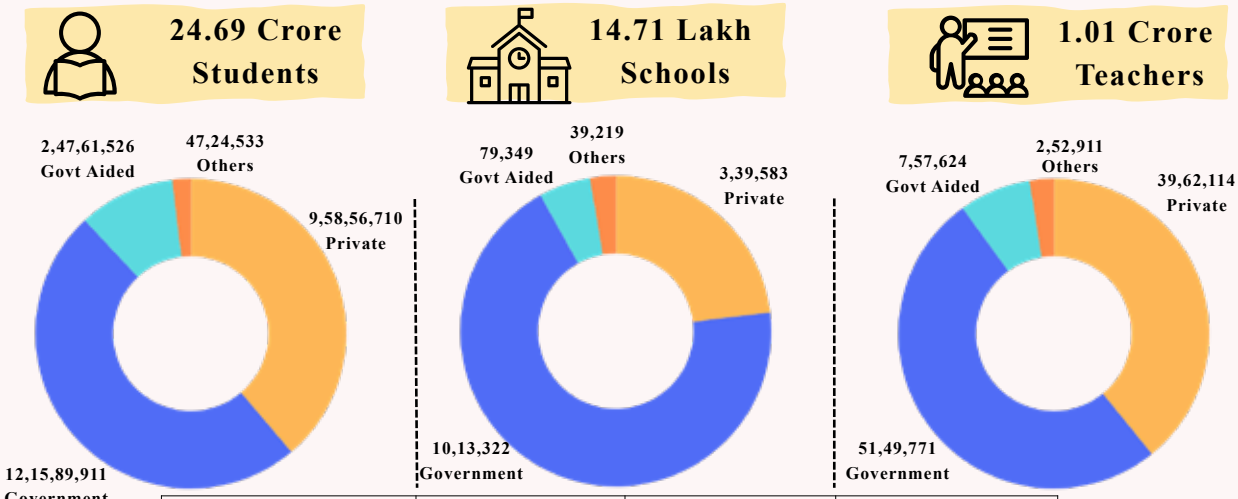


Chapter III

School Education in India: A Temporal Analysis

3.1 Overview

Over the past several decades, India's school education system has undergone steady expansion, emerging as one of the largest in the world with more than 14.71 lakh schools and nearly 24.69 crore students, as per the UDISE+ Report of 2024-25. This transformation reflects a sustained national commitment to improving educational access and participation across diverse geographies and population groups.



TYPE	STUDENTS	SCHOOLS	TEACHERS
Government	49.2%	68.1%	50.9%
Government Aided	10%	5.4%	7.5%
Private	38.8%	23.1%	39.1%
Others	1.9%	2.7%	2.5%

Figure 3.1: Snapshot of India's School Education System (2024-25)

Source: UDISE+ 2024-25

The UDISE+ 2024-25 presents a comprehensive overview of the current status of school education in India. While the data for 2024-25 serves as a key reference year, a single-year snapshot does not provide an adequate reflection of the sector's progress or the persistence of gaps over time. Accordingly, this chapter presence a decade-long temporal analysis from 2014-15 to 2024-25 to assess trends in enrolment, retention, and infrastructure across States. It examines key indicators of school education across three dimensions: access (number of schools, enrolment, and infrastructure), equity (gender, children with special needs, and SCs/STs), and quality (learning outcomes and teacher availability).[20] The analysis identifies the major improvements achieved over the past decade and the challenges that persist, along with variations across States.

20 *The three dimensions are the bedrock features of the NEP 2020 policy highlighted in its fundamental principles. Press Information Bureau. (2022, August 1). Salient features of NEP, 2020 [Press release]. Ministry of Education.*

3.2 Access

Expanding access to schooling has long been a core priority in India's education policy, with considerable efforts directed toward expanding the institutional reach of schools across the country. Over time, this has resulted in the establishment of an extensive network of primary, upper primary, secondary, and higher secondary schools. These institutions vary in terms of management type, geographic spread, and levels of schooling offered.

3.2.1 School Distribution and Institutional Landscape

(i) Trends in the Number of Schools (2015-2025) (In Lakhs)

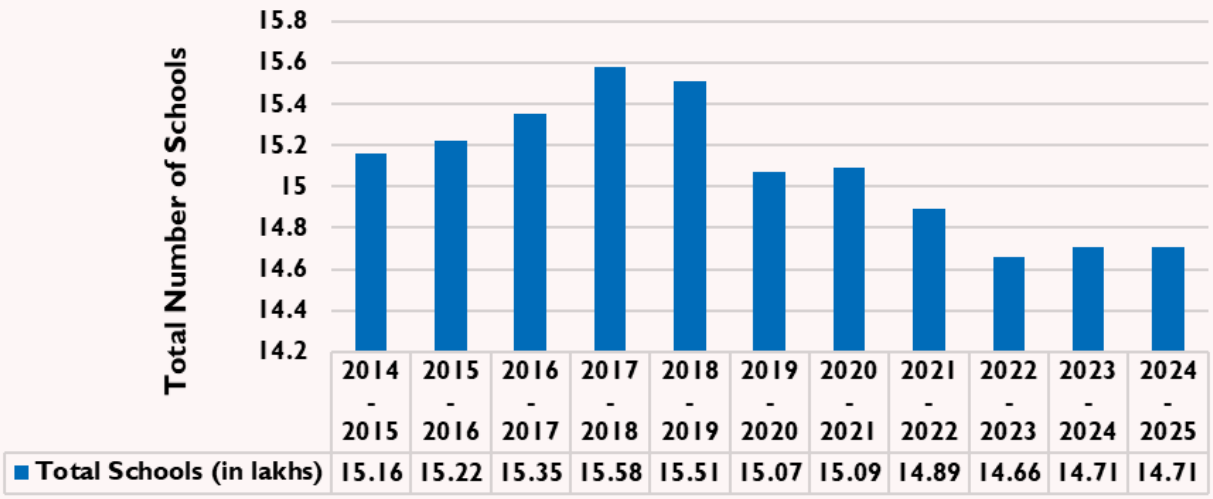


Figure 3.2: Number of Schools over the years (2015-2025)

Source: UDISE+ 2014-15 to 2024-25

Figure 3.2 shows a two-phase trend in the total number of schools over the last decade. Between 2014-15 and 2017-18, the number of schools expanded steadily, increasing from 15.16 lakh to a peak of 15.58 lakh. This reflected the cumulative impact of earlier policy initiatives aimed at expanding institutional access and ensuring schooling facilities within reasonable distances for children, particularly at the primary and upper primary levels.[21]

From 2018-19 onwards, however, the trend reversed, with the total number of schools showing a consistent decline. By 2022-23, the figure had dropped to 14.66 lakh, representing a contraction of nearly 92,000 institutions compared to the 2017-18 peak. While there was a modest uptick in 2023-24, the overall number remained broadly stable in 2024-25 at 14.71 lakh, significantly lower than the earlier peak.

This decline is not necessarily indicative of reduced access. Instead, it reflects a consolidation of schooling infrastructure, particularly through measures such as school rationalisation, merging of under-enrolled institutions, and efforts to optimise resources under schemes like Samagra Shiksha with a focus on improving quality, efficiency, and sustainability rather than only increasing the absolute number of institutions.[22]

21 *Including the Right to Education Act (2009), Sarva Shiksha Abhiyan (2009), and other initiatives to promote the inclusion of children with special needs in education.*
22 *Schemes like PM SHRI under SSA have strengthened the school ecosystem by encouraging healthy competition and improving infrastructure and resources.*

(ii) Number of Schools by Management Type

Schools in India are classified into four broad categories based on their management structure, as defined below. Their distribution is presented in Table 3.1.

- **Government School:** A school that is funded and administered by the central or state government.
- **Government-Aided School:** A school managed by a private body but receiving partial financial support from the government.
- **Private Unaided School:** A school that is privately established, financed, and managed, with no financial assistance from the government.
- **Others:** This category includes madrasas, schools run by religious or charitable institutions, unrecognised private schools, and alternative education centres.

Table 3.1: Number of Schools by Management Type (In lakhs) (2014-15 to 2024-25)

Management Type	(2014-15)	(2024-25)
Government	11.07 (73%)	10.13 (68.9%)
Government Aided	0.83 (5.5%)	0.79 (5.4%)
Private Unaided Recognised	2.88 (19%)	3.39 (23%)
Others (incl. Madrasas, etc.)	0.38 (2.5%)	0.39 (2.7%)
Total	15.16	14.71

Source: UDISE+ 2014-15, 2024-25

Table 3.1 shows that government schools continue to account for more than two-thirds of the total number of schools in the country. At the same time, their absolute number has declined from 11.07 lakh in 2014-15 to 10.13 lakh in 2024-25, reflecting the impact of consolidation and rationalisation measures undertaken by States. In contrast, private unaided schools have recorded steady growth, indicating the expanding role of the private sector in school education. Government-aided schools constitute only a small share of the total, while the "Others" category, comprising madrasas and institutions managed by religious or charitable organisations, remains marginal.

(iii) Grade Coverage of Schools

Schools in India are also classified based on the range of grades they offer. This classification provides insights into the structure and continuity of schooling across different educational stages. Table 3.2 presents the category-wise distribution of schools.

- **Primary Only:** Schools offering Grades 1 to 5.
- **Upper Primary Only:** Schools catering to Grades 6 to 8.
- **Primary to Upper Primary**: Schools offering continuous education from Grade 1 to 8.
- **Primary to Secondary:** Schools providing uninterrupted education up to Grade 10.
- **Upper Primary to Secondary**: Schools offering Grades 6 to 8.
- **Secondary Only:** Standalone institutions offering only Grades 9 and 10.
- **Primary to Higher Secondary**: Schools with complete coverage from primary through higher (1 to 12) secondary levels.
- **Upper Primary to Higher Secondary:** Schools offering Grades 6 to 12.
- **Secondary to Higher Secondary:** Institutions offering Grades 9 to 12.
- **Higher Secondary Only:** Schools offering only the Grades 11 and 12.

Table 3.2: Grade Coverage of Schools in India (2024-25)

India/State / UT	Total	Primary	Upper Primary		Secondary			Higher Secondary			
		(1 to 5)	(1-8)	(6-8)	(1-10)	(6-10)	(9-10)	(1-12)	(6-12)	(9-12)	(11-12)
All India	1,471,473	7,30,518	3,45,749	88,264	73,379	42,541	26,829	79,980	41,784	26,437	15,992
Andaman & Nicobar Islands	408	200	84	0	51	3	0	49	15	6	0
Andhra Pradesh	61,317	38,212	7,498	12	5,585	5,946	0	557	780	0	2,727
Arunachal Pradesh	3,229	1,446	1,234	21	268	67	0	89	66	38	0
Assam	55,283	35,866	5,164	3,952	3,803	1,958	1,308	1,464	882	155	731
Bihar	94,339	39,035	42,613	257	720	151	453	1,325	938	8,460	387
Chandigarh	207	11	26	0	66	0	0	100	3	1	0
Chhattisgarh	56,802	32,380	3,512	13,175	840	39	1,824	2,264	254	2,505	9
DD&DNH	433	167	160	3	26	3	15	21	7	30	1
Delhi	5,556	2,528	773	30	243	83	0	1,329	509	61	0
Goa	1,479	854	67	3	198	228	1	16	2	0	110
Gujarat	53,355	13,371	26,125	692	943	52	3,359	2,443	349	5,301	720
Haryana	23,494	9,569	2,655	2,217	1,783	925	0	3,782	2,557	4	2
Himachal Pradesh	17,330	10,390	647	1,775	814	961	0	714	2,012	10	7
Jammu & Kashmir	24,192	10,554	9,043	102	2,856	303	26	681	149	474	4
Jharkhand	44,376	23,149	15,857	57	2,368	546	334	884	498	354	329
Karnataka	74,859	22,515	29,773	225	6,936	1,264	8,399	783	192	964	3,808
Kerala	15,757	6,359	3,768	644	1,417	360	157	1,520	1,002	474	56
Ladakh	961	366	419	10	88	24	1	16	9	27	1
Lakshadweep	36	15	10	0	0	0	0	3	3	5	0
Madhya Pradesh	1,22120	60,377	35,840	7,323	5,250	939	2,009	6,865	1,406	2,145	6
Maharashtra	1,08,250	49,478	28,956	82	11,120	5,925	924	7,751	1,307	181	2,526
Manipur	4,666	2,454	908	37	865	86	22	180	37	10	67
Meghalaya	14,587	9,083	295	3,253	231	258	1,023	70	67	93	214
Mizoram	3,974	1,442	467	1,089	30	6	689	6	12	6	227
Nagaland	2,750	1,172	763	17	470	108	2	166	51	1	0
Odisha	61,565	28,407	18,601	2,251	3,687	3,265	2,308	432	453	67	2,022
Puducherry	763	299	68	1	153	32	0	144	52	8	6
Punjab	27,281	13,457	1,955	2,629	2,207	1,716	3	3,040	2,075	56	143
Rajasthan	1,06,302	36,778	33,784	215	6,955	59	7	27,889	491	122	2
Sikkim	1,245	658	313	0	142	3	0	117	12	0	0
Tamil Nadu	57,935	34,289	9,168	77	1,759	3,733	6	4,447	4,392	49	15
Telangana	43,154	20,521	7,705	7	6,401	5,222	0	974	506	0	1,818
Tripura	4,943	2,453	1,260	1	660	5	0	509	55	0	0
Uttar Pradesh	2,62,358	1,35,658	52,054	38,189	3,629	4,650	3,659	7,610	12,164	4,729	16
Uttarakhand	22,452	12,673	2,701	2,914	322	832	288	883	1,741	140	18
West Bengal	93,715	74,332	1,483	7,004	493	2,789	0	857	6,736	1	20

Source: UDISE+ 2024-25

As shown in Table 3.2, 50% of India's schools offer only primary education (Grades 1-5), suggesting a strong foundational presence. However, there is a significant decline in the number of schools offering education beyond the primary level. Only 5.4% of schools provide continuous schooling from Grade 1 to 12. This fragmented progression structure compels students to change institutions multiple times, which contributes to transition inefficiencies and increases the risk of dropout. Rajasthan accounts for the largest share of integrated schools covering Grades 1 to 12, with 27,889 institutions representing nearly 35% of the country's total and reflects sustained progress toward vertical integration in school education. In contrast, States with large overall school networks show substantial gaps at higher levels. West Bengal has only 0.91% (857) of its 93,715 schools integrated; Bihar records 1.40% (1,325) out of 94,339 schools; and Uttar Pradesh, despite having the largest school system in the country with 2,62,358 schools, provides integrated Grades 1-12 in just 2.90% (7,610) of institutions. These disparities illustrate persistent structural challenges in ensuring access and progression beyond the primary stage.

3.2.2 Enrolment

Enrolment trends provide a lens to assess the reach, equity, and effectiveness of the school education system and reveal deeper insights into parental preferences, institutional access, and inclusion outcomes. These patterns also highlight systemic imbalances and inform planning for targeted interventions under NEP 2020 and Samagra Shiksha.

Summary of Insights

1. **System transition from expansion to consolidation**

   The recent moderation in overall enrolment reflects demographic stabilisation and marks a transition from an expansion-driven schooling model to one requiring consolidation and optimisation. Secondary education as the critical participation gap

   While elementary participation remains robust, enrolment ratios decline substantially at secondary and higher secondary levels. The principal systemic challenge is therefore concentrated in ensuring sustained participation beyond Grade 8, particularly during early adolescence.

2. **Rising attrition at the secondary stage signals structural barriers**

   The sharp increase in dropout rates at the secondary level indicates that retention gains achieved at the primary stage are not fully translating into completion outcomes. This suggests the presence of academic, economic, or access-related barriers that intensify at higher grades.

3. **Transition from upper primary to secondary represents a key risk point**

   Evidence from transition patterns highlights weakening progression into secondary education. This stage constitutes a decisive inflection point where targeted academic support, financial assistance, and institutional preparedness become critical to sustaining enrolment.

4. **Institutional fragmentation may influence continuity**

   The limited presence of fully integrated schools offering a continuous Grades 1-12 pathway suggests that students often navigate multiple institutional transitions. Such structural discontinuity may be contributing to enrolment attrition at higher stages and warrants greater alignment with integrated school complex models.

Collectively, the enrolment evidence indicates that India's schooling challenge has evolved from ensuring access to sustaining participation through the full secondary cycle, with particular emphasis on strengthening continuity, retention, and system responsiveness at higher grades

(i) Trends in Enrolment (2014-15 to 2024-25)

As shown in Table 3.3, overall school enrolment remained stable at around 26 crore for much of the past decade but has declined to 24.69 crore by 2024-25. This reduction is partly attributable to demographic shifts, particularly falling fertility rates leading to a smaller school-age population, alongside the effects of school consolidation and challenges in retention at higher levels of education.

Table 3.3: Enrolment over the years

Year	Enrolment (In crores)
2014-2015	26.95
2015-2016	27.10
2016-2017	26.13
2017-2018	26.16
2018-2019	26.02
2019-2020	26.45
2020-2021	26.44
2021-2022	26.52
2022-2023	25.17
2023-2024	24.80
2024-2025	24.69

Source: UDISE+ 2014-15 to 2024-25

(ii) Enrolment by School Management Type

The distribution of enrolment across different management types reflects not only patterns of access but also household choices and broader education provisions. These choices are shaped by perceptions of quality, affordability, and trust in governance.

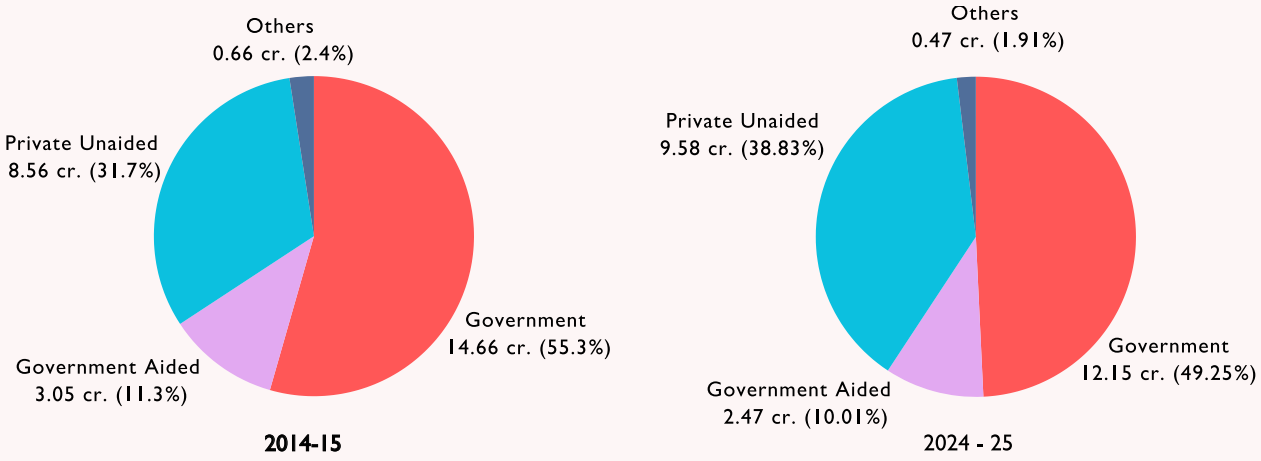


Figure 3.3: Management-wise enrolment in India

As shown in Figure 3.3, government schools continue to serve as the primary providers of education, though their share has declined over the decade, from 54.3% in 2014-15 to 49.25% in 2024-25. Government-aided schools account for about one-tenth of total enrolment, registering a slight reduction in their share during the same period. In contrast, private unaided institutions, while fewer in number, have expanded their enrolment share considerably from 31.7% in 2014-15 to 38.8% in 2024-25. This reflects rising household demand for private schooling. The "Others" category, including Madrasas, unrecognised institutions, and alternative schools, continues to serve a small proportion of students, with their share declining marginally from 2.4% to 1.9%.

(iii) Level-Wise Enrolment

An analysis of level-wise enrolment reveals a consistent decline in the number of students at successive stages of schooling, as shown in Figure 3.4. In 2014-15, primary education (Grades 1-5) accounted for nearly half of total enrolment, while by 2024-25 this share had fallen to 42.3%. Upper primary and secondary levels have maintained a relatively stable share, though without reflecting the expected growth that should have occurred as earlier cohorts progressed.

Under normal progression, the large enrolment recorded at the primary and upper primary stages in 2014-15 should have been reflected in significantly higher participation at the secondary and higher secondary levels by 2024-25. However, this has not materialised, as attrition across the school cycle has reduced the pool of students transitioning to higher grades. The share of enrolment at the higher secondary stage has increased from 8.7% in 2014-15 to 11.2% in 2024-25, suggesting some improvement in transitions, yet only a small fraction of the initial cohort continues to this stage.

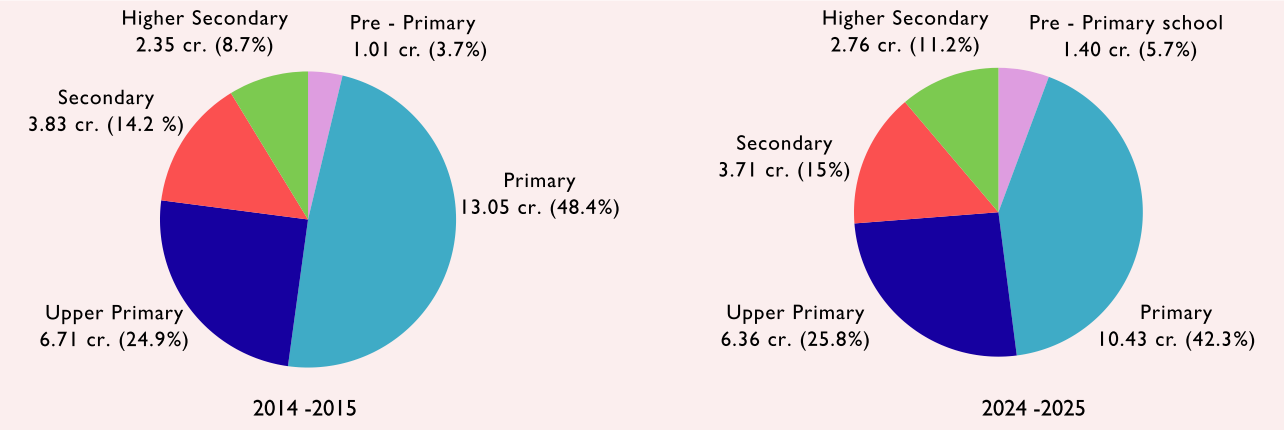


Figure 3.4: Level-wise enrolment in India

(iv) Gross Enrolment Ratio (GER) Trends

GER measures the total enrolment in a particular level of education, regardless of age, expressed as a percentage of the official age-group population for that level. While India has demonstrated strong performance in achieving near-universal access at the primary level, GER figures reveal that there is a steady decline across higher levels of schooling, signaling persistent gaps in school continuity, retention, and progression.

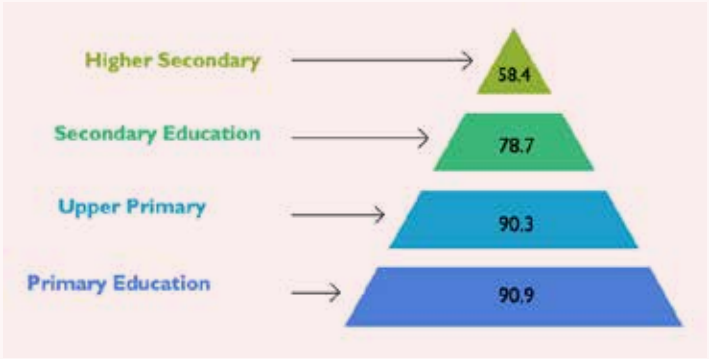


Figure 3.5: Gross Enrolment Ratio Across School Levels

Source: UDISE+ 2024-25

Figure 3.5 highlights the steep attrition of students as they move through successive stages of schooling. At the primary stage, enrolment stands at 90.9% and remains nearly unchanged at the upper primary stage (90.3%), suggesting near-universal participation at the elementary level. However,

participation drops considerably thereafter: enrolment falls to 78.7% at the secondary level and further to 58.4% at the higher secondary stage. This indicates that nearly four out of every ten children who enter the school system are unable to continue through to higher secondary education.

Note 1: In specific cases, GER may exceed 100% and even reach unusually high levels. This occurs when enrolment counts include over-age or under-age students, repeaters, adult learners, and in-migrants, while the denominator is based on projected age-group populations. Small population groups, such as Scheduled Tribes, are particularly sensitive to such distortions, as even minor enrolment shifts or projection errors can inflate ratios. These challenges are further compounded by reliance on assumptions about fertility and mortality trends, and unaccounted migration flows, based on 2011 Census data.

Note 2: The analysis in this Report is based on UDISE+ data. As clarified by the Ministry of Education in UDISE+ 2022-23, data from 2023 onwards is not strictly comparable with earlier years. This is because it represents the first national-level exercise using a student-wise database, unlike the school-level consolidated data used until 2021-22. With the introduction of unique student IDs, duplication has been reduced, beneficiary targeting improved, and monitoring of attendance, outcomes, and progression strengthened. This methodological shift partly explains the decline observed in enrolment and related indicators after 2022-23, as earlier overestimations were corrected. Fully aligned with NEP 2020, UDISE+ 2022-23 onwards offers a more realistic and accurate picture of the education system.

Note 3: The 2014-15 data used in this Report corresponds to the period immediately following the creation of Telangana in June 2014. During this transition, state-level education statistics were undergoing adjustments, and some anomalies are visible in the datasets for Telangana and Andhra Pradesh. These arise primarily from the redistribution of institutions, students, and teachers between the two States, as well as from the realignment of administrative and statistical reporting systems. As a result, caution is required in interpreting the 2014-15 baseline figures for these two States, since they may not fully reflect the settled distribution of enrolments and infrastructure.

Note 4: A discrepancy has been observed between the figures presented in the UDISE 2020-21 Report and those available on the UDISE+ portal. For the purpose of ensuring data consistency, the figures cited in this Report are based on the UDISE 2020-21 Report.

A. Primary

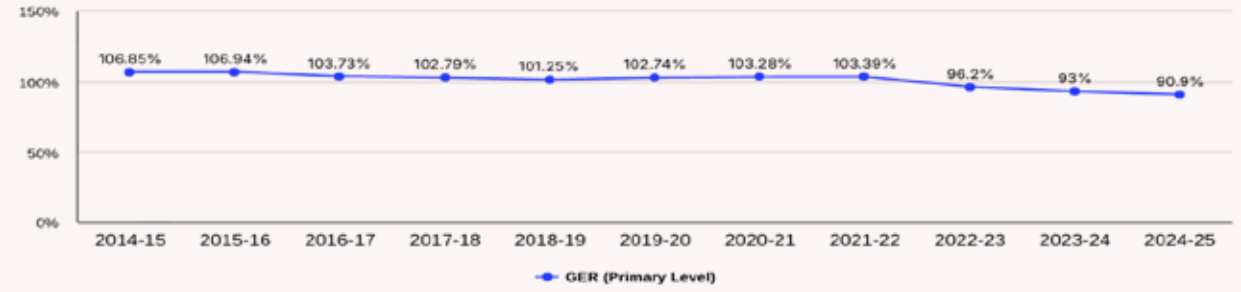


Figure 3.6: Decadal Overview: Gross Enrolment Ratio at Primary Level

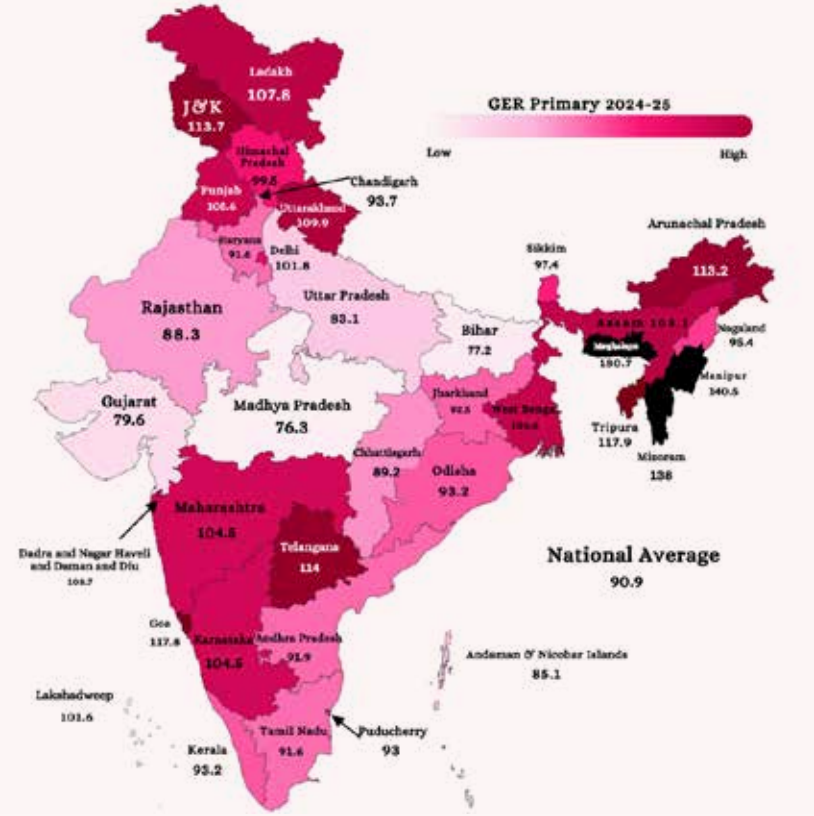
Source: UDISE+ 2014-15 to 2024-25

GER at the primary level, as seen in Figure 3.6 has shown a steady decline over the past decade. It remained above 100% between 2014-15 and 2021-22, peaking at 106.9% in 2015-16, largely due to the inclusion of over-age and under-age students. From 2022-23 onward, however, GER fell below 100%, reaching 90.9% in 2024-25.

The continued near-universal GER at the primary stage has been enabled by the Right to Education (RTE) Act, which guarantees free and compulsory education for all children in the 6-14 age group. However, the vision envisaged under RTE remains incomplete, with nearly one in ten children still outside formal schooling at this stage.

Map 3.1: Gross Enrolment Ratio at Primary Level across States/UTs

Source: UDISE+ 2014-15



Map 3.2: Gross Enrolment Ratio at Primary Level across States/UTs

Source: UDISE+ 2024-25

In 2024-25, primary GER is highest in Meghalaya (180.7%), Manipur (140.5%), Mizoram (138.0%), Tripura (117.9%), Goa (117.8%), Telangana (114%), Jammu & Kashmir(113.7%), Arunachal Pradesh (113.2%) and Uttarakhand (109.9%). The lowest ratios are recorded in Madhya Pradesh (76.3%), Bihar (77.2%), Gujarat (79.6%), Uttar Pradesh (83.1%), Andaman & Nicobar Islands (85.1%), and Rajasthan (88.3%).

Over the past decade, the strongest relative gains were seen in Lakshadweep (76.57% → 101.6%), Jammu & Kashmir (87.22%→113.7%,), Meghalaya (141.69% → 180.7%,), Dadra & Nagar Haveli and Daman & Diu (91.23%, 94.15 → 108.7%,). The steepest relative declines were in Madhya Pradesh (109.31% → 76.3%, -30.2%), Bihar (108.26% → 77.2%, -28.7%), Uttar Pradesh (112.09%→83.1%, -25.9%), Delhi (123.89% → 101.8%, -22.09%), and Gujarat (100.21% → 79.6%, -20.6%).

These trends highlight stark regional contrasts in primary GER, with certain northeastern States recording enrolments far above the age-specific cohort, while large States like Madhya Pradesh, Bihar, and Uttar Pradesh have witnessed steep declines. Sustained attention is required to address under-enrolment in lagging States while consolidating the gains achieved in high-performing regions.

B. Upper-Primary

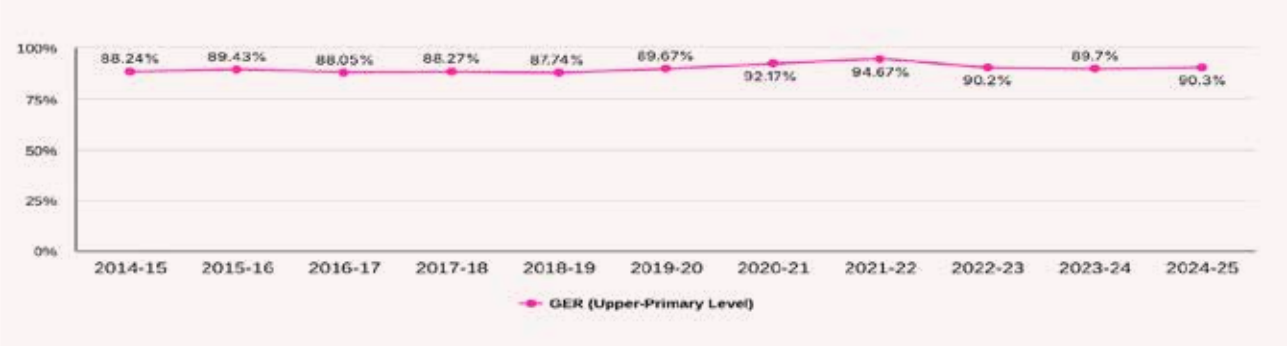
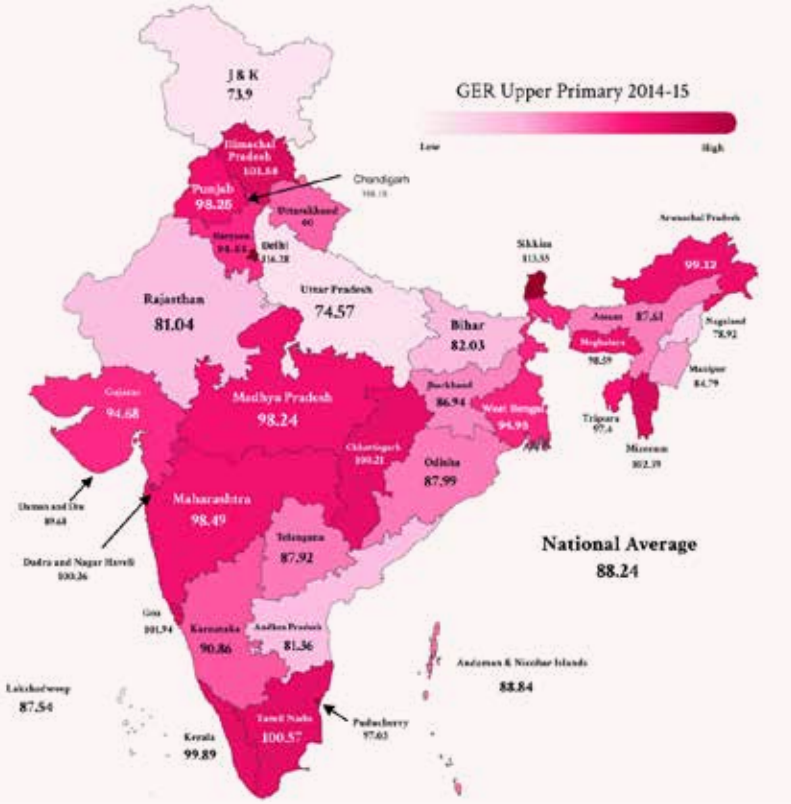


Figure 3.7: Decadal Overview: Gross Enrolment Ratio at Upper-Primary Level

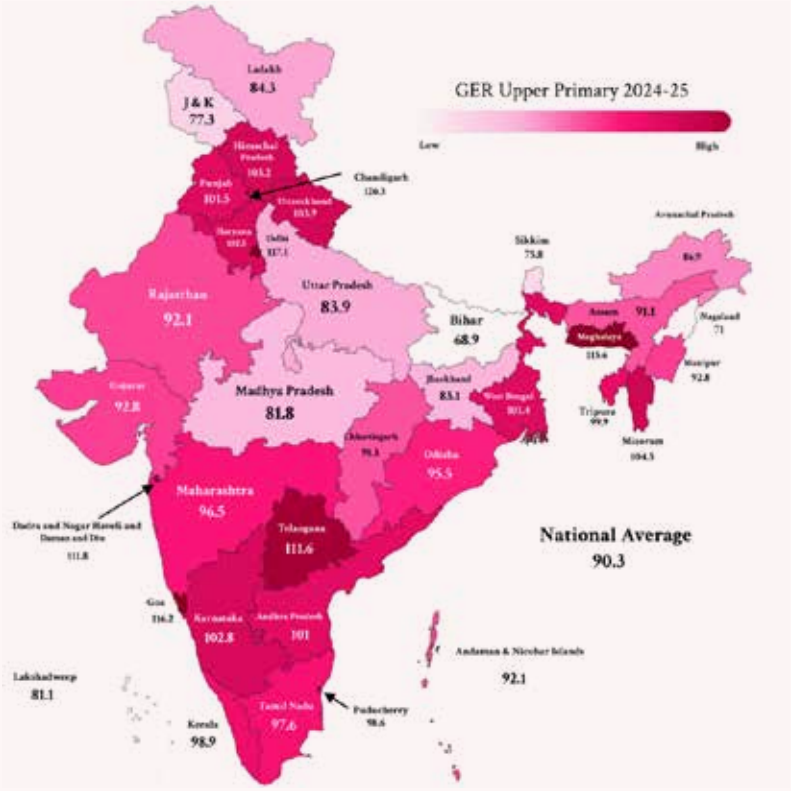
Source: UDISE+ 2014-15 to 2024-25

As indicated in Figure 3.7, the situation at the upper primary level has remained relatively stable over the past decade, showing less volatility than at the primary stage. In 2014-15, GER stood just above 88 and hovered close to this level until 2019-20. A notable improvement was recorded in 2020-21 and 2021-22, when enrolment rose, before moderating again in subsequent years. By 2024-25, GER stood at 90.3, broadly consistent with levels observed through the decade. This stability suggests that participation at the upper primary level has been sustained, though the figures indicate that not all children completing primary education are transitioning further.



Map 3.3: Gross Enrolment Ratio at Upper Primary Level across States/UTs

Source: UDISE+ 2014-15



Map 3.4: Gross Enrolment Ratio at Upper Primary Level across States/UTs

Source: UDISE+ 2024-25

Map 3.4 highlights Enrolment is highest in Chandigarh (120.3%), Delhi (117.1%), Goa (116.2%), Meghalaya (115.6%), Dadra & Nagar Haveli and Daman & Diu (111.8%), and Telangana (111.6%). At the lower end, Bihar (68.9%), Nagaland (71%), Sikkim (75.8%), Jammu & Kashmir (77.3%), Lakshadweep (81.1%) and Madhya Pradesh (81.8%) emerge as the weakest performers in 2024-25.

Maps 3.3 and 3.4 highlight that, during the last decade, the largest relative increases occurred in Telangana (87.92% → 111.6%), Dadra & Nagar Haveli and Daman & Diu (100.26,89.68% → 111.8%), Andhra Pradesh (81.36% → 101.0%), Meghalaya (98.59% → 115.6%), and Uttarakhand (90% → 103.9%). The steepest relative declines were in Sikkim (113.55% → 75.8%), Madhya Pradesh (98.24% → 81.8%), Bihar (82.03% → 68.9%), Arunachal Pradesh (99.12% → 86.9%), and Nagaland (78.92% → 71.0%).

While enrolment at the upper primary level has expanded in several regions, sharp declines in others point to uneven progress. The mixed trajectory over the past decade points towards the need for consistent efforts to sustain gains, prevent reversals, and secure balanced participation across the country.

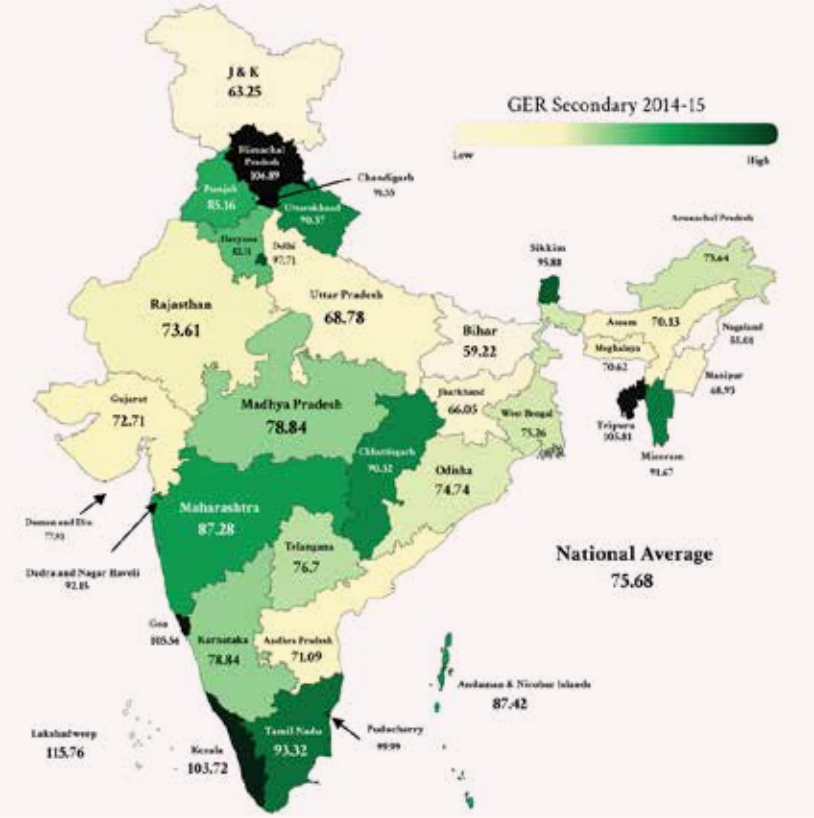
C. Secondary

Figure 3.8: Decadal Overview: Gross Enrolment Ratio at Secondary Level

Source: UDISE+ 2014-15 to 2024-25

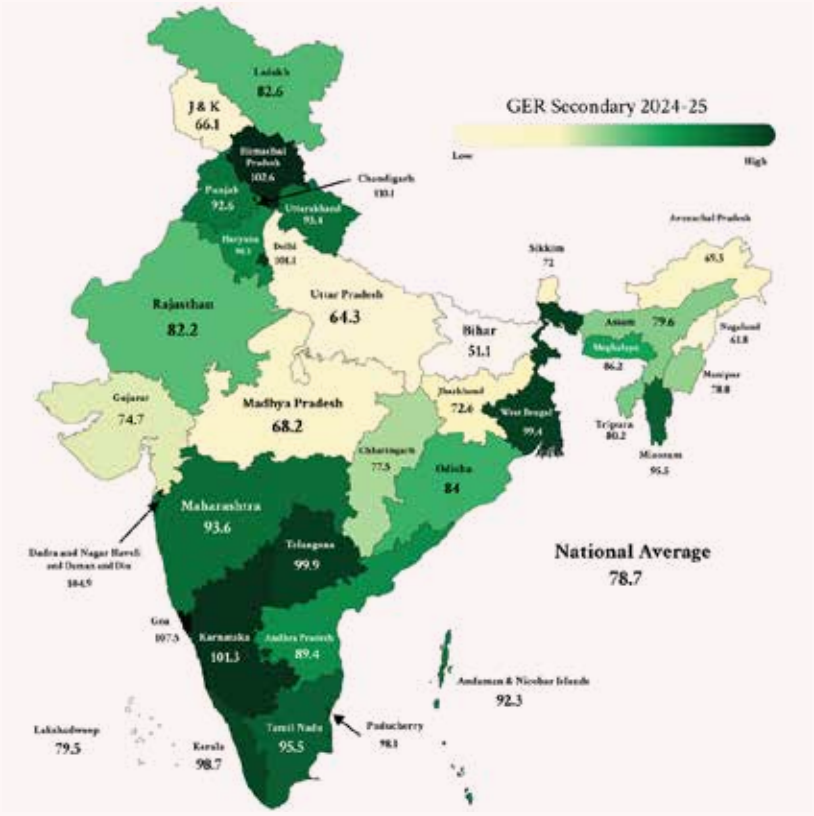
At the secondary stage, according to Figure 3.8, GER has shown only marginal improvement, rising from 75.68% in 2014-15 to 78.7% in 2024-25. The trend has remained largely unchanged, with only minor fluctuations.

Unlike the primary and upper primary stages, the secondary level is not covered under the RTE Act, which guarantees free and compulsory education only up to age 14. As a result, the financial burden of continuing beyond Grade 8: tuition, uniforms, books, and transport falls on households, often leading to withdrawal of children, particularly from low-income and marginalised families.



Map 3.5: Gross Enrolment Ratio at Secondary Level across States/UTs

Source: UDISE+ 2014-15



Map 3.6: Gross Enrolment Ratio at Secondary Level across States/UTs

Source: UDISE+ 2024-25

Map 3.6 reveals disparities across States in secondary-level enrolment. At the upper end, GER exceeds 100% in Chandigarh (110.1%), Goa (107.5%), Dadra & Nagar Haveli and Daman & Diu (104.9%), Himachal Pradesh (102.6%), Karnataka (101.3%), and Delhi (101.1%). States nearing universal levels include Telangana (99.9%), West Bengal (99.4%), and Kerala (98.7%). At the lower end, Bihar (51.1%), Nagaland (61.8%), Uttar Pradesh (64.3%), Jammu & Kashmir (66.1%), Madhya Pradesh (68.2%), and Arunachal Pradesh (69.3%), emerge as weak performers in 2024-25, with GER levels slipping further below the national average.

As highlighted in the Maps 3.5 and 3.6, the past decade witnessed significant relative improvements in West Bengal (75.26% → 99.4%), Telangana (76.7% → 99.9%), Karnataka (78.84% → 101.3%), Andhra Pradesh (71.09% → 89.4%), and Meghalaya (70.62% → 86.2%). The steepest relative declines were in Lakshadweep (115.76% → 79.5%), Sikkim (95.88% → 72.0%), Tripura (105.81% → 80.2%), Chhattisgarh (90.32% → 77.5%), and Bihar (59.22% → 51.1%).

The decadal movement highlights that secondary education remains the most fragile link in the schooling cycle, where economic constraints, social factors, and weak institutional support converge to limit participation.

D. Higher Secondary

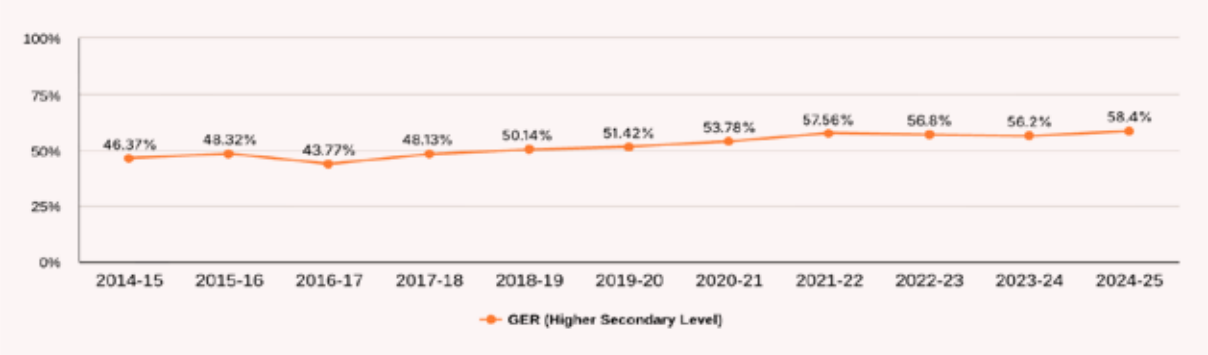
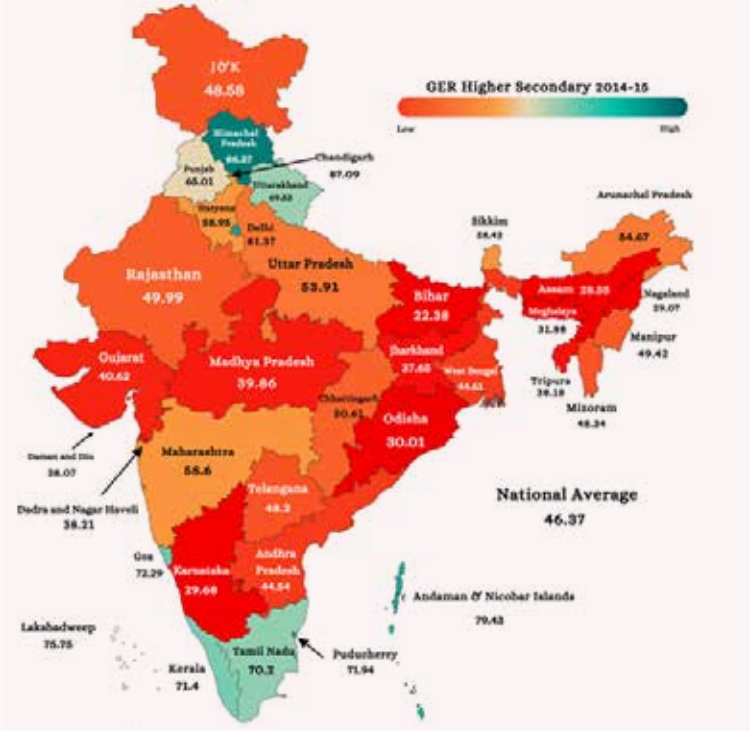


Figure 3.9: Decadal Overview: Gross Enrolment Ratio at Higher Secondary Level

Source: UDISE+ 2014-15 to 2024-25

GER at the higher secondary level has shown a gradual but steady improvement over the past decade, as evident in Figure 3.9. Starting from a low base of 46.37 in 2014-15, enrolment rose incrementally, crossing 50 by 2018-19 and reaching 58.4 in 2024-25.

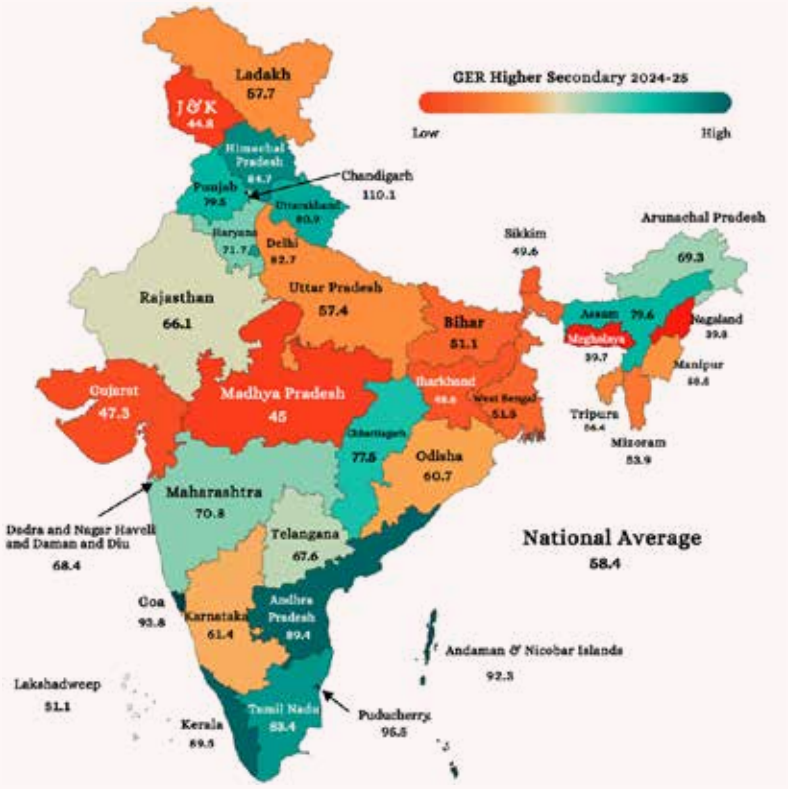
Despite these improvements, participation at the higher secondary stage continues to lag behind other levels of schooling, with enrolment covering only a little over half of the eligible age group. This persistent gap indicates that while access to primary and upper primary education has been consolidated, ensuring smooth transition and retention through the secondary cycle remains a critical challenge.



Map 3.7: Gross Enrolment Ratio at Higher Secondary Level across States/UTs

Source: UDISE+ 2014-15

Note: For Odisha, the GER values represented in the heatmap have been sourced from UDISE 2015-16 data. This adjustment has been made in view of identified anomalies in the corresponding dataset, to ensure consistency and reliability of the analysis.



Map 3.8: Gross Enrolment Ratio at Higher Secondary Level across States/UTs

Source: UDISE+ 2024-25

State-level data, as illustrated in Map 3.8, shows that higher secondary GER is highest in Chandigarh (107.4%), followed by Puducherry (95.5%), Goa (93.8%), Kerala (89.5%), Andaman & Nicobar Islands (85.8%), Himachal Pradesh (84.7%), Tamil Nadu (83.4%), Delhi (82.7%), and Uttarakhand (80.9%). In contrast, the lowest levels are observed in Bihar (38.1%), Meghalaya (39.7%), Nagaland (39.8%), Assam (43.5%), Arunachal Pradesh (43.7%), Jammu & Kashmir (44.8%), Madhya Pradesh (45.0%), Gujarat (47.3%), Jharkhand (48.6%), and Sikkim (49.6%).

As per the Maps 3.7 and 3.8, the largest relative improvement in enrolment during the past decade was observed in Karnataka (29.68% → 61.4%), Dadra & Nagar Haveli and Daman & Diu (38.21, 38.07% → 68.4%), Bihar (22.38% → 38.1%), and Assam (28.55% → 43.5%). The steepest relative declines were in Lakshadweep (75.75% → 51.1%), Arunachal Pradesh (54.67% → 43.7%), Sikkim (58.43% → 49.6%), Jammu & Kashmir (48.58% → 44.8%), and Himachal Pradesh (86.37% → 84.7%).

Overall, most States have advanced over the past decade, but the momentum has been uneven. States that began from very low levels have registered some of the steepest gains, yet continue to remain at the lower end, while those with stronger baselines have built further on their advantage and are now close to universal coverage.

3.2.3 Retention and Continuity

Enrolment numbers show how many children enter the school system, but transition and dropout trends reveal how many are able to stay and progress through each stage.

(i) Transition Rate

The transition rates indicate the proportion of students who progress from one educational level to the other. Table 3.4 shows the transition rates across key educational stages in India for the year 2024-25.

Table 3.4: Transition Rates in India (2024-25)

Transition	Boys	Girls	Total
Primary → Upper Primary (Grades 5→6)	91.5%	93.0%	92.2%
Upper Primary → Secondary (Grades 8→9)	85.9%	87.3%	86.6%
Secondary → Higher Secondary (Grades 10→11)	72.4%	77.9%	75.11%

Source: UDISE+ 2024-25

There is a consistent decline in transition rates as students advance through successive stages of schooling. While 88.8% of students' progress from primary to upper primary, the rate drops to 83.3% at the secondary level, and further to 71.5% at the higher secondary level, indicating increased attrition in later years. Notably, girls have higher transition rates than boys at both the primary to upper primary (89.2%) and secondary to higher secondary (73.9%) stages.

A. Primary to Upper Primary

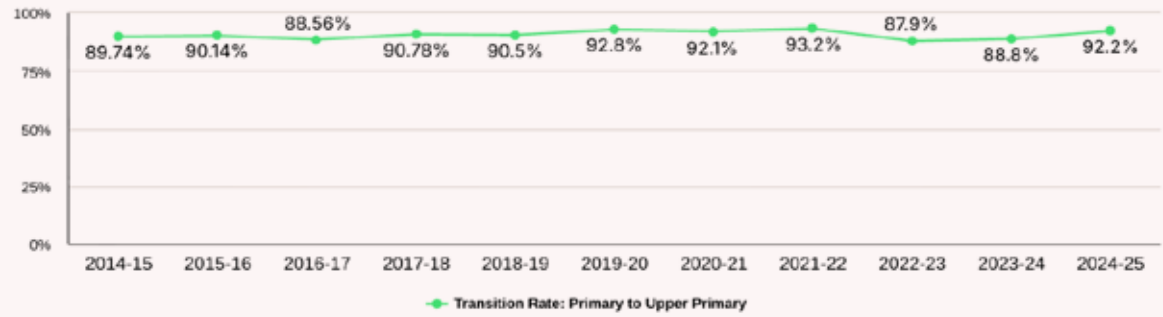
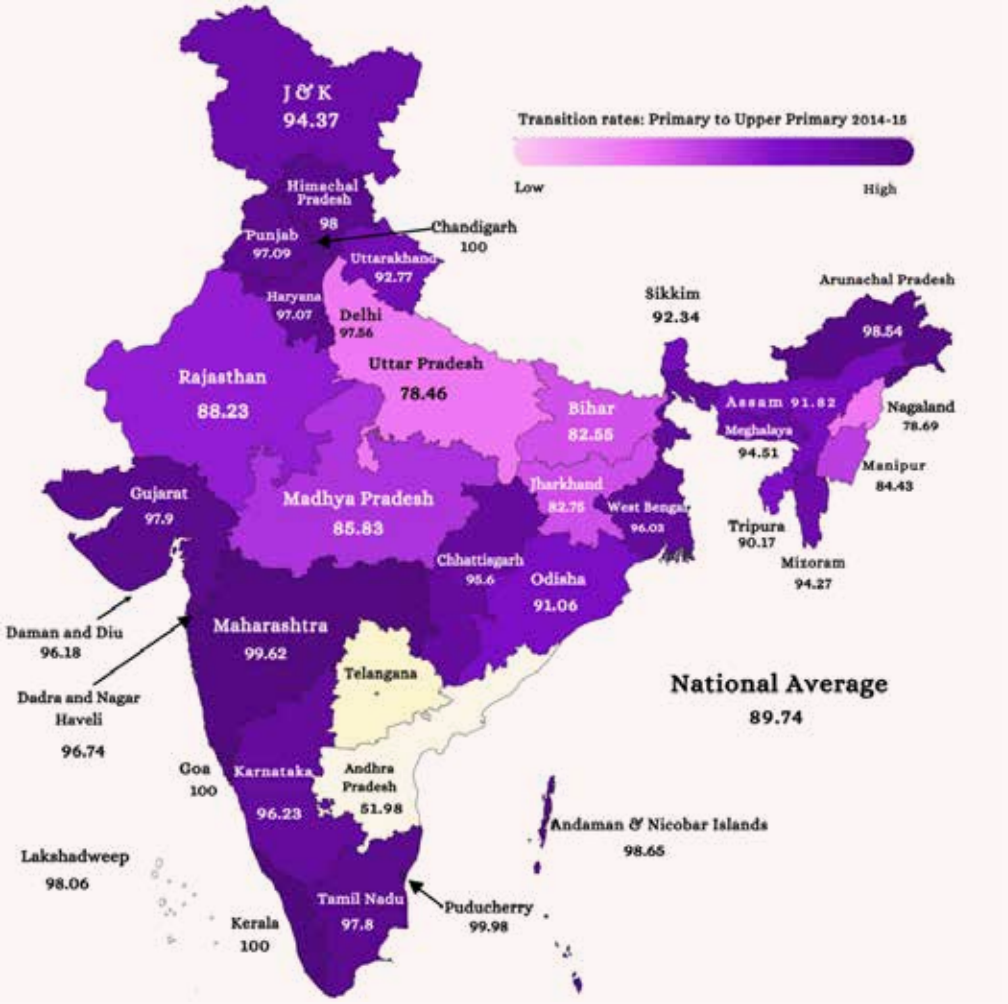


Figure 3.10: Decadal Overview: Transition Rate: Primary to Upper-Primary

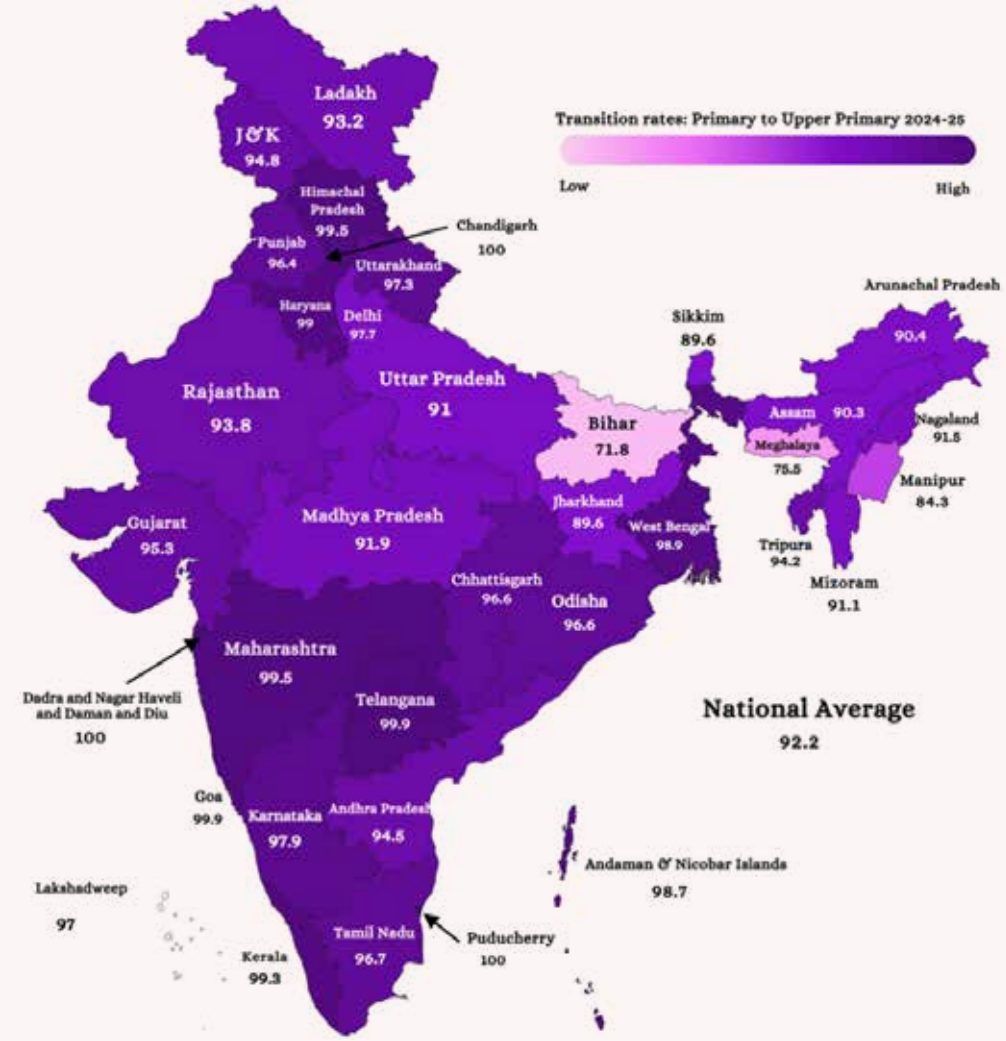
Source: UDISE+ 2014-15 to 2024-25

The transition rate from primary to upper primary level, as shown in Figure 3.10, has improved from 89.74% in 2014-15 to 92.2% in 2024-25, reflecting steady progress over the decade. This indicates that most children completing primary are now able to move into upper primary, though gaps remain in certain States.



Map 3.9: Transition Rate - Primary Level to Upper Primary Level across States/UTs (2014-15)

Source: UDISE+ 2014-15



Map 3.10:Transition Rate - Primary Level to Upper Primary Level across States/UTs (2024-25)

Source: UDISE+ 2024-25

Map 3.10 shows that the transition from primary to upper primary has reached universal levels in Daman & Diu, Dadra & Nagar Haveli, Puducherry, Chandigarh, Telangana, and Goa. Near-universal levels are observed in Himachal Pradesh (99.5%), Maharashtra (99.5%), Kerala (99.3%), Haryana (99.0%), West Bengal (98.9%), Andaman & Nicobar Islands (98.7%), Karnataka (97.9%), Delhi (97.7%), Uttarakhand (97.3%), Lakshadweep (97.0%), Tamil Nadu (96.7%), Odisha (96.6%), Chhattisgarh (96.6%), Punjab (96.4%), and Gujarat (95.3%).

As can be seen in Maps 3.9 & 3.10, between 2014 and 2024, the sharpest increases were recorded in Andhra Pradesh (51.98% → 94.5%), Nagaland (78.69% → 91.5%), Uttar Pradesh (78.46% → 91.0%), Jharkhand (82.75% → 89.6%), Madhya Pradesh (85.83% → 91.9%), Rajasthan (88.23% → 93.8%). Whereas, the steepest declines were observed in Meghalaya (94.51% → 75.5%), Bihar (82.55% → 71.8%), Arunachal Pradesh (98.54% → 90.4%), Mizoram (94.27% → 91.1%), and Sikkim (92.34% → 89.6%).

While transition from primary to upper primary has reached or approached universal levels in many States, progress is uneven. Sustained policy focus is needed to secure progression across all States and prevent widening disparities.

B. Upper Primary to Secondary

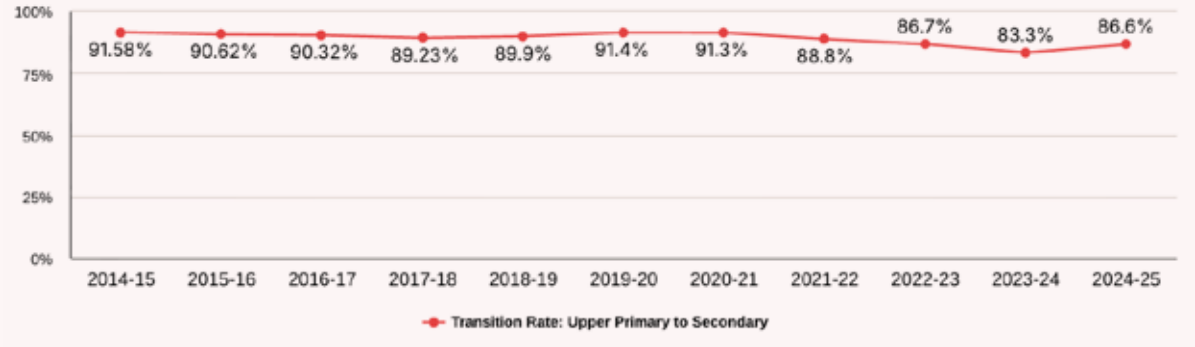
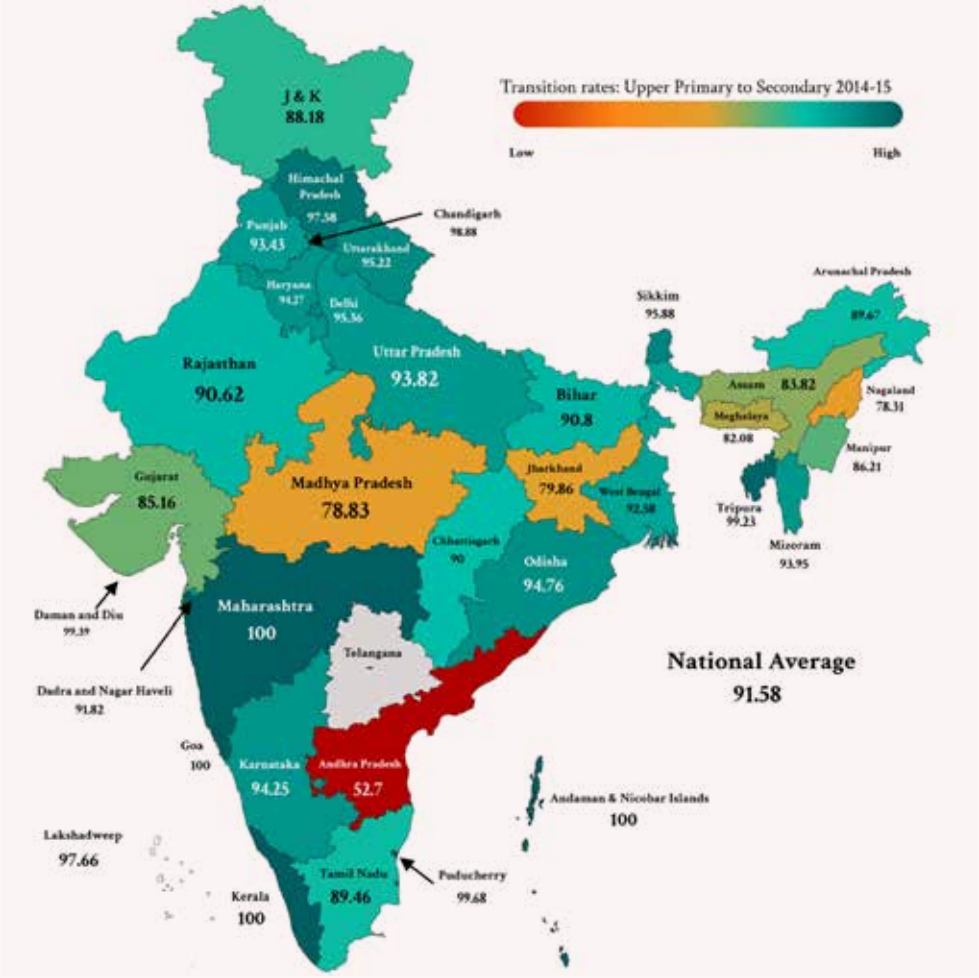


Figure 3.11: Decadal Overview: Transition Rate: Upper-Primary to Secondary

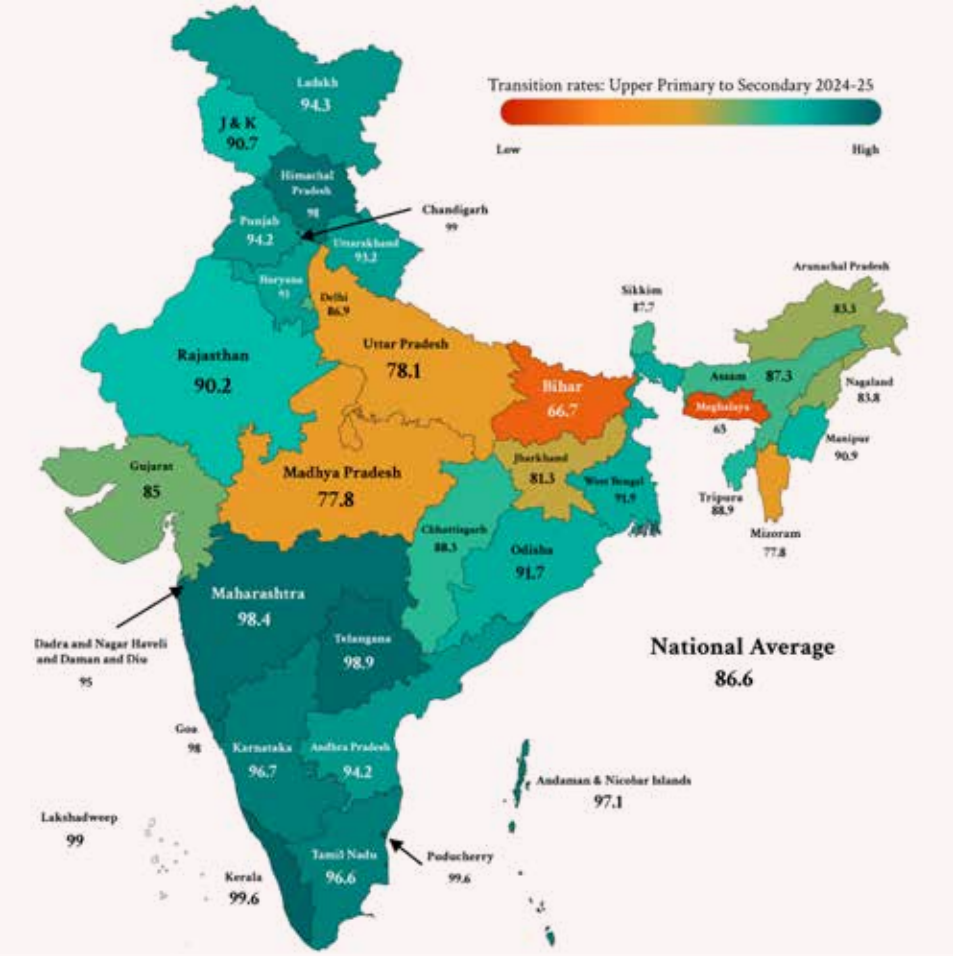
Source: UDISE+ 2014-15 to 2024-25

The transition rate from upper primary to secondary has declined from 91.58% in 2014-15 to 86.6% in 2024-25, as depicted in Figure 3.11, indicating a weakening in progression at this stage. The national average, which had remained around 90-92% for most of the decade, fell steadily after 2020-21, indicating growing challenges in retaining children beyond Grade 8. This pattern is also reflected in the stagnant GER at the secondary level, where only modest improvements have been recorded over the same period.



Map 3.11: Transition Rate - Upper Primary to Secondary Level across States/UTs (2014-15)

Source: UDISE+ 2014-15



Map 3.12:Transition Rate - Upper Primary Level to Secondary Level across States/UTs (2024-25)

Source: UDISE+ 2024-25

Map 3.12 reveals that the transition from upper primary to secondary has reached the highest levels in Puducherry (99.6%) and Kerala (99.6%), followed by Lakshadweep (99.0%) and Chandigarh (99.0%). Telangana (98.9%), Maharashtra (98.4%), Himachal Pradesh (98.0%), and Goa (98.0%) are also at near-universal levels, while Andaman & Nicobar Islands (97.1%), Karnataka (96.7%), and Tamil Nadu (96.6%) remain close behind. By contrast, transition rates are comparatively low in Meghalaya (65.0%), Bihar (66.7%), Mizoram (77.8%), Madhya Pradesh (77.8%), Uttar Pradesh (78.1%), Jharkhand (81.3%), Arunachal Pradesh (83.3%), and Nagaland (83.8%).

Between 2014 and 2024, transition from upper primary to secondary rose sharply in several States, including Andhra Pradesh (52.7% → 94.2%), Tamil Nadu (89.46% → 96.6%), Nagaland (78.31% → 83.8%), Manipur (86.21% → 90.9%), Assam (83.82% → 87.3%), Jammu & Kashmir (88.2% → 90.7%), Karnataka (94.25% → 96.7%), Jharkhand (79.86% → 81.3%), and Lakshadweep (97.66% → 99.0%). Whereas Bihar (90.8% → 66.7%), Meghalaya (82.08% → 65.0%), Mizoram (93.95% → 77.8%), Uttar Pradesh (93.82% → 78.1%), Tripura (99.23% → 88.9%), Delhi (95.36% → 86.9%), Sikkim (95.88% → 87.7%), and Arunachal Pradesh (89.67% → 83.3%) registered declines over the same period.

Overall, the transition from upper primary to secondary has improved nationally, with several States reaching or approaching universal levels. These disparities highlight the need for targeted interventions to ensure that gains in access translate into consistent advancement across all regions.

C. Secondary to Higher-Secondary

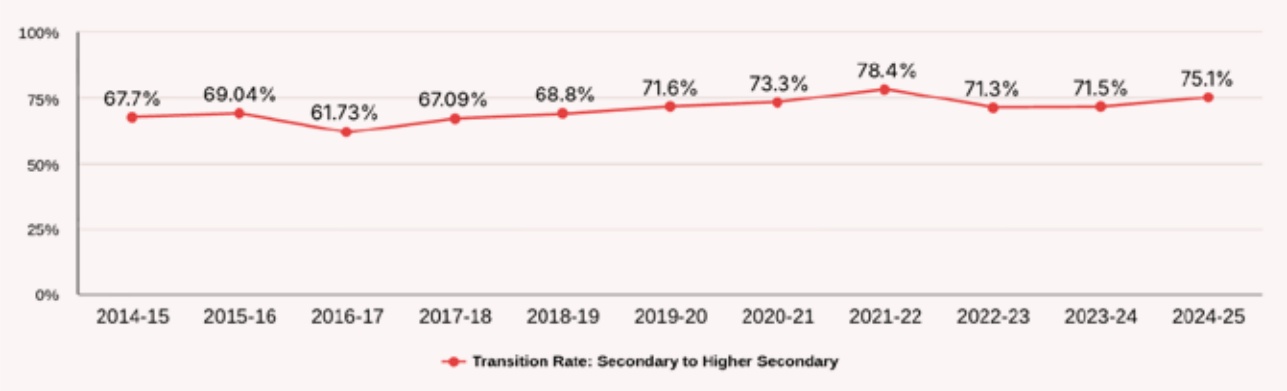
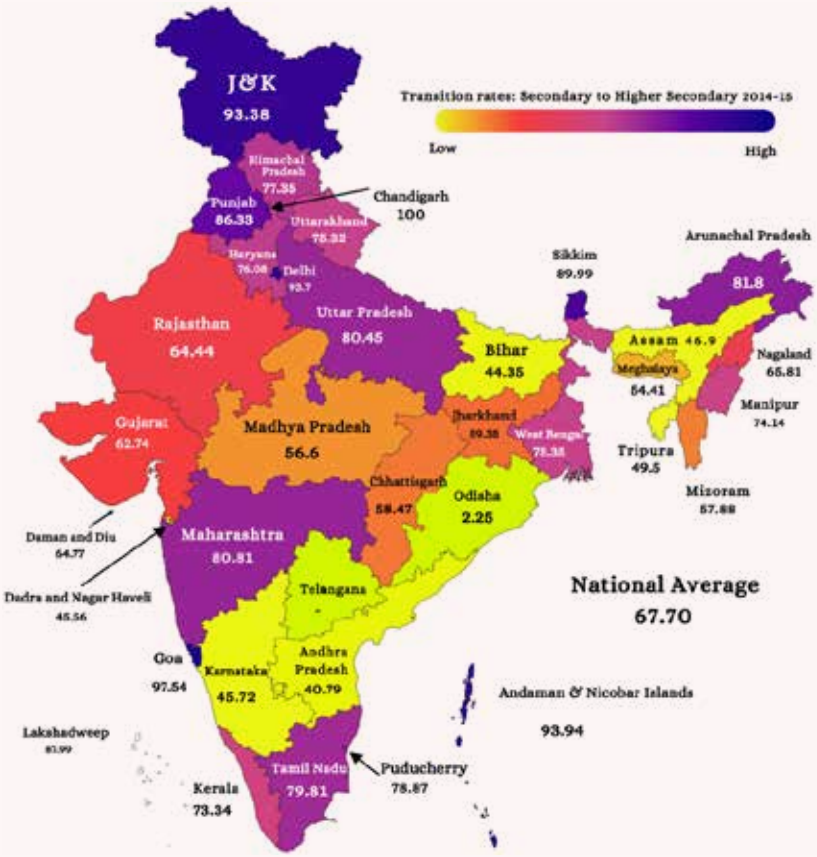


Figure 3.12: Decadal Overview:Transition Rate: Secondary to Higher Secondary

Source: UDISE+ 2014-15 to 2024-25

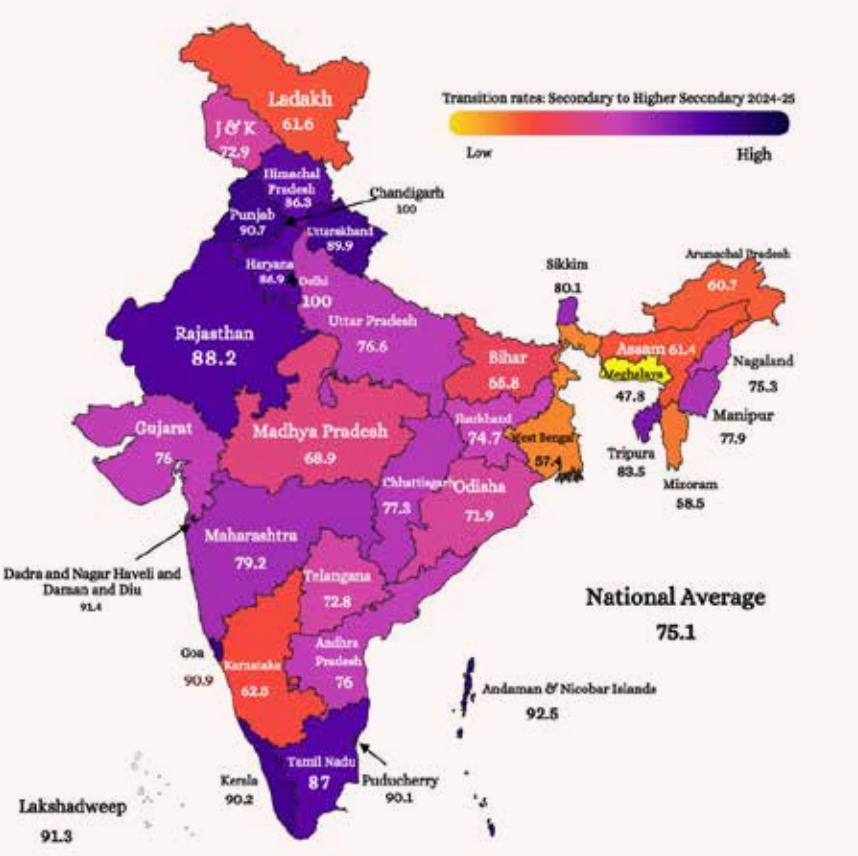
The transition rate from secondary to higher secondary rose from 67.7% in 2014-15 to 75.1% in 2024-25, as Figure 3.12 highlights. The decade was marked by fluctuations, with the rate falling to 61.73% in 2016-17, recovering gradually, and peaking at 78.4% in 2021-22, before declining to 71.3% in 2022-23, a decline that may in part reflect improved data accuracy under UDISE+ with the introduction of student-wise records.[23] This stage remains a critical point of attrition in the school cycle. Although the GER at higher secondary improved from 46.4% to 58.4% over the same period, the expansion has been tempered by a weak transition from Grade 10.



Map 3.13:Transition Rate - Secondary to Higher Secondary Level across States/UTs (2014-15)

Source: UDISE+ 2014-15

23 *Aligned with NEP 2020, Unique and individual student records provide a more accurate picture of enrolment and transition rates, highlighting differences from previous years and thereby correcting data inaccuracies. Source - UDISE+*



Map 3.14:Transition Rate - Secondary Level to Higher Secondary Level across States/UTs (2024-25)

Source: UDISE+ 2024-25

Map 3.14 shows that in 2024-25, the transition from secondary to higher secondary has reached 100% in Delhi and Chandigarh. High transition levels are also observed in Andaman & Nicobar Islands (92.5%), Dadra & Nagar Haveli and Daman & Diu (91.4%), and Lakshadweep (91.3%). Goa (90.9%), Punjab (90.7%), Kerala (90.2%), and Puducherry (90.1%) follow closely, while Uttarakhand (89.9%) and Rajasthan (88.2%) report slightly lower though still high coverage. However, transition rates remain lowest in Meghalaya (47.8%), followed by West Bengal (57.4%), Mizoram (58.5%), Arunachal Pradesh (60.7%), Assam (61.4%), Ladakh (61.6%), Karnataka (62.5%), Bihar (65.8%), and Madhya Pradesh (68.9%).

Maps 3.13 and 3.14 indicate that between 2014 and 2024, the most notable improvements in transition from secondary to higher secondary were observed in Odisha (2.25% → 71.9%), Dadra & Nagar Haveli (45.6% → 91.4%), Andhra Pradesh (40.79% → 76.0%), Tripura (49.5% → 83.5%), Bihar (44.35% → 65.8%), Daman & Diu (64.77% → 91.4%), Rajasthan (64.44% → 88.2%), and Karnataka (45.72% → 62.5%). The steepest declines were recorded in Arunachal Pradesh (81.8% → 60.7%), Jammu & Kashmir (93.38% → 72.9%), West Bengal (75.35% → 57.4%), Sikkim (89.88% → 80.1%), Meghalaya (54.41% → 47.8%), and Goa (97.54% → 90.9%).

Despite notable improvements, persistent challenges remain in ensuring retention through the higher secondary stage. As participation beyond Grade 10 lies outside the mandate of the RTE Act, financial constraints, early entry into the workforce, and social pressures continue to impede progression, underscoring the need for sustained policy and institutional support.

(ii) Dropout Patterns

The dropout rate refers to the percentage of students who discontinue education at a particular stage during an academic year. Lower rates reflect improved retention and sustained participation across schooling levels.

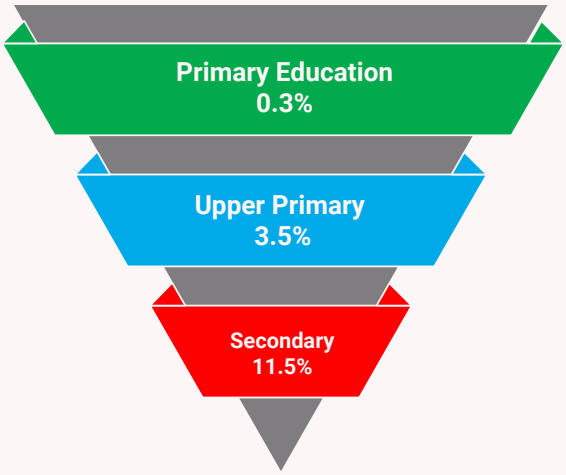


Figure 3.13: Dropout Rates across School Levels in India (2024-25)

Source: UDISE+ 2024-25

Figure 3.13 shows that at the primary level, dropout remains low at 0.3%, indicating strong retention during the foundational years. This figure climbs to 3.5% at the upper primary stage, where more students begin to leave the system. The issue becomes more acute at the secondary level, where the dropout rate rises sharply to 11.5%, highlighting significant barriers to completion at higher stages of schooling.

A. Primary

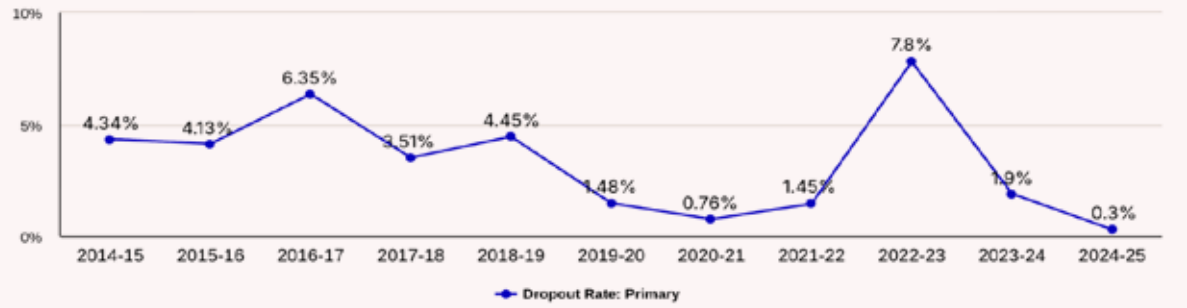


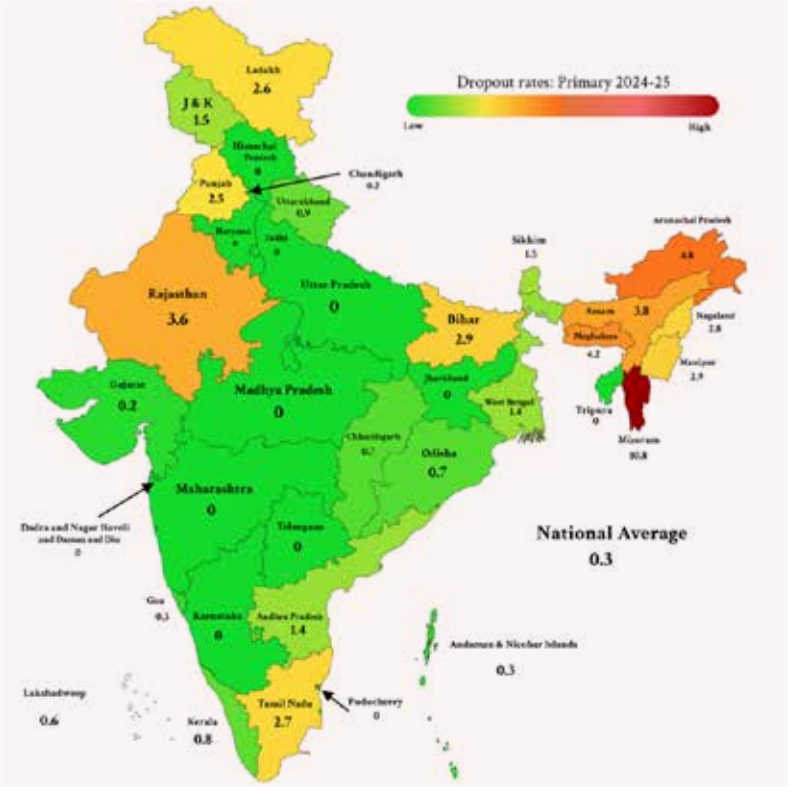
Figure 3.14: Decadal Overview: Dropout Rate: Primary

Source: UDISE+ 2014-15 to 2024-25

The dropout rate at the primary level, as depicted in Figure 3.14, has demonstrated a pronounced improvement over the last decade. The national average declined from 4.34% in 2014-15 to just 0.3% in 2024-25, reflecting significant progress in retaining children in school. While there were fluctuations in the trend, including a peak at 6.35% in 2016-17 and a sharp rise to 7.8% in 2022-23, the most recent years indicate a steep fall, bringing dropout levels close to zero in most parts of the country.

Map 3.15: Dropout Rates at Primary Level across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15



Map 3.16: Dropout Rates at Primary Level across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

As shown in Map 3.16, for primary education, 22 States and UTs report zero or near-zero dropout rates, reflecting near-universal retention at this stage. However, some States continue to face challenges, with Mizoram (10.8%) reporting the highest incidence, followed by Arunachal Pradesh (4.8%), Meghalaya (4.2%), Assam (3.8%), Rajasthan (3.6%), Bihar (2.9%), Manipur (2.9%), Nagaland (2.8%), Tamil Nadu (2.7%), Ladakh (2.6%), and Punjab (2.5%).

Maps 3.15 & 3.16 show that primary dropout rates have fallen dramatically in many States over the decade. Nagaland (19.41% → 2.8%), Manipur (18% → 2.9%) and Rajasthan (8.4% → 3.6%) saw remarkable progress. Other States, such as Odisha (2.93% → 0.7%), Uttarakhand (3.07% → 0.9%), and Sikkim (4.57% → 1.5%), brought rates down to very low levels. Large States including Uttar Pradesh (7.09% → 0.0%), Madhya Pradesh (10.14% → 0.0%), and Jharkhand (6.41% → 0.0%) eliminated primary dropouts altogether, highlighting sustained gains in universal retention.

B. Upper Primary

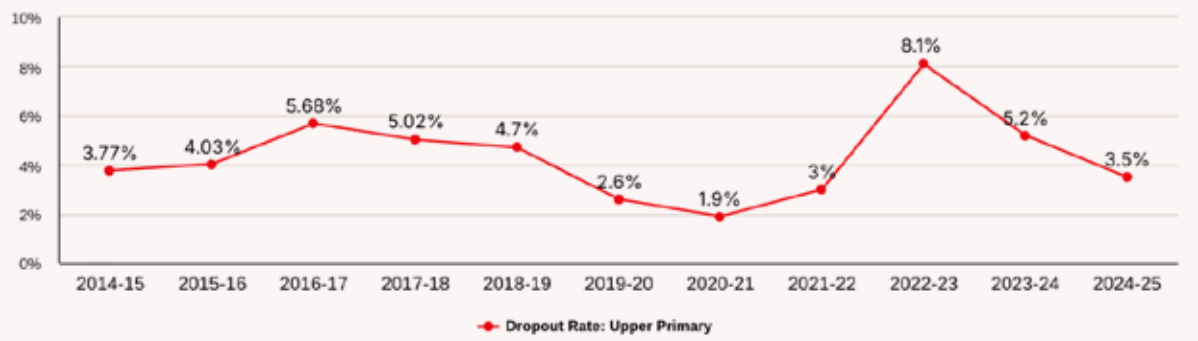
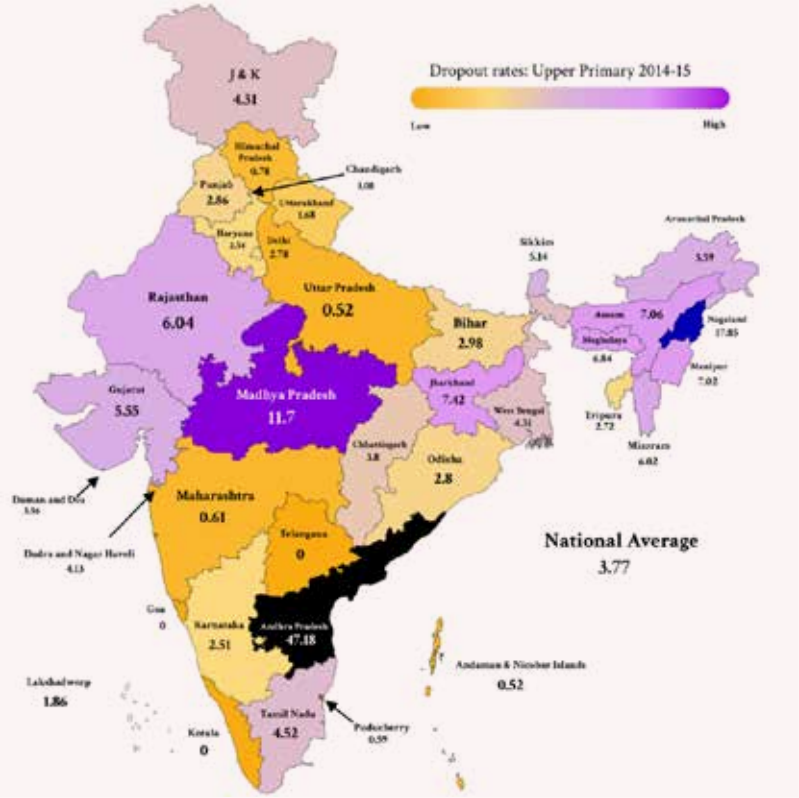


Figure 3.15: Decadal Overview: Dropout Rate: Upper Primar

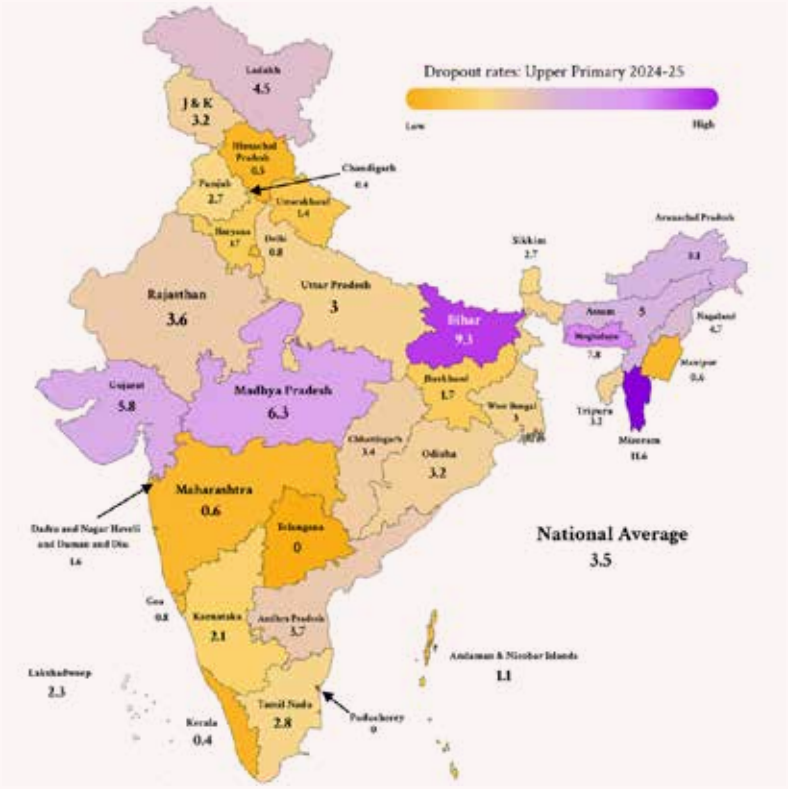
Source: UDISE+ 2014-15 to 2024-25

The dropout rate at the upper primary level has fluctuated over the past decade, as illustrated in Figure 3.15. It rose from 3.77% in 2014-15 to a peak of 5.68% in 2016-17, before gradually declining to 1.9% in 2020-21. The rate then increased again to 8.1% in 2022-23, before falling steadily to 3.5% in 2024-25, bringing it close to the 2014-15 level but highlighting the persistent volatility in retention at this stage.



Map 3.17: Dropout Rates at Upper Primary Level across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15



Map 3.18: Dropout Rates at Upper Primary Level across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

State-level data shown in Map 3.18 reveal at the upper primary stage, dropout patterns reveal marked variation across States. Out of 36 States and UTs, 20 record rates below 3%, with nine reporting close to zero incidence. The highest dropout levels are observed in Mizoram (11.6%), Bihar (9.3%), and Meghalaya (7.8%), followed by Madhya Pradesh (6.3%), Gujarat (5.8%), Arunachal Pradesh (5.1%), and Assam (5.0%). Moderate rates are seen in Nagaland (4.7%), Ladakh (4.5%), Andhra Pradesh (3.7%), Rajasthan (3.6%), and Chhattisgarh (3.4%), while several others remain at minimal levels, underscoring uneven progress in ensuring retention.

As can be seen from Maps 3.17 and 3.18, several States have registered sharp reductions in upper primary dropouts, with declines most pronounced in Manipur (7.02% → 0.6%), Jharkhand (7.42% → 1.7%), Nagaland (17.85% → 4.7%), and Sikkim (5.14% → 2.7%). Notable progress is also evident in Madhya Pradesh (11.7% → 6.3%) and Rajasthan (6.04% → 3.6%), alongside steady reductions across Tamil Nadu (4.52% → 2.8%). Uttar Pradesh (0.52% → 3.0%) and Bihar (2.98% → 9.3%) show the steepest rises. Smaller yet notable reversals are visible in Lakshadweep (1.86% → 2.3%), Tripura (2.72% → 3.2%), and Odisha (2.8% → 3.2%) and Andaman & Nicobar Islands (0.52% → 1.1%) Meghalaya too registered a rise (6.84% → 7.8%) in dropout rates at this stage.

It is observed that attrition often begins to set in at the upper-primary level, where transition pressures, household responsibilities, and limited school continuity contribute to early exits from the education system.

C. Secondary

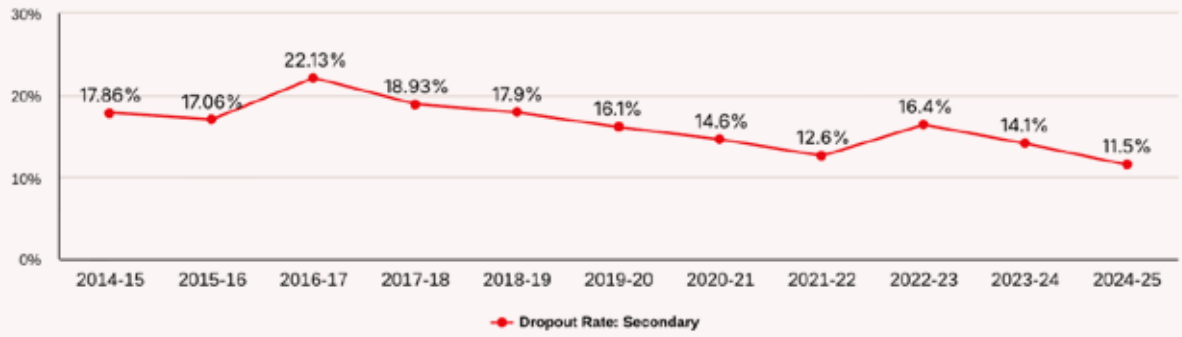
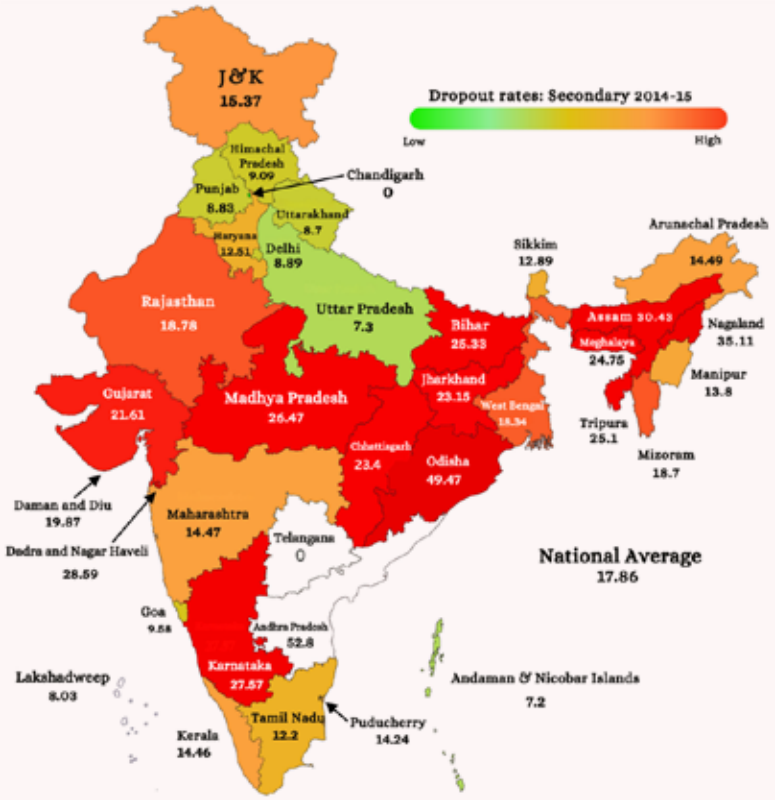


Figure 3.16: Decadal Overview: Dropout Rate: Secondary

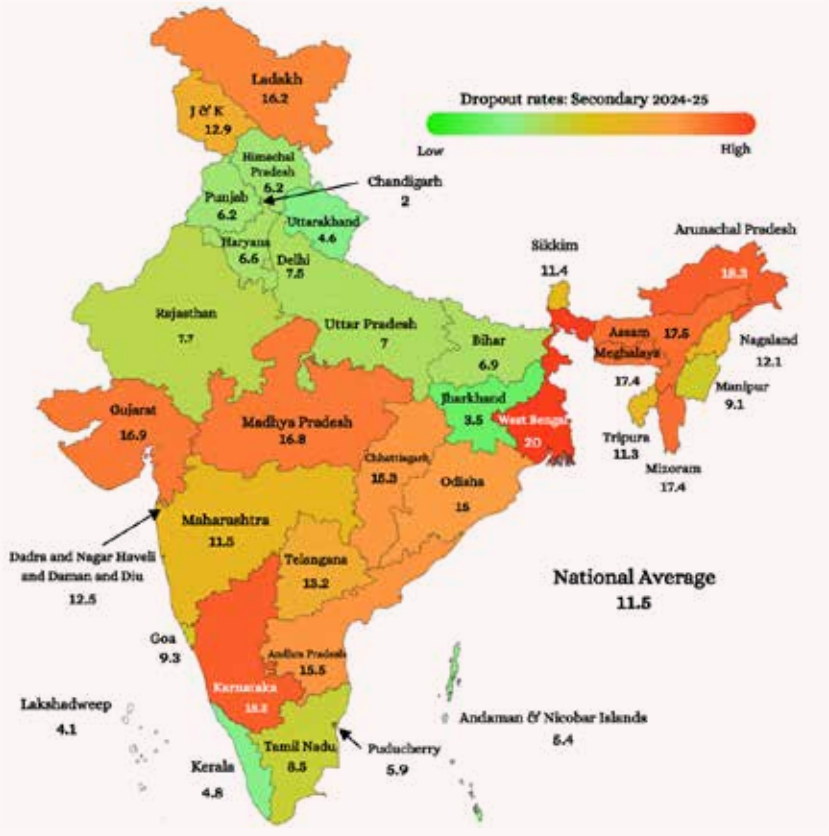
Source: UDISE+ 2014-15 to 2024-25

The trend in dropout rates at the secondary stage shows a clear though uneven improvement over the decade, as evident in Figure 3.16. After peaking midway, rates have gradually declined, with the national average reducing to 11.5% in 2024-25. This reflects significant progress in retaining students through the secondary cycle. However, secondary education continues to record the highest dropout rate among all stages of schooling. Despite recent gains, one in ten students still leaves the system at this level. The persistence of relatively high attrition underscores the vulnerability of this stage, where economic pressures, early entry into the labour market, and weak institutional support converge to limit participation.



Map 3.19: Dropout Rates at Secondary Level across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15



Map 3.20: Dropout Rates at Secondary Level across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

As evident from Map 3.20, secondary dropout rates in 2024-25 present a deeply concerning picture. While Chandigarh (2.0%), Jharkhand (3.5%), Lakshadweep (4.1%), Uttarakhand (4.6%) and Kerala (4.8%) have managed to contain attrition, most States reflect far higher levels. It is highest in West Bengal (20.0%), Arunachal Pradesh (18.3%), Karnataka (18.3%), and Assam (17.5%). Mizoram (17.4%), Meghalaya (17.4%), Gujarat (16.9%), Madhya Pradesh (16.8%), and Ladakh (16.2%) also report concerning levels, alongside Andhra Pradesh (15.5%), Chhattisgarh (15.3%), and Odisha (15.0%). High rates are further observed in Telangana (13.2%), Jammu & Kashmir (12.9%), Dadra & Nagar Haveli and Daman & Diu (12.5% each), and Nagaland (12.1%). Maharashtra (11.5%), Sikkim (11.4%), and Tripura (11.3%) mark the lower end of this high-burden group.

Maps 3.19 and 3.20 reveal strong progress in States such as Andhra Pradesh (52.8% → 15.5%) and Odisha (49.5% → 15.0%). Significant reductions are also evident in Nagaland (35.1% → 12.1%) and Jharkhand (23.2% → 3.5%). Bihar (25.3% → 6.9%) and Rajasthan (18.8% → 7.7%) likewise report marked declines, while Kerala demonstrates a more modest but steady improvement (14.5% → 4.8%). These trends highlight meaningful progress, yet secondary dropout remains elevated in most of the States, indicating that while gains have been achieved, there is still considerable ground to cover.

3.2.4 Infrastructure and Basic Resources

The quality and equity of school education are closely tied to the availability of essential infrastructure. Adequate classrooms, electricity, safe drinking water, functional toilets, ICT facilities, and internet access form the foundation of a secure and supportive learning environment. NEP 2020 places strong emphasis on improving school infrastructure to strengthen foundational learning, enable blended modes of instruction, and expand access across all regions.

Summary of Insights

1. **The infrastructure agenda is transitioning from expansion to saturation**
   Foundational facilities such as electricity and sanitation have reached high levels of coverage across most States. The remaining gaps are concentrated in specific geographies, indicating that the policy challenge is now centred on last-mile delivery rather than broad-based expansion.
2. **Gender-responsive infrastructure has strengthened, but localised deficits persist**
   The widespread provision of girls' sanitation facilities reflects sustained policy attention to gender equity. However, residual gaps in certain regions continue to have implications for adolescent attendance, dignity, and retention at upper primary and second-ary levels.
3. **Digital access has expanded rapidly but remains structurally uneven**
   The growth in access to computers and internet connectivity signals an accelerated push towards digital enablement.
4. **Advanced digital integration is at an early stage of systemic adoption**
   Although smart classroom adoption has increased, it has yet to achieve broad institutionalisation across the country.
5. **Inter-State variation constitutes the principal equity challenge in infrastructure provision**
   Improvements at the national level coexist with significant regional divergence across infrastructure and digital indicators. Addressing these will require geographically differentiated strategies rather than uniform provisioning approaches.
6. **Effective utilisation should now complement physical provisioning**
   As baseline coverage strengthens, policy emphasis must increasingly shift towards ensuring meaningful usage of infrastructure, particularly digital assets through teacher capacity building, system integration, and robust monitoring frameworks.

Collectively, the infrastructure and digital readiness trends indicate substantial systemic progress, accompanied by persistent equity and functionality challenges that warrant sustained, targeted policy attention.

A. Functional Electricity in Schools

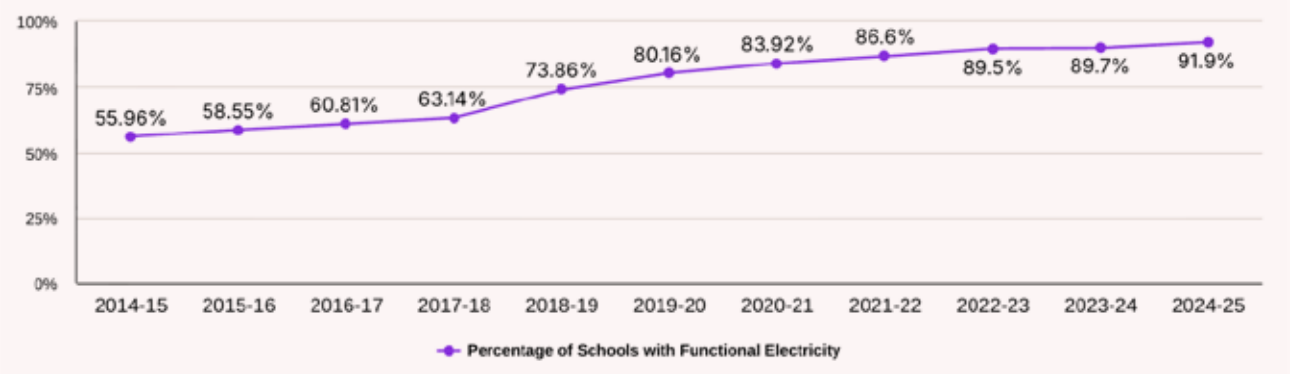
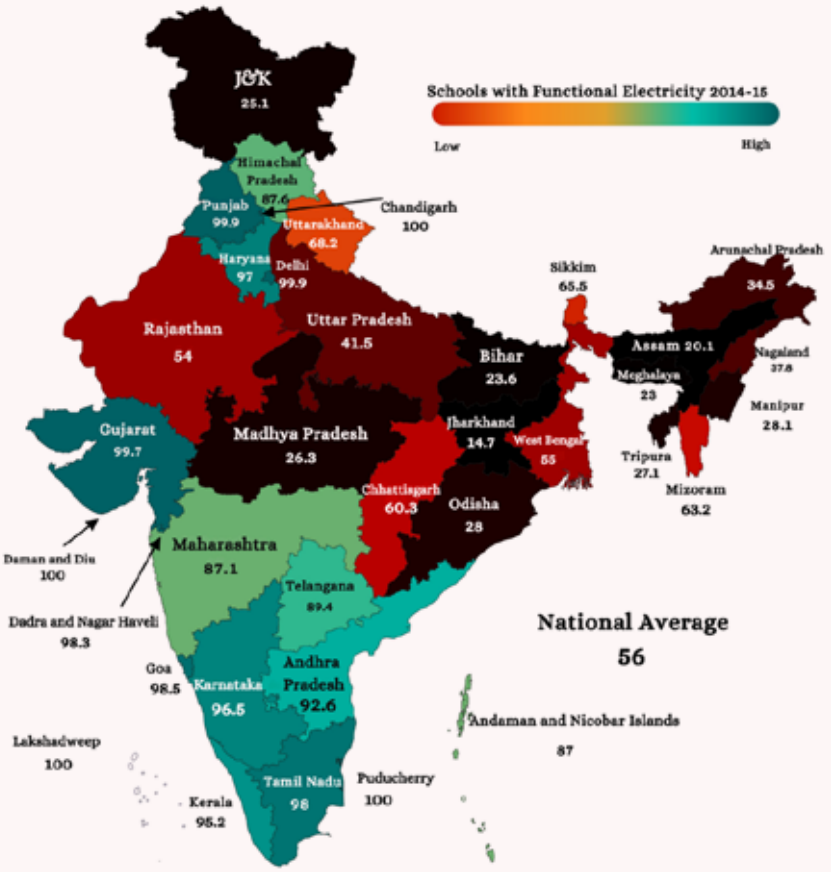


Figure 3.17: Decadal Overview: Percentage of Schools with Functional Electricity

Source: UDISE+ 2014-15 to 2024-25

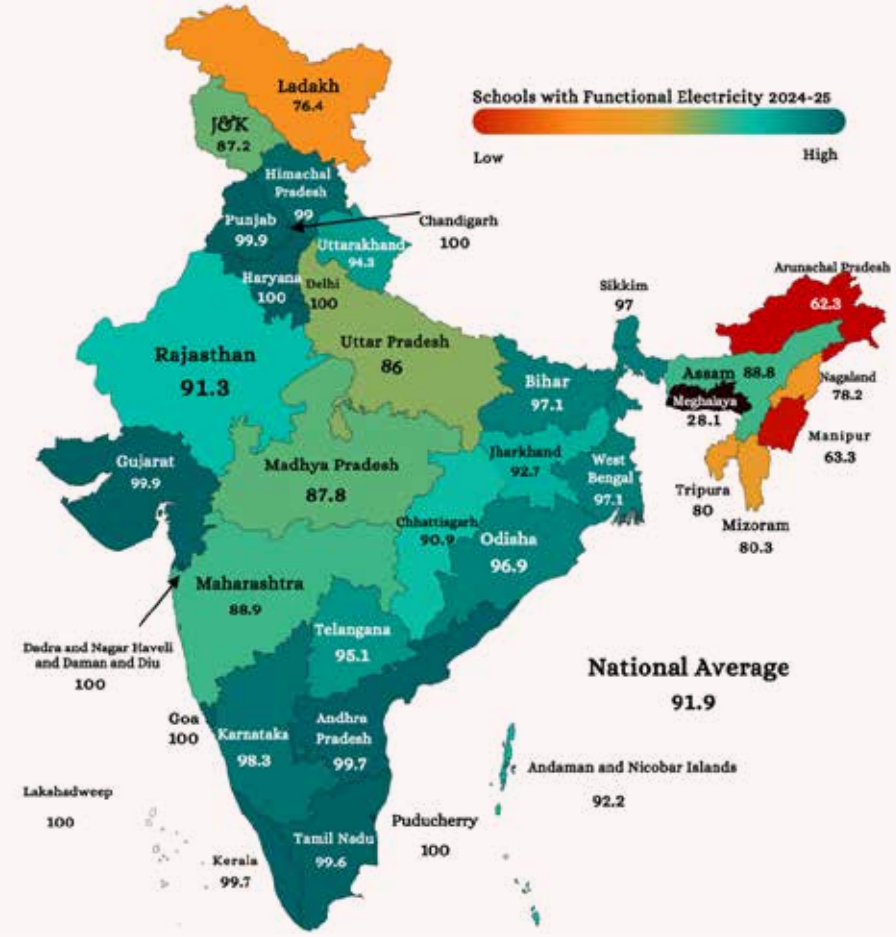
Electricity is a foundational enabler of school functionality. It powers classroom lighting and ventilation, allows for the use of teaching aids and digital tools, and is vital for ensuring continuity during extreme weather.

As shown in Figure 3.17, the share of schools with electricity has improved consistently over the last decade. It rose from just 55.96% in 2014-15 to 91.9% in 2024-25. This trajectory highlights significant infrastructure improvement, though the fact that nearly 7% of schools remain unelectrified underlines the need for full saturation, especially to support digital and technology-enabled learning.



Map 3.21: Availability of functional electricity across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15



Map 3.22:Availability of functional electricity across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

Map 3.22 shows that by 2024-25, electricity coverage in schools is complete in Haryana, Goa, Delhi, Chandigarh, Lakshadweep, Dadra & Nagar Haveli, Daman & Diu, and Puducherry. 15 other States have also achieved near-universal provision. At the other end of the spectrum, the lowest current levels are observed in Meghalaya (28.1%), Arunachal Pradesh (62.3%), Manipur (63.3%), Nagaland (78.2%), Ladakh (76.4%), and Jammu & Kashmir (87.2%).

Over the past decade, the sharpest gains were recorded in Jharkhand (14.7% → 92.7%), Bihar (23.6% → 97.1%), Odisha (28% → 96.9%), Assam (20.1% → 88.8%), Jammu and Kashmir (25.1% → 87.2%), and Madhya Pradesh (26.3% → 87.8%). Coverage remained largely unchanged in Punjab (99.9% → 99.9%), Maharashtra (87.1% → 88.9%), Karnataka (96.5% → 98.3%), Goa (98.5% → 100%), and Gujarat (99.7% → 99.9%), where saturation had already been reached earlier.

The overall trend highlights sustained policy push, investment in school infrastructure, and greater convergence with rural electrification schemes.[24] Yet, bridging the last-mile gaps in challenging geographies remains critical to achieving true universality.

24 *Schemes like DDUGJY, Saubhagya, PIB report*

B. Functional Boys' Toilet Facilities

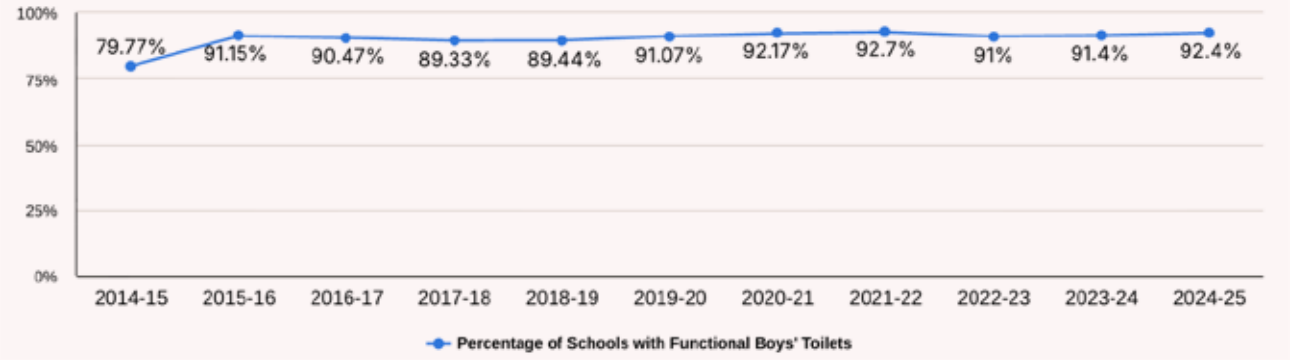


Figure 3.18: Decadal Overview: Percentage of Schools with Functional Boys' Toilet

Source: UDISE+ 2014-15 to 2024-25

Figure 3.18 suggests that the proportion of schools with functional boys' toilets has improved markedly over the past decade. In 2014-15, only about four in five schools had such facilities; within a year, coverage rose sharply and has since remained consistently above 90%. As of 2024-25, 92.4% of schools reported functional toilets for boys. This reflects substantial progress in strengthening school infrastructure. Yet nearly one in twelve schools continue to lack this basic facility. Ensuring universal access is critical not only for hygiene and dignity but also for sustaining attendance and retention, particularly in rural and underserved areas.

Map 3.23: Availability of functional boys' toilet facility across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15

Map 3.24:Availability of functional boys' toilet facility across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

As shown in Maps 3.23 and 3.24, progress across States has been uneven. By 2024-25, coverage of functional boys' toilets is complete in Chandigarh and Lakshadweep, with near-universal levels in Haryana and Goa (99.9%), Dadra & Nagar Haveli and Daman & Diu (99.8%), Delhi (99.7%), West Bengal (99.5%), Kerala (99.3%), and Bihar (97.5%). Several other States, including Himachal Pradesh, Sikkim, Punjab, Gujarat, Odisha, and Karnataka, have also reached near-universal provision. At the other end of the spectrum, gaps persist in Meghalaya (72%), Tripura (74.1%), Arunachal Pradesh (75.5%), Manipur (76.4%), and Nagaland (80.7%), pointing to the need for targeted interventions in these regions.

Over the past decade, the sharpest gains were recorded in Assam (40.3% → 93.6%), Bihar (62.8% → 97.5%), Andhra Pradesh (56% → 88.8%), Odisha (66% → 96.5%), and Telangana (57% → 86.7%). In contrast, the largest declines were observed in Tamil Nadu (97.2% → 90.9%), and Rajasthan (91.3% → 86.3%).

Overall, the data highlights that while most States now report very high levels of coverage, progress has been uneven, with some registering sharp improvements and others experiencing a decline.

C. Functional Girls' Toilet Facilities

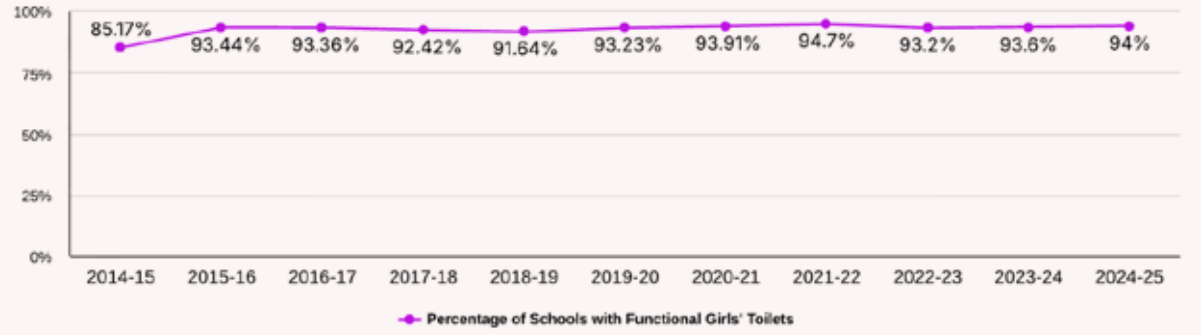


Figure 3.19: Decadal Overview: Percentage of Schools with Functional Girls' Toilet

Source: UDISE+ 2014-15 to 2024-25

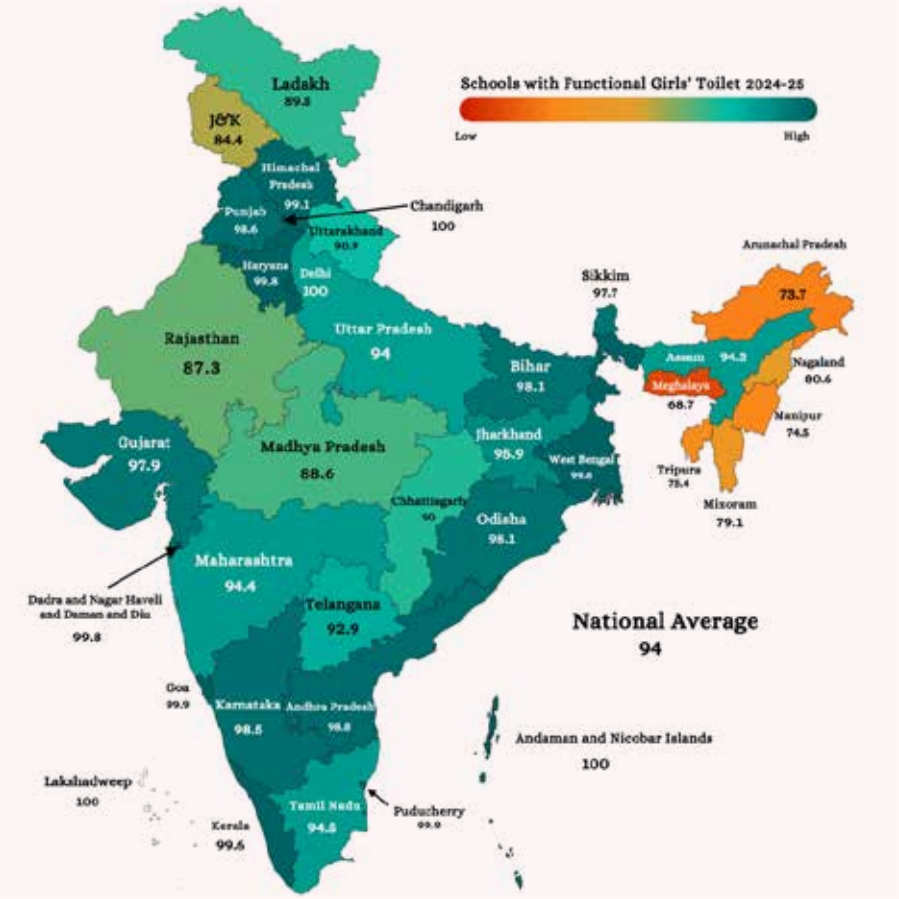
The availability of functional girls' toilets in schools has seen sustained improvement over the past decade. In 2014-15, 85.17% of schools were equipped with these facilities; within a year, coverage rose sharply to above 93% and has since remained consistently high. As of 2024-25, 94% of schools reported having functional girls' toilets.

This stability at a high level reflects the strong policy emphasis placed on gender-responsive infrastructure under programmes such as Swachh Vidyalaya Abhiyan[25] and Samagra Shiksha. However, the fact that around one in fifteen schools still lack such facilities signals the need for continued efforts to achieve full coverage. Universal provision of safe and functional toilets for girls remains essential not only for health and dignity but also for improving attendance, retention, and transition rates, particularly at the upper primary and secondary levels.

Map 3.25: Availability of functional Girls' toilet facility across States/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15

25 *Press Information Bureau. (2016, October 01). Swachhta Vidyalaya initiative by Department of School Education & Literacy [Press release]. Ministry of Human Resource Development, Government of India.*



Map 3.26:Availability of functional Girls' toilet facility across States/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

As evident in Map 3.26, in 2024-25, functional girls' toilets have achieved full coverage in Andaman & Nicobar Islands, Lakshadweep, Chandigarh, and Delhi. Several other States, including Goa (99.9%) Puducherry (99.9%), Haryana (99.8%), and West Bengal (99.6%), have achieved near-universal coverage. At the other end of the spectrum, the lowest levels are recorded in Meghalaya (68.7%), Arunachal Pradesh (73.7%), Manipur (74.5%), Tripura (75.4%), and Mizoram (79.1%).

Maps 3.25 and 3.26 show that over the past decade, the sharpest gains were recorded in Bihar (65.7% → 98.1%), Assam (65.9% → 94.3%), Odisha (73.7% → 98.1%), Telangana (70.7% → 92.9%), and West Bengal (79.6% → 99.6%). In contrast, the most significant declines were observed in Tripura (90.9% → 75.4%), Manipur (88.5% → 74.5%), Arunachal Pradesh (87.7% → 73.7%), Nagaland (92.1% → 80.6%), and Rajasthan (94.9% → 87.3%).

Overall, the data points to widespread provision of functional girls' toilets across most States, alongside concentrated pockets of decline that highlight the need for sustained monitoring and maintenance.

D. Availability of Functional Computers

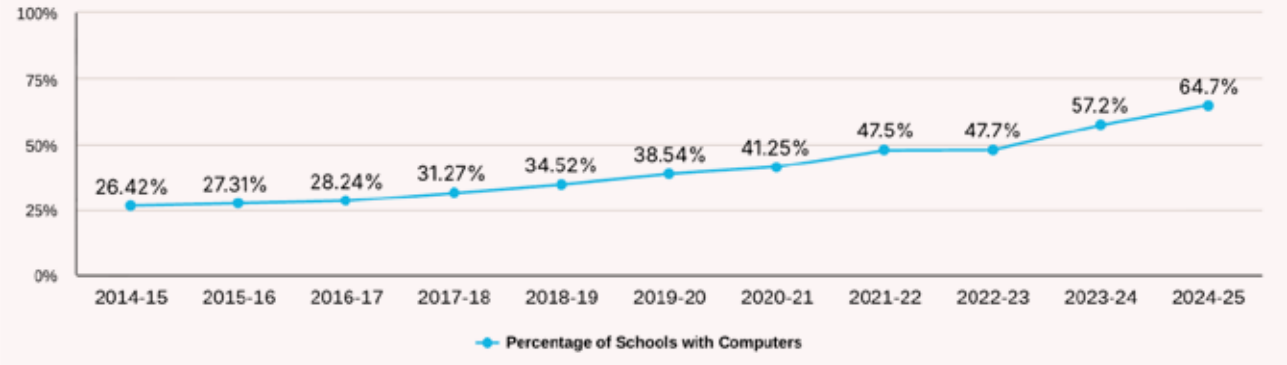
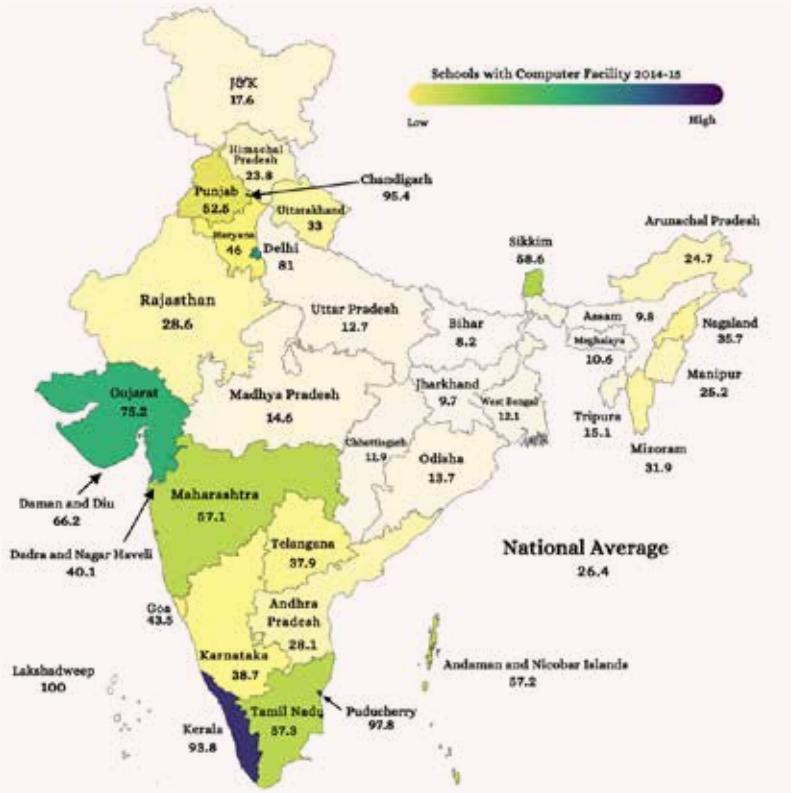


Figure 3.20: Decadal Overview: Percentage of Schools having Computers

Source: UDISE+ 2014-15 to 2024-25

Access to functional computers is a key enabler of technology-integrated learning and digital skill development. As schools move towards NEP 2020's vision of blended education, the availability of functional computers becomes foundational to bridging the digital divide.

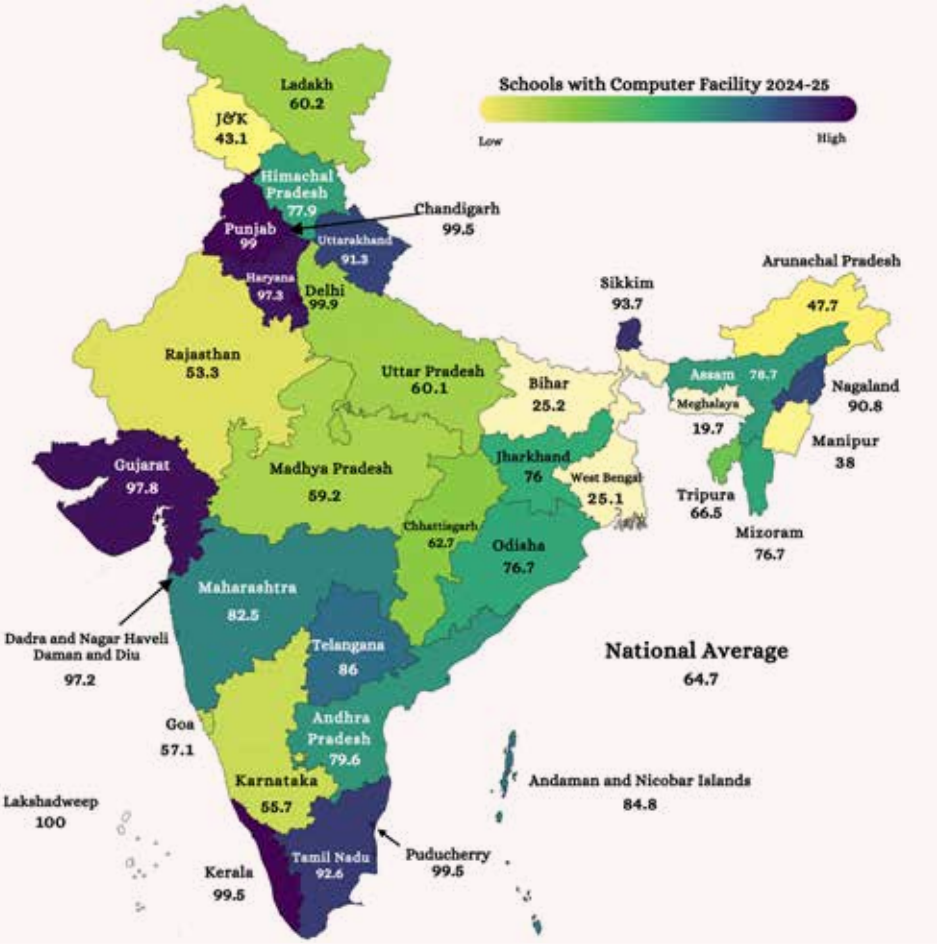
The availability of computers in schools has expanded steadily over the last decade, which is demonstrated in Figure 3.20. Nationally, the share of schools with functional computers increased from 26.42% in 2014-15 to 64.7% in 2024-25. Growth was modest in the early years, but accelerated thereafter, with the sharpest gains recorded between 2020-21 (41.2%) and 2024-25 (64.7%). This rise reflects targeted digital initiatives, increased budgetary support, and the growing emphasis on ICT integration in classrooms under Samagra Shiksha and NEP 2020.[26]



Map 3.27: Availability of Computer Facility across states/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15

26 Central Institute of Educational Technology, NCERT. Digital education initiatives.



Map 3.28:Availability of Computer Facility across states/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

As shown in Map 3.28, in 2024-25, the availability of computers in schools has reached full coverage in Lakshadweep (100%), and is virtually universal in Delhi (99.9%), Puducherry (99.5%), Chandigarh (99.5%), Kerala (99.5%), and Punjab (99%). Gujarat, Haryana, Dadra & Nagar Haveli and Daman & Diu, Sikkim, Tamil Nadu, Uttarakhand, and Nagaland have also achieved very high levels of provision. At the other end, the lowest current levels are recorded in Meghalaya (19.7%), West Bengal (25.1%), Bihar (25.2%), Manipur (38.0%), Jammu & Kashmir (43.1%), and Arunachal Pradesh (47.7%).

As can be seen in Maps 3.27 and 3.28, over the past decade, the sharpest gains were recorded in Assam (9.8% → 78.7%), Jharkhand (9.7% → 76%), Odisha (13.7% → 76.7%), Uttarakhand (33% → 91.3%), and Dadra & Nagar Haveli (40.1% → 97.2%). In contrast, the smallest improvements were observed in Karnataka (38.7% → 55.7%), Goa (43.5% → 57.1%), West Bengal (12.1% → 25.1%), Manipur (25.2% → 38%), and Meghalaya (10.6% → 19.7%).

Overall, the decade marks a rapid expansion of computer facilities across most States. Yet, more than one-third of schools still lack computers, and wide interstate disparities persist.

E. Internet Connectivity in Schools

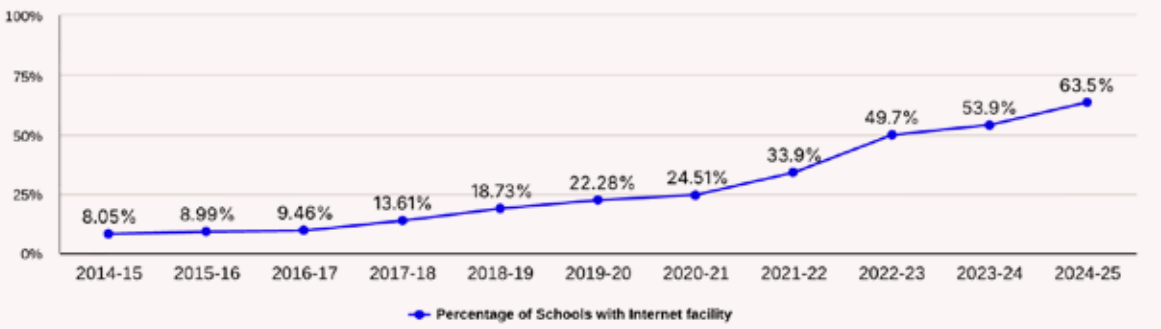
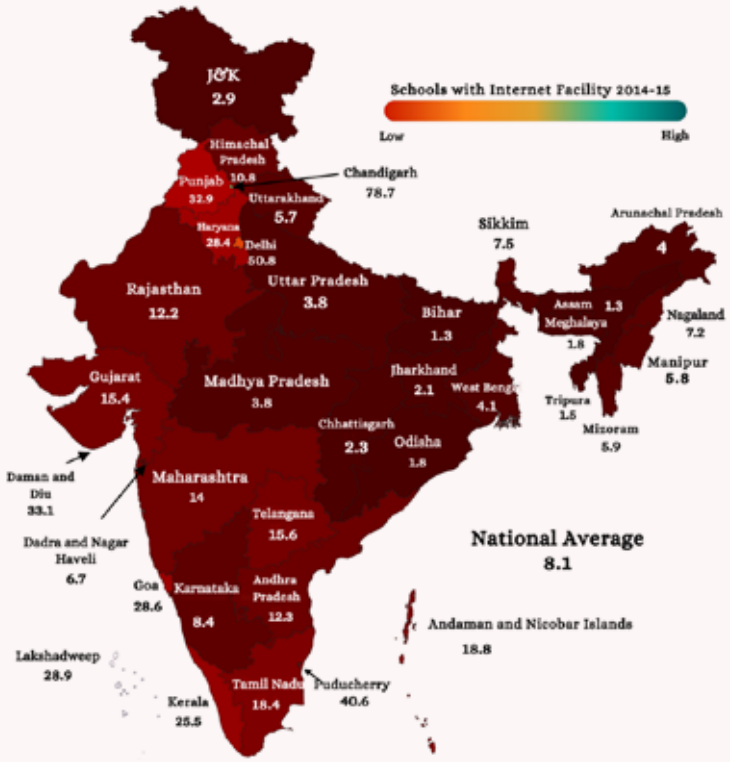


Figure 3.21: Decadal Overview - Percentage of Schools having Internet Facility

Source: UDISE+ 2014-15 to 2024-25

Internet access is an essential component of digital infrastructure, enabling access to online content, educational platforms, and ICT-based instruction. As digital pedagogy becomes more central to classroom practice under NEP 2020, ensuring reliable connectivity in schools has become increasingly important.[27]

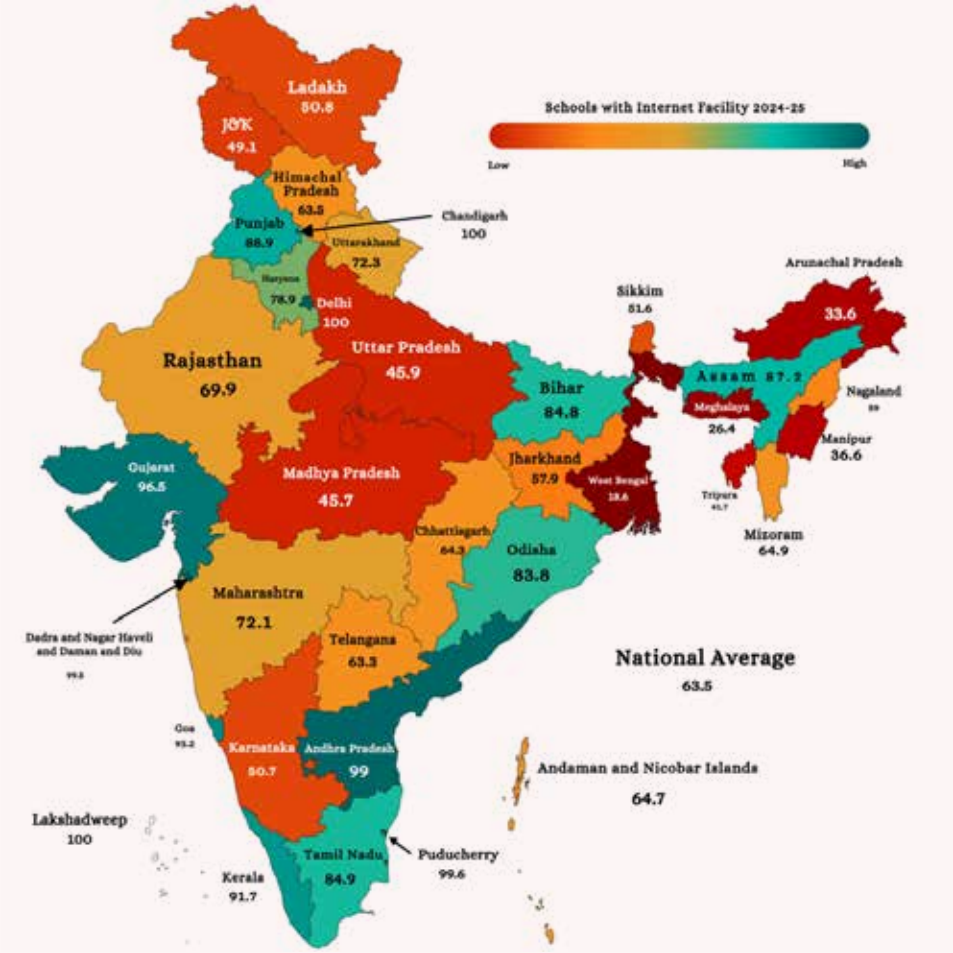
Figure 3.21 shows that the past decade has witnessed a sharp expansion in internet connectivity within schools. Starting from a very low level of 8.05%, growth remained gradual in the initial years but accelerated significantly after 2019-20. Coverage more than doubled between 2020-21 and 2022-23, crossing 50% for the first time, and continued to rise steadily thereafter. In 2024-25, nearly two-thirds (63.5%) of schools reported having access to internet facilities. Despite this rapid progress, the fact that over one-third of schools still remain without connectivity underscores persistent challenges.



Map 3.29: Availability of Internet Facility across states/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15

27 *NEP (2020), Sections 24.1-24.5, provides guidelines for developing digital education, emphasizing pedagogy supported by NCERTs and SCERTs.*



Map 3.30:Availability of Internet Facility across states/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

Map 3.30 shows the significant expansion of internet connectivity in schools over the past decade. Starting from a very low base, where only a small fraction of schools reported access, several States and UTs have achieved near-universal coverage. Delhi, Chandigarh, Lakshadweep, Puducherry, Dadra & Nagar Haveli and Daman & Diu and Andhra Pradesh have reached or are on the verge of complete provision. Gujarat (96.5%), Goa (93.2%), Kerala (91.7%), and Punjab (88.9%) have also achieved near-universal levels. At the other end, the lowest current levels are in West Bengal (18.6%), Meghalaya (26.4%), Arunachal Pradesh (33.6%), Manipur (36.6%), Tripura (41.7%), Madhya Pradesh (45.7%), and Uttar Pradesh (45.9%). Karnataka, home to Bengaluru, the country's leading IT hub, has only about half of its schools (50.7%) connected to the internet, reflecting a stark contrast between the State's global digital profile and its basic educational infrastructure.

Over the past decade, the sharpest gains were recorded in Dadra & Nagar Haveli (6.7% → 99.5%), Andhra Pradesh (12.3% → 99%), Assam (1.3% → 87.2%), Bihar (1.3% → 84.8%), and Odisha (1.8% → 83.8%). In contrast, the smallest improvements were observed in West Bengal (4.1% → 18.6%), Meghalaya (1.8% → 26.4%), Arunachal Pradesh (4% → 33.6%), and Manipur (5.8% → 36.6%). Internet connectivity in schools has expanded rapidly over the past decade, moving several States close to universal provision. Nonetheless, limited access in certain regions continues to constrain the integration of digital tools in teaching and learning.

F. Functional Smart Classrooms

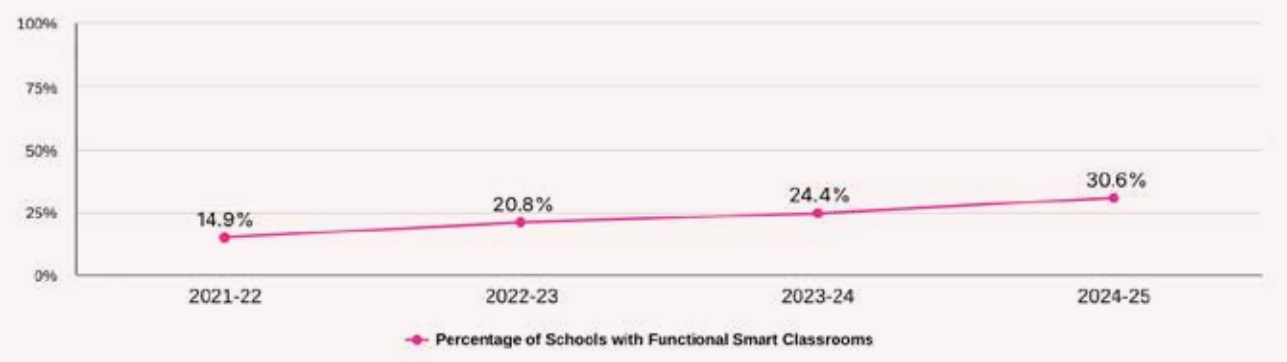
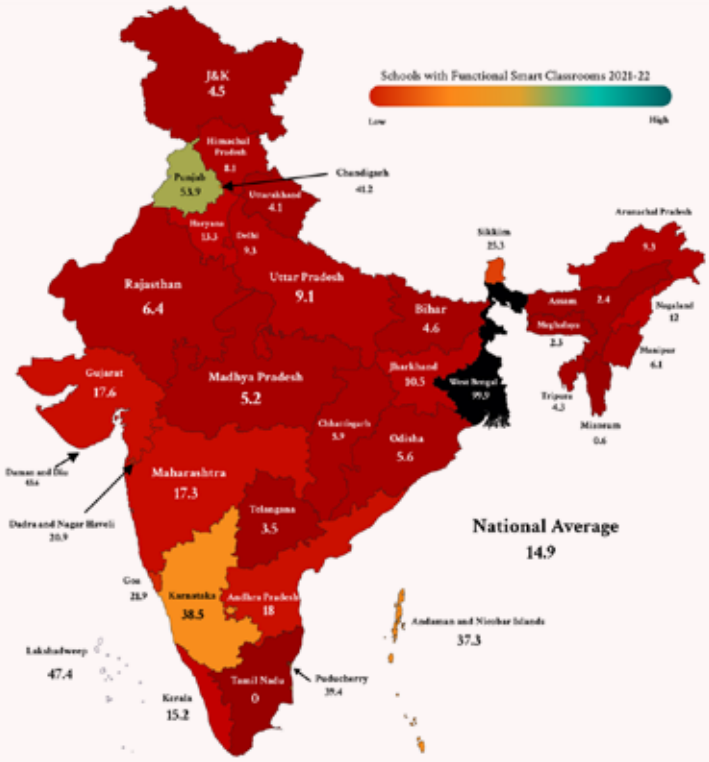


Figure 3.22:Availability of Functional Smart Classroom across states/UTs

Source: Source: UDISE+ 2021-22 to 2024-25

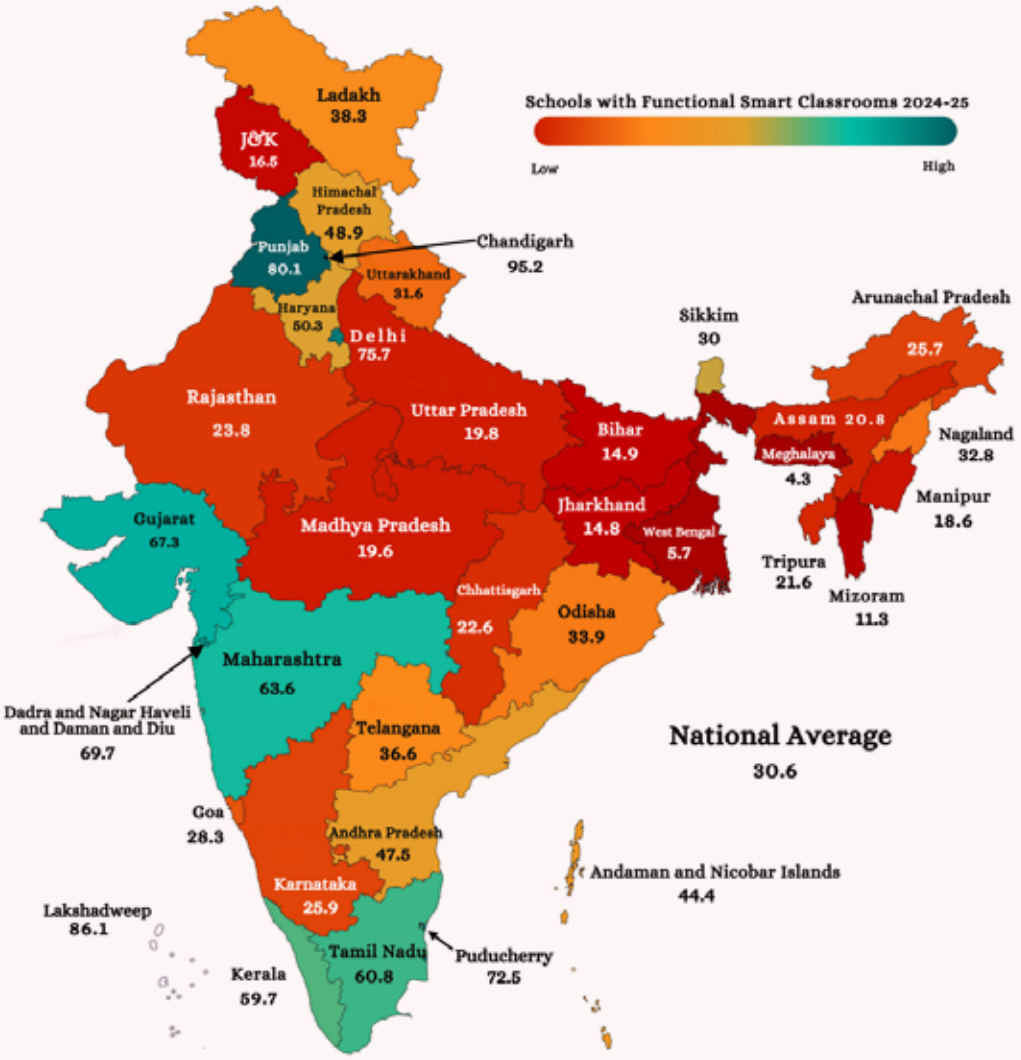
Smart classrooms are digitally enabled teaching spaces that integrate tools such as projectors, interactive whiteboards, audio-visual content, and access to e-resources. Their purpose is to make classroom learning more interactive, engaging, and effective, while also supporting teachers in delivering competency-based and technology-driven instruction. By moving beyond traditional chalk-and-talk methods, smart classrooms are intended to prepare students for the demands of a digital economy and 21st century learning.

As shown in Figure 3.22, the spread of smart classrooms in schools has accelerated in recent years. It has reached from 14.9% in 2021-22 to 30.6% in 2024-25. While the growth is significant, nearly seven out of ten schools still lack smart classroom points, which points to the need for sustained investment to achieve wider coverage. It may also be noted that data on functional smart classrooms has been made available only from 2021-22 onwards.



Map 3.31:Availability of functional Smart Classrooms across states/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15



Map 3.32:Availability of functional Smart Classrooms across states/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

The adoption of smart classrooms in India's school system shows wide interstate variation, with digital teaching infrastructure still at an early stage in many parts of the country. Map 3.32 indicates that in 2025, in most States and UTs, fewer than 30% of schools were equipped with functional smart classrooms, pointing to limited progress in technology integration. The highest levels are reported in Chandigarh (95.2%), Lakshadweep (86.1%), Punjab (80.1%), Delhi (75.7%), and Puducherry (72.5%). At the other end, the lowest levels are observed in Meghalaya (4.3%), West Bengal (5.7%), Mizoram (11.3%), Jharkhand (14.8%), Bihar (14.9%), Jammu and Kashmir (16.5%), Manipur (18.6%), Madhya Pradesh (19.6%), and Uttar Pradesh (19.8%).

Over the past four years, the sharpest gains were recorded in Tamil Nadu (0% → 60.8%), Chandigarh (41.2% → 95.2%), and Maharashtra (17.3% → 63.6%). In contrast, the smallest improvements were seen in Meghalaya (2.3% → 4.3%), Andaman & Nicobar Islands (37.3% → 44.4%), Jharkhand (10.5% → 14.8%), and Bihar (4.6% → 14.9%).

The evidence points to significant interstate disparities: while some States have rapidly expanded smart classroom adoption, most continue to show minimal coverage, highlighting persistent gaps in technology integration.

3.3 Equity and Inclusion

Ensuring that all children, regardless of gender, caste, location, or ability, have equal opportunities to access and complete school education is a central goal of national policy. This section examines patterns of enrolment and progression among girls, children from Scheduled Castes (SC), Scheduled Tribes (ST), minority communities, and children with disabilities, highlighting areas where focused interventions are still needed.

Summary of Insights

1. **Gender parity has been achieved in access, creating a strong foundation for universal progression**

   Girls' participation across stages reflects a stable and positive trajectory, indicating that structural barriers to entry have substantially narrowed. The next phase of reform can build on this foundation by strengthening support during adolescence to ensure continuity through secondary and higher secondary education.

2. **Elementary inclusion is largely consolidated, with increasing momentum at post-elementary stages**

   Participation at primary and upper primary levels across gender and social groups reflects broad-based access. Continued improvements at secondary and higher secondary stages indicate gradual strengthening of retention, with scope for further acceleration through targeted transition support.

3. **SC and ST enrolment trends demonstrate sustained inclusion with opportunities for upward mobility**

   Access at foundational stages for SC and ST children remains aligned with system-wide trends, reflecting progress in inclusive outreach. Enhancing academic support, financial assistance, and local mentoring at higher stages can further consolidate these gains and expand participation in senior secondary education.

4. **Inclusion of children with special needs is progressing through expanding accessibility measures**

   Improvements in physical infrastructure such as ramps signal steady movement toward more inclusive school environments. Continued scaling of accessible facilities and specialised support systems will further strengthen the integration of children with special needs into mainstream schooling.

Taken together, the evidence suggests that the foundation for inclusive schooling has been laid. The next phase of reform must prioritise sustained participation, strengthened transitions, and universal accessibility to realise the vision of equitable and comprehensive school education for all.

3.3.1 Gender-Wise Enrolment

The gender-wise GER provides a clear view of how girls' participation evolves across the different stages of the school structure. It shows that enrolment among girls begins to taper off as they progress through successive school stages, despite high participation at the primary level. The Gender Parity Index (GPI), defined as the ratio of female to male GER, serves as a measure of gender balance in enrolment, where a value of 1 indicates parity, values above 1 reflect higher participation of girls, and values below 1 reflect lower participation. Notably, the GPI for both 2014-15 and 2024-25 has remained above 1 across all States, indicating that girls have consistently achieved equal or higher enrolment compared to boys over the past decade.

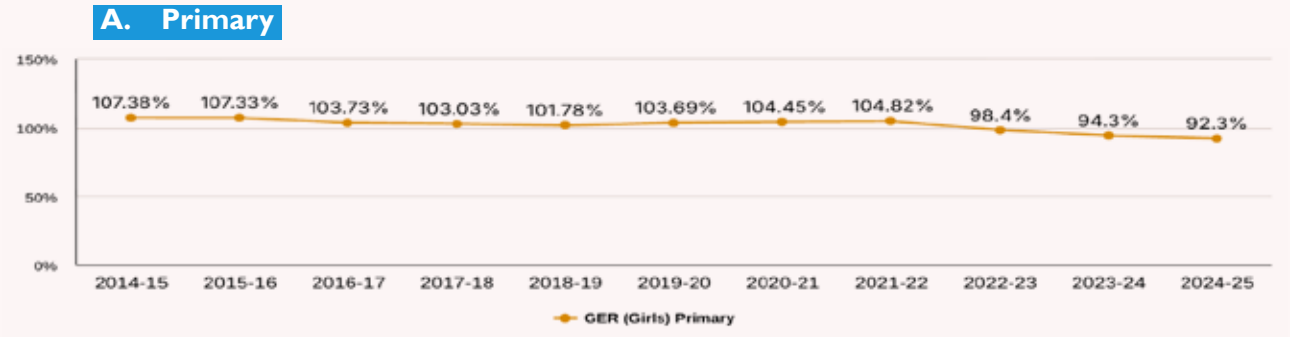
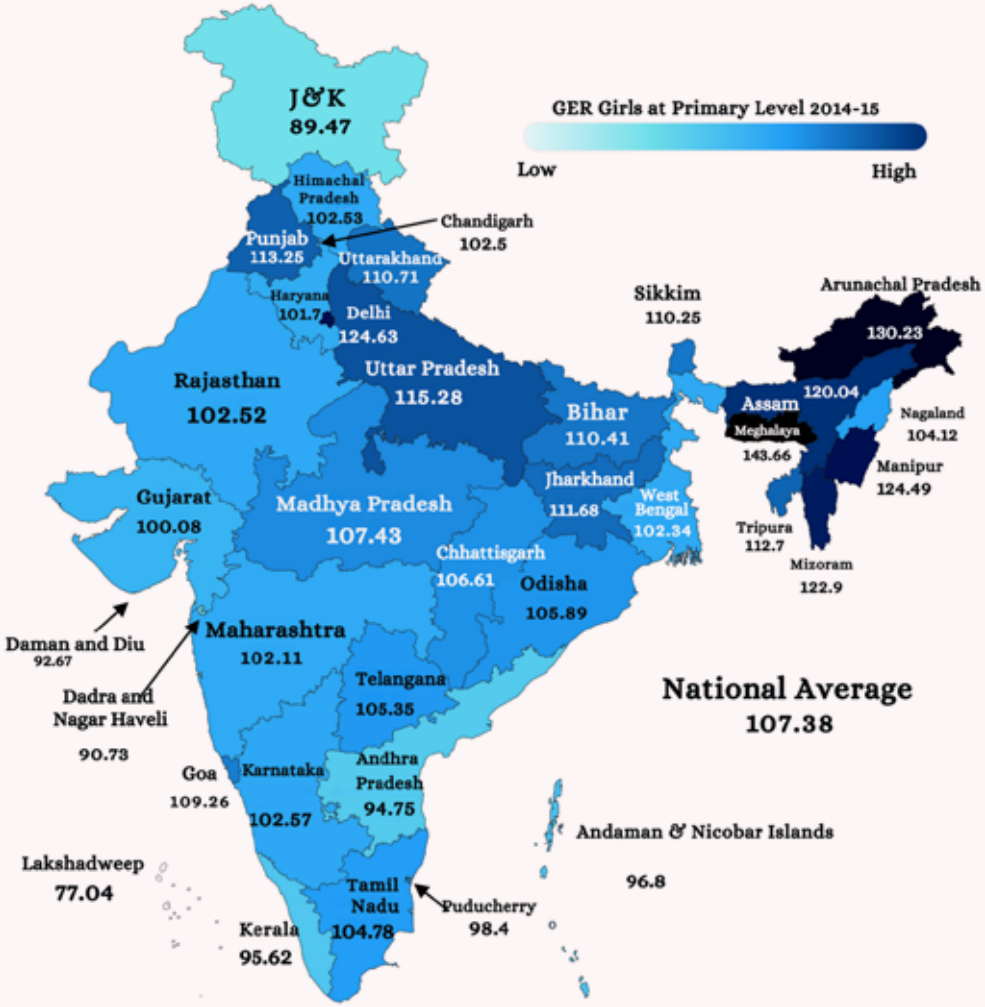


Figure 3.23: Decadal Overview - Gross Enrolment Ratio (GER) for Girls at Primary Level

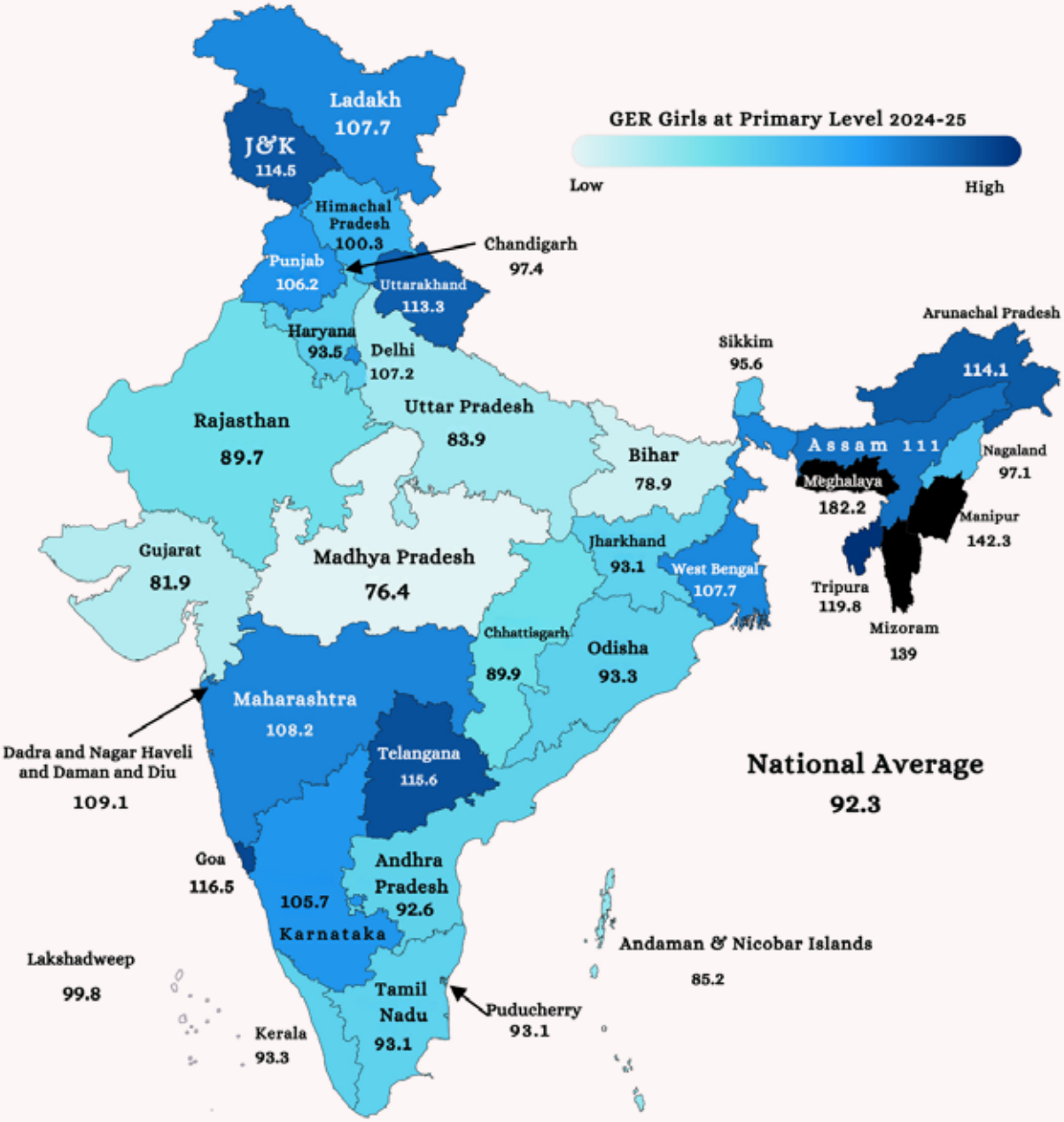
Source: UDISE+ 2014-15 to 2024-25

GER for girls at the primary level has declined from 107.38% in 2014-15 to 92.3% in 2024-25, as shown in Figure 3.23. For much of the past decade, enrolment levels hovered above 100%, reflecting both strong participation and the presence of over-age or under-age enrolments. A sharp decline is visible from 2022-23 onwards, which is partly attributable to demographic changes, including falling fertility rates and shrinking cohorts of children entering primary school. At the same time, improved accuracy in record-keeping and the reduction of duplication may also explain the correction from previously inflated ratios.



Map 3.33: Gross Enrolment Ratio of Girls at Primary Level across States/UTs

Source: UDISE+ 2014-15



Map 3.34: Gross Enrolment Ratio of Girls at Primary Level across States/UTs

Source: UDISE+ 2024-25

Map 3.34 shows the GER for girls at the primary level, with 19 States recording values above 100 and 11 States achieving near-universal coverage. However, several States/UTs remain below the National Average including Madhya Pradesh (76.4%), Bihar (78.9%), Gujarat (81.9%), Uttar Pradesh (83.9%), Andaman & Nicobar Islands (85.2%), Rajasthan (89.7%), and Chhattisgarh (89.9%), all of which continue to fall short of the desired levels.

As can be seen in Maps 3.33 and 3.34, several States have recorded a decline in GER for girls at the primary level between 2014-15 and 2024-25. The steepest declines are observed in Madhya Pradesh (107.43 → 76.4) and Bihar (110.41 → 78.9), followed by Uttar Pradesh (115.28 → 83.9) and Gujarat (100.08 → 81.9). Jharkhand (111.68 → 93.1) and Chhattisgarh (106.61 → 89.9) also reflect sizeable declines. Delhi (124.63 → 107.2), Sikkim (110.25 → 95.6), and Rajasthan (102.52 → 89.7) show similar downward trends.

B. Upper Primary

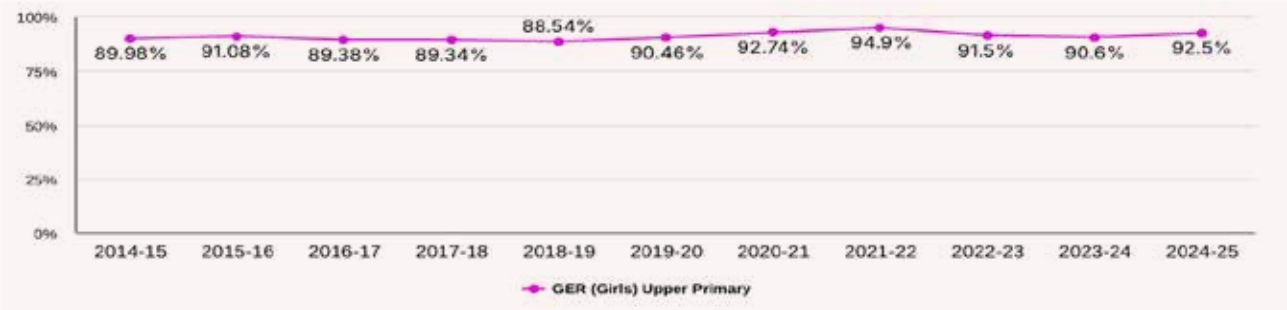
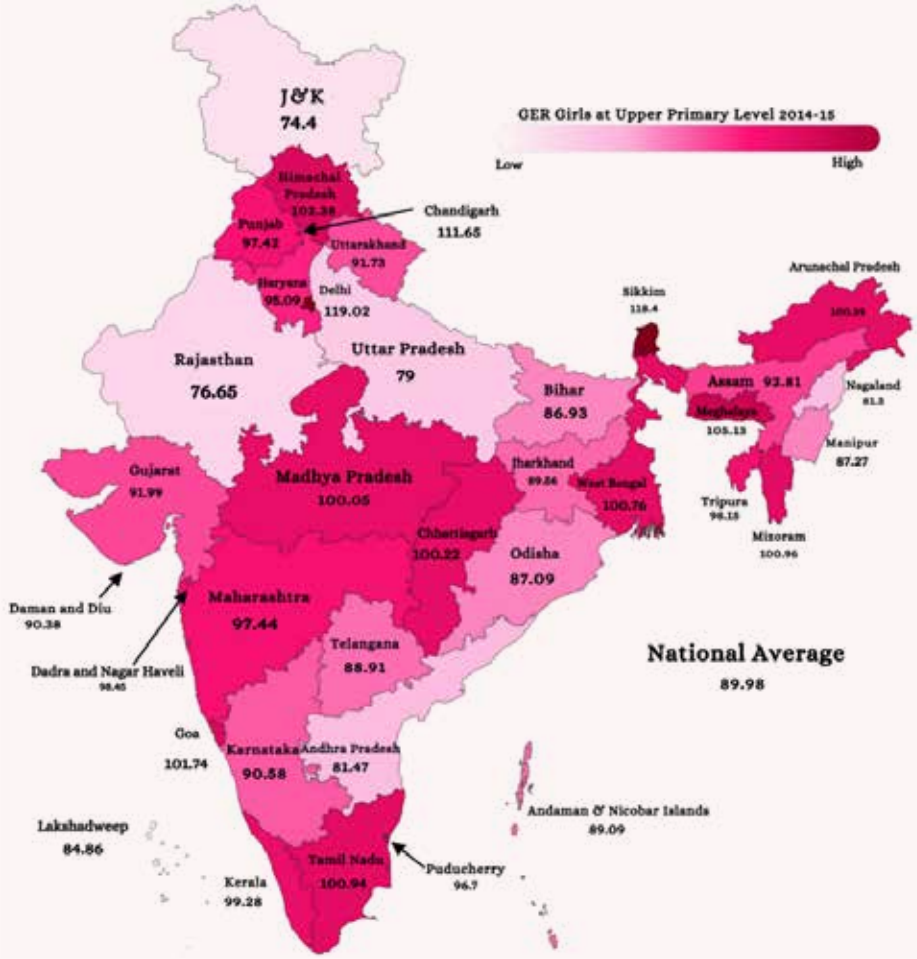


Figure 3.24: Decadal Overview - Gross Enrolment Ratio (GER) for Girls at Upper Primary Level

Source: UDISE+ 2014-15 to 2024-25

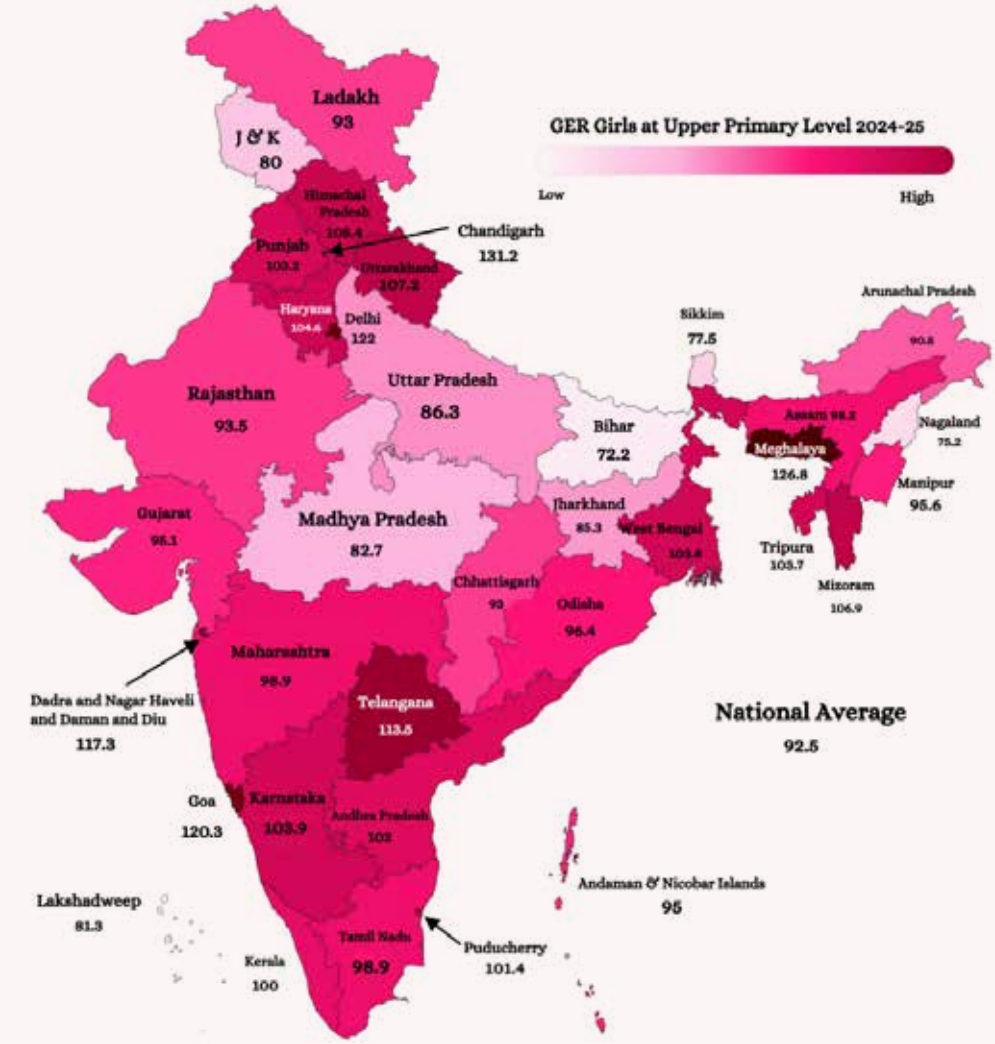
The GER for girls at the upper primary level has shown modest improvement over the past decade, rising from 89.98% in 2014-15 to 92.5% in 2024-25 as shown in Figure 3.24

These levels reflect near-universal participation, though a small proportion of girls continue to be excluded from upper primary schooling. The challenge lies in sustaining this coverage and ensuring smooth progression into secondary education, particularly for girls from disadvantaged communities who remain vulnerable to dropping out due to socio-economic pressures and early marriage.



Map 3.35: Gross Enrolment Ratio of Girls at Upper Primary Level across states/UTs

Source: UDISE+ 2014-15



Map 3.36: Gross Enrolment Ratio of Girls at Upper Primary Level across states/UTs

Source: UDISE+ 2024-25

Map 3.36 shows that18 States report GER for girls at the upper-primary level above 100, and 11 States have reached near-universal coverage. However, several States remain below the National Average including Uttar Pradesh (86.3%), Jharkhand (85.3%), Madhya Pradesh (82.7%), and Lakshadweep (81.3%). Jammu & Kashmir (80.0%) and Sikkim (77.5%) also fall short of desired levels, while Nagaland (75.2%) and Bihar (72.2%) record the lowest GER for girls at this stage.

As evident from Maps 3.35 and 3.36, several States and UTs have registered notable improvements in GER for girls at the upper-primary stage. Gains are most visible in Chandigarh (111.65 → 131.2) and Meghalaya (105.13 → 126.8), followed by Goa (101.74 → 120.3), Telangana (88.91 → 113.5) and Uttarakhand (91.73 → 107.2). Karnataka (90.58 → 103.9), Andhra Pradesh (81.47 → 102.0), and Rajasthan (76.65 → 93.5) also reflect strong advances, having crossed the 100 mark or moved substantially closer to universal coverage.

Whereas Sikkim (118.4 → 77.5) shows one of the sharpest falls, followed by Madhya Pradesh (100.05 → 82.7) and Bihar (86.93 → 72.2). Arunachal Pradesh (100.39 → 90.5) and Nagaland (81.3 → 75.2) also record significant decline. Chhattisgarh (100.22 → 93.0) reflects a similar trend, while Jharkhand (89.56 → 85.3) and Lakshadweep (84.86 → 81.3) report relatively smaller reductions.

C. Secondary

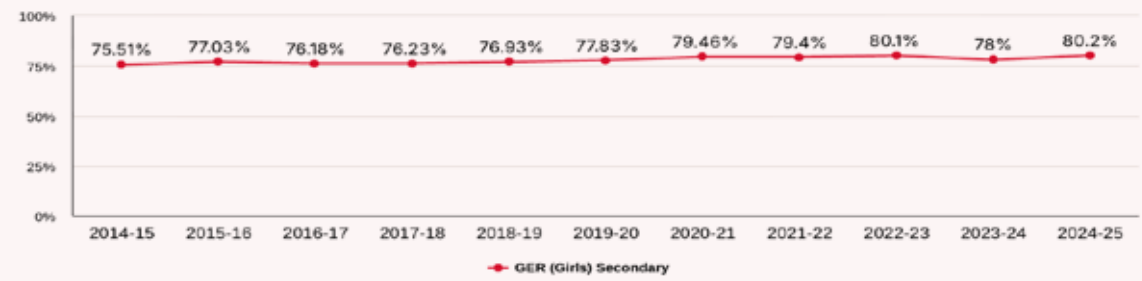
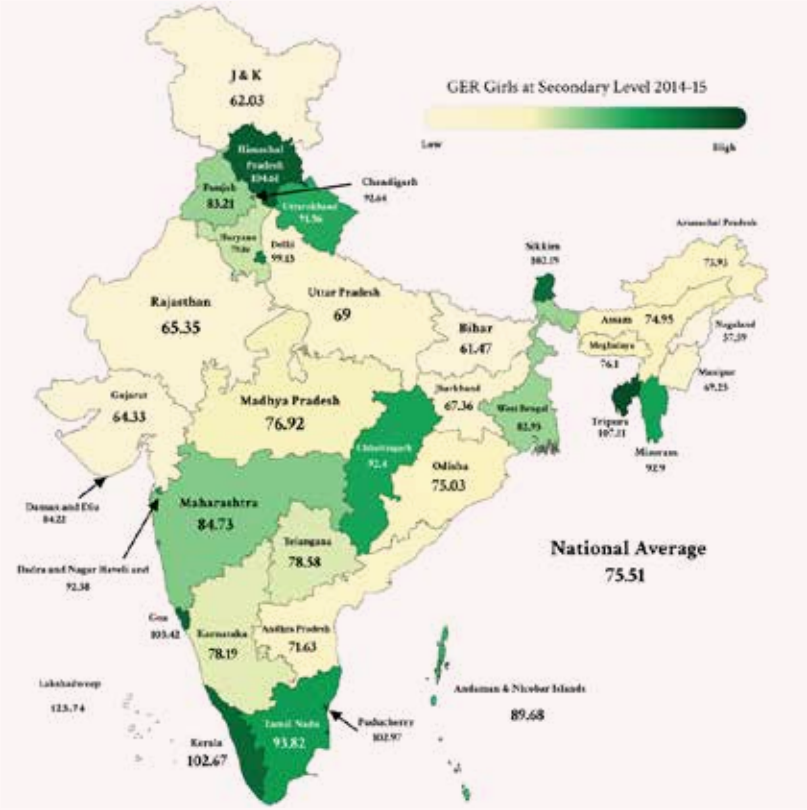


Figure 3.25: Decadal Overview - Gross Enrolment Ratio (GER) for Girls at Secondary Level

Source: UDISE+ 2014-15 to 2024-25

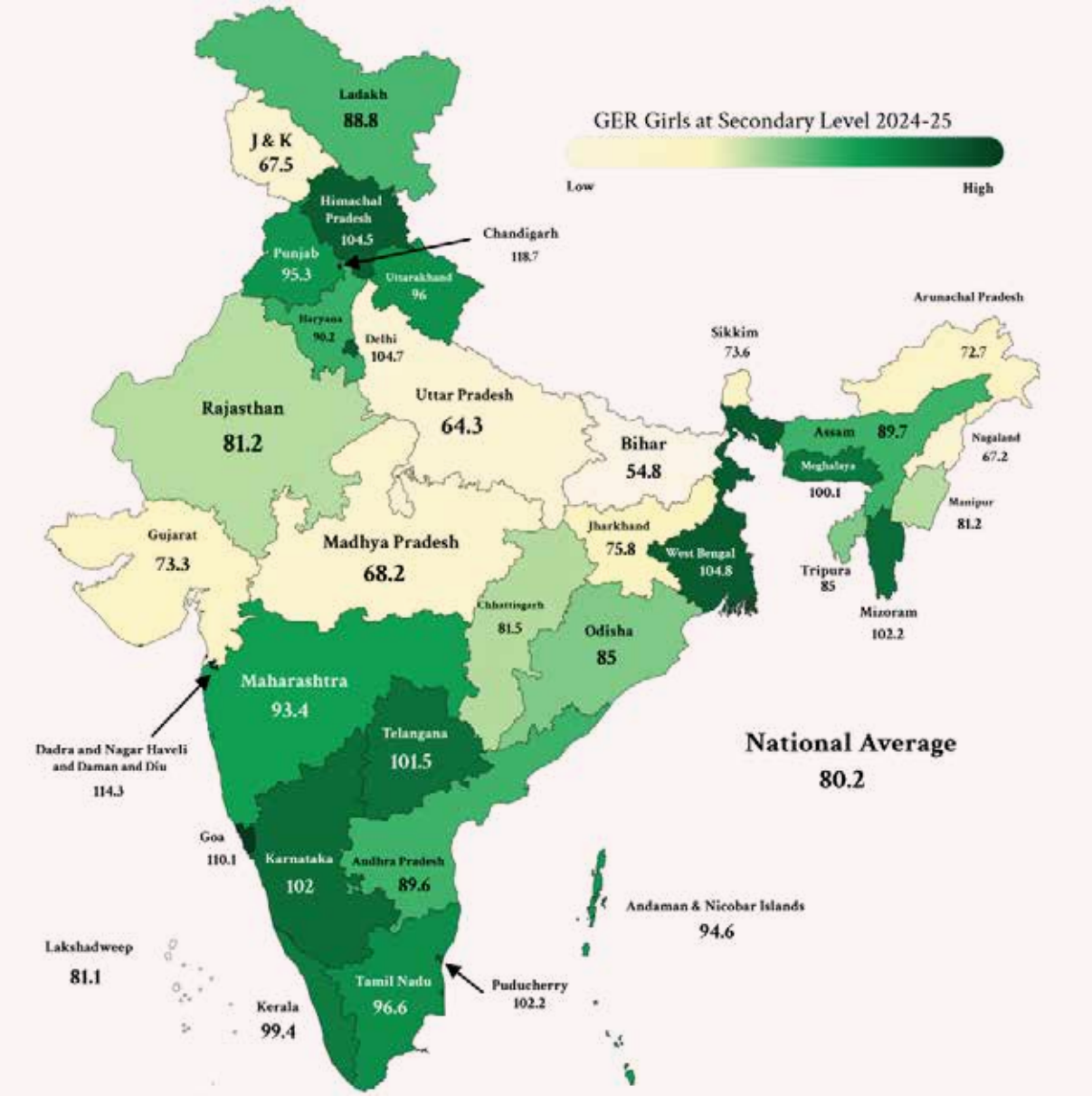
Figure 3.25 depicts that GER for girls at the secondary stage has improved gradually from 75.5% in 2014-15 to 80.2% in 2024-25. The growth over the decade has been steady, with minor fluctuations, but the gains have been modest compared to primary and upper primary levels. After crossing the 80% mark in 2021-22, the rate dipped slightly in 2023-24 before recovering to 80.2% in the latest year.

This trajectory indicates progress in bringing more girls into secondary education, yet participation is still short of universalisation. Social and economic barriers, including household responsibilities, early marriage, and limited access to schools at the secondary stage, continue to affect retention. Addressing these constraints is critical to ensuring that the gains at the primary and upper primary levels translate into sustained participation through secondary education.



Map 3.37: Gross Enrolment Ratio of Girls at Secondary Level across states/UTs

Source: UDISE+ 2014-15



Map 3.38: Gross Enrolment Ratio of Girls at Secondary Level across states/UTs

Source: UDISE+ 2024-25

Map 3.38 shows that GER starts falling at the secondary stage in several states. Although 12 States have crossed the 100 mark in GER for girls at the secondary level, and 8 States are near universal. However, several States including Bihar (54.8%), Uttar Pradesh (64.3%), Nagaland (67.2%), Jammu & Kashmir (67.5%), and Madhya Pradesh (68.2%) report the lowest coverage.

As seen from Maps 3.37 & 3.38, Meghalaya (76.1 → 100.1), Karnataka (78.19 → 102.0), and Telangana (78.58 → 101.5) have crossed the 100 mark, while Chandigarh (92.64 → 118.7) shows even stronger gains. West Bengal (82.95 → 104.8) also reflects substantial progress. Andhra Pradesh (71.63 → 89.6), Assam (74.95 → 89.7), Rajasthan (65.35 → 81.2), and Manipur (69.25 → 81.2) remain below the threshold, though they too register notable upward movement. Lakshadweep (125.74 → 81.1) and Sikkim (102.19 → 73.6) record some of the steepest declines, followed by Tripura (107.11 → 85.0) and Chhattisgarh (92.4 → 81.5). Madhya Pradesh (76.92 → 68.47), Bihar (61.5 → 54.8) and Uttar Pradesh (69.0 → 64.3) also reflect considerable reductions.

D. Higher Secondary

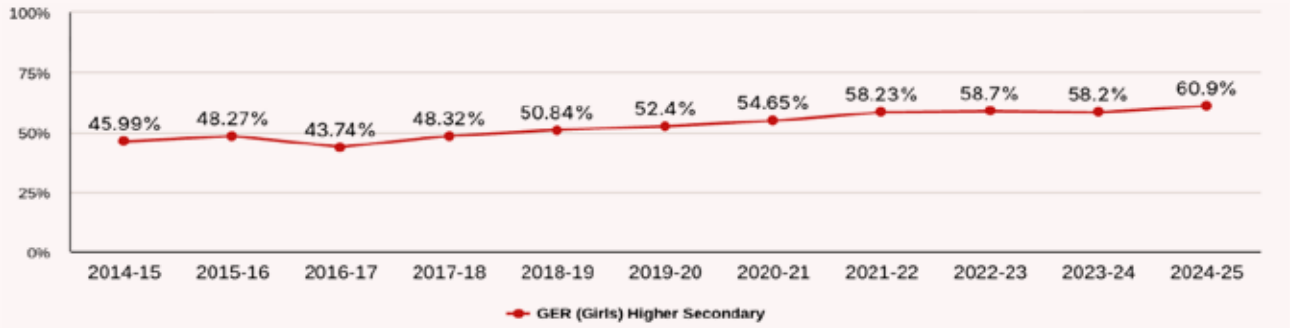
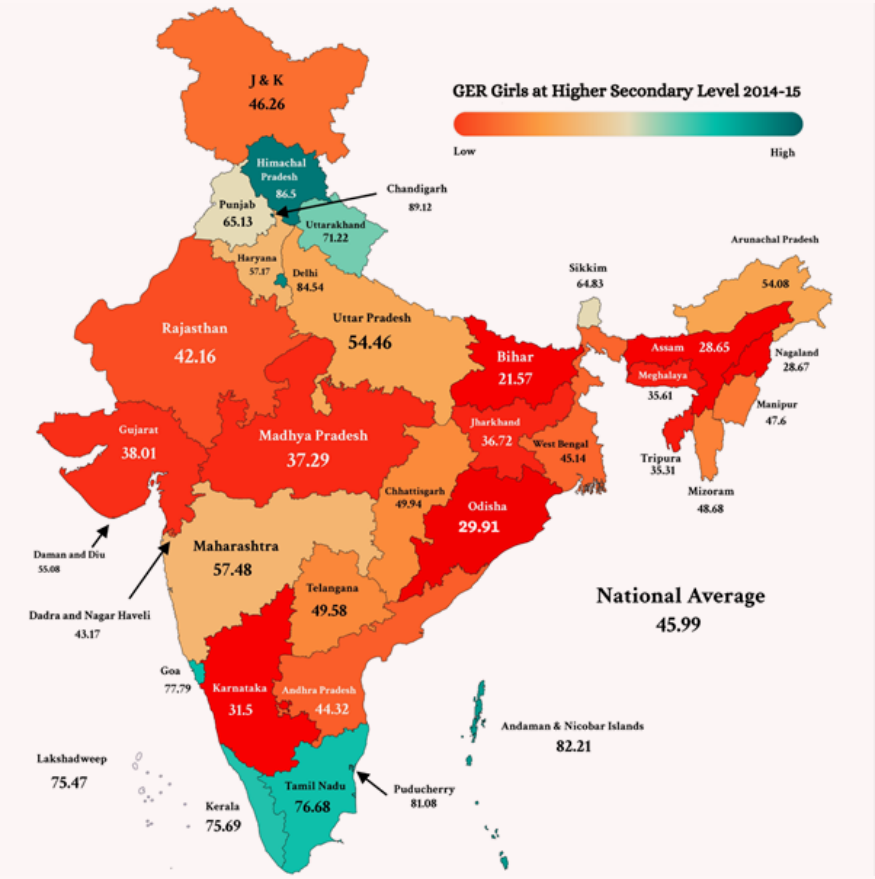


Figure 3.26: Decadal Overview - Gross Enrolment Ratio (GER) for Girls at Higher Secondary Level

Source: UDISE+ 2014-15 to 2024-25

As shown in Figure 3.26, the GER of girls at the higher secondary stage has improved steadily over the past decade. From a low of 45.99% in 2014-15, enrolment increased to 60.9% in 2024-25, with consistent gains from 2017-18 onwards. The most significant rise occurred between 2016-17 and 2021-22, when participation grew from 43.74% to 58.23%.

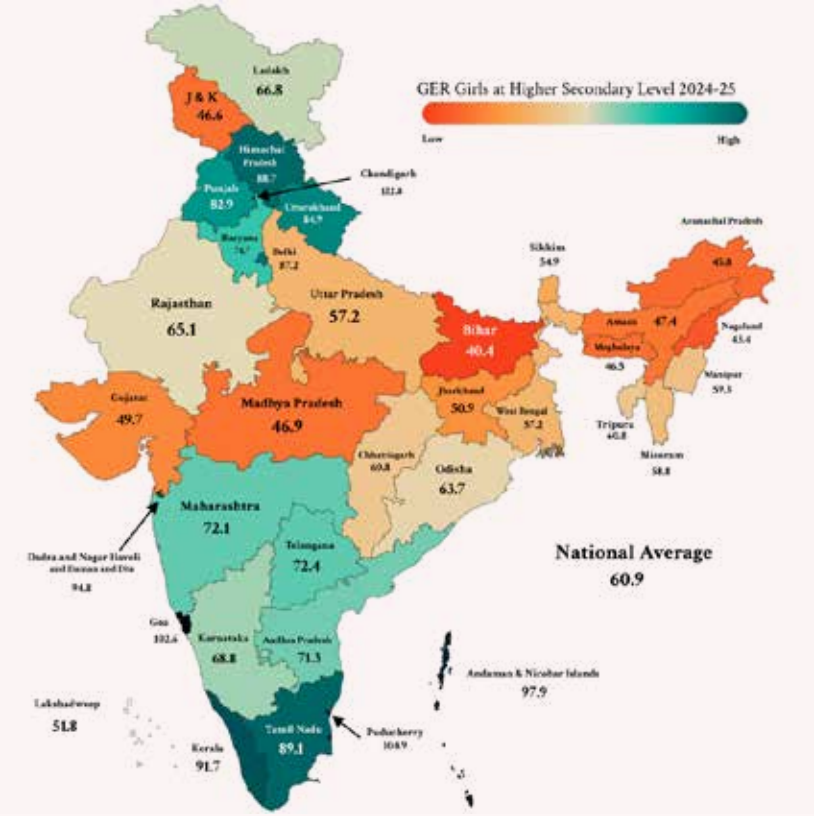
Despite this progress, enrolment at the higher secondary stage remains well below universal levels, with nearly four out of ten girls still outside the system. The data points to the need to strengthen retention mechanisms in the transition from secondary to higher secondary, ensuring that gains achieved in earlier stages translate into continued participation at the higher secondary level.



Map 3.39: Gross Enrolment Ratio of Girls at Higher Secondary Level across States/UTs

Source: UDISE+ 2014-15

Note: For Odisha, the GER values represented in the heatmap have been sourced from UDISE 2015-16 data. This adjustment has been made in view of identified anomalies in the corresponding dataset, to ensure consistency and reliability of the analysis.



Map 3.40: Gross Enrolment Ratio of Girls at Higher Secondary Level across states/UTs

Source: UDISE+ 2024-25

As seen in Map 3.40, only a limited set of States and UTs report strong participation of girls in higher secondary education. These include Chandigarh (122.8%), Puducherry (104.9%), and Goa (102.6%). Relatively higher levels are also evident in the Andaman & Nicobar Islands (97.9%), Dadra & Nagar Haveli (94.8%), Daman & Diu (94.8%), and Kerala (91.7%). Tamil Nadu (89.1%), Himachal Pradesh (88.7%), Delhi (87.2%), and Uttarakhand (84.9%) represent comparatively better performance than most other States.

Bihar (40.4%), Nagaland (43.4%), and Arunachal Pradesh (45.8%) represent the poorest levels of female participation in higher secondary education. Meghalaya (46.5%), Jammu & Kashmir (46.6%), and Madhya Pradesh (46.9%) perform only marginally better and, Assam (47.4%) and Gujarat (49.7%) also fall into the deficient category, while Jharkhand (50.9%), Lakshadweep (51.8%), and Sikkim (54.9%) remain below acceptable norms. Uttar Pradesh and West Bengal (57.2% each), Mizoram (58.8%), Manipur (59.3%), Chhattisgarh and Tripura (60.8% each), Odisha (63.7%), and Rajasthan (65.1%) shows concerning outcomes. Although these States have improved compared to the extremely low levels recorded in 2014-15, their current GER for girls in higher secondary education remains low. The marginal gains achieved are insufficient, leaving them far behind national goals of equitable access.

3.3.2 Enrolment by Social Group (SC/ST)

Article 46 of the Constitution of India directs the state to promote the educational and economic interests of Scheduled Castes (SCs), Scheduled Tribes (STs), and other weaker sections, and to protect them from social injustice. This commitment is reinforced through the Right of Children

to Free and Compulsory Education Act, 2009, which guarantees access to quality elementary education for all children aged 6-14 years, irrespective of caste or social group. Caste and social group dynamics play a significant role in access to education. It is found that children from STs, SCs, and Other Backwards Classes are more likely to drop out due to economic disadvantages, social discrimination, and lower levels of parental education.[28]

(i) Scheduled Caste (SC)

A. Primary

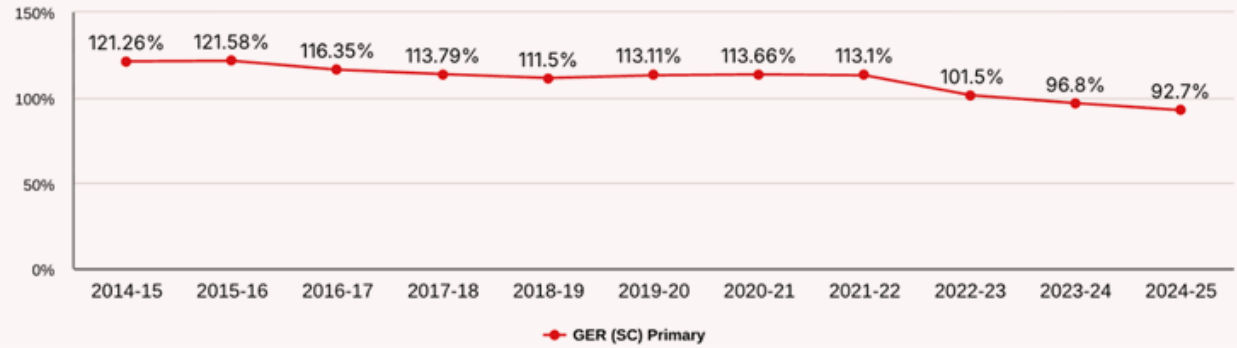


Figure 3.27: Decadal Overview - Gross Enrolment Ratio (GER) for SC at Primary Level

Source: UDISE+ 2014-15 to 2024-25

The GER for SC children at the primary level has declined over the decade, shown in Figure 2.25, from 121.3% in 2014-15 to 92.7% in 2024-25.

B. Upper Primary

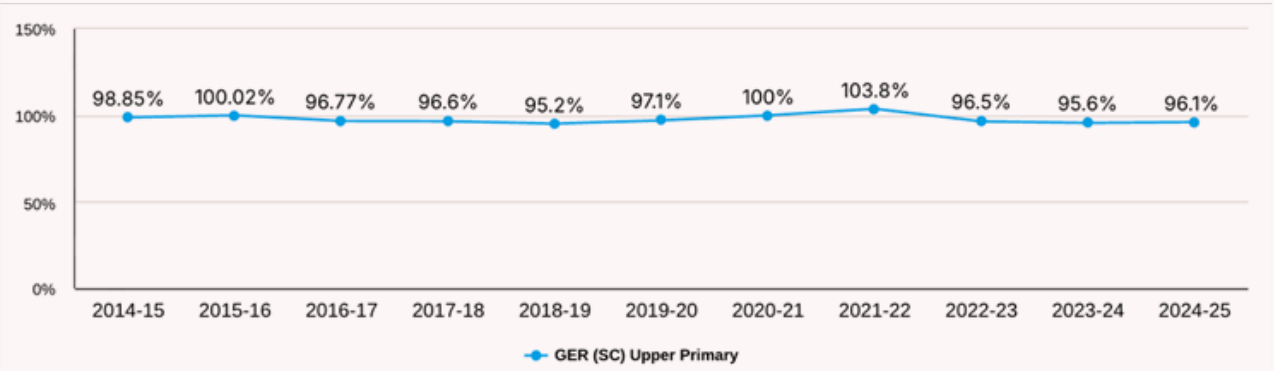


Figure 3.28: Decadal Overview - Gross Enrolment Ratio (GER) for SC at Upper Primary Level

Source: UDISE+ 2014-15 to 2024-25

Figure 3.28 highlights that enrolment of SC children at the upper-primary level has remained relatively stable over the past decade. GER was 98.9% in 2014-15 and declined marginally to 96.1% in 2024-25.

The overall pattern indicates that access at this stage has been largely sustained, with SC participation broadly aligned to or above the national average. However, the mild decline in recent years signals the need to strengthen retention during the transition from primary to upper primary, particularly to ensure that SC children do not slip out of the system after initial enrolment gains.

28 *Soni, R. B. L. (2013). Special provisions: Effects on education of Scheduled Castes and Scheduled Tribes (NCERT).*

C. Secondary

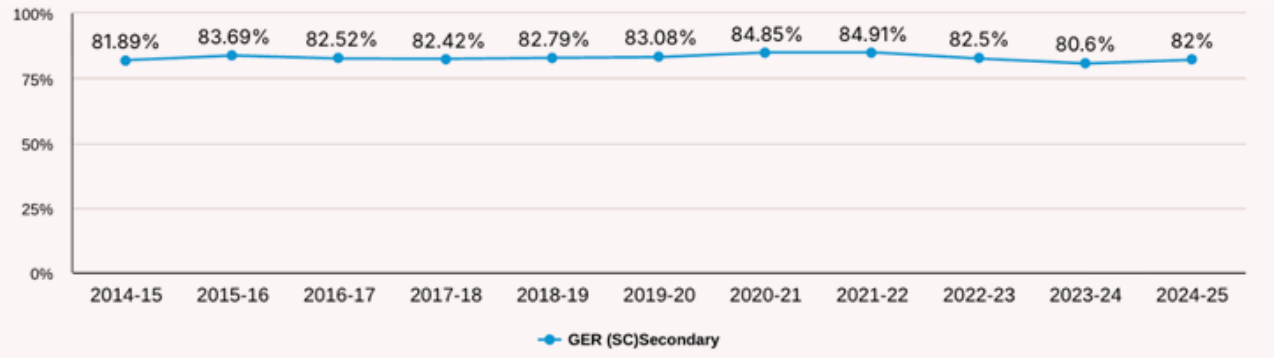


Figure 3.29: Decadal Overview - Gross Enrolment Ratio (GER) for SC at Secondary Level

Source: UDISE+ 2014-15 to 2024-25

The enrolment of SC students at the secondary stage, as shown in Figure 3.27, has exhibited little change over the last decade. The GER stood at 81.89% in 2014-15 and 82% in 2024-25.

D. Higher Secondary

At the higher secondary stage, as shown in Figure 3.28, the GER for SC students has improved over the past decade but remains below universalisation. Enrolment increased from 48.29% in 2014-15 to 59.4% in 2024-25.

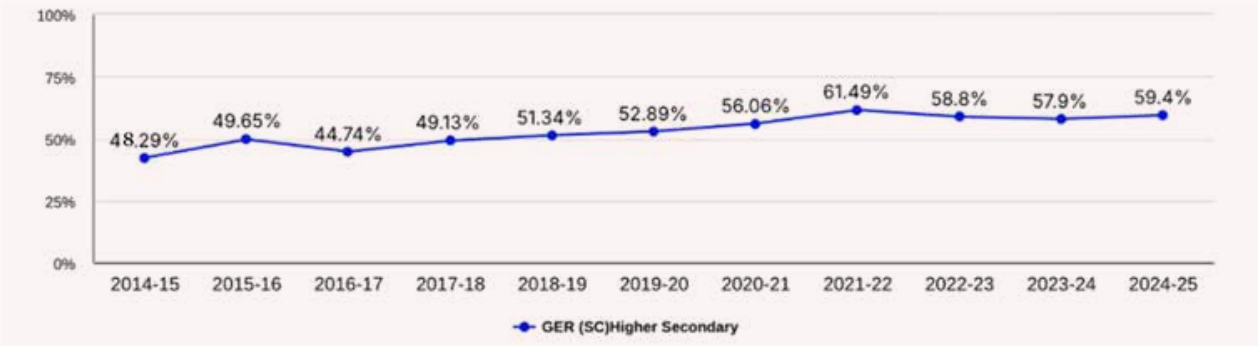


Figure 3.30: Decadal Overview - Gross Enrolment Ratio (GER) for SC at Higher Secondary Level

Source: UDISE+ 2014-15 to 2024-25

(ii) Scheduled Tribe (ST)

A. Primary

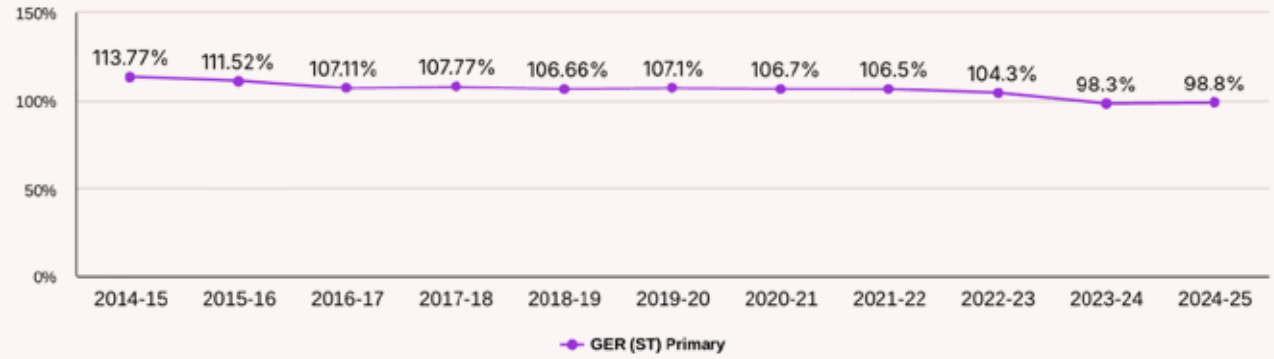


Figure 3.31: Decadal Overview - Gross Enrolment Ratio (GER) for ST at Primary Level

Source: UDISE+ 2014-15 to 2024-25

As portrayed in Figure 3.31, the GER for children belonging to STs at the primary stage has declined from 113.77% in 2014-15 to 98.8% in 2024-25, gradually aligning closer to 100% in recent years. This decline does not indicate a reduction in access but rather a correction from earlier overestimations caused by factors such as over-age or under-age enrolment and grade repetition. Current levels demonstrate that access has been sustained, even as enrolment figures have become more realistic over time.

B. Upper Primary

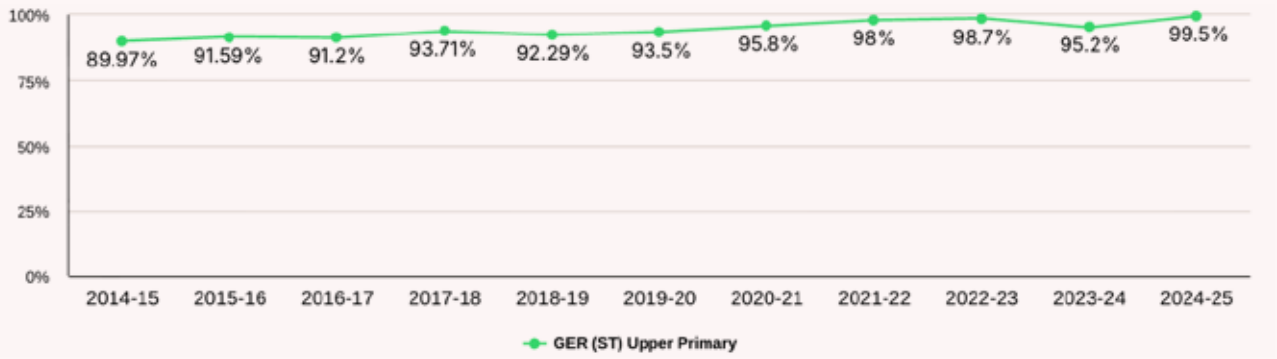


Figure 3.32: Decadal Overview - Gross Enrolment Ratio (GER) for ST at Upper Primary Level

Source: UDISE+ 2014-15 to 2024-25

According to Figure 3.32, GER for children belonging to the ST community at the upper primary level has increased from 89.97% in 2014-15 to 99.5% in 2024-25, consolidating close to universal participation.

C. Secondary

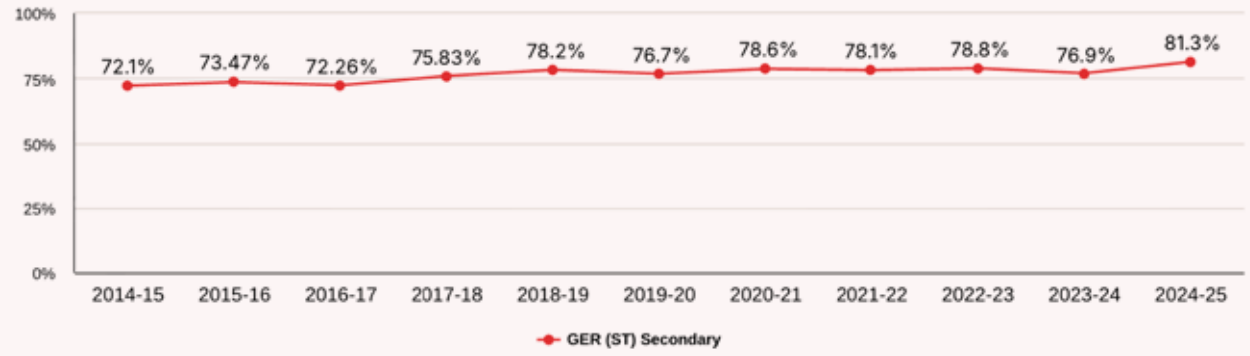


Figure 3.33: Decadal Overview - Gross Enrolment Ratio (GER) for ST at Secondary Level

Source: UDISE+ 2014-15 to 2024-25

GER for children belonging to the ST community at the secondary level increased from 72.1% in 2014-15 to 81.3% in 2024-25. As highlighted in Figure 3.33, after remaining between 72% and 76% in earlier years, the ratio rose steadily, crossing 78% by 2018-19 and peaking at 81.5% in 2020-21. It dipped slightly in the following years but recovered to 81.3% by 2024-25. This upward trend reflects the gradual expansion of secondary education access for ST children, though the level still trails the overall national average, underlining the need for sustained focus on retention and transition beyond upper primary.

D. Higher Secondary

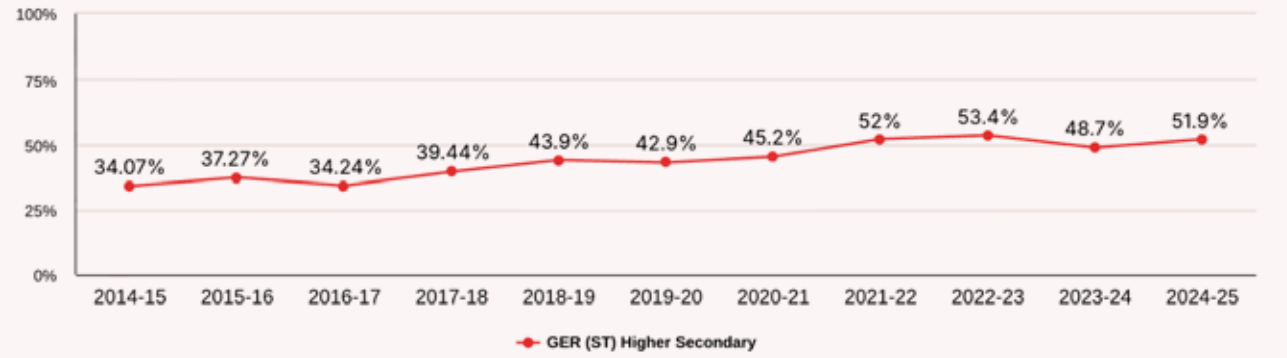


Figure 3.34: Decadal Overview - Gross Enrolment Ratio (GER) for ST at Higher Secondary Level

Source: UDISE+ 2014-15 to 2024-25

GER for children belonging to ST community at the higher secondary level rose from 34.07% in 2014-15 to 51.9% in 2024-25. The ratio improved gradually over the decade, shown in Figure 3.34, crossing 40% by 2018-19, and peaking at 53.4% in 2022-23 before stabilising around 52% in recent years. Despite these gains, participation of ST children in higher secondary education remains limited, with only about half enrolled by 2024-25. This highlights the need for continued policy attention on bridging post-secondary transitions for disadvantaged groups.

3.3.3 Children with Special Needs (CwSN)

Children with Special Needs (CwSN) are formally recognised under two key legal frameworks in India: The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act) and the Rights of Persons with Disabilities Act, 2016 (RPwD Act).[29]

Under the RPwD Act, a person with disability is defined as an individual with a long-term physical, mental, intellectual, or sensory impairment which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others. The RTE Act guarantees free and compulsory elementary education to all children aged 6-14 years and explicitly includes children with disabilities within its ambit.

The inclusion of CwSN in the mainstream schooling system is operationalised through Samagra Shiksha, which outlines specific provisions for their support. These include:

- Early identification and assessment of disabilities,
- Preparation of Individualised Education Plans (IEPs),
- Deployment of special educators and provision of therapeutic services,
- Resource support such as assistive devices and aids,
- Capacity-building of teachers in inclusive pedagogy, and
- Development of accessible school infrastructure.

Ensuring the integration of CwSN into regular school settings is central to the realisation of the NEP 2020 objectives and India's commitment to SDG 4, which calls for inclusive and equitable quality education and promotes lifelong learning opportunities for all.[30] Failure to address these barriers may constrain both learning outcomes and long-term participation in education for children with disabilities.

29 *The Rights of Persons with Disabilities Act, 2016. (28th December 2016). Government of India.*
30 *Ensuring the inclusion of CwSN in mainstream schools is key to realizing NEP 2020 goals and India's commitment to SDG 4. UNICEF Regional Office for South Asia. (2021). Disability-inclusive education practices in India*

A. CwSN Friendly Toilets

Accessible toilet infrastructure is a critical component of inclusive school environments, especially for children with physical and mobility-related disabilities. The presence of CwSN-friendly toilets is directly linked to school participation, safety, and dignity, and remains a key determinant of retention for children with special needs.

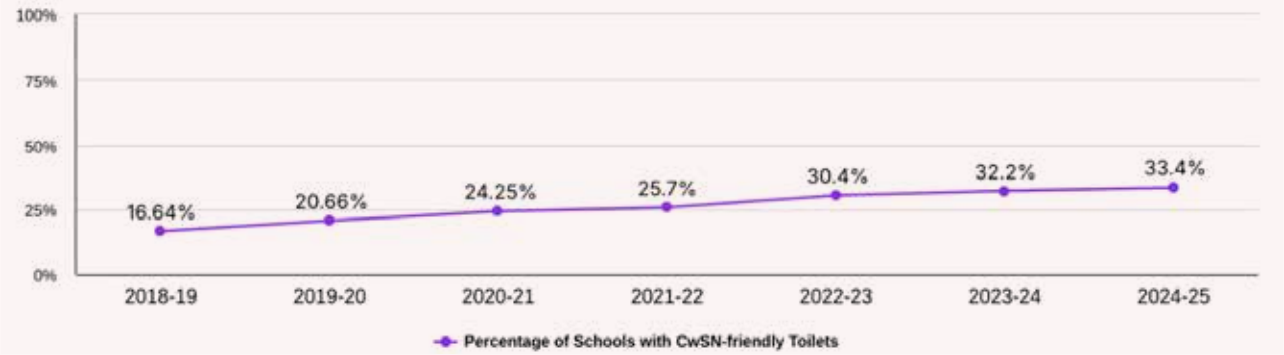
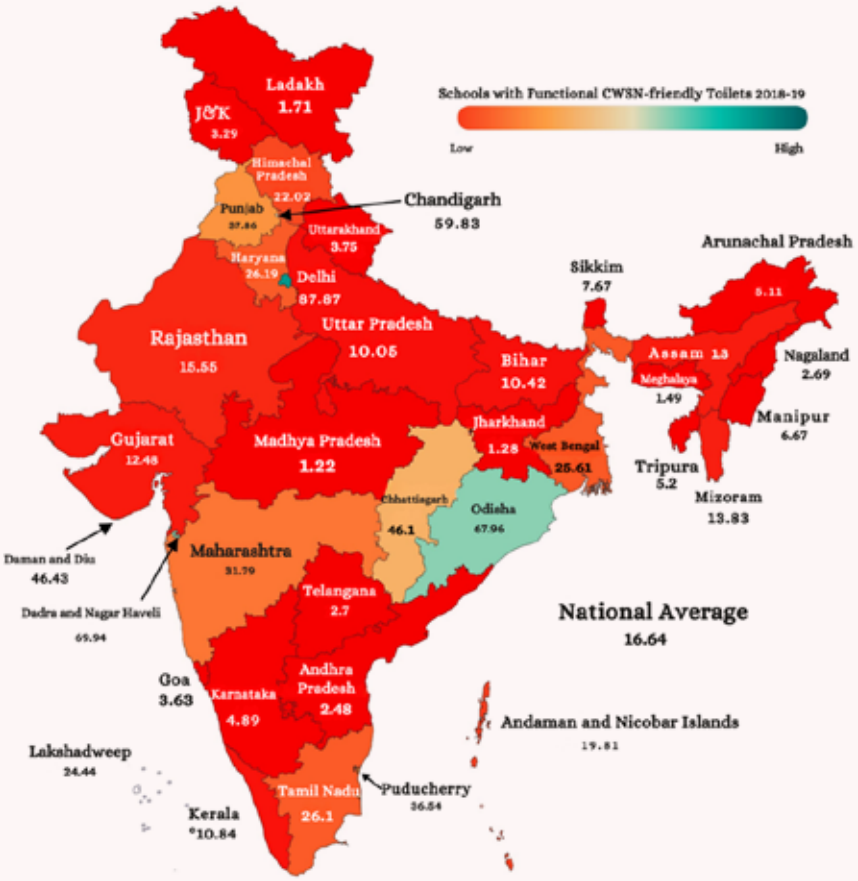


Figure 3.35: Decadal Overview: Percentage of Schools with CwSN-friendly Toilets

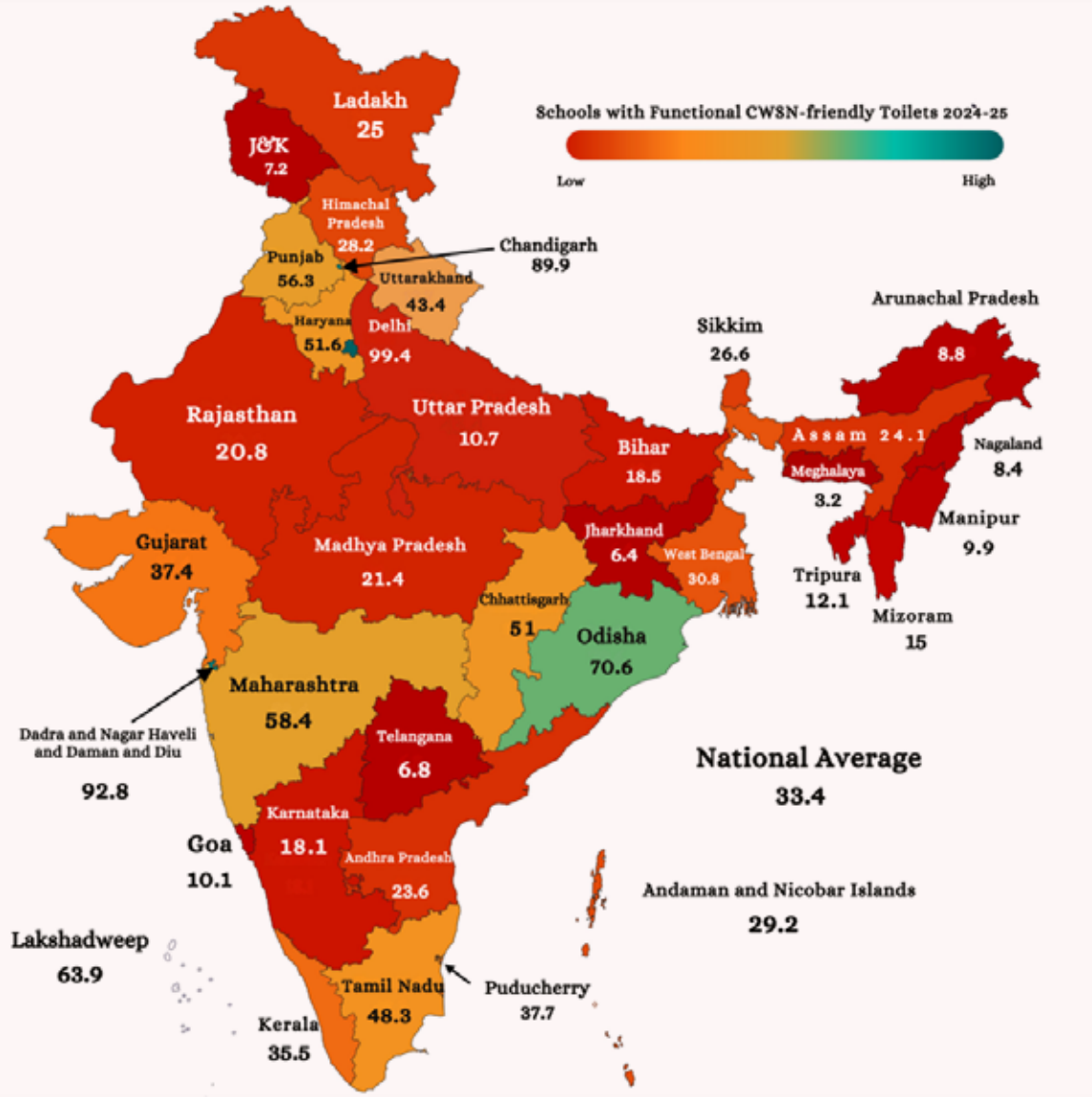
Source: UDISE+ 2018-19 to 2024-25

The share of schools equipped with CWSN-friendly toilets has risen from 16.64% in 2018-19 to 33.4% in 2024-25, marking more than a two-fold increase over six years, as seen in Figure 3.35. While this reflects steady progress, the current coverage remains inadequate to meet the requirements of inclusive education.



Map 3.41: Availability of functional CwSN-friendly toilet facilities across states/UTs (2018-19) (in percentage)

Source: UDISE+ 2018-19



Map 3.42:Availability of functional CwSN-friendly toilet facilities across states/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

Map 3.42 shows that CwSN toilet availability remains inadequate across most States and UTs, with 32 reporting coverage below 70%. Within this group, 7 states/UTs fall below 10%, and another 6 lie between 10%-20%, indicating a near-complete absence of facilities. A further 8 are in the 20%-30% range, while 4 fall between 30-40%. In the 40%-60% range, 6 States/UTs are clustered, and just 4 are above 60%. Even in the upper bands, availability remains far from universal, highlighting the persistence of deep infrastructural gaps for children with special needs. Coverage has improved in several states, but the overall national average remains low, and large regional disparities persist.

B. Availability of Ramps

The construction of ramps is a vital step toward ensuring physical accessibility. It is equally important that these ramps adhere to prescribed standards. This includes the provision of handrails, the availability of ramps across all relevant areas within the school, not just at entrances and exits, and the use of slip-resistant surfaces. Only when such features are integrated comprehensively can schools offer a truly inclusive and barrier-free environment for children with special needs.

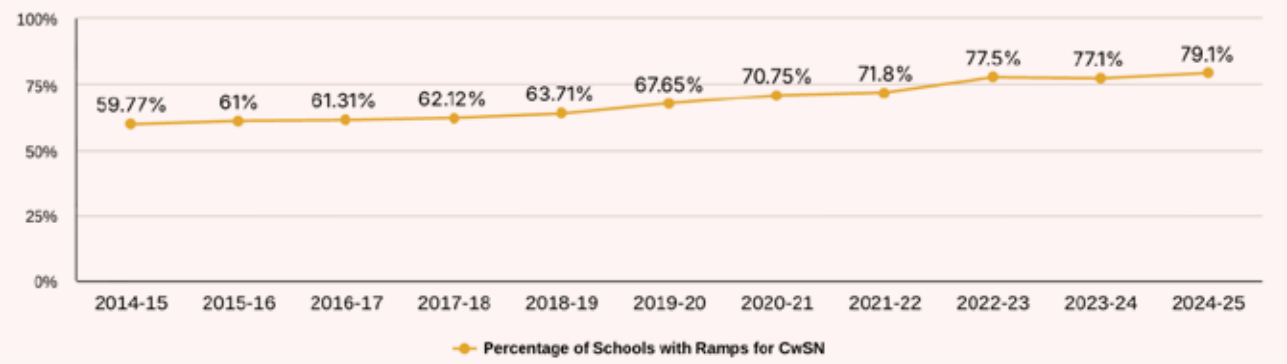


Figure 3.36: Decadal Overview - Availability of ramps for CwSN

Source: UDISE+ 2014-15 to 2024-25

The availability of ramps in schools has improved steadily over the last decade, rising from 59.77% in 2014-15 to 79.1% in 2024-25. Figure 3.36 reflects a notable 20 percent point increase, marking progress in creating more accessible infrastructure for children with special needs.

Map 3.43: Availability of ramps for CwSN across states/UTs (2014-15) (in percentage)

Source: UDISE+ 2014-15

Map 3.44:Availability of ramps for CwSN across states/UTs (2024-25) (in percentage)

Source: UDISE+ 2024-25

Map 3.44 shows that progress is visible at the State level, but it is uneven across states. Delhi (99.2%), Dadra & Nagar Haveli and Daman & Diu (98.4%) report the highest coverage, followed by Lakshadweep (97.2%), Odisha (95.3%), and Chandigarh (95.2%). Maharashtra (94.0%) Madhya Pradesh (93.1%), and Tamil Nadu (92.7%) are on their way to universal coverage. At the other end of the spectrum, Arunachal Pradesh (28.2%) and Meghalaya (32.8%) record the lowest availability while Nagaland (42.1%), Manipur (42.6%), Mizoram (44.4%), Sikkim (44.5%), Jammu & Kashmir (45.4%) are deficient, and even States/UTs such as Tripura (63.6%), Goa (65.3%), and the Andaman & Nicobar Islands (66.2%) are also in the lower coverage bracket. This shows gaps in basic accessibility for children with special needs.

The top performers in relative improvement include Sikkim (7.5% → 44.5%), Andaman & Nicobar Islands (22.0% → 66.2%), and Andhra Pradesh (32.5% → 88.8%). Telangana (28.3% → 76.7%) also shows substantial gains: Among UTs, Chandigarh (54.8% → 95.2%) and Daman & Diu (58.6% → 98.4%) report consistently high expansion: Uttarakhand (48.4% → 81.7%) and Goa (39.9% → 65.3%), have also recorded significant improvements. In Uttar Pradesh (73.1% → 71.2%) coverage has slipped slightly, while Gujarat (78.5% → 81.1%) shows marginal improvement. Mizoram (41.7% → 44.4%) and Puducherry (63.7% → 68.5%) also record very limited change. Meghalaya (29.2% → 32.8%) and Manipur (37.6% → 42.6%) continue at low levels despite small increases.

3.4 Quality

Beyond access and participation, the quality of schooling determines the effectiveness of the education system. This section focuses on two critical aspects: learning outcomes and teacher availability. Learning outcomes indicate the extent to which students acquire foundational literacy, numeracy, and higher-order skills. Teacher availability reflects the capacity of schools to provide consistent and effective instruction, as the presence of adequately trained teachers is a key input for quality. Together, these dimensions provide an overview of progress as well as continuing challenges in strengthening school education.

Summary of Insights

1. **Foundational competencies demonstrate measurable recovery and system responsiveness**

   Evidence across assessments indicates improvement in early grade literacy and numeracy following the learning disruption period. The recovery observed, particularly within government schools, reflects the capacity of structured foundational interventions to generate system-wide gains when implemented with focused intent.

2. **Stage-wise progression presents a structural consolidation challenge**

   While foundational outcomes show improvement, proficiency levels at preparatory and middle stages indicate slower progression. This pattern suggests the need to strengthen academic continuity and reinforce conceptual learning across grade transitions.

3. **Mathematics and higher-order application domains require focused strengthening**

   Across ASER, NAS, and PARAKH, quantitative reasoning, fraction operations, division, algebraic thinking, spatial reasoning, and applied problem-solving display comparatively lower attainment than language competencies. Enhancing conceptual mathematics and analytical reasoning is central to sustained improvement in overall learning quality.

4. **Learning trajectories exhibit cumulative characteristics**

   Findings indicate that gaps emerging at the primary stage tend to become more visible at upper primary and middle stages in the absence of structured reinforcement. Ensuring mastery at each stage is therefore critical to preventing progressive learning compression.

5. **Inter-state variation is wide and policy-relevant**

   Substantial performance differentials across States and UTs reflect variations in instructional processes, implementation depth, and institutional capacity. High-performing education systems provide valuable institutional practices that may inform broader system strengthening.

6. **Equity differentials influence learning trajectories**

   Gender differences are limited at early stages, with girls frequently performing comparably to or better than boys in language domains. However, performance variation across social categories and geographic contexts indicates the continuing influence of structural inequities on learning outcomes.

7. **Government schools demonstrate capacity for scalable academic strengthening**

   Observed improvements in foundational grades within government schools affirm the effectiveness of coordinated public interventions and highlight the potential for sustained system-wide enhancement.

8. **Digital access expansion provides an enabling base for instructional integration**

   High levels of household device access indicate infrastructure readiness; however, variation in educational use and digital autonomy points to the importance of structured pedagogical integration and digital competency development.

9. **Competency-based assessment enhances diagnostic precision and reform alignment**

   The shift towards competency benchmarking through large-scale assessments provides clearer identification of stage-wise and domain-specific gaps, enabling evidence-based planning and targeted academic support.

10. **The reform emphasis is shifting from expanding access to strengthening learning quality.**

    With near-universal primary access achieved, the current phase of reform prioritises strengthening learning quality, deepening conceptual depth, ensuring stage-wise mastery, and promoting equitable learning outcomes across the country.

3.4.1 Learning Outcomes

Learning outcomes serve as a core metric for assessing the quality of education, reflecting not merely what students are taught but what they have actually learned and are able to apply in real-world contexts. By shifting focus from input to measurable outputs, learning outcomes help identify gaps in students' understanding and inform targeted interventions aimed at building core competencies. The outcome-based approach is in alignment with the NEP 2020.

This section analyses the outcomes of India's large-scale assessments to track the quality of student learning. The Annual Status of Education Report (ASER) highlights household-level evidence of enrolment and basic learning, while the National Achievement Survey (NAS), now being institutionalised as PARAKH, provides nationally representative diagnostics of student competencies. Taken together, the findings from these assessments reveal systemic strengths and persistent gaps, offering critical insights into the progress and challenges of improving learning outcomes.

A. Annual Status of Education Report (ASER)

ASER is a nationwide, citizen-led survey that tracks enrolment and basic learning outcomes in rural India.[31] Conducted every alternate year since 2005, it assesses children aged 3-16 years across government and private schools, as well as those not enrolled, through household-based tests in reading and arithmetic. In 2014, ASER covered 577 rural districts, visiting 16,497 villages and surveying 5.7 lakh children across 3.4 lakh households. By 2024, its reach had expanded to 605 rural districts across 26 States and 2 Union Territories, covering 17,997 villages and 6.5 lakh children.

This section analyses ASER findings over the decade from 2014 to 2024, highlighting trends in reading and arithmetic competencies, and situating them within the broader discourse on learning outcomes and quality of education.

(i) Reading Competencies

At the national level, the share of Grade 3 children in government and private schools who can read at least a Grade 2 level text has shown a mixed trend over the last decade. In 2014, 23.6% of children in Std III could read a Grade 2 level text. This rose marginally to 25.2% in 2016 and further to 27.3% in 2018, before dropping sharply to 20.5% in 2022. By 2024, the figure recovered to 27.1%, matching the earlier peak of 2018.

31 *About ASER survey. Pratham Education Foundation.*

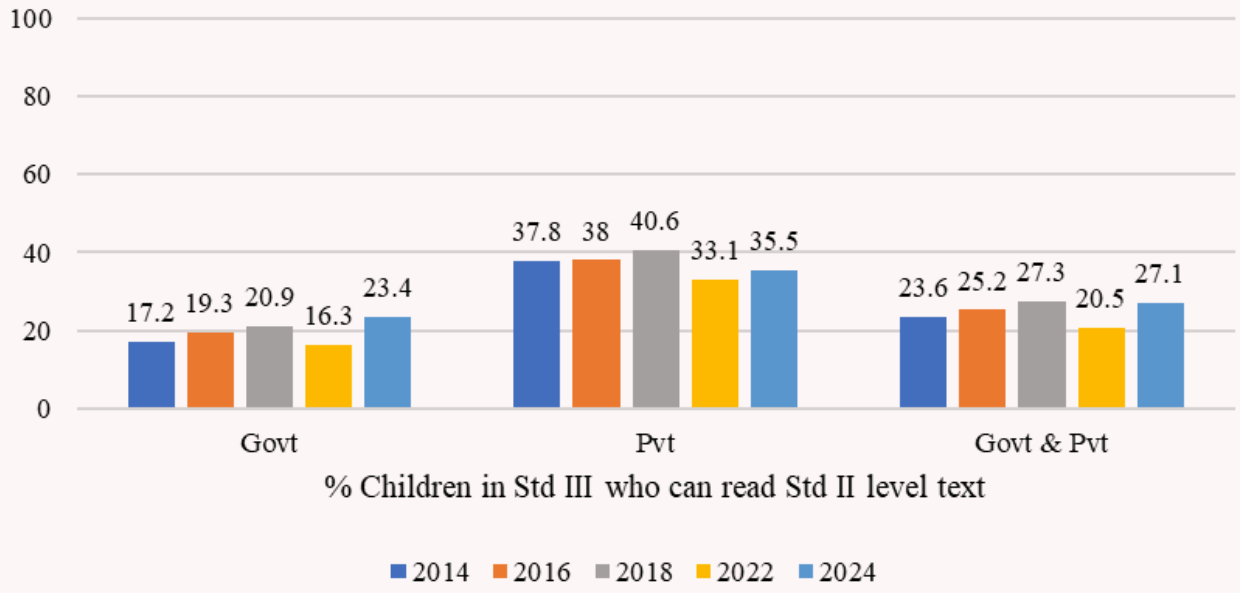


Figure 3.37: Reading Proficiency Trends in Grade 3 by School Type (2014-2024)

Source: ASER 2014-2024

As seen in Figure 3.37, differences between school types are significant. In government schools, reading levels were 17.2% in 2014, increased to 20.9% in 2018, but fell to 16.3% in 2022. By 2024, they improved to 23.4%, the highest recorded in the decade. Private schools reported higher levels throughout, with 37.8% in 2014, 40.6% in 2018, falling to 33.1% in 2022, and recovering modestly to 35.5% in 2024. This shows that while private schools remain ahead, the recent recovery has been sharper in government schools.

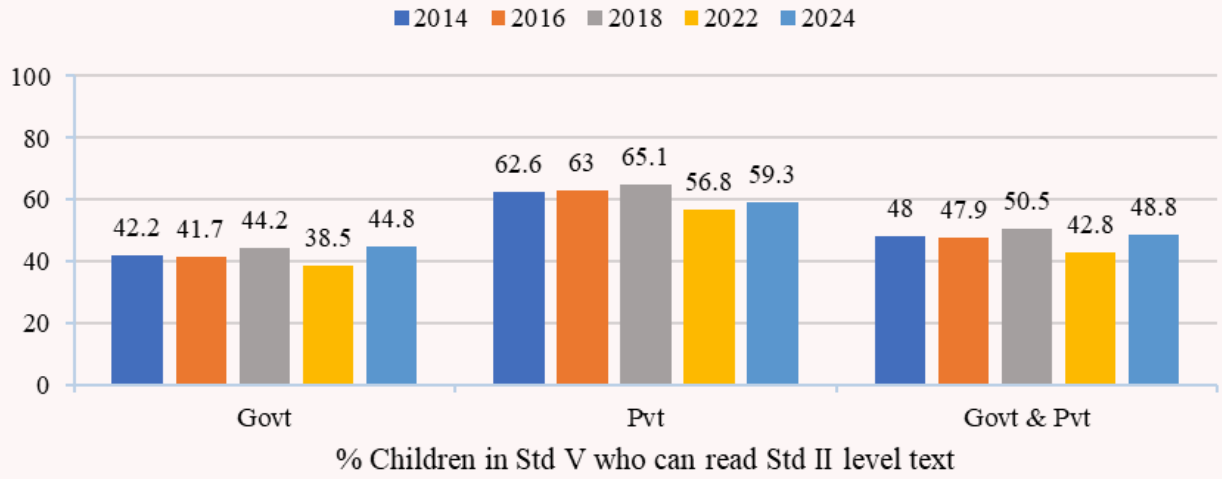


Figure 3.38: Reading Proficiency Trends in Grade 5 by School Type (2014-2024)

Source: ASER 2014-2024

At the national level, reading proficiency in Std V shows signs of recovery after the pandemic-related decline as shown in Figure 3.38. The share of children able to read at least a Std II level text across government and private schools dropped from 50.5% in 2018 to 42.8% in 2022 but rose again to 48.8% in 2024. Government schools maintained relatively steady performance across the decade, with levels moving from 42.2% in 2014 to 44.8% in 2024, despite a dip to 38.5% in 2022. Private

schools continued to perform significantly better, although with a marked contraction. Reading proficiency peaked at 65.1% in 2018, declined to 56.8% in 2022, and recovered only partially to 59.3% in 2024. The gap between government and private schools remains wide, which is noticed in Figure 2.36, but the sharper recovery in government schools after 2022 has contributed to narrowing this difference.

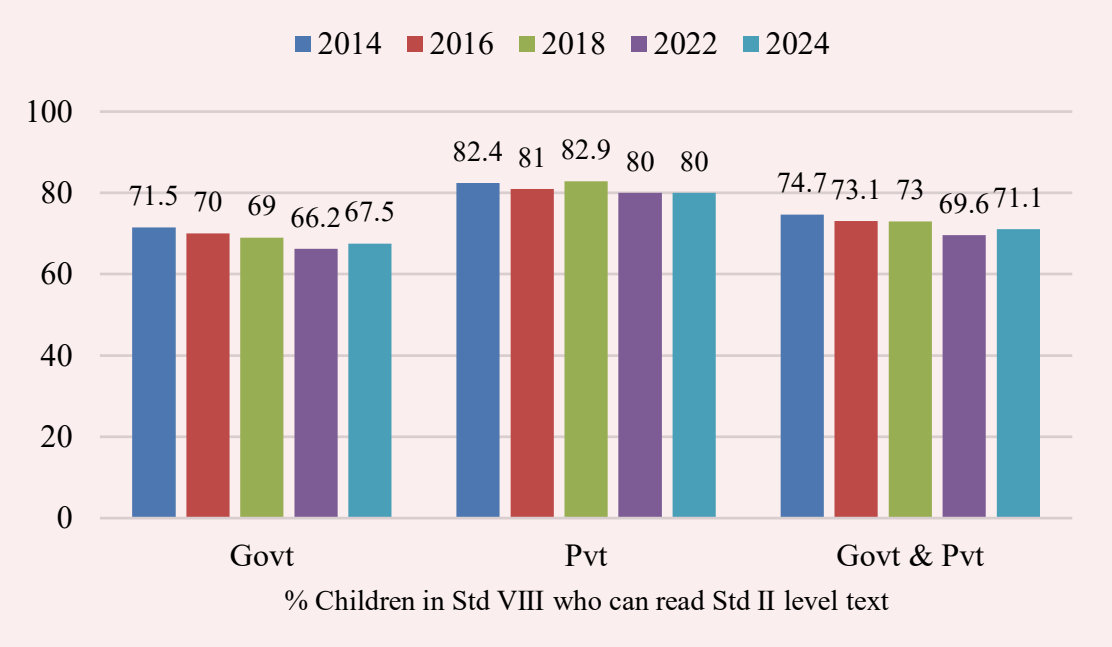


Figure 3.39: Reading Proficiency Trends in Grade 7 by School Type (2014-2024)

Source: ASER 2014-2024

As depicted in Figure 3.39, at the upper primary stage, reading proficiency in Std VIII has seen a gradual decline over the past decade, with only limited signs of recovery in recent years. Nationally, the share of children able to read a Std II-level text dropped from 74.7% in 2014 to 71.1% in 2024. Government schools recorded the sharpest fall, with levels declining from 71.5% in 2014 to 67.5% in 2024, reflecting a downward trend without meaningful recovery. Private schools continued to show higher performance but also witnessed contraction. After peaking at 82.9% in 2018, proficiency declined to 80% in 2022 and remained at that level in 2024.

While the gap between government and private schools persists, the fact that both categories registered declines points to systemic challenges cutting across school types. Even by Std VIII, a sizeable share of children continues to struggle with basic reading fluency, such as reading a Grade 2 level text.

(ii) Arithmetic Competencies

At the national level, as depicted in Figure 3.40, the share of Grade 3 children who can solve at least a basic subtraction problem has shown a gradual but clear improvement over the decade. The proportion rose from 25.4% in 2014 to 28.2% in 2018, dipped to 25.9% in 2022, and then reached 33.7% in 2024, marking the highest level recorded in the last ten years.

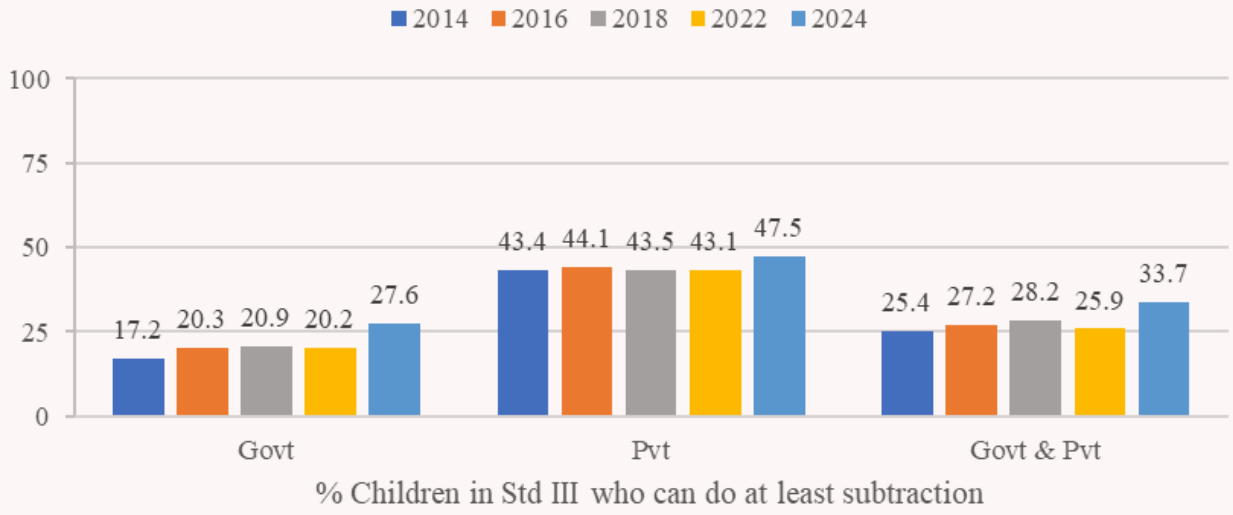


Figure 3.40:Arithmetic Skill Trends in Grade 3 by School Type (2014-2024)

Source:ASER 2014-2024

Disaggregated by school type, government schools moved from 17.2% in 2014 to 20.9% in 2018, before falling to 20.2% in 2022. By 2024, however, they showed a marked recovery to 27.6%. Private schools reported consistently higher levels throughout, ranging between 43-44% until 2018, dipping slightly to 43.1% in 2022, and climbing to 47.5% in 2024. While private schools maintain a clear advantage, the sharper gains in government schools have been central to driving the overall national improvement.

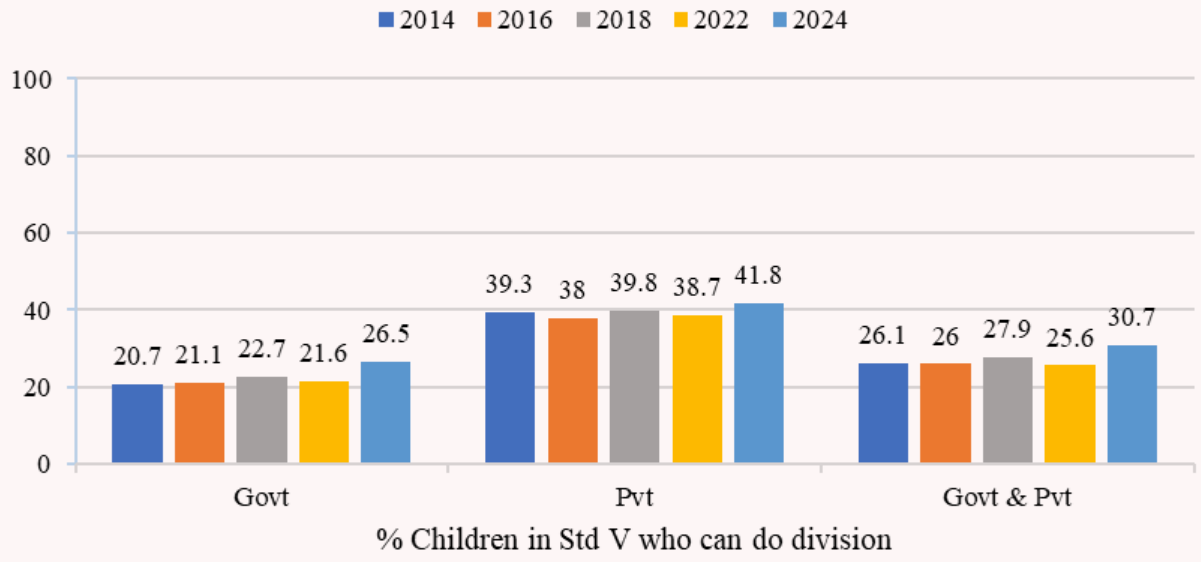


Figure 3.41:Arithmetic Skill Trends in Grade 5 by School Type (2014-2024)

Source:ASER 2014-2024

Figure 3.41 shows that Grade 5 arithmetic outcomes have shown a steady improvement after the pandemic dip, surpassing earlier levels. At the national level, the proportion of children able to solve a division problem rose from 27.9% in 2018 to 30.7% in 2024, following a fall to 25.6% in 2022.

Government schools registered a gradual rise over the decade, moving from 20.7% in 2014 to 22.7% in 2018, dropping marginally to 21.6% in 2022, and climbing to 26.5% in 2024. Private schools consistently reported higher levels, with performance ranging between 38-40% up to 2018, dipping slightly to 38.7% in 2022, and increasing to 41.8% in 2024. The national gains are thus driven by a combination of recovery in government schools and consolidation in private schools, signalling progress in bridging foundational arithmetic competencies.

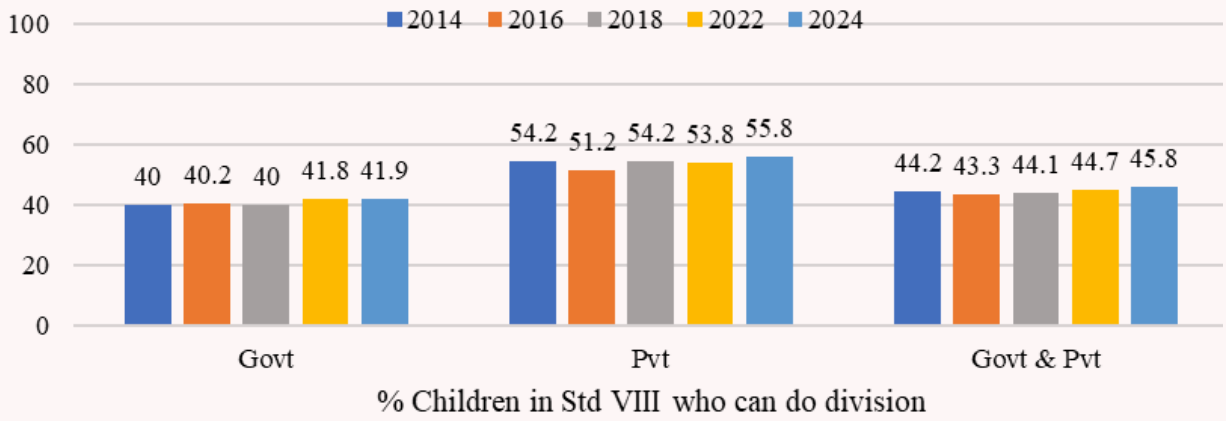


Figure 3.42: Arithmetic Skill Trends in Grade 8 by School Type (2014-2024)

Source: ASER 2014-2024

For Grade 8, the proportion of children able to solve a basic division problem has remained largely unchanged over the past decade, as shown in Figure 3.42, and highlights only a marginal upward shift. At the all-India level, performance was 44.2% in 2014 and stands at 45.8% in 2024. Government schools recorded very limited movement, from around 40% in 2014 to 41.9% in 2024. Private schools continued to perform at higher levels throughout the period, beginning at 54.2% in 2014, dipping slightly to 51.2% in 2016, and then rising steadily to reach 55.8% in 2024. Taken together, government and private schools showed an overall improvement from 44.2% in 2014 to 45.8% in 2024. This pattern indicates that arithmetic proficiency at the upper primary stage remains low, with little real progress over time and a persistent gap between government and private schools.

(iii) Digital Literacy

ASER 2024 findings on smartphone access, ownership, usage patterns, and digital safety skills among children aged 14-16 reveal important shifts in India's digital landscape. While basic access is now near universal, significant differences emerge in personal ownership, the nature of use, and the ability to navigate online spaces safely. The following figures present a detailed breakdown of these trends by age and gender, offering critical insights into the evolving nature of the digital divide.

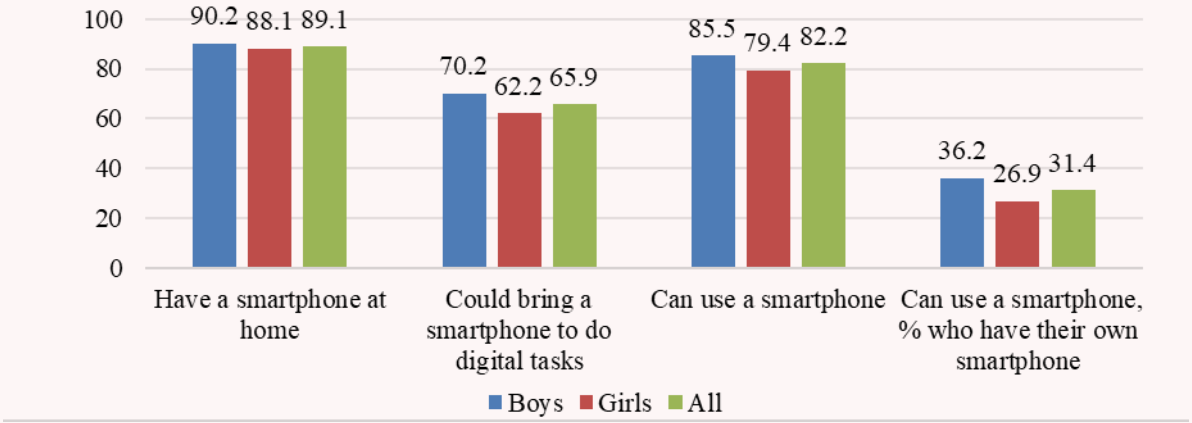


Figure 3.43: Smartphone Availability and Use by Gender (2024) (in percentage)

Source: ASER 2024

As evident in Figure 3.43, 90.2% of boys and 88.1% of girls aged 14-16 reported having a smartphone at home. However, when asked to bring a smartphone with good connectivity to complete digital tasks during the survey, participation rates dropped to 70.2% among boys and 62.2% among girls, indicating constraints in device availability and control. While 85.5% of boys and 79.4% of girls could operate a smartphone, personal ownership among those who can use the smartphone remained limited at 36.2% and 26.9% respectively, in boys and girls. These gaps highlight that beyond household access, autonomy and readiness to use devices for learning remain uneven, especially for girls.

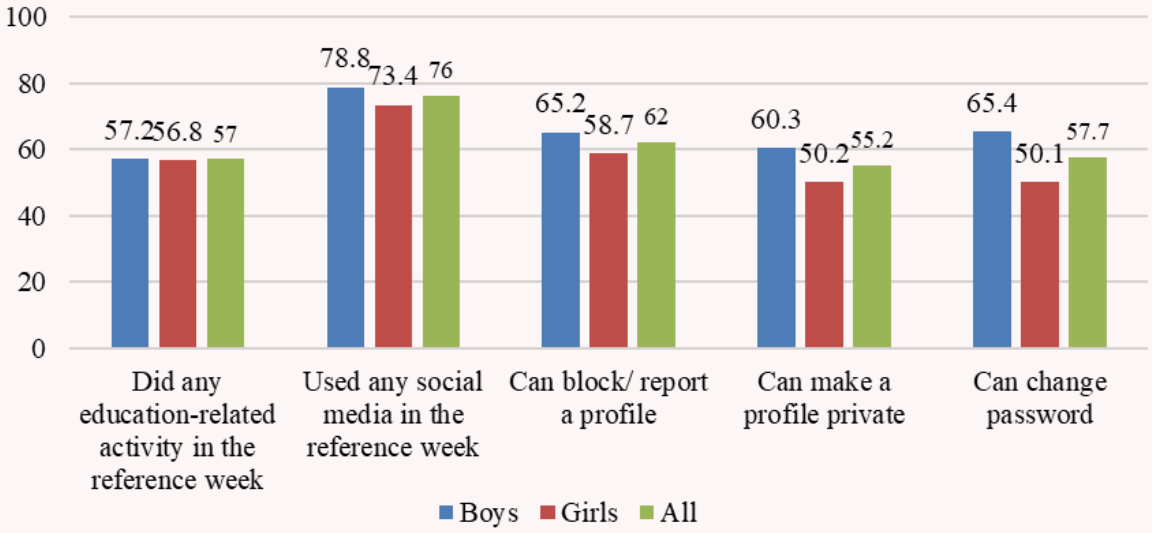


Figure 3.44: Smartphone use by activity and digital safety awareness by gender (2024) (in percentage)

Source: ASER 2024

Figure 3.44 highlights that while over three-fourths of children who know how to use a smartphone engaged with social media in the reference week (76%), a smaller share of 57% used it for education-related purposes. Across all activities, boys reported higher engagement and digital safety awareness than girls, with the widest gender gaps in skills like making a profile private (60.3% boys vs. 50.2% girls) and changing passwords (65.4% vs. 50.1%). These disparities show that beyond access, gendered differences persist in how smartphones are used and in the ability to apply safety measures effectively.

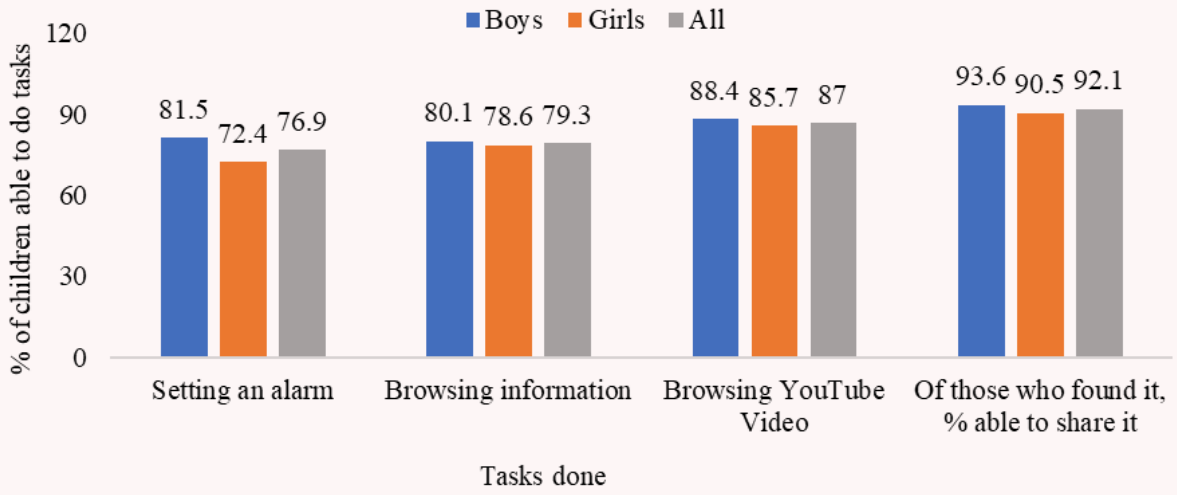


Figure 3.45: Students who can do digital tasks(2024) (in percentage)

Source:ASER 2024

Figure 3.45 indicates a consistent gender gap in the ability to perform basic digital tasks, with boys reporting higher proficiency across all activities measured. The difference is most pronounced in basic operational skills such as setting an alarm, where boys outpace girls by nearly nine percentage points (81.5% vs 72.4%). The gap narrows in tasks involving information search (80.1% vs 78.6%) and is smallest in platform-based use, such as browsing YouTube (88.4% vs 85.7%). In the most advanced step measured, sharing content once found, both boys (93.6%) and girls (90.5%) demonstrate high proficiency, with the gender difference reduced to just over three points. This pattern suggests that while girls are largely on par with boys in application-oriented digital tasks, foundational device handling and operational confidence remain areas where targeted support and practice could help close the gap.

B. National Achievement Survey (2017, 2021)

NAS[32] was initiated by NCERT in the early 2000s and later integrated into the Sarva Shiksha Abhiyan (SSA) as a mechanism to monitor learning achievement. Originally structured around Baseline, Mid-Term, and Terminal cycles for Grades 3, 5, and 8, NAS gradually shifted its focus from access-related concerns towards providing system-level diagnostics on the quality of learning outcomes.

Conducted periodically, NAS evaluates competencies in core subjects against the NCERT Learning Outcomes framework. It benchmarks performance across States and UTs, identifying systemic strengths and gaps without grading individual learners. The 2017 cycle marked the transition to competency-based assessment, while NAS 2021 incorporated pupil, teacher, and school questionnaires to contextualise learning outcomes.

This section analyses the national average results from NAS 2017 and 2021 to highlight emerging trends in student learning outcomes. The subsequent section traces the institutional evolution of NAS into PARAKH, established under NEP 2020 as the permanent framework for competency-based assessment, thereby transforming NAS from a periodic survey into a sustained national system of learning evaluation.

32 *National Achievement Survey-2021. About NAS. Ministry of Education, Government of India.*

(i) Grades 3

Table 3.5: NAS Scores for Grade 3 (2017-2021)

State/UT	Language		Mathematics		Environmental Studies	
	2017	2021	2017	2021	2017	2021
National Mean	336	323	321	306	321	307
A & N Islands	326	323	318	290	318	302
Andhra Pradesh	364	311	342	298	336	298
Arunachal Pradesh	307	299	295	277	295	286
Assam	350	326	337	314	331	313
Bihar	336	317	318	304	317	301
Chandigarh	354	335	339	311	343	313
Chhattisgarh	332	301	314	283	318	289
Dadra & Nagar Haveli	343	290	328	272	328	277
Daman & Diu	330	306	310	294	314	294
Delhi	316	302	299	282	303	288
Goa	333	327	309	299	319	310
Gujarat	347	330	325	310	329	313
Haryana	329	315	307	299	313	300
Himachal Pradesh	341	319	320	296	322	302
Jammu & Kashmir	332	333	318	310	310	310
Jharkhand	344	314	327	298	325	299
Karnataka	360	323	348	306	341	307
Kerala	349	342	340	313	346	318
Ladakh	-	309	-	283	-	294
Lakshadweep	313	318	308	298	301	303
Madhya Pradesh	340	331	316	315	320	316
Maharashtra	344	333	325	316	330	316
Manipur	341	332	329	310	331	316
Meghalaya	327	303	307	279	311	292
Mizoram	337	332	315	303	331	310
Nagaland	345	319	330	292	327	303
Odisha	326	330	316	313	311	309
Puducherry	316	331	314	310	310	315
Punjab	330	355	306	339	308	334
Rajasthan	358	339	339	325	337	322
Sikkim	325	331	307	298	308	309
Tamil Nadu	325	320	314	304	323	304
Telangana	340	294	332	278	327	282
Tripura	336	313	318	292	323	297
Uttar Pradesh	314	314	309	298	303	300
Uttarakhand	347	311	330	291	333	296
West Bengal	356	337	337	314	334	314

Source: NAS 2017,2021

NAS results between 2017 and 2021, as seen in Table 3.5, point to a broad decline in learning outcomes across the country, though the intensity of this decline varies significantly across States and UTs. A cluster of States/UTs, including Andhra Pradesh, Telangana, Chhattisgarh, Arunachal

Pradesh, Nagaland, Meghalaya, Delhi, Rajasthan, Haryana, Dadra & Nagar Haveli, and Daman & Diu, experienced particularly sharp reductions across subjects. In contrast, a larger group of States/UTs such as Assam, Bihar, Chandigarh, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Mizoram, Odisha, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, and West Bengal recorded moderate decline, indicating that while learning levels fell, the extent of decline was less severe than in the first group.

A smaller set of States and UTs demonstrated resilience or improvement during this period. Punjab stands out with consistent improvement across all subjects, while Jammu & Kashmir, Puducherry, Sikkim, Lakshadweep, and Goa also registered either gains or broadly stable performance. Kerala and West Bengal, although registering marginal declines, continued to perform relatively better than the national average and remain among the stronger performers.

(ii) Grades 5

Table 3.6: NAS Scores for Grades 5 (2017, 2021)

State/UT	Language		Mathematics		EVS	
	2017	2021	2017	2021	2017	2021
National Mean	319	309	310	284	310	283
A & N Islands	309	311	302	278	303	283
Andhra Pradesh	339	294	333	275	324	270
Arunachal Pradesh	287	300	278	268	282	271
Assam	322	312	333	291	327	291
Bihar	316	305	309	283	311	280
Chandigarh	345	326	336	295	335	293
Chhattisgarh	313	295	298	266	303	269
Dadra & Nagar Haveli	335	285	325	264	325	260
Daman & Diu	300	296	290	273	288	269
Delhi	303	304	287	273	292	274
Goa	313	312	295	274	292	278
Gujarat	324	307	321	287	314	287
Haryana	310	312	294	286	298	283
Himachal Pradesh	328	304	305	270	310	275
Jammu & Kashmir	310	323	315	293	307	297
Jharkhand	326	303	321	276	326	278
Karnataka	351	312	345	285	335	278
Kerala	353	313	342	279	336	283
Ladakh	-	309	-	280	-	285
Lakshadweep	304	300	291	280	285	276
Madhya Pradesh	313	316	303	296	305	297
Maharashtra	323	317	305	287	304	291
Manipur	320	322	316	286	321	288
Meghalaya	296	294	284	262	283	265
Mizoram	301	302	293	270	302	270
Nagaland	312	306	300	267	302	274
Odisha	304	305	321	290	311	282
Puducherry	300	320	302	291	296	290
Punjab	306	339	293	316	297	310

State/UT	Language		Mathematics		EVS	
	2017	2021	2017	2021	2017	2021
Rajasthan	344	326	338	306	339	304
Sikkim	297	310	281	268	282	276
Tamil Nadu	321	298	300	279	300	277
Telangana	314	286	316	265	303	260
Tripura	316	304	304	275	308	277
Uttar Pradesh	300	302	301	278	300	279
Uttarakhand	338	304	326	275	327	278
West Bengal	317	318	301	288	304	292

Source: NAS 2017,2021

Table 3.6 shows that learning levels in Grade 5 broadly mirror the patterns observed in Grade 3, with national averages declining across all subjects and most States registering either sharp or moderate reductions. A small set of States/UTs, such as Punjab, Jammu & Kashmir, Puducherry, Sikkim, and Lakshadweep, demonstrated improvement or stability at both stages.

In Grade 5, sharp reductions were recorded in Andhra Pradesh, Telangana, Chhattisgarh, Dadra & Nagar Haveli, Daman & Diu, Rajasthan, Chandigarh, Himachal Pradesh, Nagaland, and Tripura. Moderate reductions were reported in Assam, Bihar, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, and Odisha.

(iii) Grades 8

Table 3.7: NAS Scores for Grade 8 (2017, 2021)

State/UT	Language		Mathematics		Science		Social Science	
	2017	2021	2017	2021	2017	2021	2017	2021
National Mean	307	302	269	255	274	250	278	255
A & N Islands	294	307	248	247	254	254	257	246
Andhra Pradesh	308	292	286	250	286	237	291	239
Arunachal Pradesh	280	308	248	242	250	249	261	249
Assam	298	289	283	255	289	244	294	256
Bihar	307	291	277	262	277	248	287	257
Chandigarh	315	334	277	285	292	285	302	287
Chhattisgarh	303	295	255	237	275	241	282	242
Dadra & Nagar Haveli	314	311	279	247	296	246	305	249
Daman & Diu	295	302	242	251	248	246	257	244
Delhi	299	316	244	253	248	257	258	254
Goa	311	324	248	242	258	259	265	249
Gujarat	325	309	281	254	295	253	306	255
Haryana	305	325	256	272	268	268	273	268
Himachal Pradesh	312	315	254	247	273	253	279	253
Jammu & Kashmir	275	319	256	264	258	270	258	267
Jharkhand	317	298	293	256	302	250	307	254
Karnataka	318	297	287	251	297	248	297	256
Kerala	322	312	286	240	271	252	264	250
Ladakh	-	321	-	253	-	257	-	261
Lakshadweep	289	303	247	247	245	245	247	244

State/UT	Language		Mathematics		Science		Social Science	
Madhya Pradesh	301	306	264	270	274	258	280	264
Maharashtra	320	310	263	250	266	248	274	257
Manipur	293	320	267	259	272	262	275	259
Meghalaya	288	280	249	232	252	229	260	231
Mizoram	284	297	256	240	250	241	257	242
Nagaland	273	312	246	238	247	246	259	253
Odisha	299	303	273	261	277	253	272	255
Puducherry	277	315	241	252	242	258	245	256
Punjab	299	338	243	297	257	287	258	288
Rajasthan	329	320	304	286	326	276	327	288
Sikkim	294	312	241	237	257	248	263	247
Tamil Nadu	305	284	251	237	256	232	256	237
Telangana	297	289	257	243	259	235	270	235
Tripura	300	303	258	252	266	252	265	257
Uttar Pradesh	293	286	262	247	266	237	271	244
Uttarakhand	309	308	262	253	281	250	285	253
West Bengal	303	315	261	258	269	260	265	265

Source: NAS 2017,2021

As seen in Table 3.7, at the national level, Grade 8 results show a decline across all four subjects: Language, Mathematics, Science, and Social Science between 2017 and 2021. This indicates that learning challenges observed at the primary stage continue and, in many cases, deepen at the upper primary level.

A number of States recorded sharp reductions across subjects, including Andhra Pradesh, Tamil Nadu, Telangana, Chhattisgarh, Meghalaya, Kerala, Bihar, Assam, Uttar Pradesh, and Karnataka. Declines in these States were consistent across multiple domains, pointing to sustained difficulties in maintaining learning levels. Several other States registered moderate reductions, such as Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Odisha, Mizoram, Nagaland, Uttarakhand, and West Bengal. While their performance declined, the extent of loss was less pronounced compared to the first group. A smaller set of States and UTs demonstrated improvement or relative stability. Punjab stood out with significant gains across subjects, while Chandigarh, Delhi, Goa, Jammu & Kashmir, Manipur, Puducherry, and Sikkim also recorded improvements or stable scores in at least some domains. Madhya Pradesh and Haryana managed to hold ground better than most large states.

Overall, the Grade 8 findings reinforce the trend observed in earlier grades: widespread learning declines with concentrated sharp losses in a group of States, balanced by improvements in a few. This pattern shows that learning gaps, if not addressed at earlier stages, persist and often widen by the upper primary level.

C. Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH)

PARAKH[33] (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) is a nationwide, large-scale assessment designed to measure student learning against clearly defined competency benchmarks. Aligned with NEP 2020, it shifts the focus from rote memorisation to

33 *National Council of Educational Research and Training. About PARAKH. Retrieved from https://parakh.education.gov.in*

assessing conceptual clarity, application, and problem-solving skills in core subjects. Conducted for Grades 3, 6, and 9, PARAKH provides comparable learning indicators across states, helping identify gaps and guiding targeted interventions.

As per PARAKH Dashboard, in 2024, the assessment reached 21,15,022 students across 74,229 schools in 781 districts, spanning 36 States and UTs and covering government, government-aided, private recognised, and central government schools. Alongside subject assessments, questionnaires for teachers and school leaders captured contextual insights, enabling a deeper understanding of factors influencing learning.

C1. Foundational Stage (Grade 3)

(i) Language Competency

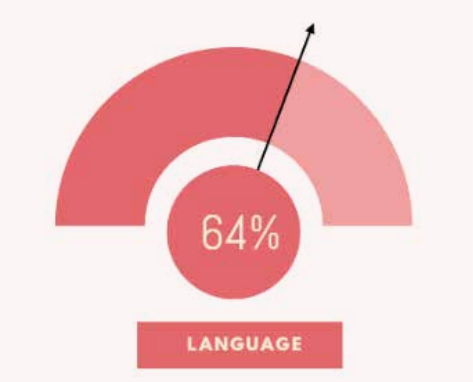


Figure 3.46: Average Language Competency at Foundational Stage

Source: PARAKH 2024

At the national level, students achieved an average score of 64% in language, suggesting steady improvement in foundational literacy skills.

Table 3.8: Language Competencies at Foundational Stage

Competency Code	Competency Description	National Average
C-9.7	Knows and uses enough words to carry out day-to-day interactions effectively and can guess the meaning of new words by using existing Vocabulary	67%
C-10.5	Reads short stories and comprehends their meaning - by identifying characters, storyline and what the author wants to say - on their own	60%
C-10.7	Reads and comprehends the meaning of short news items, instructions and recipes, and publicity material	61%

Source: PARAKH 2024

Table 3.8 indicates that while 67% students demonstrate basic comprehension and vocabulary use, there is a noticeable drop in performance when tasks require interpreting implied meanings, drawing conclusions, or connecting ideas across a text. This suggests that many students are yet to develop higher-order reading skills such as inference, critical thinking, and reflective engagement, which are essential for understanding complex or unfamiliar material

(ii) Mathematical Competency

Nationally, students achieved an average of 60% for mathematical competencies at the foundational level, indicating a modest base to build upon.

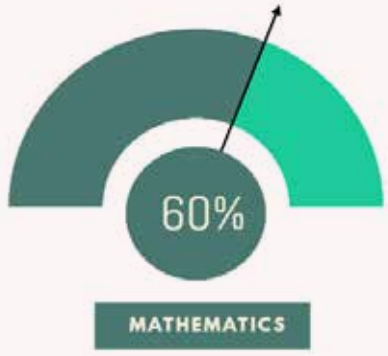


Figure 3.47:Average Mathematics Competency at Foundational Stage

Source: PARAKH 2024

Table 3.9: Mathematical Competencies at Foundational Stage

Competency Code	Competency Description	National Average
C-8.1	Sorts objects into groups and sub-groups based on more than one property	68%
C-8.2	Identifies and extends simple patterns in their surroundings, shapes, and numbers	69%
C-8.4	Arranges numbers up to 99 in ascending and descending order	55%
C-8.5	Recognises and uses numerals to represent quantities up to 99 with the understanding of decimal place value system	61%
C-8.6	Performs addition and subtraction of 2-digit numbers fluently using flexible strategies of composition and decomposition of both numerical and word problems	58%
C-8.7	Recognises multiplication as repeated addition and division as equal sharing	54%
C-8.8	Recognises, makes, and classifies basic geometric shapes and their observable properties, and understands and explains the relative relation of objects in space	50%
C-8.9	Selects appropriate tools and units to perform simple measurements of length, weight, and volume of objects in their immediate environment	62%
C-8.10	Performs simple measurements of time in minutes, hours, days, weeks, and months	61%
C-8.11	Performs simple transactions using money up to INR 100	50%
C-8.12	Develops adequate and appropriate vocabulary for comprehending and expressing concepts and procedures related to quantities, shapes, space, and measurements	55%
C-8.13	Formulates and solves simple mathematical problems related to quantities, shapes, space, and measurements	55%

Source: PARAKH 2024

The data on Grade 3 learning outcomes in mathematics, as depicted in Table 3.9, show that while students perform well in tasks involving classification and pattern recognition, there are notable gaps in core numeracy skills. Only 55% of students are able to arrange numbers in order up to 99, and less than half are able to carry out basic arithmetic operations like addition and subtraction. Conceptual understanding of multiplication and division is limited, with just over half the students able to grasp these as repeated addition or equal sharing. Performance is weak in areas such as geometry, spatial reasoning, and handling money skills that are important in both academic and everyday contexts. These trends suggest that while students are developing some foundational abilities, they continue to struggle with applying mathematical concepts in practical situations.

This points to the need for focused efforts in the early years to strengthen number sense, arithmetic, and application-based learning. Without early support, these gaps risk becoming more entrenched over time. Building on students' existing strengths, such as visual reasoning, can help bridge these gaps and ensure a stronger foundation for future learning.

(iii) Observations by Gender, Location, Management and Social Category

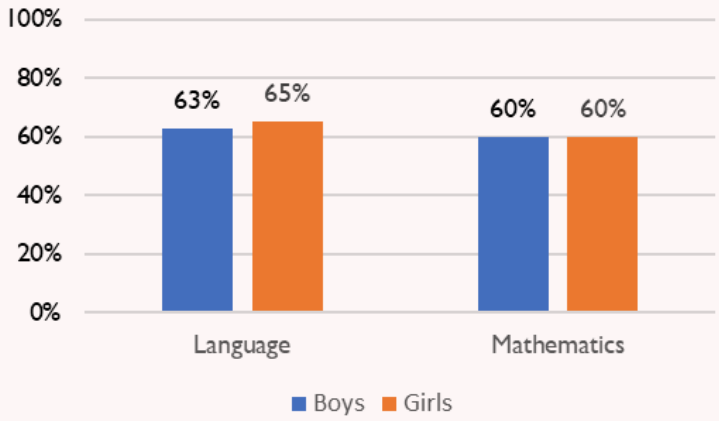


Figure 3.48: Performance at Foundational Stage by Gender

Source: PARAKH 2024

The data, as shown in Figure 3.48, reveal that girls performed better than boys in language and that both performed equally in mathematics.

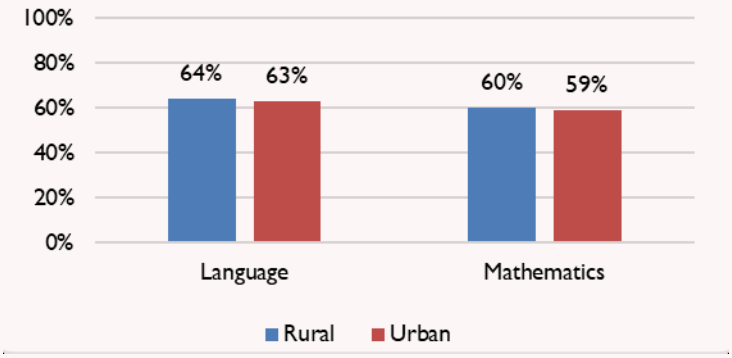


Figure 3.49: Performance at Foundational Stage by Location

Source: PARAKH 2024

Learning levels in language and mathematics remain broadly similar across rural and urban areas, with only marginal differences in proficiency.

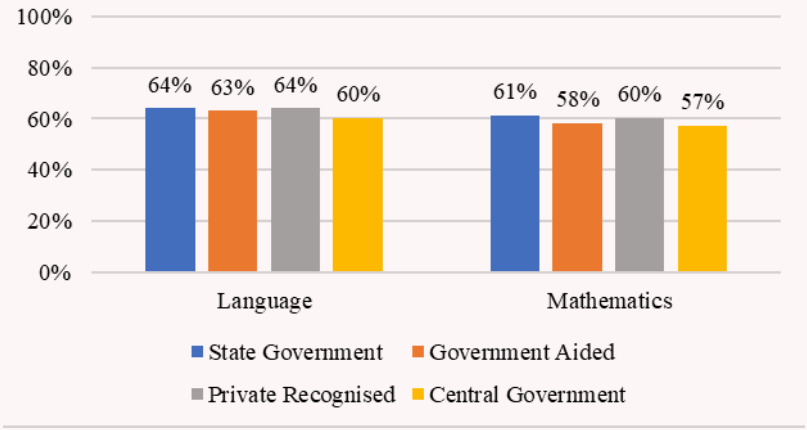


Figure 3.50: Performance at Foundational Stage by School Management

Source: PARAKH 2024

As shown in Figure 3.50, Language performance remains closely grouped, with State Government and Private Recognised schools at 64%, Government Aided at 63%, and Central Government at 60%. Mathematics scores are lower across all categories: State Government at 61%, Private Recognised at 60%, Government Aided at 58%, and Central Government at 57%. The small variation in both subjects suggests that foundational learning gaps are present across all types of school management, with mathematics emerging as the relatively weaker area.

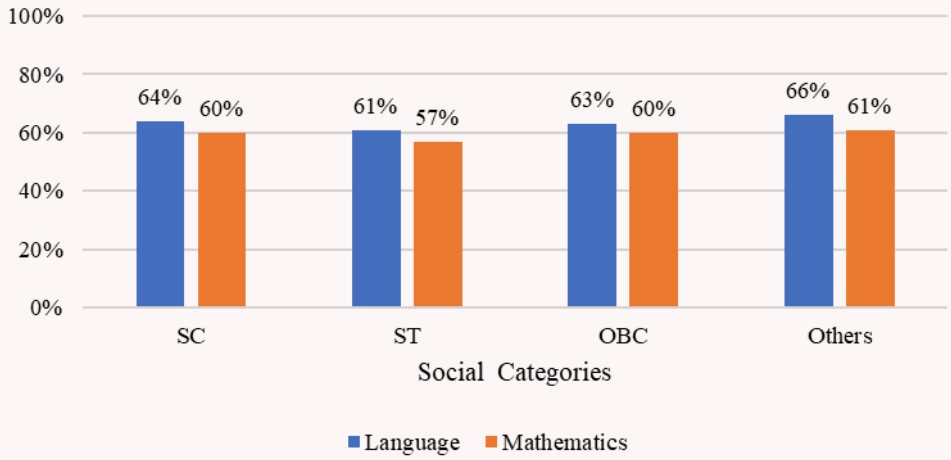


Figure 3.51: Performance at Foundational Stage by Social Category

Source: PARAKH 2024

Students from the 'Others' social category recorded the highest performance in both Language (66%) and Mathematics (61%). As is seen in Figure 3.51, ST students showed relatively lower scores across both subjects, while OBC and SC students performed comparably, with better outcomes in Language (64%) than in Mathematics (57%).

At the foundational stage, SC and ST students record relatively lower performance levels in both subjects. In language, ST students score 61% and SC students 64%, compared to 66% among the highest-performing group ('Others'). In mathematics, ST students score 57% and SC students 60%, whereas Others' score 61%. These results indicate that children from SC and ST communities face relative learning disadvantages from the earliest grades.

(iv) Performance across States and Union Territories

Table 3.10: Foundational Stage

Indian States/UTs	Language %	Mathematics %
India	64	60
Andaman and Nicobar Islands	65	61
Andhra Pradesh	64	61
Arunachal Pradesh	59	54
Assam	61	59
Bihar	56	54
Chandigarh	65	60
Chhattisgarh	59	57
Dadra & Nagar Haveli and Daman & Diu	63	62
Delhi	62	57
Goa	56	51
Gujarat	57	52
Haryana	62	58
Himachal Pradesh	76	72
Jammu and Kashmir	57	54
Jharkhand	55	51
Karnataka	60	57
Kerala	75	70
Ladakh	64	60
Lakshadweep	52	49
Madhya Pradesh	66	62
Maharashtra	69	64
Manipur	71	67
Meghalaya	58	53
Mizoram	65	59
Nagaland	63	57
Odisha	65	61
Puducherry	55	52
Punjab	82	78
Rajasthan	70	66
Sikkim	62	53
Tamil Nadu	58	55
Telangana	58	54
Tripura	56	52
Uttar Pradesh	68	64
Uttarakhand	59	55
West Bengal	58	53

Source: PARAKH 2024

For Grade 3 performance, Table 3.10 presents the scores from PARAKH 2024 for the foundational grade, covering both Language and Mathematics.

Punjab, Himachal Pradesh, and Kerala stand out with the strongest outcomes, with more than three-quarters of children reaching grade-level expectations in both subjects. Maharashtra, Manipur, and Rajasthan also perform above the national average, reflecting sustained attention to early grade learning. Smaller UTs such as Andaman & Nicobar Islands and Dadra & Nagar Haveli and Daman & Diu are also performing relatively well. Several States, including Haryana, Nagaland, and Uttarakhand, are close to the national average. Large States such as Uttar Pradesh and Madhya Pradesh record moderate but encouraging levels, particularly in mathematics, suggesting that recent initiatives on foundational literacy and numeracy are beginning to take hold.

At the other end, Lakshadweep, Jharkhand, and Puducherry have some of the lowest outcomes, with fewer than 55% of children demonstrating basic skills. Bihar, Tripura, and Goa also remain below the national mean, while States such as Meghalaya, Arunachal Pradesh, and Telangana continue to face gaps in foundational learning. The spread between the highest and lowest performing States is substantial: 30 percentage points in language (Punjab 82% compared to Lakshadweep 52%) and 29 percentage points in mathematics (Punjab 78% compared to Lakshadweep 49%). These disparities underline the need for stronger and more targeted efforts so that every child, regardless of location, acquires foundational skills in the early years.

C2. Preparatory Stage (Grade 6)

(i) Language Competency

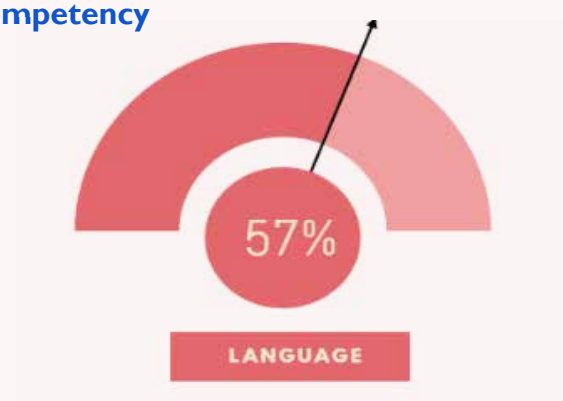


Figure 3.52: Average Language Competency at Preparatory Stage

Source: PARAKH 2024

At the preparatory level, over half the students (57%) are performing at grade level; however, approximately half of the students are lagging and have shown scope for improvement in vocabulary and comprehension.

Table 3.11: Language Competencies at Preparatory Stage

Competency Code	Competency Description	National Average
C-2.1	Applies varied comprehension strategies to understand different texts	56%
C-2.2	Understands main ideas and draws essential conclusions from the material read	58%

Source: PARAKH 2024

As shown in Table 3.11, more than half the students in Grade 6 are demonstrating foundational reading comprehension skills. The data also reveal that nearly two out of five learners are unable to engage meaningfully with early texts. This suggests that while decoding ability may be in place for many, deeper comprehension skills remain fragile.

(ii) Mathematical Competency

Figure 3.53 indicates that mathematics performance at this stage is struggling at the national level, with 46% of students achieving grade-level proficiency.

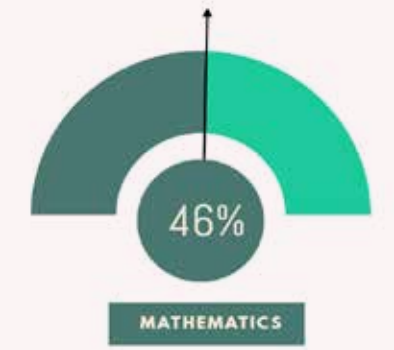


Figure 3.53:Average Mathematics Competency at Preparatory Stage

Source: PARAKH 2024

Table 3.12: Mathematical Competencies at Preparatory Stage

Competency Code	Competency Description	National Average
C-1.1	Represents numbers using the place value structure of the Indian number system, compares whole numbers, and knows and can read the names of very large numbers	54%
C-1.2	Represents and compares commonly used fractions in daily life (such as ½, ¼) as parts of unit wholes, as locations on number lines and as divisions of whole numbers	29%
C-1.3	Understands and visualises arithmetic operations and the relationships among them, knows addition and multiplication tables at least up to 10×10 (pahade) and applies the four basic operations on whole numbers to solve daily life problems	53%
C-1.4	Recognises, describes, and extends simple number patterns such as odd numbers, even numbers, square numbers, cubes, powers of 2, powers of 10, and Virahanka-Fibonacci numbers	49%
C-2.2	Describes location and movement using both common language and mathematical vocabulary; understands the notion of map (najri naksha)	41%
C-2.4	Discovers, recognises, describes and extends patterns in 2D and 3D shapes	48%
C-3.3	Carries out simple unit conversion, such as from centimeter to meters, within a system of measurement.	38%
C-3.5	Devises strategies for estimating the distance, length, time, perimeter (for regular and irregular shapes), area (for regular and irregular shapes), weight and volume and verifies the same using standard units.	42%
C-4.1	Solves puzzles and daily-life problems involving one or more operations on whole numbers	38%
C-4.3	Selects appropriate methods and tools for computing with whole numbers, such as mental computation, estimation, or paper pencil calculation, in accordance with the context	49%

Source: PARAKH 2024

The analysis of upper primary learning outcomes in mathematics reveals uneven development across key competencies. According to the competencies explained in Table 3.12, students show emerging proficiency in basic operations and number patterns; there are persistent conceptual gaps in areas such as fractions, spatial reasoning, measurement, and real-life problem-solving. These domains are critical not only for academic progression but also for functional numeracy in daily life.

The findings point to the need for a shift in pedagogical practice from rote to one that builds conceptual understanding through contextualised and hands-on learning. Competencies that rely on abstract reasoning, such as algebraic thinking, estimation, or map reading, are often underdeveloped, suggesting limited exposure to visual models and applied learning strategies in classroom environments. Without a solid conceptual foundation at the upper primary level, students are likely to encounter increasing difficulties in engaging with more advanced mathematical concepts in secondary school.

(iii) The World Around Us (EVS) Competency

49% of students are performing at grade level for 'The World Around Us.' Introduced at the preparatory stage, the subject covers environmental sciences and social sciences.[34]

Figure 3.54: Average The World Around Us Competency at Preparatory Stage

Source: PARAKH 2024

Table 3.13: The World Around Us Competencies at Preparatory Stage

Competency Code	Competency Description	National Average
C-1.1	Observes and identifies the natural and social components in their immediate environment	44%
C-1.3	Asks questions and makes predictions about simple patterns observed in the immediate environment	38%
C-1.4	Explains the functioning of local institutions bank/post office, market, and in different forms and analyses their roles.	56%
C-2.1	Identifies natural and human made systems that support their lives	51%
C-2.2	Describes the relationship between the natural environment and cultural practices in their immediate environment	38%
C-3.1	Describes the basic safety needs and protection of humans, birds, and animals	57%
C-3.2	Discusses how to prepare for emergency situations based on discussions with family and community, or personal experiences	45%
C-4.1	Observes and describes diversity among plans, and birds and animals in their immediate environment	54%
C-4.3	Describes usage of natural resources in their immediate environment	50%
C-4.7	Learns about basic social and behavioral norms, values, and dispositions that benefit our social and natural environments and that help our society function smoothly	51%
C-5.3	Reads simple maps of city, state and country to identify natural and humanmade features with reference to symbols and directions	46%

Source: PARAKH 2024

34 *The NCF has replaced Environmental Studies (EVS) in Grades 3-5 with a holistic, activity-based bridge programme titled "The World Around Us", designed to integrate work, experiential learning, and foundational skill-building at the preparatory level.*

Table 3.13 indicates that students display a moderate level of familiarity with their immediate surroundings, particularly in recognising natural and social elements and explaining the functioning of local institutions. Competencies rooted in everyday observation, such as hygiene practices, family roles, and safety needs, show stronger performance, reinforcing the effectiveness of contextual learning approaches at this stage.

However, the ability to extend this knowledge to more abstract or applied contexts, such as interpreting maps, understanding the relationship between culture and environment, or preparing for emergencies, is limited. These findings highlight the need for more structured experiential learning, where students are encouraged to observe, inquire, and reflect across a wider set of cultural, geographical, and ecological contexts. Strengthening local-to-global linkages, promoting inquiry-based tasks, and integrating environmental and social understanding more holistically will be essential to deepening students' conceptual engagement with the world around them.

(iv) Observations by Gender, Location, Social Category

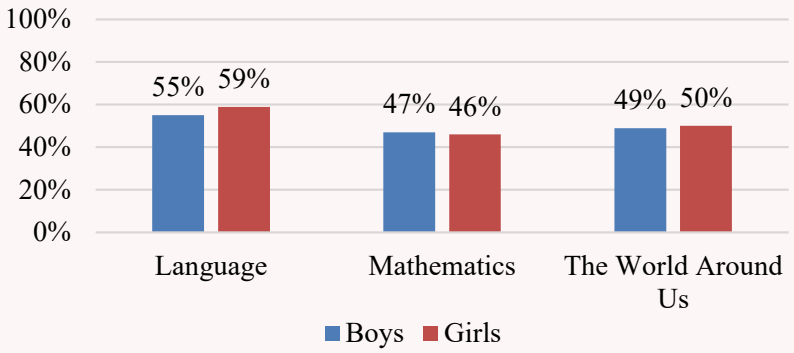


Figure 3.55: Performance at Preparatory Stage by Gender

Source: PARAKH 2024

Girls (59%) outperform boys (55%) in language competencies. However, boys (47%) perform slightly better than girls (46%) in mathematics. Girls (50%) outperform boys (49%) by a slight margin in The World Around Us. Mathematics and the World Around Us show lower performance than language, as can be seen in Figure 3.55.

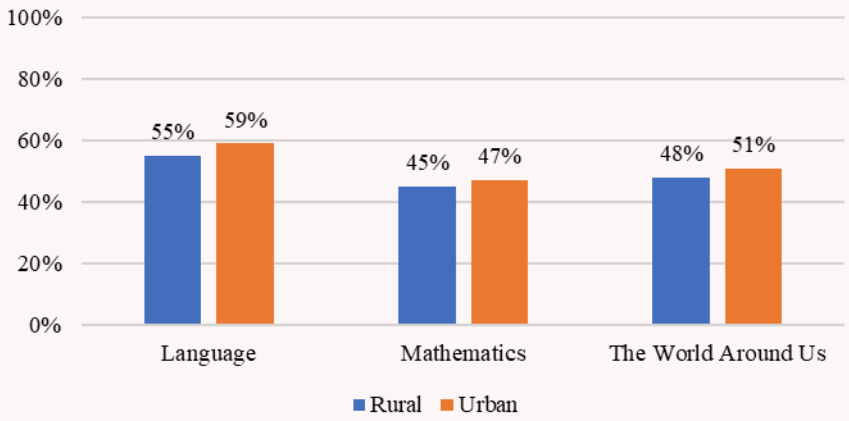


Figure 3.56: Performance at Preparatory Stage by Location

Source: PARAKH 2024

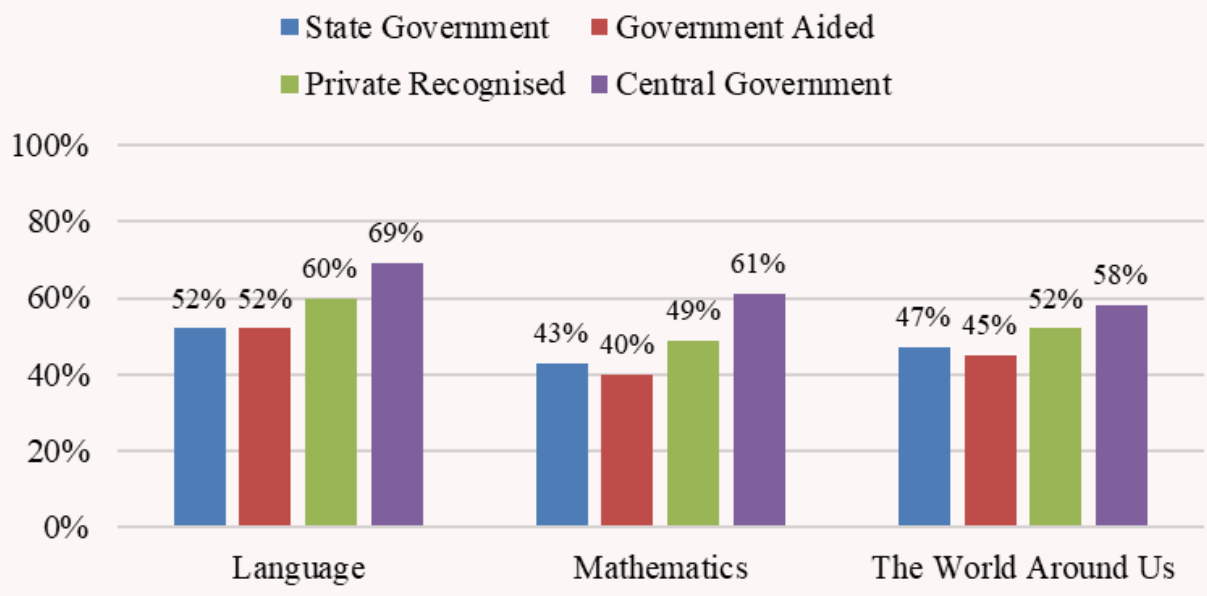


Figure 3.57: Performance at Preparatory Stage by School Management

Source: PARAKH 2024

Similarly, as shown in Figure 3.57, State Government and government-aided schools lag behind private and Central Government schools, which tend to perform better, possibly due to resource constraints Central Goverment Schools have the best performance across language, mathematics and EVS.

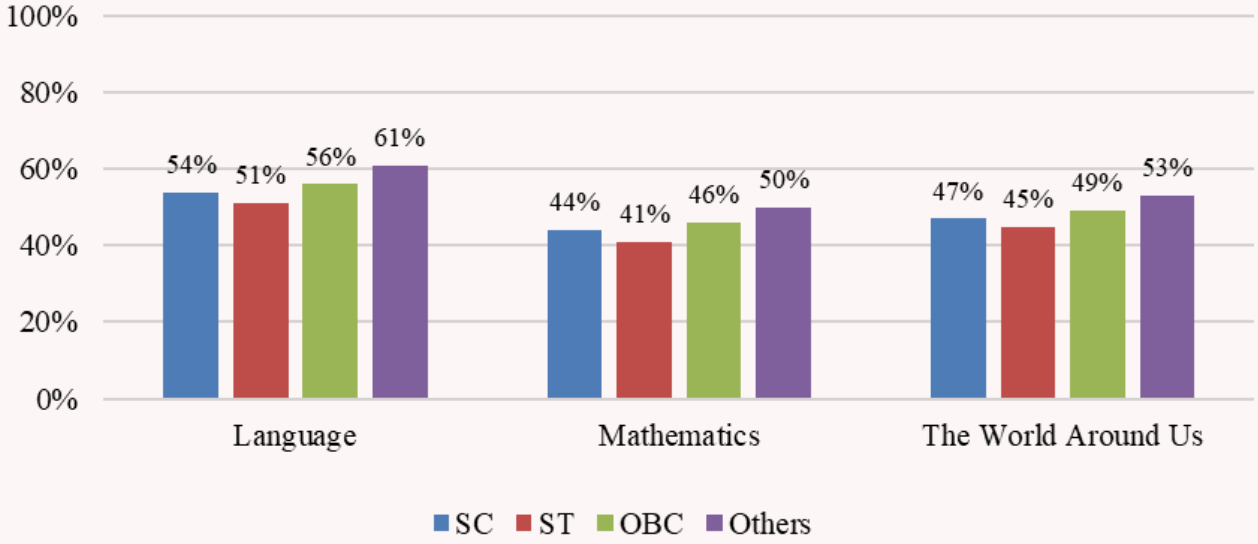


Figure 3.58: Performance at Preparatory Stage by Social Category

Source: PARAKH 2024

Figure 3.58 shows that ST students underperform across all three subjects, with approximately half of the students meeting grade-level competencies. Students from 'Other' categories perform better than their SC, ST, and OBC counterparts, possibly due to a lack of accessibility for these students.

(v) Performance across States and UTs

Table 3.14: PARAKH 2024 Score

Indian States/UTs	Language %	Mathematics %	The World Around Us %
All India	**57**	**46**	**49**
Andaman and Nicobar Islands	55	44	49
Andhra Pradesh	48	41	40
Arunachal Pradesh	59	44	48
Assam	56	45	48
Bihar	52	45	46
Chandigarh	68	54	57
Chhattisgarh	54	42	47
DNHDD	66	58	57
Delhi	60	47	51
Goa	61	47	52
Gujarat	51	40	45
Haryana	56	45	49
Himachal Pradesh	66	53	58
Jammu and Kashmir	46	39	41
Jharkhand	53	43	46
Karnataka	55	45	47
Kerala	76	60	66
Ladakh	55	45	48
Lakshadweep	59	40	48
Madhya Pradesh	57	48	51
Maharashtra	62	51	55
Manipur	58	48	51
Meghalaya	44	34	39
Mizoram	47	36	41
Nagaland	56	38	47
Odisha	64	51	54
Puducherry	49	40	42
Punjab	74	62	64
Rajasthan	60	53	54
Sikkim	64	43	53
Tamil Nadu	51	40	44
Telangana	53	44	44
Tripura	55	43	45
Uttar Pradesh	55	45	48
Uttarakhand	54	40	45
West Bengal	57	42	48

Source: PARAKH 2024

As depicted in Table 3.14, Kerala, Punjab, and Himachal Pradesh emerge as the strongest performers, with more than two-thirds of students achieving grade-level expectations across subjects. Chandigarh, Dadra & Nagar Haveli and Daman & Diu, and Odisha also perform above the national average, reflecting relatively stronger learning outcomes at this stage. Several States, including Haryana, Goa, and Madhya Pradesh, are close to the national mean, while larger States such as Maharashtra and Rajasthan maintain encouraging levels in line with national performance.

At the other end, Meghalaya, Jammu & Kashmir, Mizoram, Puducherry, and Andhra Pradesh record some of the lowest outcomes, with fewer than 45% of children demonstrating grade-level skills in one or more subjects. States such as Tamil Nadu, Telangana, Uttarakhand, and Nagaland also remain below the national mean, suggesting persistent gaps in preparatory-stage learning. The spread between the highest and lowest performers is substantial, with a difference of more than 30 percentage points in Language, over 25 percentage points in Mathematics and over 27 percentage points in The World Around Us. These disparities signal the need for sustained focus on upper-primary readiness to ensure that foundational gains are not lost as children progress through the system.

The preparatory stage findings broadly reflect the patterns observed at the foundational stage. Punjab, Himachal Pradesh, and Kerala continue to record strong performance across both Grade 3 and Grade 5, indicating that early gains in foundational literacy and numeracy are being sustained as children progress. States such as Jharkhand, Bihar, and Meghalaya, which performed poorly at the foundational level, remain among the lower performers at the preparatory stage, suggesting persistent learning gaps. These trends underline the importance of strengthening foundational learning at the earliest stages, as deficits at the start of schooling are likely to persist and widen in subsequent grades.

C3. Middle Stage (Grade 9)

(i) Language Competency

Figure 3.59: Average Language Competency at Middle Stage

Source: PARAKH 2024

At this stage, nationally, 54% of students can perform at the grade level. This indicates that more than half of the students can, at a higher level, assess language and possess above-average reading skills and comprehension. As indicated in Table 3.15, at the national level, 54% of the students at the middle stage have the ability to summarise contents and identify the main points from various text sources such as editorials, news reports, etc., highlighting an average performance in reading and comprehension, a crucial literacy skill.

Table 3.15: Language Competencies at Middle Stage

Competency Code	Competency Description	National Average
C-1.1	Identifies main points and summarises from a careful listening or reading of the text	54%

Source: PARAKH 2024

(ii) Mathematical Competencies

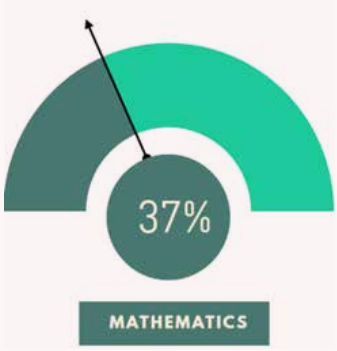


Figure 3.60: Average Mathematics Competency at Middle Stage

Source: PARAKH 2024

Mathematics presents as the most significant challenge at this stage, where 37% students are able to perform at grade level.

Table 3.16: Mathematics Competencies at Middle Stage

Competency Code	Competency Description	National Average
C-1.2	Discovers, identifies, and explores patterns in numbers and describes rules for their formation (e.g., multiples of 7, powers of 3, prime numbers), and explains relations between different patterns	39%
C-1.4	Explores and understands sets of numbers, such as whole numbers, fractions, integers, rational numbers, and real numbers, and their properties, and visualises them on the number line	31%
C-1.5	Explores the idea of percentage and applies it to solve problems	28%
C-1.6	Explores and applies fractions (both as ratios and in decimal form) in daily-life situations	31%
C-2.2	Extends the representation of a number in the form of a variable or an algebraic expression using a variable	44%
C-2.3	Forms algebraic expressions using variables, coefficients, and constants and manipulates them through basic operations	38%
C-2.5	Develops own methods to solve puzzles and problems using algebraic thinking	37%
C-3.2	Outlines the properties of lines, angles, triangles, quadrilaterals and polygons and applies them to solve related problems.	37%
C-3.5	Understands congruence and similarity as it applies to geometric shapes and identifies similar and congruent triangles.	40%
C-4.1	Discovers, understands and uses formulae to determine the area of a square, triangle, parallelogram and trapezium and develops strategies to find the areas of composite 2D shapes	39%
C-5.1	Collects, organises and interprets the data using measures of central tendencies such as average/mean, mode and median	41%
C-6.1	Applies both inductive and deductive logic to formulate definitions and conjectures, evaluate and produce convincing arguments/proofs to turn these definitions and conjectures into theorems or correct statements.	29%

Source: PARAKH 2024

The data from Table 3.16 reflects a clear pattern of cumulative learning gaps in mathematics, where insufficient conceptual clarity at the foundational stage continues to affect student performance in higher grades. Grade 9 students not only face challenges in advanced topics such as algebra, geometry, and theorems but also struggle with everyday mathematical applications, including percentages, fractions, and ratio-based reasoning. This suggests that early learning deficits have not been adequately addressed as students' progress through the system.

A particularly critical concern is the limited development of mathematical reasoning and abstraction. Fewer than one in three students are able to apply logical thinking across problem types. The ability to formulate, test, and validate mathematical statements, central to secondary-level mathematics, is not being adequately cultivated.

(iii) Science Competencies

Figure 3.61: Average Science Competency at Middle Stage

Source: PARAKH 2024

Students showed a below-average performance in science nationally, with 40% students able to perform at their grade level.

Table 3.17: Science Competencies at Middle Stage

Competency Code	Competency Description	National Average
C-1.1	Classifies matter based on observable physical and chemical characteristics	36%
C-1.2	Describes changes in matter and uses particulate nature to represent the properties of matter and the changes	38%
C-1.4	Observes and explains the phenomena caused due to differences in pressure, temperature, and density	37%
C-2.1	Describes one-dimensional motion using physical measurements through mathematical and diagrammatic representations	41%
C-2.2	Describes how electricity works through manipulating different elements in simple circuits and demonstrates the heating and magnetic effects of electricity	33%
C-2.3	Describes the properties of a magnet	41%
C-2.4	Demonstrates rectilinear propagation of light from different sources, verifies the laws of reflection through manipulation of light sources and objects and the use of apparatus and artefacts	45%
C-3.1	Describes the diversity of living things observed in the natural surroundings	47%
C-3.2	Distinguishes the characteristics of living organisms from non-living things.	34%
C-4.1	Undertakes a nutrition-based analysis of food components with special reference to Indian culinary practices and modern understanding of nutrition, and explains the effect of nutrition on health	53%
C-4.3	Describes biological changes during adolescence, and measures to ensure overall well-being	37%
C-7.3	Represents real-world events and relationships through diagrams and simple mathematical representations	38%

Source: PARAKH 2024

The analysis of science learning outcomes for Grade 9, as shown in Table 3.17, reveals persistent challenges in both conceptual understanding and the ability to apply scientific knowledge to real-world contexts. Across domains, physical sciences, life sciences, and basic principles of electricity and motion, student performance falls short of the expected benchmarks. While relatively better outcomes are observed in nutrition and biodiversity-related competencies, foundational gaps are evident in understanding differentiating living and non-living organisms, and classifying matter based on physical and chemical properties. Competencies that involve abstract reasoning, such as interpreting motion, understanding magnetism, or demonstrating simple circuits, are not adequately developed. This points to a gap in how science is taught, with limited emphasis on experimentation and active discovery.

(iv) Social Science Competencies

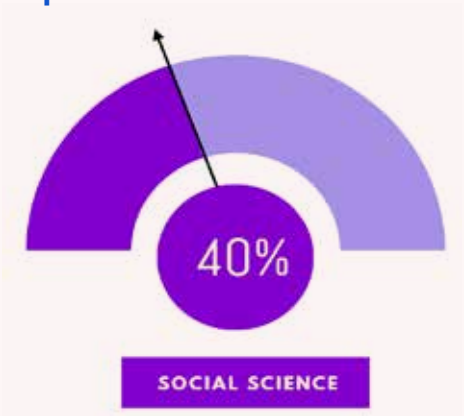


Figure 3.62: Average Social Science Competency at Middle Stage

Source: PARAKH 2024

40% students at the middle stage can perform at grade level in social science, leaving the majority of the students performing below expected competency.

Table 3.18: Social Science Competencies at Middle Stage

Competency Code	Competency Description	National Average
C-1.1	Collects and interprets multiple sources of information to understand the historical, cultural, geographical and socio-political aspects of human life	32%
C-1.2	Represents and analyses data related to various aspects of human life given in the form of text, tables, charts, diagrams, and maps	53%
C-2.1	Explains and analyses major changes in the past and their impact on society	39%
C-2.2	Recognises elements of the continued prevalence of certain beliefs, relationships, practices, and activities in human society, not with standing major changes in society	38%

Competency Code	Competency Description	National Average
C-3.1	Analyses the effect of various changes in early human society from nomadism to settled life and early civilisation and changes in human habitation, family structures and relationships, the nature of work, people's socio-cultural beliefs and concepts over time that significantly impacted human societies	36%
C-4.2	Assesses the influence of social, cultural, and political institutions on an individual or group or community or society in general	46%
C-6.1	Explains key natural phenomena such acclimate, weather, ocean cycles, soil formation, the flow of rivers, and how they are spatially distributed	33%
C-6.2	Identifies the distribution of resources such as water, agriculture, raw materials, and services across geographies.	38%
C-6.3	Analyses Indian perspectives on and efforts towards conservation and sustainability in society, and advocates the importance of the same, and what more needs to be done in these directions including in the context of global climate change	46%
C-6.4	Correlates the existence of different patterns of livelihoods with different types of landforms, availability of resources, and climatic conditions and changes	39%
C-7.1	Explains India's unity in diversity by recognising commonalities in its rich and diverse cultural elements, languages, art, philosophical ideas, values, clothing, cuisines, traditions, festivals, trade, commerce, and health practices including Ayurveda and yoga	36%
C-7.2	Discovers the topographical diversity of the Indian landmass - from the semi-arid zone in the west, areas of heavy rains in the north-east, to long coastal areas in the south, the snow-clad mountains in the north, and the rich biodiversity	34%
C-8.2	Explains the process of formation of the Indian Constitution and understands the ideas and ideals of the Indian National Movement enshrined in it, as well as those drawn from India's civilised heritage	45%
C-8.3	Explains the working of the three tiers of local self-government and appreciates its significance in upholding democracy at the grassroot level	39%
C-9.1	Explains the key elements of trade and commerce nd its impact on individual life and society.	50%

Source: PARAKH 2024

The Social Science data in Table 3.18 for Grade 9 indicate considerable variation in student achievement across disciplines such as history, geography, political science, and economics. Students tend to perform better on tasks involving structured information like reading tables or explaining basic trade concepts. However, they struggle with analytical tasks, such as interpreting historical change, examining resource distribution, or linking environmental shifts to livelihood patterns. There is also limited engagement with themes requiring critical thought such as the evolution of institutions, constitutional processes, or the interplay of social identities. Many students find it difficult to synthesise information from different contexts or to trace the broader significance of events and systems.

(v) Observations by Gender, Location, Management and Social Category

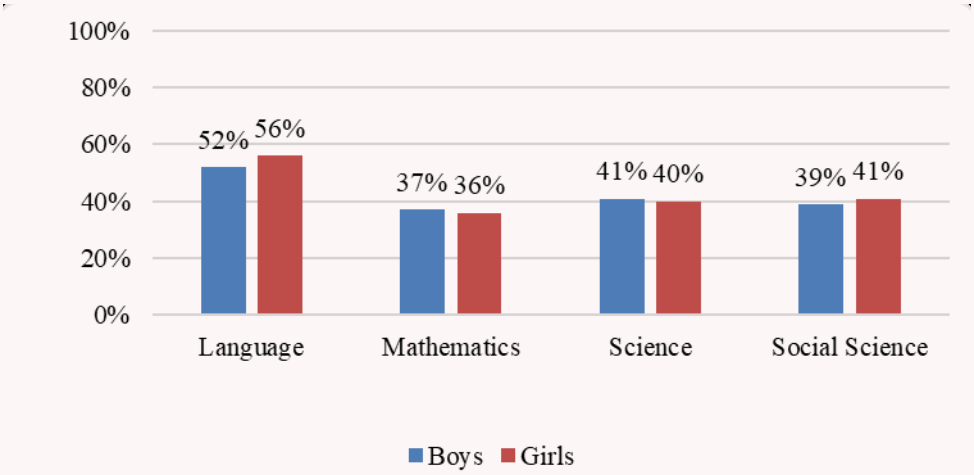


Figure 3.63: Performance at Middle Stage b-y Gender

Source: PARAKH 2024

As evident in Figure 3.63, nationally, girls outperform boys in Language and Social Science with boys doing marginally better than girls in Mathematics and Science.

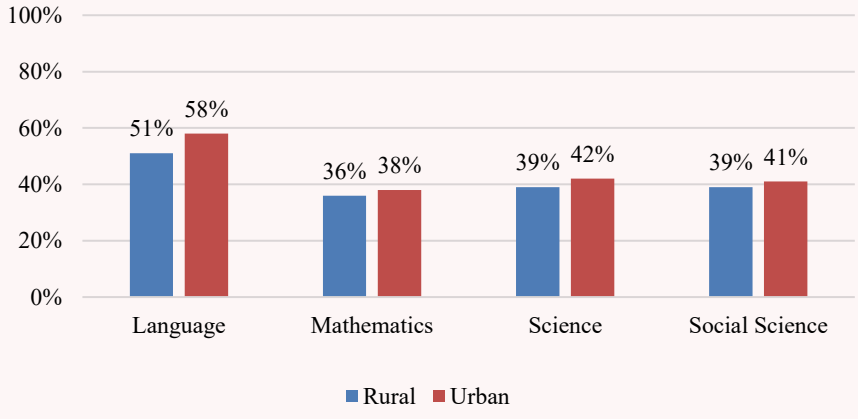


Figure 3.64: Performance at Middle Stage by Location

Source: PARAKH 2024

Students in urban areas do better than their rural counterparts across all subjects, as can be seen in Figure 3.64. This reflects the increasing significance of targeted interventions in schools in rural areas.

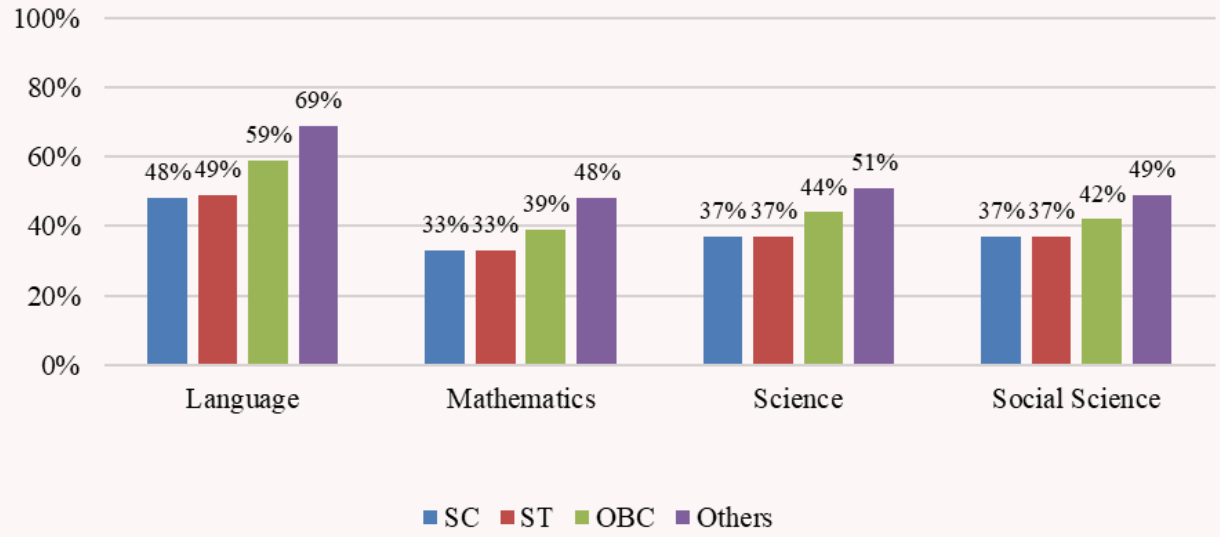


Figure 3.65: Performance at Middle Stage by Social Category

Source: PARAKH 2024

Persistent learning gaps between social categories are highlighted in Figure 3.65, highlighting that students from the 'Others' social category routinely score better in language and mathematics than their SC, ST, and OBC peers.

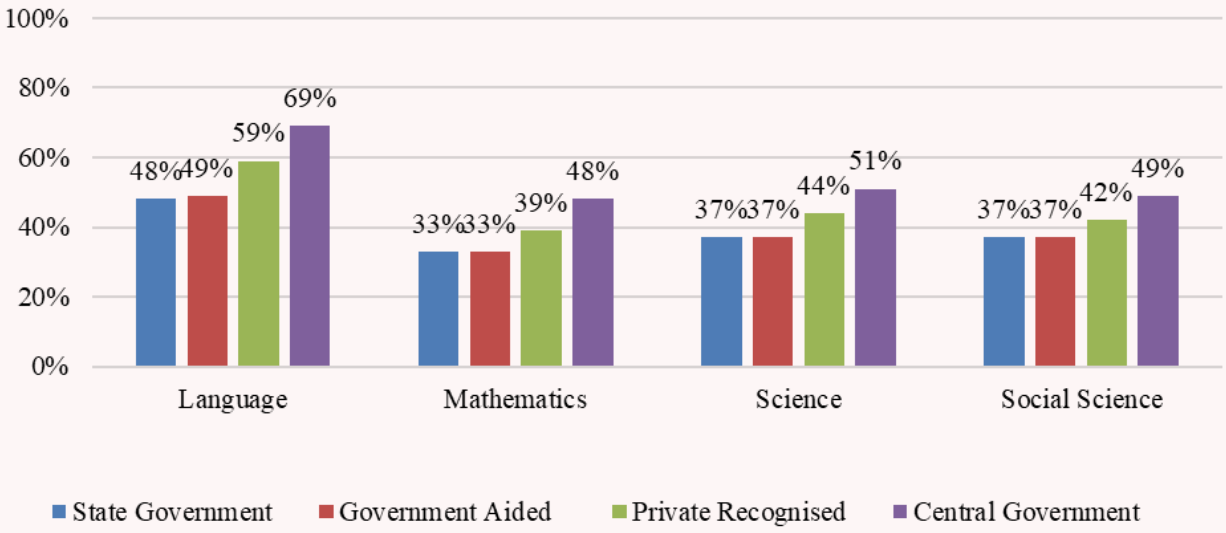


Figure 3.66: Performance at Middle Stage by School Management

Source: PARAKH 2024

Figure 3.66 shows that Central Government run schools do significantly better, further reinforcing the importance of systematic support and shared resources. Learning parity across schools can be bridged, and learning gains could be accelerated by sharing best practices from central government-managed schools.

(vi) Performance across States and UTs

Table 3.19: PARAKH 2024 Scores for Middle Stage (2024) (In percentage)

Indian States/UTs	Language	Mathematics	Science	Social Science
India	54	37	40	40
Andaman and Nicobar Islands	57	35	41	41
Andhra Pradesh	50	35	36	37
Arunachal Pradesh	60	34	39	42
Assam	53	35	38	38
Bihar	52	39	41	40
Chandigarh	70	43	49	49
Chhattisgarh	53	35	40	39
Dadra & Nagar Haveli and Daman & Diu	65	39	45	45
Delhi	65	40	46	44
Goa	62	37	44	42
Gujarat	50	32	38	37
Haryana	54	36	41	39
Himachal Pradesh	65	42	47	46
Jammu and Kashmir	50	32	38	36
Jharkhand	50	34	38	38
Karnataka	51	33	37	37
Kerala	74	45	53	51
Ladakh	59	35	41	41
Lakshadweep	54	33	40	37
Madhya Pradesh	52	36	39	39
Maharashtra	59	38	42	43
Manipur	52	35	39	39
Meghalaya	47	29	33	34
Mizoram	47	31	34	34
Nagaland	58	30	37	39
Odisha	59	41	43	43
Puducherry	50	32	36	35
Punjab	69	52	54	52
Rajasthan	56	44	46	45
Sikkim	60	32	41	42
Tamil Nadu	49	32	36	35
Telangana	54	36	39	38
Tripura	53	35	38	37
Uttar Pradesh	48	34	38	37
Uttarakhand	50	34	39	37
West Bengal	53	35	40	38

Source: PARAKH 2024

For the Middle Stage (Grade 9), Table 3.19 shows notable differences in performance across States and UTs. When compared with the Foundational and Preparatory Stage results, a few States, such as Punjab, Himachal Pradesh, Odisha, Maharashtra, and Rajasthan, have consistently ranked among the better performers, suggesting strong systems and the ability to maintain learning levels over time. On the other hand, States like Jharkhand, Gujarat, and Jammu & Kashmir have remained in the lower group across all stages, pointing to challenges that need sustained, long-term attention.

These patterns are consistent with the findings from the foundational and middle stages: States that perform strongly in the early grades tend to maintain their advantage in later years, while those with weaker outcomes at the start continue to struggle as students' progress. The national averages are also a cause for concern, pointing to systemic challenges that extend beyond the lowest-performing states.

3.4.2 Teacher Availability and Deployment

Teacher availability and deployment have a significant impact on the quality of education provided. Low-income and disadvantaged students are disproportionately affected by teacher attrition and unavailability, which in turn, has a detrimental impact on the retention rates and transition rates of school students.

(i) Teacher Vacancies

India has a teaching workforce of approximately 1.01 Crore, serving across 14 lakh schools nationwide. While steady progress has been made in improving the Pupil-Teacher Ratio (PTR), significant shortfalls in teacher availability continue to affect the delivery of quality education, particularly in rural and underserved regions. These areas face high levels of teacher attrition, often driven by regional disparities and infrastructural challenges, which in turn adversely impact learning outcomes, student retention, and grade-to-grade transition rates.

Table 3.20: State-wise Teacher Vacancies in India (Government Schools)

S. No.	State/UT	Teacher Vacancies
1.	Andaman and Nicobar Islands	No vacancy reported
2.	Andhra Pradesh	Not specified
3.	Arunachal Pradesh	1,254 Elementary; 564 Secondary; 140 Senior Secondary
4.	Bihar	2,08,784 Elementary; 36,035 Secondary; 33,035 Senior Secondary
5.	Chandigarh	Not specified
6.	Chhattisgarh	Not specified
7.	Dadra and Nagar Haveli	115 Elementary; 4 Secondary
8.	Delhi	No vacancies reported
9.	Goa	306 Elementary; 311 Secondary; 231 Senior Secondary
10.	Haryana	7,626 Elementary; 4,070 Secondary; 3,847 Senior Secondary
11.	Himachal Pradesh	3,654 Elementary; 565 Secondary
12.	Jammu & Kashmir	Not specified
13.	Jharkhand	80,341 Elementary; 18,343 Secondary; 881 Senior Secondary
14.	Karnataka	29,473 Elementary; 8,690 Secondary
15.	Kerala	No vacancies reported
16.	Lakshadweep	Not specified
17.	Madhya Pradesh	47,122 Elementary; 2,877 Secondary; 2,020 Senior Secondary
18.	Maharashtra	8,254 Elementary; 660 Secondary; 65 Senior secondary
19.	Meghalaya	0 Elementary; 0 Secondary; 16 Senior Secondary
20.	Mizoram	122 Elementary; 9 Secondary
21.	Nagaland	No vacancies reported
22.	Puducherry	Not specified
23.	Punjab	1,546 Elementary; 961 Secondary; 3,916 Senior Secondary
24.	Rajasthan	3,856 Elementary; 1,365 Secondary; 14,949 Senior Secondary
25.	Sikkim	No vacancies reported
26.	Tamil Nadu	170 Elementary; 4,278 Secondary; 693 Senior Secondary
27.	Telangana	Not specified
28.	Tripura	6,006 Elementary; 843 Secondary; 1,171 Senior Secondary
29.	Uttarakhand	3,932 Elementary; 1,737 Secondary; 1,329 Senior Secondary
30.	West Bengal	5,530 Elementary; 33,369 Secondary; 38,899 Senior Secondary

Source: PAB Minutes 2025-26

The teacher vacancies mentioned in Table 3.20 shows a critical gap in the availability of qualified teachers across several Indian states, particularly at the elementary, secondary, and senior secondary levels. States such as Bihar, Jharkhand, and Madhya Pradesh report exceptionally high vacancy levels, with Bihar alone accounting for over 2.08 lakh vacancies at the elementary level, 36,035 at the secondary level, and 33,035 at the senior secondary level, indicating an acute shortage that demands immediate policy attention. Other states, including Karnataka, Haryana, and Maharashtra, also report significant shortfalls, indicating the systemic nature of the challenge.

(ii) Pupil-Teacher Ratio (PTR)

Pupil-Teacher Ratio is the average number of pupils (students) per teacher at a specific level of education in a given school year. The PTR, according to the UDISE+ 2024-25 Report for all stages, is presented in Table 3.21. PTR at the primary stage stands at 20:1, which is well within the permissible limits prescribed by the RTE Act (30:1 for primary and 35:1 for upper primary).[35]

Table 3.21: Stage-Wise PTR (2024-25)

Stage	PTR
Primary	20
Upper Primary	17
Secondary	15
Higher Secondary	23

Source: UDISE 2024-25

Table 3.22: State-Wise PTR by Stage (2024-25)

State/UT	Primary	Upper Primary	Secondary	Higher Secondary
India	20	17	15	23
A & N Islands	9	8	6	10
Andhra Pradesh	21	15	10	30
Arunachal Pradesh	9	7	9	14
Assam	19	13	12	19
Bihar	26	19	26	27
Chandigarh	22	15	10	23
Chhattisgarh	18	15	14	12
Dadra & Nagar Haveli and Daman & Diu	28	26	19	21
Delhi	29	28	17	20
Goa	23	14	8	16
Gujarat	24	24	27	25
Haryana	21	17	10	11
Himachal Pradesh	13	8	6	9
Jammu & Kashmir	12	9	12	22
Jharkhand	26	24	30	47
Karnataka	21	17	18	28
Kerala	22	18	13	20
Ladakh	5	3	5	8

35 *Government of India, Press Information Bureau. (2017, February 9). Student-Teacher Ratio. Press Information Bureau.*

State/UT	Primary	Upper Primary	Secondary	Higher Secondary
Lakshadweep	17	15	8	8
Madhya Pradesh	16	14	14	15
Maharashtra	24	24	20	37
Manipur	13	9	9	14
Meghalaya	18	12	10	15
Mizoram	12	6	8	11
Nagaland	9	7	8	16
Odisha	16	15	16	37
Puducherry	14	12	9	15
Punjab	20	15	9	16
Rajasthan	18	12	11	15
Sikkim	6	6	5	7
Tamil Nadu	20	18	12	21
Telangana	18	12	9	24
Tripura	16	15	11	14
Uttar Pradesh	20	22	22	35
Uttarakhand	15	13	10	14
West Bengal	21	27	18	21

Source: UDISE 2024-25

Table 3.22 shows the State-level data for both primary and upper primary also broadly remain within these limits. However, disparities emerge at the secondary stage, for instance, Jharkhand reports a PTR of 47:1, Maharashtra 37:1, Odisha 37:1, underscoring teacher shortages beyond the coverage of the RTE framework.

As per UDISE 2024-25, there are 1,04,125 single-teacher schools in the country. Further, UNESCO (2021) reported that 89% of such schools in 2018-19 were located in rural areas, highlighting uneven teacher distribution and limited access to subject-specific instruction in underserved regions.

3.5 Funding

Investment in school education is a foundational driver of long-term economic growth and national development. As per World Bank estimates, an additional year of average schooling is associated with a 0.37% increase in a country's GDP growth. In recognition of this link, the Kothari Commission (1964) recommended allocating 6% of GDP to education, an objective subsequently endorsed by the National Policy on Education (1968) and reaffirmed by NEP 2020.

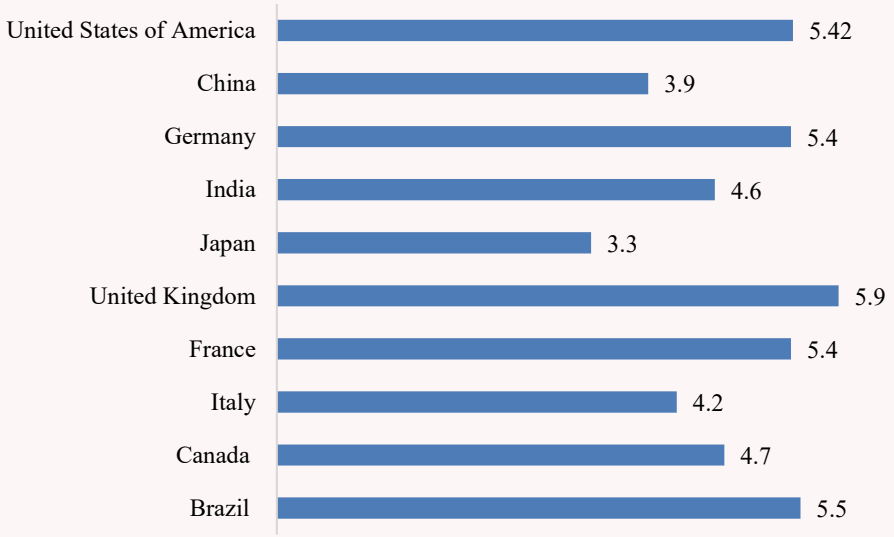


Figure 3.67: Government expenditure on education, total (% of GDP) (2021)

Source: World Bank

Figure 3.67 indicates government expenditure on education as a share of GDP in 2021 for the world's largest economies. India, at 4.6%, remains below the levels of the United Kingdom and the United States (5.9% each), Germany (5.4%), and France (5.4%).[36] India's allocation is higher than that of Japan (3.3%) and China (3.9%).

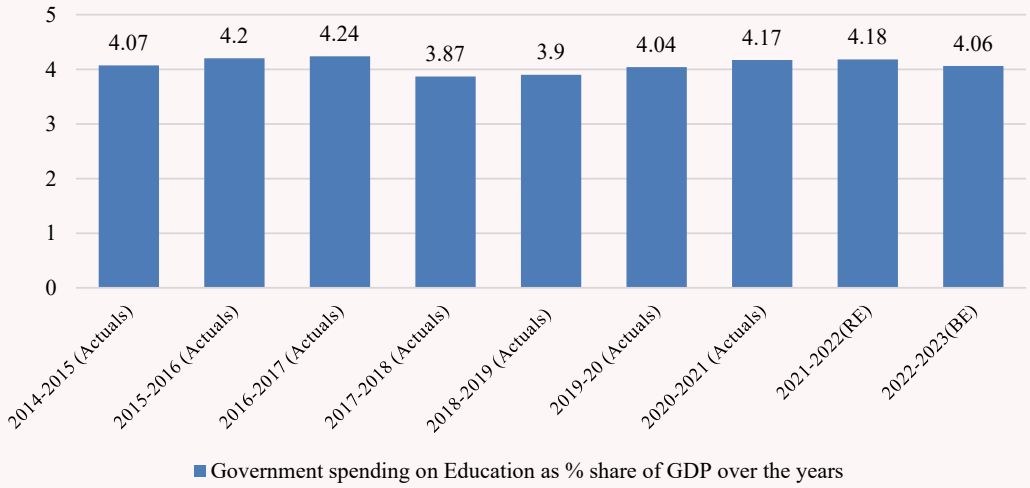


Figure 3.68: Central and State Government spending on Education as % share of GDP over the years

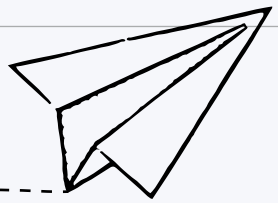
Source: Analysis of Budgeted Expenditure on Education 2019-20 to 2022-23 (2025)

Note: This includes total expenditure on Education by Ministry of Education and other Departments by the Central and State/UT Governments.

Figure 3.68 presents the trend in public expenditure on education as a percentage of GDP over the past decade. The share has remained within the range of 3.87% to 4.24%. In the subsequent years, expenditure has largely remained around 4% of GDP. Sustained and calibrated enhancement in public investment will be critical to advancing long-term improvements in access, equity, quality, and system resilience across the education sector.

36 World Bank. (2025). Government expenditure on education, total (% of GDP). World Bank.

Chapter IV
CHALLENGES AND BOTTLENECKS



Chapter IV

Challenges and Bottlenecks

The thematic challenges presented in this chapter are based on insights from the National Workshop on Quality Education organised by NITI Aayog in February 2025, which engaged Central and State Government officials, representatives from NGOs and civil society organisations, teachers, parents, and grassroots education workers. These have been further informed by a detailed analysis of UDISE+, NAS, PARAKH, and ASER datasets.

This chapter is structured under two broad sections: Systemic Challenges and Academic Challenges, which together capture the key barriers to improving the quality of school education in India.

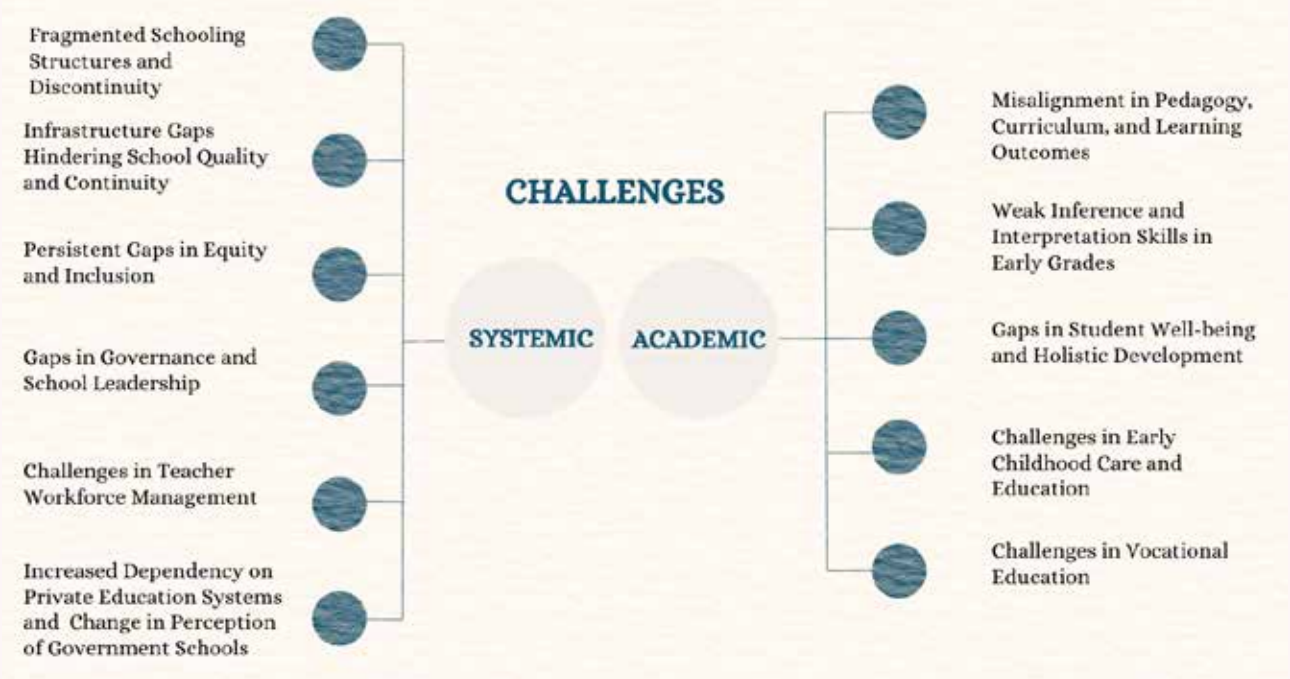


Figure 4.1: List of Challenges

4.1 Systemic Challenges

4.1.1 Fragmented Schooling Structures and Discontinuity

The Indian school system shows significant fragmentation across levels, resulting in hampering the continuity of schooling and the efficiency of educational delivery. These challenges are not isolated but are embedded in the design and distribution of schools across the country and lead to persistent gaps in access, retention, and learning. The problem can be described through the following five key pillars:

(i) Discontinuity in School Structures and the Pyramidal Model

India's schooling system is shaped like a pyramid, with the highest number of primary schools at the base, tapering significantly at higher levels. As per UDISE+ 2024-25, there are 7.3 lakh primary schools in the country. However, this number reduces sharply at the upper primary level (4.34 lakh) and further drops to just 1.42 lakh secondary schools and 1.64 lakh higher secondary schools. This decline in the number of schools as one moves up the grades directly limits the availability of education at different stages for many children.

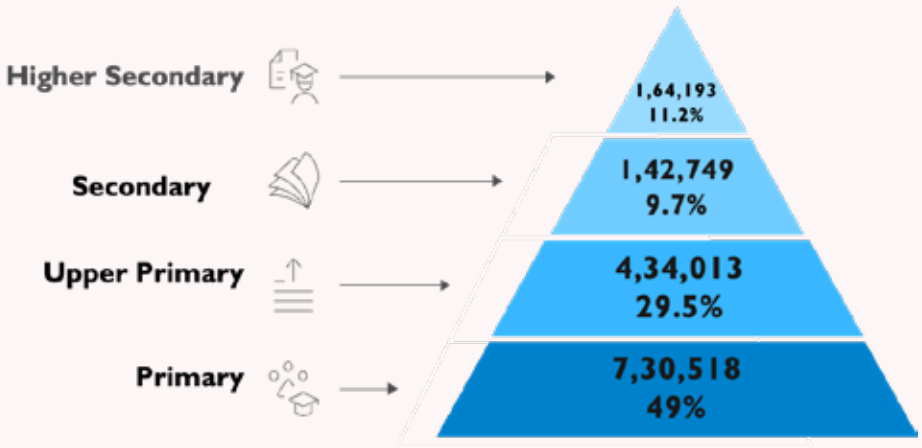


Figure 4.2: Number and Percentage of Schools by Stage

Source: UDISE 2024-25

Adding to this is the lack of schools offering continuous education across grades. The existence of multiple school types as depicted in the table 3.2, ranging from primary-only to institutions offering standalone grades such as (1-8), (6-8), (1-10), (6-10), (9-10), (11-12) leads to dropouts at the transition stages, usually after Grade 5, Grade 8, and Grade 10. Only ~5% of schools in India offer continuous schooling from Grades 1 to 12. This fragmentation without any established linkage between schools for transitioning requires students to shift schools at key stages, depending on local availability, which further contributes to declining retention rates and limits the likelihood of progression to higher stages of education.

(ii) Existence of Small and Under-Enrolled Schools

A significant proportion of schools in India operate with very low student strength. As mentioned in Table 4.1, more than one-third of schools have less than 50 students, with around 5.1% having enrolment below 10, and another 8% in the 11-20 range.

Table- 4.1: Percentage of Schools across various Enrolment brackets

<10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-200	201-300	301-400	401-500	>500
5.1	8	9.1	7.9	6.3	5.5	5	4.1	3.5	3.3	19.9	8.5	4.5	2.7	6.8

Source: UDISE 2024-25

The small size of these schools has made their operation economically inefficient and administratively challenging, particularly with respect to teacher deployment and the provision of essential physical infrastructure. [NEP 2020, Clause 7.2] The large number of such schools also complicates efficient teacher deployment and makes service delivery less cost-effective. While these institutions were

originally set up under the RTE Act, 2009, to improve access in remote areas, continuing to operate them without a strategic consolidation plan has led to fragmented service delivery and reduced per-student investment.

(iii) Single-Teacher Schools

Across many parts of the country, particularly in remote and sparsely populated regions, schools continue to function with only a single teacher managing the entire institution. According to the latest UDISE+ 2024-25 data, more than 1 lakh schools in India operate with just 1 teacher, accounting for over 7% of all schools. This results in little to no value addition for the students studying in those schools.

In such schools, the sole teacher is expected to shoulder multiple responsibilities, including classroom instruction across multiple grades, administrative work, mid-day meal preparation, record-keeping, coordinating with parents, and other tasks.[37] Multi-grade classrooms are often the norm, where children from different grades sit together. This severely limits grade-specific engagement. Teachers are compelled to divide their attention across multiple grades. Table 4.2 shows the number of Zero Enrolment and Single Teacher Schools across all States and UTs.

Table 4.2: Zero Enrolment and Single Teacher Schools

States/UTs	Schools with Zero Enrolments	Teachers in schools having Zero Enrolments	Schools with Single Teachers	Enrolments in Single Teacher Schools
All India	7,993	20,817	1,04,125	33,76,769
Andaman & Nicobar Islands	0	0	4	89
Andhra Pradesh	1	3	12,912	1,97,113
Arunachal Pradesh	21	15	562	6,912
Assam	0	0	2,820	92,699
Bihar	5	17	1,865	1,75,500
Chandigarh	0	0	0	0
Chhattisgarh	0	0	5,973	2,13,237
DNH & DD	0	0	0	0
Delhi	0	0	9	1,089
Goa	0	0	62	771
Gujarat	63	78	2,936	1,05,134
Haryana	0	0	1,066	43,400
Himachal Pradesh	0	0	2,964	46,329
Jammu & Kashmir	146	61	1,371	32,303
Jharkhand	107	31	9,172	4,36,480
Karnataka	270	308	7,349	2,23,142
Kerala	47	19	63	920
Ladakh	10	18	54	306
Lakshadweep	0	0	0	0
Madhya Pradesh	463	223	7,217	2,29,095

37 Diwan, R. (2012). *Indian small schools: A review of issues and related concerns* (Occasional Paper No. 40). NUEPA

States/UTs	Schools with Zero Enrolments	Teachers in schools having Zero Enrolments	Schools with Single Teachers	Enrolments in Single Teacher Schools
Maharashtra	0	0	8,152	1,50,146
Manipur	35	60	383	9115
Meghalaya	74	152	1,414	49,807
Mizoram	32	27	117	3,056
Nagaland	0	0	26	292
Odisha	3	1	1,089	47,940
Puducherry	0	0	0	0
Punjab	13	9	2,431	76,942
Rajasthan	215	293	6,117	1,72,071
Sikkim	0	0	36	319
Tamil Nadu	311	432	3,671	95,353
Telangana	2,245	1,016	5,001	62,288
Tripura	0	0	340	6,492
Uttar Pradesh	81	56	9,508	6,24,327
Uttarakhand	39	33	2,959	38,608
West Bengal	3,812	17,965	6,482	2,35,494

Source: UDISE 2024-25

(iv) Persistence of Zero-Enrolment Schools and Implications for System Efficiency

As can be seen in Table 4.2, close to 7,993 schools across the country reported zero student enrolment, with the highest numbers seen in West Bengal (3,812) and Telangana (12,245). While these schools appear operational in administrative records, they no longer serve any student population. These schools, despite zero enrolment, continue to receive financial and human resources due to the lack of updating of records, showing the difference between on-ground reality and planning.

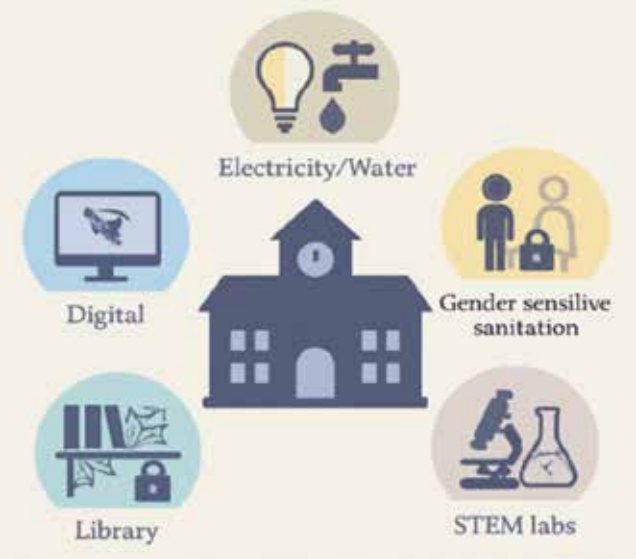
(v) Multi-Grade Classrooms without Instructional Support

The above problems and challenges consolidate and result in further challenges. Due to the difference in enrolment across schools and the skewed allocation of resources, there are schools that lack infrastructure and human resources, where one teacher teaches multiple grades in the same space. However, most teacher training programmes do not include methods or strategies for handling multigrade settings. As a result, teachers are often left to manage diverse learning needs without adequate support, leading to uneven learning outcomes and reduced classroom effectiveness.

4.1.2 Infrastructure Gaps

Infrastructure is one of the most important pillars in ensuring continuity, equity, and quality in school education. While there has been a constant push for the development of physical and digital infrastructure, gaps in basic and advanced infrastructure persist across the country, particularly affecting students in underserved and geographically challenging regions. These gaps are evident in the following ways:

Figure 4.3: Infrastructure Gaps



(i) Inadequate Access to basic facilities

Electricity availability has grown by nearly 1.6 times from 55.96% in 2014 to 91.9%, marking a substantial expansion in access across the country. Yet, a significant proportion of schools continue to operate without electricity which is necessary for creating conducive environment for learning. According to UDISE+ 2024-25, 1.19 lakh schools lack access to functional electricity. Access to water and hygiene facilities is also inconsistent. The share of schools with drinking water facilities has increased from 96.5% in 2014 to 99% in 2025. 14,505 schools still lack functional water sources, and nearly 59,829 lack hand-wash facilities, compromising student health and hygiene. These gaps translate to schools not being physically fit for children to continue, and hamper education and basic public health, especially in the aftermath of the COVID-19 pandemic.[38]

(ii) Gaps in Gender-sensitive Sanitation and Menstrual Hygiene Infrastructure

The lack of adequate sanitation facilities continues to impact school attendance, particularly among adolescent girls. Over the past decade, India has made steady progress, with the share of schools having functional toilets increasing from 85.17% in 2014 to 94% in 2024-25, as reported by UDISE. Despite these gains, 98,592 schools still lack functional girls' toilets, and 61,540 schools have no usable toilets. Inadequate menstrual hygiene facilities, such as toilets, disposal units, private changing areas, and access to sanitary products, often lead to absenteeism and dropout among girls at the secondary level[39]. These shortcomings also contribute to social discomfort. health issues and discourage regular attendance. Expanding sanitation infrastructure and ensuring its usability will be central to creating safer and more inclusive school environments.

38 *Clean India, clean schools. UNICEF*
39 *United Nations, Department of Economic and Social Affairs. Breaking the silence: Menstrual Hygiene Management (MHM) in India.*

(iii) Lack of Functioning Labs for STEM Education

Secondary schools across the country lack access to functional science labs despite the policy push towards systemic STEM education. According to UDISE+ 2024-25, 51.7% of government secondary schools are equipped with science laboratories, thereby limiting opportunities for practical, inquiry-based learning in nearly 50% of schools. This deficit weakens conceptual understanding in core subjects like Physics, Chemistry, and Biology, and undermines efforts to promote scientific temper and problem-solving competencies as envisaged under NEP 2020. Even though integrated science laboratories remain a key recommendation in the national frameworks, the implementation has been inconsistent across states. The absence of practical exposure leads to the instruction remaining confined to textbook explanations and theoretical models, which affects learning outcomes amongst students.[40]

(iv) Underutilised Library Infrastructure

As per UDISE, the share of schools with libraries has grown from 82.19% in 2014-15 to about 89.5% in 2024-25. While this reflects steady progress in expanding access to learning resources, the key challenge lies in ensuring their effective use. In many schools, libraries often function more as storage areas than as active learning spaces. Many lack trained personnel, updated books, and age-appropriate materials, which limits their contribution to improving learning outcomes. This reflects a systemic challenge in which school libraries are rarely integrated into the instructional framework or leveraged as spaces that support independent learning and critical thinking.

The Secondary Education Commission (1952-53) had cautioned against this disconnect, noting that the absence of proper staffing and curation weakens reading habits among students[41]. Bridging this gap will require renewed attention to the educational purpose of libraries, through better staffing, regular reading activities, and the integration of digital resources, to ensure that every child benefits from access to a functional and engaging learning space.

(v) Inadequate Integration of Digital Infrastructure in Pedagogy

As per UDISE+ 2024-25, 64.7% of schools are equipped with computers, and 57.9% have them available for teaching and learning purposes. In 2014-15, the corresponding figure was 26.42%, showing a substantial increase in coverage over the past decade. Internet connectivity is now available in 63.5% of schools, a significant eightfold increase from 8.05% in 2014-15. Despite this progress, the digital divide remains visible, as illustrated in Map 2.30, particularly across States such as Bihar, West Bengal, Manipur, Mizoram, and Meghalaya, where many schools continue to lack basic ICT facilities.

This limits exposure to technology-enabled teaching, reduces access to online learning material, and restricts opportunities for students to build digital literacy, an essential skill in the 21st century[42]. This also affects school administration, as institutions without connectivity often depend on manual systems or external facilities to update platforms such as UDISE+ and SDMIS, leading to delays and data inconsistencies. More broadly, limited digital readiness constrains the implementation of NEP 2020's goals on personalised learning, real-time monitoring, and data-driven governance.

40 *Central Board of Secondary Education. (2023). National Curriculum Framework for School Education (NCF-SE), Part C: "Science Education" (Chapter 4). Ministry of Education, Government of India*

41 *Report of the Secondary Education Commission, October 1952-June 1953 (A. L. Mudaliar, Chair). Ministry of Education, Government of India. Chapter 7: Dynamic Methods of Teaching — "The Place of the Library in the School".*

42 *Sharma, R. (2023). Expanding the scope of digital initiatives for transforming 21st century school education. Indian Journal of Educational Technology, 5(I), 210-229.*

4.1.3 Gaps in Equity and Inclusion

Despite notable gains in access, marginalised students, particularly from Socio-Economically Disadvantaged Groups (SEDGs), girls, CwSN, and migrant communities continue to face overlapping and structural barriers to participation, retention, and learning. These challenges are not uniform but are layered across social, geographic, and economic dimensions. This section examines the nature and extent of exclusion across key demographic groups and identifies policy levers to strengthen equitable learning pathways.

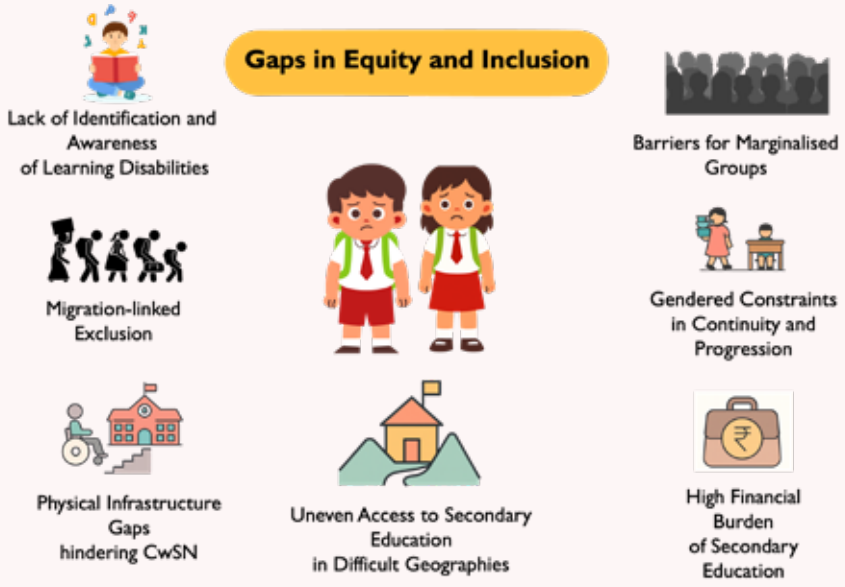


Figure 4.4: Gaps in Equity and Inclusion

(i) Additional Barriers for SEDGs

Students from historically disadvantaged communities, often face a compounded burden of poverty, low parental education, and limited access to early learning support. While elementary enrolment has improved significantly, disparities persist in retention, transition to secondary and higher secondary stages, and learning outcomes. As observed in PARAKH 2024, students from SEDGs lag behind their peers in all major subjects. For instance, for the middle stage, in mathematics, 33% of SC, 33% of ST students and 39% OBC students demonstrated proficiency, compared to 48% among students from the "Other" category, i.e., the General category. Similarly, in language, SC, ST and OBC students scored 48%, 49% and 59% respectively, while Others scored 60%, highlighting equity gaps in foundational learning outcomes. NEP 2020 and NCF-SE 2023 emphasise differentiated pedagogy, locally contextualised learning materials, and bilingual approaches to ensure foundational equity[43]. Without bridging these learning gaps in early stages, the disparities compound sharply at the secondary level, particularly among SEDG learners.

(ii) Gender-based Constraints in Continuity and Progression

Through systemic work on attaining gender equality in education, the challenge has now shifted to retention rather than enrolment of girls in school. While enrolment parity has largely been achieved, dropout rates rise in upper primary and secondary stages due to household responsibilities, early marriage, mobility concerns, and safety issues. In low-income families, gender norms often lead to a preference for investing in boys' education. The absence of gender-sensitive infrastructure, such

43 *National Council of Educational Research and Training. (2023). National Curriculum Framework for School Education (NCF-SE 2023), Part B: Inclusion in Schools (Chapter 4). Ministry of Education, Government of India.*

as separate functional toilets and safe transport, further deters regular attendance and undermines girls' educational continuity.

(iii) High Financial Burden of Secondary Education

The transition from elementary to secondary education marks a significant financial inflection point for many families. While elementary schooling is largely free in government schools, secondary education often involves substantial out-of-pocket costs like books, uniforms, transport, and examination fees, alongside growing reliance on private tuition. According to estimates, the per-child expenditure in government secondary schools is three to five times higher than at the primary stage[44]. These cumulative costs weigh heavily on households with limited and unstable incomes.

At the same time, economic vulnerability drives adolescents, particularly from rural and low-income backgrounds, into the workforce or domestic responsibilities. According to PLFS 2020-21 estimates, 31% of out-of-school adolescents (14-17 years) were working, while another 25% cited household duties. For girls, this often translates into early withdrawal from school to take on unpaid care work, deepening existing gender inequities. The result is a quiet but persistent pattern of dropout, shaped as much by affordability as by the economic choices families are forced to make.

(iv) Uneven Access to Secondary Education in Difficult Geographies

Access to secondary education remains more concentrated in urban areas, while many rural and remote regions face limited school availability. In several parts of the country, especially those with difficult terrain such as the Northeast and Himalayan states, long travel distances, rough roads, and irregular transport make regular attendance challenging for students. These physical barriers also impact teacher deployment and retention, resulting in uneven access to and learning opportunities. The dispersed settlement pattern in many parts of rural India, characterised by numerous small and low-density habitations, further complicates efforts to establish schools within easy reach of every community. Addressing these constraints through innovative school mapping, residential facilities, and transport support remains essential to achieving equitable access to secondary education.

(v) Physical Infrastructure Gaps hindering CwSN

Over the past decade, schools have made visible progress in improving physical accessibility. As per UDISE+ 2024-25, 79.1% of schools now have ramps, a 32% rise from 59.77% in 2014-15, and 33.4% have functional toilets for CwSN, nearly doubling from 16.64% in 2014-15. Many schools still lack basic infrastructure such as barrier-free classrooms, tactile paths, or height-adjusted furniture. These omissions make daily school routines, from reaching classrooms to using restrooms, difficult for children with locomotor or visual impairments. In many cases, the absence of safe, accessible spaces silently discourages attendance and participation, especially among adolescent girls with disabilities.

(vi) Lack of Identification and Awareness of Learning Disabilities

Learning disabilities are still largely overlooked within mainstream school systems in India. Conditions such as dyslexia, dyscalculia, and related disorders go undetected due to limited early screening, low awareness among teachers, and the absence of dedicated support structures. In many cases, students are misidentified as weak learners, leading to stigma, frustration, and academic disengagement. Classroom environments are typically not designed to support diverse cognitive needs. Tools

44 *Bordoloi, M., & Pandey, S. (2022, November 10). Challenges in access to secondary education in India. CPR India.*

for differentiated instruction are unavailable in most settings, and teacher training programmes seldom equip educators to identify or respond to such challenges. Although inclusive education has expanded in scope, the primary focus has been on physical and sensory impairments. As a result, children with learning disabilities continue to be excluded from meaningful participation, despite having the potential to succeed with the right support.

In addition, teachers often lack the necessary preparation and support to identify and respond to diverse learning needs. Limited exposure to inclusive pedagogy in both pre-service and in-service training further constrains classroom inclusion[45]. (Inclusion and Equity in Indian Education through the Lens of NEP 2020 AND NCF 2023, 2025).

(vii) Migration-linked Exclusion

Migrant children form a large but often invisible segment of India's school-age population. As per the Census 2011, there were 9.29 crore migrant children in India. Migration among children is rarely voluntary; over half (50.8%) moved with their households, often without prior notice, disrupting schooling and social integration. These disruptions are particularly harsh for girls. 52.7% of migrant girls aged 10-19 were already married, undermining their educational continuity and long-term agency. Simultaneously, over 1.98 crore migrant children aged 0-14 were engaged in labour or business activities, often out of economic compulsion, further marginalising them from structured learning.[46]

Most schools lack migrant-responsive provisions such as mobile learning units, or curriculum portability across states. With no institutional mechanisms for tracking, bridging, or supporting migrant learners, these children are left with little support to continue their education. The absence of parental awareness and community support structures compounds this exclusion, as migrant families are often disconnected from local schooling processes, mid-year admissions, or entitlements under Samagra Shiksha.

4.1.4 Gaps in Governance and School Leadership

School education in India struggles with weak governance and limited leadership support at every level. Unclear hierarchies, unfilled positions, and rigid inspection practices leave little room for schools to plan, adapt, or improve independently.

(i) Fragmented Governance Structure with Lack of Local Autonomy

Education governance in India is split across multiple levels - Centre, State, District, Block and Panchayats with overlapping jurisdictions and poorly defined roles. State education departments lack a structured organisation with overlaps, often missing crucial functions and inadequately planned team sizes. Most positions lack clear roles and responsibilities, causing day-to-day operational and management challenges[47]. School leaders' function within confusing hierarchies, with minimal autonomy to respond to local needs. Headmasters are often reduced to passive implementers of top-down directives, with little say in shaping school priorities or adapting initiatives to their context. Without space for local problem-solving or strategic planning, meaningful school transformation becomes difficult to achieve.

45 *Sengupta, A., & Kumar, H. (2025). Inclusion and equity in Indian education through the lens of NEP 2020 and National Curriculum Framework for School Education-2023. University News, 63(42), October 20-26. Association of Indian Universities.*
46 *Young Lives & UNICEF India. (2020). Understanding child migration in India. UNICEF India.*
47 *NITI Aayog. (2023). Learnings for large-scale transformation in school education: Project SATH-E NITI Aayog.*

(ii) Unfilled Administrative Positions and Capacity Gaps

A major barrier to effective education governance is the severe understaffing at the block and district levels. There are large-scale vacancies as high as 50-60% in block and district offices, severely limiting their effectiveness and efficiency in governing the schooling system[48]. For instance, Cluster Resource Persons (CRP) are intended as academic mentors but are burdened with administrative tasks, limiting them from performing their primary role.

(iii) Weak Institutional Systems for Leader Selection and Capacity Building

There is a lack of a robust framework for the professionalisation of school leadership. Selection processes are inconsistent and opaque, often driven by seniority or local influence rather than leadership aptitude or merit. In many cases, the senior-most teacher is appointed as school head without undergoing any structured orientation, competency screening, or prior training. Systems for ongoing capacity building through mentorship, leadership development, or performance-based progression are either underdeveloped or missing altogether. This weakens the leadership pipeline and limits the ability of schools to respond to evolving educational challenges.

(iv) Inspection-Driven Supervision Practices

School supervision in many instances continues to follow a traditional compliance-driven model, with an emphasis on inspection, procedural checks, and adherence to administrative norms. This approach often leads school heads and teachers to focus on preparing visible indicators of orderliness during visits, rather than engaging in substantive reflection on teaching-learning practices. The role of inspecting authorities is generally limited to oversight, with limited emphasis on providing academic guidance or capacity-building support. As a result, the feedback loop remains largely procedural, with fewer opportunities for developmental dialogue that could strengthen instructional quality and overall school improvement.

(v) Underutilised Data Systems for Evidence-Based Policy

While India has made substantial investments in educational data infrastructure, gaps persist in the use of the data for planning, monitoring and governance[49]. Despite the effort involved in the compilation of data, it is not consistently reviewed and analysed meaningfully to aid in evidence-based decision-making or improve educational practices.

(vi) Weak Local Governance and Community Institutions

School Management Committees (SMCs) are mandated under the RTE Act, 2009 in specified categories of schools to enable meaningful community participation and ensure that parents serve as primary stakeholders in school oversight[50]. States have also set up bodies such as SDMCs, VECs and VSS under earlier programmes to support similar functions. However, these committees face challenges such as irregular meetings, limited clarity on mandated roles, and low participation of women and parents from disadvantaged groups, despite the representational norms laid out in the Act. Many committees do not receive adequate support to prepare School Development Plans as required under Section 22 of RTE, monitor learning progress or address day-to-day operational issues, and they have limited access to data and financial information needed for informed decision-making.

48 *NITI Aayog (2023), Project SATH-E.*
49 *NITI Aayog (2023), Project SATH-E.*
50 *Ministry of Education, Government of India. The Right of Children to Free and Compulsory Education Act, 2009 - Section-wise rationale (Rationale on Section 21).*

Grievance redressal systems at the school level are not well-developed, limiting the ability of communities to address issues related to attendance, safety, or service delivery. Further, weak linkages with the school-complex framework proposed under NEP 2020 restrict the role of community institutions in academic planning and resource coordination. These gaps limit the effectiveness of SMCs and related bodies as platforms for accountability, transparency and school improvement.

4.1.5 Challenges in Teacher Workforce Management

A lot of educational indicators and outcomes depend on the capacity of teachers and the enablers provided to the teachers for effective service delivery. While national-level pupil-teacher ratios have improved, disparities in deployment, training quality, and working conditions continue to affect classroom instruction, especially in rural and tribal regions. Structural issues such as multi-grade teaching, inadequate professional development, and weak pre-service education undermine the effectiveness of the teaching workforce.

(i) Inadequate Deployment and Ineffective Staffing Norms

Despite national progress in meeting RTE-mandated PTR norms, several States continue to face teacher shortages, especially in rural and tribal areas. States such as Jharkhand, Dadra and Nagar Haveli and Daman and Diu, Maharashtra and West Bengal report PTRs significantly above the national average, affecting individualised attention and quality of instruction. Uneven deployment of teachers across regions, levels, and subjects perpetuates systemic imbalances and often results in multi-grade classrooms, especially in remote locations. In many rural and small schools, a single teacher is responsible for teaching multiple grades simultaneously, undermining age-appropriate pedagogy. This is largely due to the proliferation of under-enrolled schools combined with rigid staffing policies that fail to account for local needs. The persistence of single-teacher schools further exacerbates instructional challenges, particularly at the foundational level.

(ii) Challenging Working Conditions and Administrative Overload

Teachers in government schools, particularly in rural areas, face challenging working conditions, including inadequate housing, limited transportation access, and infrastructural deficits. Additionally, the burden of non-teaching duties such as surveys, election work, or administrative reporting reduces instructional time and detracts from their core academic responsibilities. The RTE Act mandates a minimum of 800 instructional hours and 200 working days per year for primary classes, while upper primary grades require 1,000 instructional hours and 220 working days annually. However, nearly 14% of planned teaching days go unutilised because teachers are engaged in activities such as surveys, election duties, record-keeping, and mid-day meal supervision.[51] This frequent diversion from academic tasks reduces effective teaching time and disrupts continuity in learning, particularly in schools already grappling with staff shortages.

(iii) Weak Pre-Service Teacher Education

The quality of pre-service teacher education varies widely across States and institutions, creating inconsistencies in how teachers are prepared for classroom realities. While the NCFTE (2009, 2014) offers a broad curricular framework, its implementation remains uneven because institutions are permitted to modify up to 30% of the model curriculum[52]. As a result, both coursework and practicum experiences differ considerably across universities. Many teacher education programmes still lean heavily on theoretical instruction, with limited emphasis on competency-based learning,

51 *Sankar, D., & Clermont, J. (2014). How much and what kind of teaching is there in primary schools? World Bank.*
52 *NCTE Notification 2019*

inclusive pedagogy, or applied classroom practice. Practical training is often short, irregular, or poorly supervised, leaving new teachers uncertain about managing real classrooms. Many Teacher Education Institutions (TEIs) still prioritise theoretical instruction over competency-based learning, inclusive pedagogy, and reflective practice[53]. There is a widespread weakness in faculty quality, curricular execution, and the conduct of internships, indicating that large segments of the system are unable to prepare teachers for real classroom demands[54].

(iv) Insufficient Subject Expertise

There is a persistent gap in subject-matter knowledge within India's teacher preparation system. A major factor contributing to the limited subject-specific preparation is the absence of reliable, comprehensive data on sanctioned subject-wise teacher positions and vacancies, which makes it difficult for States to plan recruitment or design targeted professional development. TEIs also show significant shortcomings in subject-focused preparation, with many lacking essential instructional resources such as curriculum laboratories, libraries, and qualified subject mentors. As a result, student-teachers have limited opportunities to develop strong content knowledge or pedagogical skills. Furthermore, most pre-service teachers continue to be trained through generic B.Ed. programmes that provide insufficient disciplinary depth.

These weaknesses are visible in both pre-service and in-service performance[55]. Evidence from the SATH-E States shows that many teachers themselves score below 60-70% in subject papers of the grades they teach, indicating weak foundational knowledge in Mathematics, Science, English, and Hindi[56]. National teacher eligibility data reflect a similar pattern. Only about 10-15% of candidates score above the 60% qualifying threshold in TET/CTET examinations, and average marks in primary-level mathematics hover around 46%. Fewer than 2% of candidates score above 70%. These outcomes highlight systemic weaknesses in subject preparation that limit teachers' confidence and effectiveness in delivering grade-appropriate instruction.[57]

(v) Limited Professional Development and Mentoring

In-service professional development remains fragmented, with many teachers experiencing training as occasional, lecture-based sessions rather than sustained, practice-centred learning. Teachers working in rural or hard-to-staff areas often lack access to structured mentoring, peer support, or professional learning communities that enable them to reflect on teaching practices or learn collaboratively. Newly appointed teachers, especially those in their first postings, commonly receive little induction support and are left to navigate classroom and community contexts with limited guidance. This contributes to stress, early career burnout, and difficulties in adapting pedagogies to local needs.

(vi) Weak Academic Support Systems

The academic capacity of SCERTs, DIETs, and district-level training institutions remains a major constraint. Many SCERTs and DIETs continue to function with significant faculty vacancies. Some States report over 50% positions unfilled along with insufficient library, ICT, and research infrastructure. These institutions struggle to fulfil their core roles in curriculum design, teacher mentoring, research, and resource development. Weak coordination between SCERTs, DIETs, HEIs, and TEIs further

53 *NCERT. Voice of Teachers and Teacher Educators (VTTE Journal) - Articles on practicum quality and field engagement.*
54 *Azim Premji University (2021). Issues in Education, Volume 1 - Teachers and Teacher Education.*
55 *See Section 1A.4: Academic Recommendations of this report.*
56 *NITI Aayog (2021). Systemic Transformation of School Education: The SATH-E Experience.*
57 *CETE (2023). The Right Teacher for Every Child. State of Teachers Teaching and Teacher Education for India Report 2023. TISS, Mumbai*

limits coherence between pre-service and in-service education, resulting in fragmented support for teachers across their careers.[58]

(vii) Low Professional Status

Teacher motivation and professional identity are closely tied to the value placed on their work and the support systems available for their growth. Across school systems in India, compensation structures vary widely, and many teachers especially those in private and low-fee schools experience insecure employment conditions and limited benefits. These disparities contribute to a perception of teaching as a low-prestige profession, particularly in early childhood education and special education, where large sections of the workforce continue to be undervalued.

(viii) Inadequate Compensation and Temporary Employment

The increasing reliance on contractual and temporary appointments has further created a fragmented employment landscape. Contract teachers often have short-term service conditions, limited entitlements, and few opportunities for professional development, despite carrying the same responsibilities as regular staff. This has implications for stability and long-term retention, especially in rural and underserved districts where teacher shortages are already acute.

(ix) Limited Career Progression

There is an absence of clear and structured career pathways for teachers. Most States do not have formal progression routes such as senior teacher, master teacher, or mentor-teacher roles, which limits opportunities for academic leadership and professional advancement. Without well-defined ladders for growth, teachers have fewer incentives to deepen their practice, engage in mentoring, or contribute to system-wide improvement. These factors collectively dilute motivation, weaken professional identity, and reduce the attractiveness of teaching as a long-term career.

4.1.6 Increased Dependency on Private Education Systems and Change in Perception of Government Schools

India's school education system has seen a notable shift toward private institutions, particularly at the secondary level. This change reflects parental aspirations for better outcomes, but the private sector's rapid growth also raises concerns around quality, equity, and regulation.

(i) Higher Enrolment in Private Schools Despite Poor Outcomes

Private schools now constitute 44.01% of all secondary institutions (UDISE+ 2024-25), and enrolment in government schools has declined from 71% in 2005 to 49.24% in 2024-25. This shift is driven by the perception of private schools offering English-medium instruction, discipline, and employability. However, evidence suggests these expectations are not consistently matched by learning outcomes. 35% of Grade 5 students in low-fee private (LFP) schools are unable to read a Grade 2 text, and 60% cannot solve a basic division problem[59].

(ii) Quality Gaps in Infrastructure and Teaching Workforce

Many LFP schools fall short of infrastructure norms under the RTE Act, lacking basic amenities such as toilets, playgrounds, and clean drinking water. Teacher recruitment is often informal, with underqualified or untrained individuals filling full-time teaching roles. Working conditions remain

58 *UNESCO. (2021). No teacher, no class: State of the education report for India 2021. UNESCO New Delhi.*
59 *Central Square Foundation. (2022). State of the Sector Report: Private Schools in India.*

precarious, with low pay, job insecurity, and limited access to professional development directly affecting classroom quality and student outcomes.

(iii) Absence of Robust Oversight and Public Accountability

Private schools, especially low-fee private institutions, operate in a largely under-regulated space. There is no national system for periodic accreditation, performance benchmarking, or public disclosure of learning outcomes. Most States lack robust mechanisms to monitor compliance with minimum norms under the RTE Act 2009, including infrastructure, teacher qualifications, and fee regulation. In the absence of transparent school-level data such as pupil-teacher ratios, assessment results, or teacher credentials, parents often base their decisions on proxies like English-medium instruction or digital boards. This opacity not only undermines informed parental choice but also limits the government's ability to ensure minimum standards and equity in educational provisioning.

4.2 Academic Challenges

4.2.1 Misalignment in Pedagogy, Curriculum, and Learning Outcomes

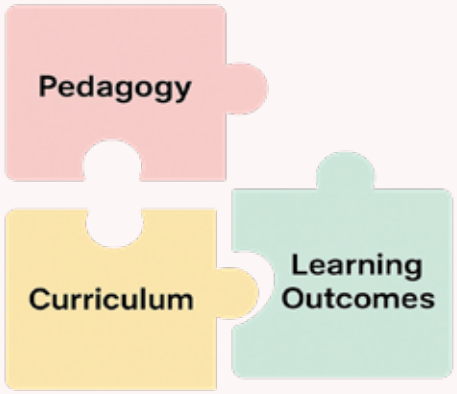


Figure 4.5: Misalignment in Pedagogy, Curriculum, and Learning Outcomes

The lack of alignment between curriculum, pedagogy, and assessment continues to be a foundational challenge in India's school education system. Though policy frameworks such as the National Curriculum Framework 2023 set standards for learning competencies and goals, these are not consistently translated into classroom practice[60]. In many schools, the curriculum is reduced to textbook delivery, pedagogy remains didactic, and assessments focus largely on rote recall rather than conceptual understanding or application.

(i) Overemphasis on Syllabus Coverage over Foundational Learning

Classroom instruction is primarily dominated by the pressure to finish textbooks, often at the cost of foundational learning. Students with limited early learning exposure struggle to keep pace with age-grade curricula, resulting in widening learning gaps year after year. ASER 2024 reports that nearly 50% of Grade 5 children in rural India cannot read a Grade 2 text, yet instruction advances rigidly through syllabi without accounting for actual learning readiness[61]. NEP 2020 advocates for developmentally appropriate curriculum, but its implementation is uneven across States and districts. This mismatch between teaching pace and student levels is a key contributor to academic disengagement and eventual dropout.

60 *The revised NCF 2023 translates the goals of NEP 2020 into actionable frameworks suited for practitioners (Ministry of Education, Government of India, 2023.)*
61 *Press Information Bureau, Government of India. (2025, February 4). Leap in rural school enrolment: Key Findings (ASER) 2024*

(ii) Non-contextual and Disconnected Curriculum

Curricular content in many States is standardised and detached from the lived experiences of students, particularly those from rural, tribal, or SEDG backgrounds. Textbooks often present unfamiliar settings, language, and examples, making it difficult for learners to connect with what is taught[62]. This lack of relevance not only limits participation but also reinforces rote learning habits. While NEP 2020 and NCF 2023 emphasise contextualisation and cultural relevance, implementation is uneven, limiting the curriculum's ability to foster inclusive and meaningful learning.

(iii) Teaching Practices not Aligned with Frameworks

Curriculum frameworks have evolved but teaching practices have not adapted at the same pace[63]. Most teacher training, both pre-service and in-service fails to address everyday challenges such as managing multi-grade classrooms, responding to varied learning levels, or implementing differentiated instruction. According to PARAKH 2024 findings, 54% of teachers have read the NCF-SE, reflecting limited engagement with recent reforms. In the absence of developmental pedagogies and continuous support, teachers often default to lecture-based, one-size-fits-all approaches that overlook learner diversity and widen inequities in outcomes.

(iv) Assessment Systems Misaligned with Learning Needs

Classroom evaluation still revolves around high-stakes, recall-based examinations. Students may perform adequately on written tests that assess factual recall and procedural knowledge, but their basic competencies in applying concepts is not well developed. Moreover, formative tools are poorly implemented, feedback loops are weak, and student-level data rarely informs pedagogy. As a result, assessments are used more for certification (assessment of learning), rather than as mechanisms to inform instruction or support student growth (assessment for learning).

(v) Limited Readiness of Curriculum and Teacher Capacity for AI Integration

The rapid expansion of AI-based tools has outpaced the capacity of curricula and teacher preparation systems to keep up. The current structure follows a syllabus-driven approach, with a focus on comprehensive content coverage and effective recall. Although emerging AI-enabled platforms are reshaping learning by offering adaptive pathways, real-time feedback, and deeper insights into student progress, neither professional development nor curriculum design has evolved in step with this technological shift. Capacity-building programmes are still short, generic, and detached from classroom realities. Teachers rarely receive sustained mentoring or practical support to meaningfully integrate AI into daily practice or to teach foundational AI concepts and digital reasoning skills to students. As a result, students graduate without the critical understanding of AI and data that will define future workplaces and civic participation[64].

In October 2025, the Ministry of Education announced that Artificial Intelligence and Computational Thinking will be introduced from Grade 3 onwards as a basic universal skill, aligned with NEP 2020 and NCF-SE 2023. CBSE and NCERT will develop the curriculum, supported by NISHTHA-led teacher training. While this marks a significant policy step toward future readiness, classroom-level preparedness, infrastructure, and teacher capacity remain uneven, limiting immediate, effective integration[65].

62 *Santhakumar, V., & Devi, R. (2019, January 29). The need for intercultural education in India: Lessons from QUEST, Maharashtra. Azim Premji University.*
63 *Singh, N. (2021). Teaching Practices and Learning outcomes in India. Educational Trend (A Journal of RIE, Ajmer - NCERT), 2(1), 22-25.*
64 *Saxena, N. (2025). Lead, guide, step back: Redefining the teacher's role in an AI-dominated world. University News, 63(41), October 13-19. Association of Indian Universities.*
65 *Press Information Bureau. (2025, October 30). Curriculum on AI to be introduced in all schools from Class 3 onwards [Press release]. Ministry of Education, Government of India.*

(vi) Emerging Risks, Ethical Gaps, and Uneven Readiness for AI Adoption

The ecosystem lacks clear ethical, procedural, and data-governance frameworks for AI use. There are no clear standards on data privacy, authorship, or responsible use, which discourages experimentation and institutional adoption. Educators also face uncertainty about how to balance AI-enabled efficiency with human values such as honesty and empathy, creativity, and contextual judgment qualities that remain central to effective teaching and learning.

There is a growing concern around overreliance on AI-driven tools, which can affect children's cognitive development, attention span, and problem-solving ability. Sustained reliance on AI assistance can reduce neural engagement, memory retention, and a learner's sense of ownership over their work. Without appropriate guidance, excessive exposure to algorithmic decision-making may gradually diminish independent thinking, reflective learning, and the discernment capacity, particularly among younger students who are still developing critical reasoning and self-regulation skills[66].

4.2.2 Weak Inference and Interpretation Skills in Early Grades

National assessments show that core competencies in reading, arithmetic, and applied problem-solving are below desired levels across grades. ASER 2024 and PARAKH 2024 findings indicate limited application of classroom knowledge to real-life contexts, and weak proficiency in essential mathematical concepts. These deficits are further compounded by disparities linked to social background and gender, including unequal access to digital tools and skills.

(i) Persistent Gap between Recognition and Application of Skills

PARAKH 2024 findings convey that students show competence in recognising patterns or performing straightforward operations, but low performance in applying these skills to real-life contexts. Fewer than 55% of Grade 3 students can handle basic money transactions or spatial measurement, and fewer than 30% of Grade 6 students demonstrate adequate fraction competency. This indicates that classroom learning remains overly procedural, with limited transfer to problem-solving beyond the textbook, an area NEP 2020 identifies as essential for competency-based learning.

(ii) Structural Weaknesses in Key Mathematical Concepts

Only 29% of students can represent or compare fractions, 38% can perform basic unit conversions, and 41% can describe location and movement or interpret maps accurately, as per PARAKH 2024 survey findings. Proficiency is also low in pattern extension in two and three-dimensional shapes and devising strategies for estimation of distance, perimeter, and area. These competencies form the conceptual bridge to algebra, geometry, measurement, and data handling in secondary education. Gaps here create a cumulative bottleneck, making it harder for students to access advanced STEM content.

(iii) Equity Gaps across Social Groups and Genders

According to PARAKH 2024 observations, students from SEDG achieve lower outcomes in both language and mathematics from the foundational stage onwards, with the gap persisting through higher grades. These differences stem from unequal access to early learning opportunities, limited home learning support, and reduced exposure to enrichment resources, resulting in a cumulative disadvantage over the years. Similar inequities in digital readiness have been pointed out in ASER

66 *Kosmyna, N., Hauptmann, E., Yuan, Y.T., Situ, J., Liao, X.-H., Beresnitzky, A.V., Braunstein, I., & Maes, P. (2025). Your brain on ChatGPT: Accumulation of cognitive debt when using an AI assistant for essay writing tas*

2024[67]. Though most adolescents have a smartphone in the household, girls are less likely than boys to have personal control over a device and hence demonstrate lower proficiency in key digital safety skills. Limited autonomy and capability in using digital tools reduce their opportunities for effective participation in technology-enabled learning.

4.2.3 Gaps in Student Well-being and Holistic Development

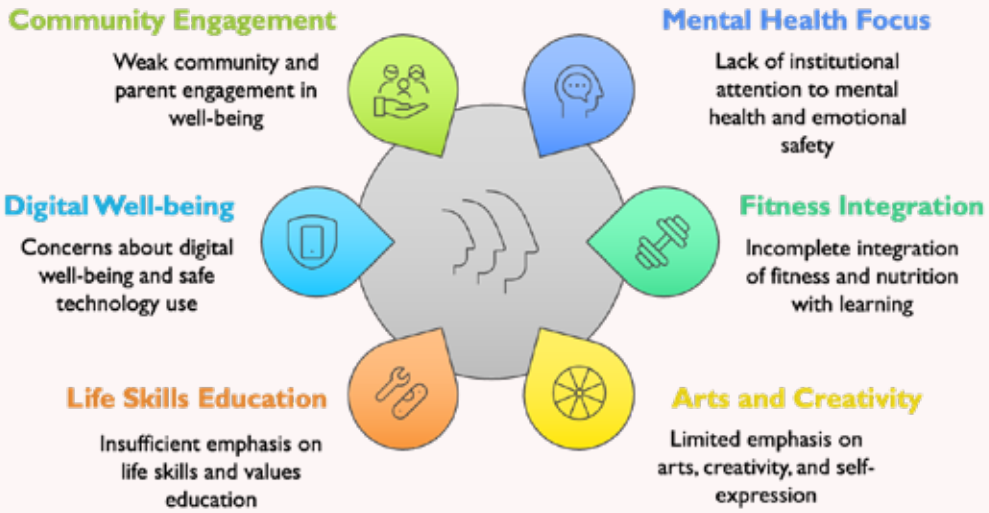


Figure 4.6: Student Well-being

(i) Incomplete Integration of Fitness and Physical Health, Nutrition with Learning

Physical and nutritional health has been identified as a priority in Indian school education missions for a long time, including schemes like Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) and the School Health and Wellness Programme. Access to nutrition and basic health services has increased in schools, but significant gaps in delivery remain. Many children face unaddressed health issues such as anaemia, poor vision, malnutrition, obesity, stunting, and other lifestyle-related conditions that directly affect regular attendance and learning engagement. According to NFHS-5, 59.1% of adolescent girls in India are anaemic, yet most schools are not equipped to respond adequately to such needs.

Although 75.5% of schools reported conducting medical check-ups in the last academic year, coverage is uneven, with only 32.7% of schools in Bihar conducting such screenings (UDISE+ 2024-25). Health education is not consistently integrated into the school day, and teachers often lack the training to recognise health-related learning barriers. Coordination between schools and local health systems is typically ad hoc, with limited follow-up after screenings. This results in poor health outcomes, which further impact attendance, enrolment and continued learning for students.

(ii) Weak Institutional Focus on Mental Health and Emotional Safety

Despite increasing recognition of student mental health challenges ranging from examination stress to post-pandemic isolation, school systems lack formalised mechanisms to address emotional well-being. In most schools, access to trained counselors is limited, and socio-emotional learning is yet to find a place in teacher training or classroom practice. Well-being is often treated as a personal issue rather than a shared institutional responsibility. While national initiatives such as "*Pariksha Pe*

67 *Chavan, M. (2024). The promise of technology. In Annual Status of Education Report 2024 (pp. 15-16). ASER Centre. ASER 2024*

Charcha"[68]have helped initiate dialogue, implementation at the school level is still uneven. In the absence of sustained school-level frameworks, signs of emotional distress frequently go unnoticed, affecting students' attendance, learning outcomes, and overall growth.

(iii) Insufficient Emphasis on Life Skills and Values Education

Life skills such as decision-making, empathy, teamwork, financial literacy, and digital safety are rarely embedded within school routines or curricula. Values education initiatives, while mentioned in policy documents, are inconsistently translated into classroom practice. As a result, many students complete schooling with academic credentials but without the resilience, adaptability, and ethical grounding required for higher education, employability, and social responsibility. The absence of structured programmes for social and emotional learning leaves gaps in preparing students for the complexities of modern life.

(iv) Limited Focus on Arts, Creativity, and Self-Expression

Despite recognition in NEP 2020 that arts, music, theatre, and cultural activities are critical for fostering creativity and holistic growth, these dimensions remain marginal in school practice. In most government schools, arts education is limited to one or two annual functions, often without dedicated instructors or structured pedagogy. The lack of specialist teachers, inadequate facilities, and the absence of curricular time allocation reduce opportunities for students to explore talents and build confidence. This undermines the development of critical life skills such as innovation, problem-solving, and collaboration, which are essential for 21st century learning.

(v) Digital Well-being and Safe Technology Use

The accelerated adoption of digital tools following the pandemic has amplified concerns around screen overuse, cyberbullying, online safety, and misinformation. While ICT integration in schools has expanded, systematic approaches to digital well-being remain weak. Students often lack guidance on responsible technology use, privacy safeguards, and balancing online and offline activities. The digital divide: unequal access to devices, connectivity, and digital literacy further compounds inequities, limiting meaningful engagement for large sections of learners. Without structured digital literacy and well-being frameworks, risks of social isolation and learning disparities increase.

(vi) Weak Community and Parent Engagement in Well-being

Student well-being is often approached as an intra-school matter, with limited engagement of parents and communities. Awareness programmes on adolescent health, nutrition, and mental well-being are sporadic and lack systematic follow-up. In the absence of strong partnerships between schools, parents, and local community organisations, early signs of distress frequently go unnoticed. This weakens the collective ecosystem of support necessary for addressing issues that extend beyond the classroom and ensuring continuity between home and school environments.

4.2.4 Challenges in Early Childhood Care and Education

Early Childhood Care and Education (ECCE) faces persistent systemic and structural challenges that hinder its effectiveness. These range from governance and workforce limitations to weak institutional linkages and inadequate funding, ultimately impacting school readiness and foundational learning outcomes.

68 *Press Information Bureau. (2025, February 9). Pariksha Pe Charcha: Empowering students, transforming lives [Press release]. Ministry of Education, Government of India.*

Figure 4.7: Challenges in Early Childhood Care and Education

(i) Fragmented Governance and Ambiguity in Systemic Ownership

NEP 2020 identifies ECCE as the foundational stage of learning. However ECCE continues to operate under bifurcated administrative structures, with the Ministry of Women and Child Development (MWCD) managing Anganwadis under Integrated Child Development Services (ICDS) and the Ministry of Education (MoE) supporting Balvatikas through Samagra Shiksha. This institutional separation results in overlapping mandates, unclear accountability, and a lack of coordination. As per the Government of India (Allocation of Business) Rules, 1961, "care of pre-school children including pre-primary education" is allocated to MWCD.[69]

Section 11 of the RTE Act (2009) obligates States to provide free pre-school education, yet its implementation varies widely due to the absence of a unified operational framework and limited inter-ministerial convergence. This ambiguity in governance and policy execution hampers the expansion of quality ECCE at scale.

(ii) Gaps in Professional Capacity

Many Anganwadi workers and ECCE functionaries lack formal training in early childhood pedagogy, child development, and age-appropriate learning methods. Pre-service preparation is minimal, and in-service training is irregular, often focused on administrative compliance rather than classroom practice. Without a strong professional development framework, ECCE delivery remains uneven, and the vision of NEP 2020 for high-quality early learning is compromised.

(iii) Overburdened Workforce

Anganwadi workers are responsible for a wide range of duties including nutrition tracking, immunisation support, and administrative reporting, leaving limited time and attention for early

69 *Government of India. (1961). Government of India (Allocation of Business) Rules, 1961 (as amended up to January 31, 2017) Cabinet Secretariat.*

education. As a result, the pedagogical component of ECCE is frequently deprioritised in practice. The imbalance between health-nutrition and education objectives weakens learning outcomes and limits holistic child development.

(iv) Poor Learning Preparedness and Limited School Readiness

Foundational gaps continue to persist at the ECCE level, particularly among children enrolled in Anganwadis. Data from Building Strong Foundations: Examining Early Childhood Education in India, 2023 show that a significant proportion of children perform below expected levels on key indicators of school readiness[70]. For instance, only 15% of students were able to match two familiar objects sharing the same initial sound in a phonemic awareness task, and 30% could accurately identify larger and smaller numbers within a set of single-digit numerals. Teachers also reported minimal differences in foundational skills between children who had attended ECCE centres and those who had not.

(v) Weak Linkages Between ECCE and Formal Schooling

The absence of systemic integration between Anganwadis and primary schools leads to a discontinuous learning experience. Children entering Grade 1 often lack foundational skills due to poor alignment between ECCE and early primary curricula. This disconnect undermines school readiness and diminishes the long-term benefits of early learning, particularly for children from disadvantaged backgrounds.

(vi) Cascading Impact of Weak ECCE and Foundational Literacy

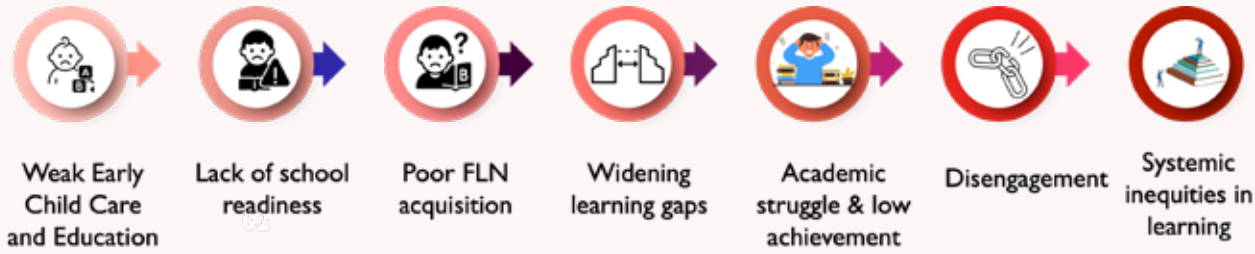


Figure 4.8: Cascading Impact of weak ECCE

Children who enter Grade 1 without adequate ECCE often lack cognitive, linguistic, and socio-emotional readiness required for formal schooling. This weak foundation hampers the acquisition of foundational literacy and numeracy (FLN) in the early grades. As students move ahead, these initial gaps widen into deep learning disparities, leading to academic struggle, disengagement, and low achievement[71]. Recent assessment findings in PARAKH 2024 reinforce this pattern, students lacking strong FLN skills in the early years consistently underperform across subjects in later grades. Without timely interventions, weak ECCE and FLN become systemic barriers, limiting the potential for meaningful learning and equity throughout the school system.

4.2.5 Challenges in Vocational Education

Vocational education has gained increasing policy attention in recent years. NEP 2020 (16.4) sets an ambitious target that "by 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education,". Yet, within the school system, vocational pathways faces structural and systemic challenges that limit their reach and effectiveness. The intended

70 *Central Square Foundation. (2023). Building strong foundations: Examining early childhood education in India.*
71 *UNICEF & UNESCO. (2024). The right to a strong foundation: Global report on early childhood care and education. UNICEF.*

shift from a stand-alone vocational model to an integrated skilling-with-schooling approach has remained partial and uneven across States and school types. Further, the absence of disaggregated vocational education data in UDISE+ 2024-25 constraints systematic assessment of vocational education, making it necessary to rely on policy reviews and secondary sources to assess progress and persistent gaps.

(i) Marginalisation within the School Curriculum

Vocational subjects occupy a peripheral role in most schools. Where introduced, they are often treated as optional or non-academic, with limited instructional time and little integration into the broader curriculum. In practice, vocational courses are frequently sidelined in timetables, receive minimal attention in assessment systems, and are rarely linked to progression pathways. This marginal position weakens their visibility, reduces student uptake, and reinforces the perception of vocational education as a secondary track rather than a mainstream component of schooling.

(ii) Infrastructural Deficits

The integration of skilling into regular schooling requires school infrastructure to support sustained hands-on and experiential learning. The majority of schools offering vocational courses lack the infrastructure needed to deliver meaningful training. Functional workshops, specialised laboratories, and industry-grade equipment are absent in most cases. Where facilities exist, they are often outdated, poorly maintained, or underutilised due to inadequate operational budgets. These gaps severely limit opportunities for hands-on learning and practical exposure.

(iii) Shortage of Skilled Trainers

Integrated skilling requires vocational trainers to be embedded within the school system as stable instructional resources. In practice, vocational trainers are often engaged through short-term contractual arrangements, with limited induction into school pedagogy and weak integration into the broader teaching ecosystem. The implementation review (2023) by MoE noted that more than 40% of sanctioned vocational trainer posts are vacant in several States, and many of those in position did not meet the required industry experience norms. These gaps weaken the quality and relevance of vocational courses, reduce student interest, and limit the employability value of the training received.

(iv) Limited Career Guidance and Negative Societal Perceptions

The integration of skilling with schooling also depends on shifting student, parental, and institutional perceptions. Despite policy emphasis on integrating vocational education into the mainstream from Grade 6 as per NEP 2020 Clause 16.4-16.6, vocational pathways in schools are often viewed as fallback options for students perceived to be academically weaker. This stigma, embedded in both societal attitudes and parental expectations, discourages many capable students from opting for skill-based subjects. The absence of structured career guidance within schools further compounds the problem. Most students and parents remain unaware of the breadth of opportunities in vocational domains, particularly in emerging sectors such as renewable energy, digital services, and advanced manufacturing. The lack of aspirational role models or widely publicised success stories in vocational fields weakens motivation. Without a clear articulation of career prospects, earnings potential, and pathways for further education, vocational education remains marginalised, limiting its uptake and long-term viability.

(v) Absence of Market Linkages and Regional Relevance

There is a significant disconnect between school-based vocational subjects and actual employment opportunities in local or regional markets. Most programmes do not reflect current skill demands, emerging sectors, or traditional livelihoods of the region. Schools rarely collaborate with industries, MSMEs, or community-level enterprises. As a result, students receive minimal real-world exposure, and the vocational curriculum often fails to translate into employability or entrepreneurial readiness.

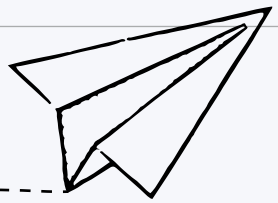
(vi) Fragmented Certification and Lack of Progression Pathways

The integration of skilling with schooling is constrained by fragmented certification and weak progression pathways. The absence of uniform national standards, portable industry-recognised credentials, and consistent credit transfer mechanisms limits the credibility and portability of school-based vocational qualifications. Variations in assessment and certification across States and sectors further affect recognition. Inadequate alignment between scool curricula, higher and technical education, and Sector Skill Council frameworks restricts seamless transition into advanced skilling, diploma, or degree programmes, reducing long-term employability and discouraging sustained participation[72].

72 *Press Information Bureau. (2024, July 22). New skilling initiatives and revamping the existing ones should continue to be of high priority to the Government-Economic Survey 2023-24. Ministry of Finance.*

Chapter V

POLICY RECOMMENDATIONS WITH IMPLEMENTATION ROADMAP AND PERFORMANCE SUCCESS INDICATORS



Chapter V

Policy Recommendations with Implementation Roadmap and Performance Success Indicators

The recommendations in this section draw on the deliberations of the National Workshop on Quality Education organised by NITI Aayog in February 2025. They are informed by insights from Central and State Government officials, policymakers, educationists, practitioners, and industry representatives, and guided by the provisions of NEP 2020. The proposals set out both short and long-term priorities, with a focus on practicality, scalability, and measurable impact. Good practices from States have also been incorporated to ensure contextual relevance and replicability. In this context, the recommendations also align with the broader need for a sustained, nationwide '*Sushikshit Bharat Abhiyaan*' to enhance learning outcomes, equity, and institutional capacity across school education.

Together, these recommendations aim to strengthen the overall governance architecture and enhance the quality of teaching and learning processes across the school education system. The section is structured under two broad themes: Systemic and Academic, which collectively address institutional reforms and pedagogical enhancement in a cohesive manner.

The implementation roadmap is envisaged as a flexible and adaptable framework, allowing States and UTs to contextualise implementation strategies in accordance with their institutional capacities, socio-economic conditions, and educational priorities.

A. SYSTEMIC RECOMMENDATIONS

1. Reform School System and Ensure Structural Continuity

1A. Strengthen School Provisioning through Composite Schools and Evidence-Based Rationalisation

1B. Operationalise School Complexes as Institutional Anchors for Equity, Continuity, and Resource Efficiency

2. Strengthen School Infrastructure

2A. Ensure Universal Access to Foundational Infrastructure

2B. Integrate Digital Infrastructure into Teaching, Learning, and School Governance

2C. Strengthen Laboratories, Libraries, and Resource Centres for Experiential Learning

3. Reform Governance and Enhance Administrative Capacity

3A. Rationalise Governance Structures and Enhance Local Autonomy

3B. Strengthen Institutional Capacity and Administrative Cadres

3C. Reform School Supervision and Academic Support Structures

3D. Develop Effective School Leadership through Structured Training and Decentralised Empowerment

3E. Strengthen State School Standards Authorities and Operationalise State School Quality Assessment and Assurance Frameworks

4. Institutionalise a "Whole-of-Society" Approach through State and District Task Forces on School Quality

4A. Establish State and District Task Forces on School Quality

5. Strengthen School Management Committees and Institutionalise Bottom-Up Planning

6. Elevate Teacher Deployment, Professional Capacity, and Career Progression

6A. Strengthen Teacher Deployment, Workforce Planning, and Time-on-Task Governance

6B. Improve Teacher Preparation, Subject Expertise, and Professional Development

7. Strengthen and Expand Digital and Broadcast-Based Learning for Inclusive Education

8. Promote Equity and Inclusion

8A. Strengthen Contextualised Support for Socially and Economically Disadvantaged Students

8B. Enhance Gender-Inclusive Systems

8C. Prevent and Address Dropouts through Education Continuity and Re-Entry Pathways

8D. Facilitate Education Continuity for Migrant and Mobile Populations

B. ACADEMIC RECOMMENDATIONS

1. Transform Pedagogy, Assessment, and Foundational Learning

1A. Shift from Textbook Completion to Foundational Mastery and Level-based Instruction

1B. Sustain Foundational Learning and Extending FLN Beyond Grade 3

1C. Contextualise and Localise Curricular Content for Inclusive Learning

1D. Institutionalise Competency-Based Assessments to Inform Pedagogy

2. Promote Holistic Education and Student Wellbeing

2A. Institutionalise School Health, Nutrition, and Preventive Care

2B. Strengthen School-Based Physical Health and Fitness

2C. Institutionalise Mental Health and Socio-Emotional Learning Systems

2D. Strengthen Holistic Education in Schooling

3. Strengthen Vocational Education and Skill Integration in Schooling

3A. Mainstream Vocational Education as an Aspirational and Integrated Pathway in Schooling

3B. Build Market Linkages and Enhance Regional Relevance of School-based Vocational Education

4. Strengthen ECCE

4A. Integrate ECCE with the Formal School System and Ensure Smooth Transitions

4B. Establish a Unified ECCE Governance and Implementation Framework

4C. Invest in ECCE Workforce Development and Professionalisation

5. Integrate Artificial Intelligence for Pedagogical Innovation and System Readiness

5.1 Systemic Recommendations

5.1.1 Reform School System and Ensure Structural Continuity

NEP 2020 calls for a coherent, developmentally aligned schooling structure that ensures academic continuity, efficient use of resources and equitable access across geographies. Experience from the SATH-E programme[73] shows that structural reforms are most effective when implemented through a phased, data-driven and institutionally anchored approach at the district level. States may therefore adopt a two-part strategy that strengthens school provisioning and establishes school complexes as functional academic and governance units.

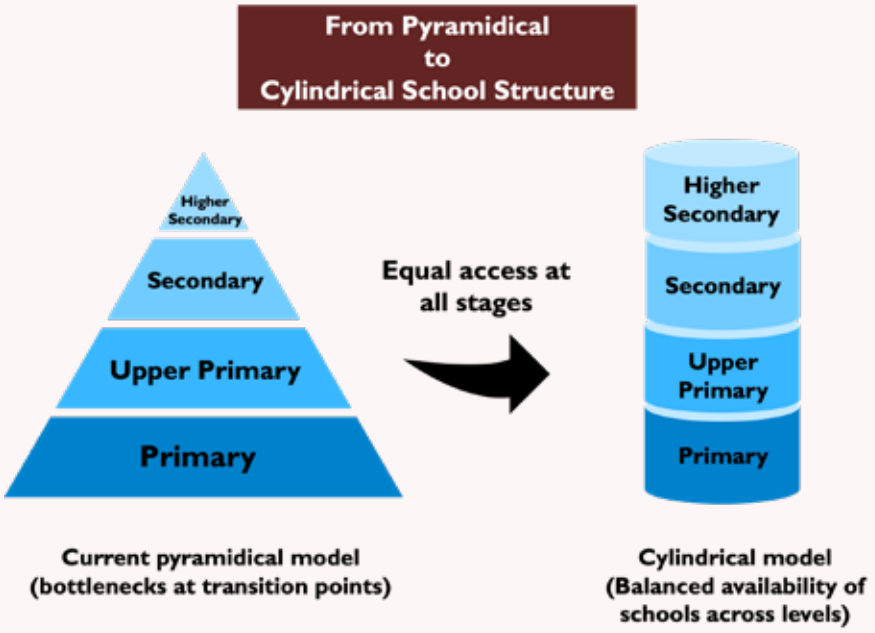


Figure 5.1: Pyramidical to Cylindrical Schooling Structure

(i) Strengthen School Provisioning through Composite Schools and Evidence-Based Rationalisation

The transition from a pyramidal school structure to a more cylindrical configuration, as illustrated in Figure 5.1, is central to creating continuous and developmentally aligned learning pathways. A cylindrical structure enables students to move through primary, upper-primary, secondary and higher secondary stages within coherent institutional arrangements, reducing unnecessary transitions and supporting smoother academic progression. Organising schools in this manner also supports the delivery of the 5+3+3+4 curricular design and allows for more balanced distribution of infrastructure, staffing and academic resources.

In line with NEP 2020 (Clauses 4.1 and 7.4), and drawing on lessons from SATH-E, States may undertake a phased and evidence-based approach to strengthen school provisioning. Composite schools covering at least Grades 1-10, and preferably 1-12, should be expanded, particularly in Aspirational Districts and areas with high dropout. Alongside this, school rationalisation may be carried out to reorganise under-enrolled, single-teacher, multi-grade and non-functional schools, while ensuring safe access for all learners, using the consolidation typologies illustrated in Figure

73 *See Section 1A.4: Academic Recommendations of this report.*

5.2 as suggested by SATH-E. Selected anchor schools may be upgraded as exemplar institutions to attract voluntary enrolment, supported by teacher redeployment to ensure balanced staffing across both upgraded and consolidated schools.

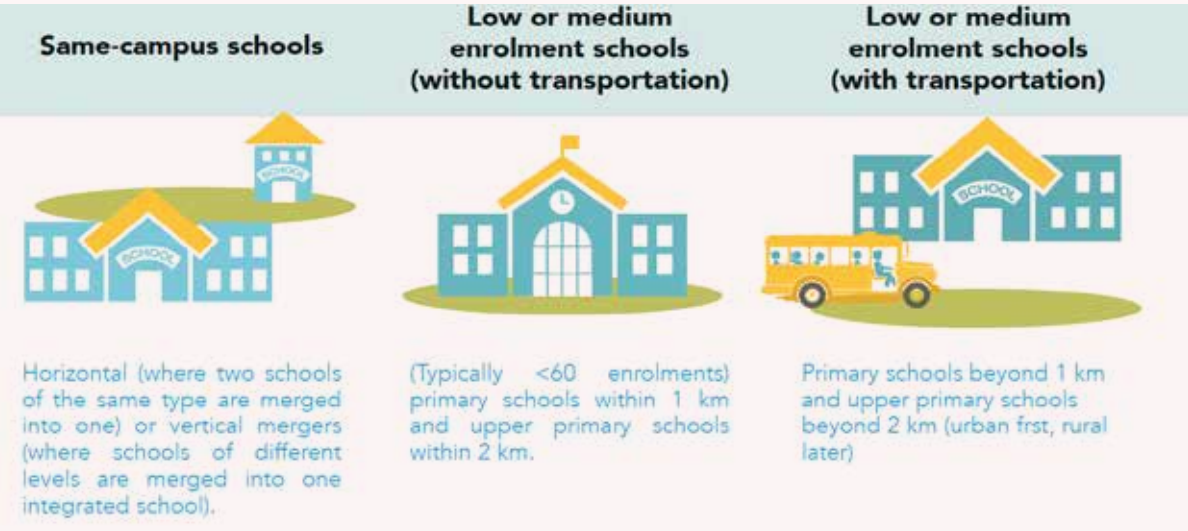


Figure 5.2: School Consolidation Models as suggested under SATH-E[74]

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct GIS and UDISE+ based mapping to identify transition gaps, small and under-enroled schools, and feasible consolidation clusters.
- Issue State guidelines on composite school expansion and rationalisation criteria.
- Pilot composite school models and consolidation plans in selected districts, following SATH-E's diagnostic and phased implementation approach as can be seen in the Figure 5.3.
- Review teacher deployment norms to support shared staffing and balanced teacher allocation across upgraded schools.
- Begin infrastructure assessments and targeted upgrades for prioritised anchor schools.
- Conduct community sensitisation on the benefits of continuous schooling pathways and rationalisation, targeted towards dropout prone groups.

Medium-Term (2-5 Years)

- Scale composite schools across districts based on pilot learnings.
- Implement phased rationalisation, ensuring transport, hostel arrangements where required.
- Integrate rationalisation and composite school plans into district annual work plans under Samagra Shiksha.
- Strengthen district and block support mechanisms for academic and administrative follow-up.
- Develop dashboards linked to UDISE+ to track transitions, enrolment and infrastructure improvements.
- Integrate EWS into Student Database Systems (SDMIS/CTS) and attendance applications.

74 *NITI Aayog. (2023). Learnings for large-scale transformation in school education: Project SATH-E (Report).*

Long-Term (5+Years)

- Institutionalise composite schools as the default provisioning model .
- Embed rationalisation cycles into annual district planning based on UDISE+ trends and demographic shifts.
- Align infrastructure investments and staffing systems with composite school structures for long-term sustainability.

B Actors Responsible

- DoSE&L
- State Education Departments, SCERTs
- DIETs, District Education Office/Block Education Office
- SMC, School Development and Management Committee (SDMC), Parents, Local Community Stakeholders

C Performance Success Indicators

- Percentage of schools upgraded to composite institutions
- Reduction in schools with <20 enrolment
- Reduction in single-teacher and multi-grade schools
- Increase in average enrolment per school
- Percentage of anchor schools upgraded with essential infrastructure

D Central Government Initiative

PM SHRI Schools (PM Schools for Rising India) scheme[75]

Approved in September 2022, it is a centrally sponsored initiative to upgrade over 14,500 existing government and government-aided schools as exemplar institutions showcasing all components of NEP 2020. With a five-year outlay of ₹27,360 crore (Central share ₹18,128 crore), these schools will feature modern infrastructure, green practices, ICT-enabled classrooms, vocational education, and flexible, competency-based pedagogy, while mentoring neighbouring schools. Selection is through a three-stage challenge process, with up to two schools per block/urban local body. The scheme aims to improve learning outcomes, foster 21st century skills, and nurture holistic development, benefiting over 18 lakh students directly and influencing many more through mentorship.

75 *Ministry of Education, Government of India. PM SHRI Schools.*

Project SATH – E, NITI Aayog

Project SATH-E (Sustainable Action for Transforming Human Capital – Education), initiated by NITI Aayog in 2017, aimed to demonstrate how a State system could improve learning outcomes through coordinated academic and administrative reforms. Three States: Jharkhand, Odisha, and Madhya Pradesh implemented the programme, each adapting the broader reform agenda to their own needs. The project focused on strengthening classroom learning through competency-based teaching, running State-wide Learning Enhancement Programmes, improving assessments, training teachers at scale, reorganising small schools, and building stronger monitoring systems. Each State also rolled out its own learning programme: Dakshata Unnayan in Madhya Pradesh, Ujjwal-Utthan in Odisha, and Gyan Setu in Jharkhand.

The interventions carried out under SATH-E led to noticeable improvements in learning levels and in the way school systems functioned. Close to 2.3 crore students received organised remedial support, and the introduction of regular, data-based reviews supported by nearly 1.5 lakh monthly school inspections which strengthened academic oversight. The State programmes also showed encouraging results: Madhya Pradesh reported that roughly 30% of students moved from lower achievement bands to the highest group. Odisha recorded 10-15% gains. Jharkhand achieved 12% improvement across major competencies. Collectively, these results indicate that steady, well-coordinated academic interventions combined with stronger governance mechanisms can produce measurable progress at scale.

E State Good Practice

School Rationalisation Programme, Rajasthan[76]

This initiative addressed inefficiencies in Rajasthan's fragmented school network, where nearly 35% of schools had fewer than 30 students per grade and struggled with poor infrastructure, teacher shortages, and weak learning outcomes. The state consolidated 2,866 primary and 2,997 upper primary schools into larger, better-resourced institutions based on proximity and RTE norms.

Adarsh Vidyalayas (composite schools offering Classes 1 to 12 at the Gram Panchayat level) were introduced to ensure vertical progression, improve retention, and enable optimal teacher deployment. Administrative structures were streamlined, with headmasters appointed for merged clusters, thereby strengthening accountability and governance. Rationalisation reduced the number of single-teacher and single-classroom schools, improved infrastructure, ensured specialist teachers, and provided students with access to diverse peer groups and richer learning environments. By concentrating funds in fewer functional schools, the reform also improved cost-efficiency. Rajasthan now has the highest number of composite (1-12) schools.

(ii) Operationalise School Complexes as Institutional Anchors for Equity, Continuity, and Resource Efficiency

To strengthen academic continuity, ensure equitable resource allocation, and enhance the efficiency of school governance. School complexes should be operationalised as envisaged in NEP 2020, Clause 7.6. The concept envisions grouping one secondary or senior-secondary school with all schools offering lower grades within a defined neighbourhood (typically within a 5 to 10 kilometre radius), including nearby Anganwadis.

By aggregating academic and administrative functions across schools, school complexes enable optimal deployment of subject-specific teachers, science and ICT labs, libraries, sports infrastructure,

76 *NITI Aayog. Best practice detail. NITI for States.*

and vocational education offerings such as skill labs. They can also facilitate peer learning among teachers, joint professional development, and enhanced monitoring and mentorship systems. This model becomes particularly critical in rural, remote, and tribal regions where standalone schools may not have the resources to offer complete educational experiences.

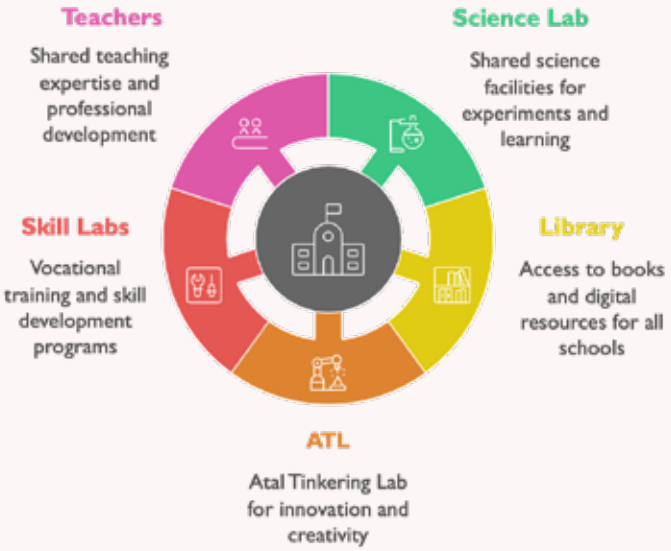


Figure 5.3: Resource sharing via Nodal Schools

A Implementation Roadmap

Short-Term (0-2 Years)

- Develop state-specific operational frameworks for school complexes, including criteria for selecting nodal schools, institutional linkages, and governance mechanisms.
- Identify and notify clusters of proximate schools (1-2 secondary schools with surrounding foundational, preparatory, and middle-stage schools) in each block.
- Issue formal administrative orders linking schools under each complex and initiate joint planning processes through School Complex Committees (SCCs) or Block Resource Groups (BRGs).
- Ensure convergence of schemes (e.g., Samagra Shiksha, PM SHRI, ICT labs, Atal Tinkering Labs (ATLs), vocational education) within complexes.

Medium-Term (2-5 Years)

- Build common infrastructure in nodal schools to serve cluster needs, multi-purpose halls, science labs, ATLs for fostering innovation and design thinking, libraries, sports grounds, and DIKSHA-based digital access points.
- Establish cluster-level academic monitoring and teacher development cells supported by SCERTs/DIETs.
- Roll out teacher-sharing frameworks across schools in a complex, particularly for STEM and language teachers.
- Develop school complex-wise data dashboards within UDISE+ to track attendance, retention, learning outcomes, and resource usage.

Long-Term (5+Years)

- Align teacher deployment, infrastructure funding, and performance management systems with school complex structures.
- Create mechanisms for sustained professional collaboration among teachers within complexes through school visits, peer observation, and cluster-based in-service training.
- Establish ATLs in all nodal secondary schools under school complexes to promote innovation, problem-solving, and applied STEM learning for students across cluster schools.

B Actors Responsible

- DoSE&L
- State Education Departments
- District Education Offices/Block Resource Centres
- SCERTs/District Institutes of Education and Training (DIETs)
- SMC/SDMC

C Performance Success Indicators

- Percentage of secondary schools functioning as nodal institutions for operationalised school complexes
- Percentage of teachers participating in shared deployment or professional development activities within complexes
- Percentage increase in access to specialised infrastructure (e.g., science labs, libraries) through shared use
- Percentage improvement in transition and retention rates between school stages within complex clusters

D State Good Practice

Lighthouse School Complexes, Nagaland[77]

The Lighthouse School Complexes (LSCs) in Nagaland, developed under the World Bank-supported NECTAR project, aim to transform education through a hub-and-spoke model aligned with the NEP 2020 vision of school complexes. By 2026, at least one model LSC would be established in each of the state's 16 districts, serving as a hub of academic excellence for neighbouring "spoke" schools. Each complex would provide shared governance, infrastructure, academic resources, and teacher training, ensuring consistent quality and school improvement across districts.

The initiative addresses critical challenges such as poor infrastructure, limited resources, fragmented governance, and low teacher capacity, particularly in remote and tribal areas. LSCs focus on holistic and inclusive education, strengthen community participation, and promote local knowledge, while enabling smoother student transitions across school stages to reduce dropouts. Facilities have been upgraded with smart classrooms, CwSN-friendly infrastructure, libraries, and digital tools. Professional Learning Communities (PLCs) and platforms like the SMILE app enable continuous teacher professional development and data-driven decision-making. By pooling funds, infrastructure, and human capital, the model fosters collaboration, resource efficiency, and the creation of quality learning environments across the state.

77 *Lighthouse School Complexes Nagaland. State policy and implementation.*

5.1.2 Strengthen School Infrastructure

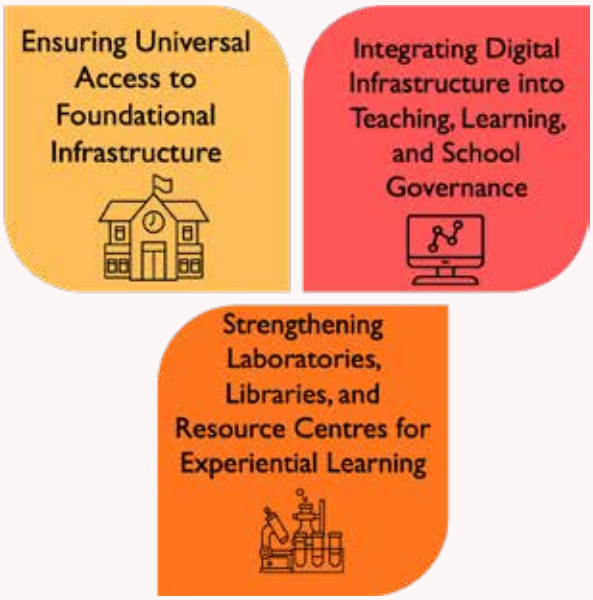


Figure 5.4:Strengthen school infrastructure

(i) Ensure Universal Access to Foundational Infrastructure

To ensure equitable and uninterrupted access to education, every school must be equipped with foundational physical infrastructure that enables a safe, inclusive, and conducive learning environment. This includes universal access to electricity, drinking water, boundary walls, gender-segregated functional toilets, and hygiene facilities, with special focus on underserved and remote areas. As envisioned in the principles of NEP 2020, a good educational institution is one that ensures every learner feels welcomed, safe, and supported, provides a stimulating and inclusive learning environment, and offers diverse and holistic learning experiences.

This principle can be operationalised by adopting a minimum infrastructure benchmark and ensuring time-bound provisioning of essential facilities across all schools. States may also undertake annual infrastructure audits using UDISE+ data and GIS-enabled verification to ensure real-time visibility, prioritised upgrades, and effective utilisation of funds under Samagra Shiksha and the Swachh Vidyalaya Abhiyan.

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct a nationwide gap assessment using UDISE+, GIS, and school inspection data to identify schools lacking electricity, toilets, water supply, boundary walls, and ramps along with basic physical infrastructure like classroom size, desks, balckboards and playgrounds.
- Prioritise infrastructure provisioning in Aspirational Districts, tribal blocks, and areas with high dropout rates, leveraging convergence with Jal Jeevan Mission (JJM), Swachch Bharat Mission (SBM), and Rural Infrastructure Development Fund (RIDF)- National Bank for Agriculture and Rural Development (NABARD).
- Conduct a state-wide audit of electricity and Water, Sanitation, and Hygiene (WASH) facilities, prioritise gaps by district, and initiate immediate works in schools lacking basic access, with quarterly progress reviews at the school complex level.

- Mandate boundary walls and adequate classroom space in all government schools as a criterion for safety, especially for girls and younger children.
- Operationalise an infrastructure quality assurance system under Samagra Shiksha, including online dashboards for real-time monitoring.

Medium-Term (2-5 Years)

- Upgrade all identified schools to meet minimum infrastructure norms, including disability access, energy-efficient lighting, and WASH facilities.
- Institutionalise coordination mechanisms between Education, Rural Development, Health, and Public Works Department to ensure timely completion and maintenance.
- Launch community-led infrastructure monitoring initiatives, involving SMCs and local Panchayats for asset upkeep and grievance redressal.
- Institutionalise an annual school infrastructure audit cycle through convergence with JJM, Swachh Bharat, MGNREGA, and state rural development schemes.
- Ensure effective utilisation of Samagra Shiksha provisions for WASH maintenance by strengthening district-level plumbing, repair, and response systems, and by improving monitoring of routine maintenance and functionality.
- Establish gender inclusive and disability-inclusive infrastructure as a core component of accreditation and quality assurance frameworks.

Long-Term (5+ Years)

- Embed infrastructure provisioning into school development plans and mandate annual infrastructure audits linked to funding decisions.
- Develop climate-resilient infrastructure prototypes for flood/drought-prone areas to ensure continuity of schooling.

B Actors Responsible

- DoSE&L
- Ministry of Jal Shakti
- Ministry of Rural Development (MoRD)
- Ministry of Housing and Urban Affairs (MoHUA)
- State Education Departments
- State Rural Development Department and PWD
- District Education Office
- PRIs and Urban Local Bodies (ULBs)
- SMCs, SMDCs, Parents

C Performance Success Indicators

- Percentage of schools with functional electricity and drinking water connections
- Percentage of schools with gender-segregated toilets
- Reduction in girls' absenteeism at the secondary level due to infrastructure barriers
- Annual WASH audit completion rate and grievance resolution time
- Percentage of infrastructure data validated through UDISE+ and GIS mapping

D State Good Practice

Rupantaran, Uttarakhand[78]

Launched in 2018 in Almora, Rupantaran began as a community-driven effort to improve government school infrastructure and has expanded to 160 schools across all 13 districts. The initiative focuses on creating child-friendly, vibrant, and hygienic learning environments by upgrading classrooms, furniture, washrooms, and drinking water facilities, as well as playgrounds and libraries. Schools were also equipped with smart TVs, internet, AV rooms, and dedicated spaces for music, yoga, and recreation. A flexible funding model enabled strong participation from community and local leadership. The result has been a three-to four-fold increase in enrolment, improved attendance, and renewed public trust in government schools.

(ii) Integrate Digital Infrastructure into Teaching, Learning, and School Governance

Digital infrastructure must be treated as a core component of educational provisioning, not an add-on. Every school should have functional computing facilities, reliable internet connectivity, and digital teaching-learning tools to support 21st century competencies and system-wide efficiency. NEP 2020 envisions use and integration of technology to improve multiple aspects of education. There is also a need to invest in the creation of open, interoperable, and evolvable Digital Public Infrastructure (DPI) in the education sector that can be used by multiple platforms and point solutions, to address India's scale, diversity, complexity, and device penetration. (Clause 24.4b)

To realise this vision, schools must be supported with both hardware and the necessary ecosystem, teacher training, technical support, and integration into classroom practice. National programmes such as PM eVidya, BharatNet, and Gati Shakti should be converged to accelerate infrastructure rollout and enable equitable digital access across school levels.

A Implementation Roadmap

Short-Term (0-2 Years)

- Identify and prioritise schools lacking computers or internet using UDISE+; target underserved regions for first-phase provisioning.
- Ensure convergence with BharatNet and PM Gati Shakti to deliver broadband access to all secondary and higher secondary schools.
- Provide baseline ICT training for all teachers (not limited to ICT instructors), supported by DIETs and SCERTs, to avoid idle infrastructure.
- Ensure provisioning of at least one functional digital classroom per secondary school with internet access, a display device, and charging infrastructure.

Medium-Term (2-5 Years)

- Develop state-specific digital blueprints covering hardware provisioning, uptime protocols, cybersecurity, and localised content integration.
- Expand digital access within classrooms, including Wi-Fi connectivity, smart boards, and device-to-student ratios aligned with national benchmarks.
- Institutionalise Digital Infrastructure Maintenance Grants under Samagra Shiksha to ensure functionality of devices, power backup, and hardware repairs.

78 *National Institute of Educational Planning and Administration. (2023). National Award for Innovations and Good Practices in Educational Administration 2020-21 & 2021-22.*

- Expand teacher training on ICT-based pedagogy through blended models, integrating it into CPD frameworks by SCERTs and DIETs.
- Promote the use of learning management systems (LMS), assessment dashboards, and smart attendance systems in composite and secondary schools.
- Introduce digital literacy modules into the school curriculum, aligned with NCERT's ICT curriculum guidelines.

Long-Term (5+Years)

- Achieve universal digital infrastructure coverage across all secondary and senior secondary schools, with clear provisioning norms per school category.

B Actors Responsible

- DoSE&L
- Ministry of Electronics and IT / BharatNet
- State Education Departments, SCERTs
- District Education Office, DIETs
- PRIs, ULBs
- SMCs, SDMCs, Parents

C Performance Success Indicators

- Percentage of schools with at least one functional digital classroom with internet
- Percentage of teachers trained in digital pedagogy and LMS usage
- Percentage of schools actively uploading data on UDISE+/SDMIS without third-party assistance
- Student digital literacy levels in Grades 6-10 (via NAS or state assessments)

D State Good Practice

Gyankunj Initiative, Gujarat[79]

The Gyankunj Initiative by the Government of Gujarat is a large-scale school digitalisation programme aimed at enhancing the quality of education and transforming classroom teaching-learning in government schools by integrating technology. Launched in 2017, it has successfully made digital technology more widely accessible, bridged the digital divide and equipped students for a technology-driven future. The initiative has been implemented across 1,609 schools in 33 districts, impacting over 2.85 lakh students in classes 5 to 8. Classrooms were equipped with smart boards, projectors, laptops, and internet connectivity to facilitate interactive, visually engaging teaching. The initiative also introduced over 3,000 animated videos, digital content covering 450+ textbook units, virtual science labs, and gamified learning tools to support deeper comprehension. Teachers received regular training and access to a 24/7 digital support system to ensure effective integration of these tools. By providing 10,000 tablets to select schools, Gyankunj encouraged student-led digital learning and skill development. The initiative has enhanced student engagement, improved subject clarity, and fostered digital literacy, while empowering teachers with innovative pedagogical methods.

79 *Samagra Shiksha Gujarat. Gyankunj smart classroom programme.*

(iii) Strengthen Laboratories, Libraries, and Resource Centres for Experiential Learning

Academic infrastructure, particularly science laboratories and school libraries, must be revitalised to enable experiential learning, promote inquiry, and support independent thinking across all schooling stages. These are not peripheral add-ons, but essential to delivering the pedagogical intent of the curriculum and achieving the learning outcomes envisioned under NEP 2020, Clauses 4.9 and 4.24. Laboratories must become accessible, well-maintained, and pedagogically embedded components of secondary schooling. Simultaneously, libraries should be reimagined as active learning spaces, integrated with regular reading programmes, and staffed with trained facilitators.

States may adopt a two-pronged strategy: (a) Expand access to functional labs and curated libraries, especially in government secondary and senior secondary schools, and (b) Strengthen institutional capacity to sustain them through staff, resources, and academic integration.

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct state-wide audits of school labs and libraries to identify gaps in equipment, space, materials, and staff.
- Notify minimum lab infrastructure standards under Samagra Shiksha for universal adoption across states.
- Launch targeted school library revival drives in collaboration with SCERTs, public libraries, and community networks.
- Curate graded and multilingual library resources aligned with curricular themes and reading levels.
- Reactivate libraries as reading centres in selected schools with curated books and reading corners.
- Upgrade CwSN-inclusive schools with dedicated resource rooms equipped with assistive devices and teacher aides.
- Launch science clubs and reading programmes to foster a culture of inquiry and self-learning in schools.

Medium-Term (2-5 Years)

- Institutionalise annual lab and library grants under Samagra Shiksha for upgrades, consumables, and materials.
- Issue library operational guidelines: minimum reading hours, activity calendars, and student access rules.
- Ensure every secondary/senior secondary school has at least one functional STEM lab with clear maintenance protocols.
- Recruit/designate trained librarians and lab assistants; orient teachers in activity-based pedagogy.
- Integrate library and lab use into school quality assessment frameworks and state inspection protocols.

Long-Term (5+ Years)

- Collaborate with NCERT and the National Digital Library to provide curriculum-aligned materials and virtual science resources.

B Actors Responsible

- DoSE&L, NCERT
- NUEPA
- State Education Departments
- SCERTs, DIETs
- District Education Office

C Performance Success Indicators

- Percentage of secondary schools with at least one functional science lab
- Percentage of schools with operational libraries integrated into weekly timetables
- Library usage metrics - average books borrowed per student per month
- Student participation in lab activities and science exhibition

D State Good Practice

We Love Reading campaign, Andhra Pradesh[80]

The Government of Andhra Pradesh launched the "We Love Reading" campaign to address low foundational literacy among students in Classes 3 to 9. ASER 2018 showed that over 77% of Grade 3 and 42% of Grade 5 students could not read a Grade 2-level text, undermining learning across all subjects. Recognising this as a critical barrier to curriculum engagement and long-term academic success, the state designed a year-long programme in four phases: Preparatory, Foundational, Advanced, and Valedictory, each with targeted activities, tasks, and assessments. Baseline reading tests grouped students by skill level rather than grade, enabling differentiated instruction and targeted interventions.

Schools created reading corners, set up book banks, introduced two daily library periods in English and Telugu, and opened community reading centres. Reading Melas were organised for students to showcase progress and celebrate achievements, while Book Banks encouraged community donations to expand access to age-appropriate material. Over 45,000 schools participated, with 72% establishing functional libraries. The initiative improved reading proficiency, strengthened classroom participation, and built student confidence. By embedding community engagement and creating a culture of reading, the campaign not only addressed immediate learning deficits but also laid a strong foundation for sustained literacy growth.

5.1.3 Reform Governance and Enhance Administrative Capacity

(i) Rationalise Governance Structures and Enhance Local Autonomy

Effective school transformation requires a rationalised governance structure where roles are clearly defined, and local actors are empowered with decision-making authority. NEP 2020 Clauses 7.6 and 7.8 highlight the importance of decentralisation through school complexes and call for empowering school leaders to respond contextually to local needs.

80 *Samagra Shiksha, Andhra Pradesh. (2021). "We Love Reading" campaign: Foundational reading literacy programme (State-specific programme). Government of Andhra Pradesh.*

A Implementation Roadmap

Short-Term (0-2 Years)

- Redesign institutional structures at Central, State, and District levels by mapping and clarifying the roles and responsibilities of education departments, directorates, SCERTs, DIETs, District Education Officers (DEOs), Block Education Officers (BEOs), Cluster Resource Person (CRPs), and Block Resource Persons (BRPs).
- Develop and notify functional role manuals to avoid duplication and establish clear accountability mechanisms.
- Issue State guidelines for operationalising the school complex system, specifying procedures for joint planning, teacher sharing, resource pooling, and community engagement.
- Notify autonomy provisions for school heads covering school calendar adjustments, use of grants, and initiation of localised programmes.

Medium-Term (2-5 Years)

- Establish District Education Planning Cells to support school complexes with data-driven decision-making and coordination between departments.
- Conduct regular capacity-building programmes for PRIs and SMCs to strengthen their oversight, planning, and learning monitoring capabilities.
- Monitor school complex operations annually to assess utilisation of autonomy and collaboration outcomes.

B Actors Responsible

- DoSE&L
- State Education Departments
- SCERTs and DIETs
- PRIs and ULBs

C Performance Success Indicators

- Percentage of States with updated functional organograms and role manuals
- Percentage of school complexes with formal autonomy provisions notified
- Percentage of PRI/SMC members trained in governance and monitoring

D State Good Practice

Performance Incentive Grants, Nagaland[81]

The Performance Incentive Grants (PIG) initiative under the NECTAR project in Nagaland is actively driving community involvement in school governance. Under PIG, financial grants are provided to SMCs and SMDCs of government schools, empowering them to plan and execute developmental activities according to local needs. To ensure effective implementation and capacity-building, SMCs and SMDCs undergo mandatory training in governance, project management, and financial monitoring before receiving funds. Grants are disbursed in instalments over two years, with regular progress and performance reviews after each phase.

The approach encourages the committees to formulate annual school development plans, maintain records, and oversee and supervise implementation, CPD workshops, needs assessment, and mentoring sessions, further strengthening local leadership. Community participation is enhanced as SMCs/SMDCs mobilise local resources, engage with parents, and monitor school improvement projects. Regular monitoring by the Project Management Unit and district administrators ensures accountability and quality, with schools receiving subsequent grant instalments only based on progress and verified outcomes. Through PIG, more than 1,900 SMCs and SMDCs across Nagaland have directly contributed and driven grassroots change, resulting in enhanced learning environments, cultivating a sense of ownership among community members, and building sustained local engagement in school governance.

(ii) Strengthen Institutional Capacity and Administrative Cadres

An effective education system requires not just policies but a strong institutional capacity to deliver on them. Yet, Block and District Education Offices in many States suffer from acute vacancies, unclear functional mandates, and weak academic-administrative coordination. NEP 2020 emphasises restructuring and strengthening the education departments and institutions at all levels to ensure effective implementation of reforms. (Clauses 27.1 & 27.2)

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct a comprehensive vacancy mapping of all administrative positions from the Block to the State level, including Cluster Resource Coordinators (CRCs), Block Education Officers (BEOs), and MIS personnel.
- Fill critical vacancies at block and district levels through time-bound recruitment drives, prioritising academic support and field-level monitoring posts.

Medium-Term (2-5 Years)

- Launch state-wide training and certification programmes for CRPs, BEOs, and other district/block officers in collaboration with NUEPA and SCERTs, focusing on school leadership, instructional coaching, data analytics, financial management, and academic planning.
- Initiate a digital Human Resource Management Information System (HRMIS) for real-time vacancy tracking, transfer/posting management, and performance review.

81 *Nagaland Education Project. (2024). Performance incentive grants.*

Long-Term (5+Years)

- Institutionalise career pathways with provisions for lateral movement between administrative and academic roles to build a versatile cadre.

B Actors Responsible

- NUEPA
- State Education Departments
- Department of Personnel and Administrative Reforms
- SCERTs and DIETs

C Performance Success Indicators

- Percentage of sanctioned administrative posts filled at block/district level
- Percentage of CRPs trained and actively engaged in academic mentoring
- Percentage of officers completing annual training modules
- Existence of functional HRMIS and performance appraisal systems

(iii) Reform School Supervision and Academic Support Structures

India's school supervision framework remains rooted in a compliance-driven legacy model that prioritises administrative checklists over academic engagement. This approach often fails to strengthen teacher capacity or drive improvements in classroom practice. At the same time, there are early indications of a gradual shift towards more outcome-oriented approaches. For instance, the Central Board of Secondary Education (CBSE) has introduced the School Quality Assessment and Assurance Framework (SQAAF), which places greater emphasis on learning outcomes, pedagogical processes, teacher professional development, and school leadership, alongside compliance parameters. Several State Boards are also undertaking reforms to reorient inspection and review mechanisms towards academic support, though these efforts remain uneven across jurisdictions. Overall, there is a need to reframe supervision as a developmental, mentorship-oriented process that empowers school leaders and teachers. The transition from inspection to continuous instructional support is essential to foster a culture where school visits serve as opportunities for academic guidance, reflective practice, and collaborative problem-solving as envisioned in NEP 2020. (Clause 8.1)

A Implementation Roadmap

Short-Term (0-2Years)

- Review and revise the current school supervision guidelines to shift the focus from compliance to academic mentorship and instructional support.
- Build the capacity of CRPs and academic coordinators in instructional leadership, mentorship techniques, and teacher support.
- Develop standardised academic planning templates, peer observation formats, and teacher self-reflection tools for use across all schools.

Medium-Term (2-5 Years)

- Strengthen DIETs to function as district level academic nodal institution.
- Revamp CRP workloads to enable regular classroom visits, follow-up support, and continuous mentoring for teachers.
- Introduce digital platforms for real-time logging of school visits, documentation of classroom practices, and sharing of resources, enabling evidence-based instructional support.
- Establish periodic refresher training and mentorship certifications for school support staff and CRPs.

Long-Term (5+ Years)

- Embed instructional mentoring as a core responsibility in school evaluation systems.

B Actors Responsible

- State School Education Departments
- SCERTs and DIETs
- Block and District Education Offices

C Performance Success Indicators

- Percentage of teachers receiving mentoring support
- Percentage of school visits focused on academic support and mentorship
- Percentage of CRPs providing regular in-classroom mentoring
- Number of trained academic mentors deployed at the block/district levels
- Frequency of peer observation and joint lesson planning sessions

(iv) Develop Effective School Leadership through Structured Training and Decentralised Empowerment

School leaders shape both the academic direction and the working culture of their schools. There is a clear need to strengthen the role of principals as leaders of change. Instructional leadership has a strong and measurable influence on student achievement, emphasising the importance of targeted investment in school leadership[82]. A comprehensive leadership development strategy should combine structured training, continuous professional development, and greater autonomy to enable school heads to lead academic improvement, foster inclusive environments, and engage meaningfully with communities.

A Implementation Roadmap

Short-Term (0-2 Years)

- Institutionalise structured induction training for all newly appointed school heads with modules on academic leadership, inclusive practices, and school planning.
- Deliver leadership programmes through NISHTHA, NUEPA, and SCERTs, supplemented with online components.

82 *UNESCO. (2024). Global Education Monitoring Report 2024/25: Leadership in education: Lead for learning. Paris: UNESCO*

- Introduce periodic 360-degree assessments to inform customised development plans for school heads.

Medium-Term (2-5 Years)

- Develop and adopt a national competency framework for school leadership aligned with NEP 2020 and NCF-SE.
- Empower school heads with operational autonomy in areas such as budget planning, resource allocation, teacher deployment, and innovation in pedagogy.
- Establish a leadership progression pathway with performance-linked roles (e.g.,Vice Principal, Mentor Principal).

Long-Term (5+Years)

- Strengthen SCERTs to serve as hubs for training, mentoring, and research.

B Actors Responsible

- DoSE&L
- NUEPA and National Centre for School Leadership (NCSL)
- SCERTs and State Education Departments

C Performance Success Indicators

- Percentage of school heads completing NEP 2020 aligned leadership training within the first year
- Percentage of schools reporting enhanced decision-making autonomy for heads
- Measurable improvement in school performance metrics (e.g., student retention, learning outcomes) in schools led by trained principals

(v) Strengthen State School Standards Authorities (SSSAs) and Operationalise State School Quality Assessment and Assurance Frameworks (SQAAF)

NEP 2020 recommends the establishment of independent State School Standards Authorities in every State/UT as a single regulator for all public and private schools. (Clauses 8.4, 8.5). To support transparent, objective, and continuous quality assurance, States must consider developing and operationalising a State School Quality Assessment and Assurance Framework (SQAAF) as the primary mechanism for assessing school quality and performance.

This SSSA would be responsible for setting and enforcing minimum standards related to school safety, infrastructure, teacher qualifications, and learning outcomes, and for overseeing their implementation through SQAAF-based assessments and accreditation processes. In line with NEP 2020, SSSAs have already been constituted in a number of States, covering approximately 12 State Boards, providing an initial foundation for further expansion and strengthening.

Academic functions, including curriculum design, pedagogy, and teacher professional development, should remain with bodies such as SCERTs and examination boards. This clear separation of

regulatory and academic roles would reduce conflicts of interest and ensure that school quality assurance is credible, consistent, and uniformly applied across all schools.

A Implementation Roadmap

Short-Term (0-2 Years)

- Extend the establishment of SSSAs to all remaining States/UTs building on existing models and operational experiences from States where such authorities are already in place.
- Develop and notify a SQAAF with measurable indicators aligned to NEP 2020, covering infrastructure, safety, governance, teacher capacity, student well-being, and learning outcomes.
- SSSA should be staffed with personnel possesssing expertise in school regulation, data analytics, and quality assurance.
- Set up an online school accreditation and public disclosure portal for all schools, linked to UDISE+ data.

Medium-Term (2-5 Years)

- Institutionalise annual SQAAF-based school accreditation and quality review cycles, linked to school improvement and development plans.
- Establish independent inspection and review panels trained in SQAAF protocols, clearly separated from routine administrative supervision.
- Collaborate with SCERTs to link SSSA findings with targeted academic interventions and teacher professional development.
- Develop quality grievance redressal mechanisms for parents, students, and teachers.

Long-Term (5+ Years)

- Embed SSSA and SQAAF functions within State education legislation, ensuring financial autonomy, accountability, and continuity.
- Introduce periodic external audits of SSSA and SQAAF processes to maintain transparency, credibility, and consistency.
- Integrate SQAAF-based school quality ratings into public dashboards to enable informed decision-making by communities, policymakers, and parents.

B Actors Responsible

- DoSE&L
- State Education Departments
- SSSA, SCERTs
- Examination Boards

C Performance Success Indicators

- Percentage of States/UTs with constituted and operational SSSA

- Percentage reduction in time taken to resolve school quality-related grievances
- Percentage of SSSA recommendations integrated into school and state improvement plans

5.1.4 Institutionalise a "Whole-of-Society" Approach through State and District Task Forces on School Quality

Improving the quality of schooling at scale requires coordinated action beyond the education department alone. Learning outcomes are shaped by factors spanning health, nutrition, social protection, infrastructure, skills, technology, community engagement, and local economic contexts. NEP 2020 underscores the need for cross-sectoral convergence, partnerships with civil society, and engagement with philanthropic and private actors to strengthen school education outcomes. To operationalise this vision in a structured and accountable manner, States may institutionalise State and District Task Forces on School Quality as permanent coordination and problem-solving platforms.

These Task Forces should function as strategic convergence mechanisms, not parallel administrative layers. Their core mandate would be to align policies, pool financial, technical and human resources, unblock implementation bottlenecks, and accelerate school quality improvements across both government and private schools through a "whole-of-society" approach.

(i) Establish State and District Task Forces on School Quality

Design and Mandate State Task Force on School Quality

- **Chair: Chief Secretary**
- **Members:**

- Secretaries of School Education, Higher Education, Women & Child Development, Social Welfare, Tribal Welfare, Health, Rural Development, Urban Development, Skill Development, IT
- Chairpersons/Heads of SCERT, SSSA, State Boards, and NUEPA/partner academic institutions
- Representatives from leading civil society organisations, education-focused philanthropies, industry associations, and CSR foundations

- **Core Functions:**

- Provide strategic direction for school quality reforms aligned with NEP 2020
- Approve cross-departmental convergence plans and pooled financing mechanisms
- Review state-level learning, retention, and equity indicators on a periodic basis
- Facilitate partnerships with philanthropy, industry, and knowledge institutions
- Resolve inter-departmental policy and implementation bottlenecks

Design and Mandate District Task Force on School Quality

- **Chair: District Magistrate**
- **Members:**

- District Education Officer, ICDS, Health, Social Welfare, Tribal Welfare, Labour, Skill Development officers
- DIET Principals, Block Education Officers
- Representatives of NGOs, CSR partners, local industry, and community-based organisations

- **Core Functions:**

- Align national and state priorities with district and cluster level needs and translate them into specific action plans

- Coordinate multi-departmental support for schools and school complexes
- Mobilise local CSR, philanthropic, and community resources aligned to SDPs
- Monitor implementation progress and address last-mile challenges

A Implementation Roadmap

Short-Term (0-2 Years)

- Issue a Government Order formally constituting the State and District Task Forces with clear mandates, membership, and meeting cycles.
- Define a limited set of priority school quality outcomes (e.g., foundational learning, secondary transitions, teacher availability, infrastructure gaps) to focus Task Force action.
- Establish a shared School Quality Dashboard at State and District levels using UDISE+, and NAS/PARAKH.
- Map existing government schemes, CSR initiatives, and philanthropic programmes to identify convergence and funding gaps.
- Pilot District Task Force on School Quality in selected districts (including Aspirational Districts) to demonstrate value and refine operating protocols.

Medium-Term (2-5 Years)

- Institutionalise quarterly review cycles at the district level and annual reviews at the state level, with action-tracking mechanisms.
- Create District Convergence Plans that align departmental budgets, CSR funds, and external technical assistance with SDP and school-complex priorities.
- Formalise partnership frameworks (MoUs) with universities, industry bodies, and CSOs for mentoring, teacher support, career guidance, and infrastructure augmentation.
- Build district-level technical support units to support data analysis, coordination, and follow-up.

Long-Term (5+ Years)

- Embed Task Force functioning into state education governance architecture, linked to annual planning and budgeting cycles.
- Introduce outcome-linked financing and performance reporting for convergent initiatives supported by Task Forces.
- Institutionalise independent learning and process evaluations to assess the impact of whole-of-society interventions on school quality.

B Actors Responsible

- Chief Secretary
- District Collector
- State School Education Department
- Line Departments (WCD, Health, Social Welfare, Tribal Welfare, Rural/Urban Development, Skill, IT)
- SCERTs, DIETs, SSSAs
- Civil Society Organisations, Philanthropic Foundations, Industry and CSR Partner

C Performance Success Indicators

- Number of States and Districts with formally notified and operational Task Forces
- Frequency and regularity of Task Force meetings with documented action points
- Proportion of district SDPs and school-complex plans supported through convergent funding or partnerships
- Measurable improvements in priority school quality indicators (learning outcomes, transitions, infrastructure gaps) in Task Force-supported districts

5.1.5 Strengthen School Management Committees (SMCs/SDMCs) and Institutionalise Bottom-Up Planning

School Management Committees (SMCs) are the backbone of community participation in school governance as mandated under the RTE Act, 2009. Under SSA, village- and school-level committees have been constituted across all States and UTs, though their nomenclature varies: Village Education Committee (VEC), School Development and Management Committee (SDMC), School Monitoring Committee (SMC), Vidyalaya Shiksha Samiti (VSS), Vidyalaya Kalyan Samiti (VKS), Jan Bhagidari Vikas Samiti (JBVS) and others. The RTE Act institutionalised SMCs and assigned them statutory responsibilities related to oversight, financial management and preparation of School Development Plans (SDPs).

To strengthen bottom-up planning and local accountability, SMCs and related committees require a clear institutional framework, sustained capacity-building and structured linkage with school-complex and district-level planning processes. Enabling these bodies to function as effective forums for local planning and oversight, and supporting them to prepare SDPs in a systematic manner, will ensure that school priorities are clearly articulated and addressed. A well-functioning SDP process can serve as a common reference point for coordination between schools, communities, Panchayats, local bodies, the education administration and external partners, improving the alignment of resources with identified needs and enhancing the overall responsiveness of the system. Strengthening SMCs must also include clearer guidance on facilitating regular parent-teacher interaction, ensuring that families are better equipped to support children's learning at home[83].

A Implementation Roadmap

Short-Term (0-2 Years)

- Issue updated State guidelines specifying the roles, responsibilities, meeting norms and representational requirements for SMCs in line with RTE provisions.
- Conduct community sensitisation activities at village and school levels to build awareness of SMC roles, the importance of parental participation and the purpose of SDPs.
- Provide simple, standard formats for preparing SDPs that cover priority areas such as infrastructure, sanitation, teacher availability, safety, ECCE readiness, digital use and inclusion.
- Conduct orientation sessions for SMC/SDMC/VEC members through BRCs/CRCs, focusing on reviewing school data, identifying gaps and prioritising actions.
- Introduce structured meeting processes, including agenda-setting, minute-keeping and follow-up tracking, to support regular and purposeful engagement.

83 *Raj Kumar. (n.d.). Improving education outcomes in government schools: Strengthening the parent–teacher–technology triad.*

- Display key information publicly funds received, utilisation, enrolment, attendance and essential infrastructure status to strengthen transparency and enable informed community participation.
- Maintain school grievance registers with a clear block-level escalation path.
- Provide SMCs with monthly EWS risk reports and household-visit protocols.

Medium-Term (2-5 Years)

- Set up a defined process for block and district offices to review SDPs within fixed timelines and integrate priority items into annual planning cycles.
- Use SDPs to guide coordination with Panchayats, CSR contributions, local philanthropists and civil society organisations so that external support aligns with identified needs.
- Strengthen grievance redressal by linking school-level registers with block-level monitoring and ensuring timely follow-up.
- Develop regular capacity-building programmes through DIETs and SCERTs on academic monitoring, financial oversight and community engagement.
- Encourage peer learning among committees at cluster or complex level through shared meetings and exposure visits.
- Train SMCs to conduct community mobilisation campaigns focused on preventing dropout.
- Encourage simple technology-enabled parent engagement tools to help families support basic learning at home and share feedback with teachers.

Long-Term (5+Years)

- Integrate the SDP process into routine block and district planning cycles to ensure continuity in addressing school priorities.
- Establish structured linkages between SMCs and school-complex committees under NEP 2020 to support coordinated planning and resource-sharing.
- Institutionalise SMC involvement in EWS-led case management for at-risk children.

B Actors Responsible

- DoSE&L
- State School Education Departments
- District Education Offices, BRCs and CRCs
- SCERTs and DIETs
- Panchayati Raj Institutions (where applicable)
- School Heads and SMC/SDMC/VEC/VSS committees

C Performance Success Indicators

- Percentage of schools with SMCs constituted as per RTE norms, including required representation of women and parents from disadvantaged groups
- Percentage of schools submitting annual SDPs in the approved State format
- Proportion of SDP priorities integrated into block and district plans
- Number of SMC meetings held annually per school, with documented minutes and follow-up actions

- Percentage of schools maintaining functional grievance registers with documented resolution timelines
- Amount and proportion of CSR/NGO contributions aligned to SDP priorities
- Percentage of school complexes with SMC representation in planning meetings

5.1.6 Elevate Teacher Deployment, Professional Capacity, and Career Progression

(i) Strengthen Teacher Deployment, Workforce Planning, and Time-on-Task Governance

Equitable teacher deployment and efficient use of instructional time are essential for improving learning outcomes. State experiences, including those from SATH-E, show that systematic surplus-deficit mapping, rationalisation of sub-scale schools, and clearer norms for teacher duties can significantly improve the effective availability of teachers particularly in rural and underserved blocks. Strengthening governance around teacher deployment and instructional-time utilisation must therefore be prioritised as a foundational reform.

A Implementation Roadmap

Short-Term (0-2 Years)

- Establish a Teacher Workforce Planning Cell at the State level to coordinate vacancy tracking, deployment reviews, and adherence to staffing norms.
- Develop a State Teacher Deployment Dashboard using UDISE+, HRMS, and school-level reports to map vacancies, surpluses, and subject-specific needs.
- Issue clear notifications limiting non-teaching duties during instructional hours, with protocols for scheduling such tasks outside teaching time.
- Standardise academic calendars and minimum instructional hours across districts to ensure consistent teaching time.
- Conduct annual block-level reviews of multi-grade, single-teacher, and sub-scale schools to guide redeployment and interim staffing.
- Ensure subject availability at the school or school-complex level by pooling specialist teachers across clusters.

Medium-Term (2-5 Years)

- Implement phased school consolidation in under-enrolled and sub-scale schools to improve subject-wise teacher availability and reduce multi-grade teaching.
- Automate core school-level administrative tasks (attendance, MDM reporting, assessment entry) through simple mobile tools to reduce paperwork.
- Introduce Time-on-Task monitoring, including periodic classroom observations and time-use reviews, to identify and address instructional time loss.
- Digitalise recruitment, transfers, and postings to reduce delays, improve transparency, and fill vacancies promptly especially in underserved areas.
- Establish District Instructional Time Review Committees to track instructional-time loss, ensure adherence to duty norms, and guide corrective action.

Long-Term (5+Years)

- Launch a "Mission Teachers 2030" to eliminate subject-wise shortages through fast-track recruitment, digital screening, and regular TET and competency tests.
- Institutionalise periodic external audits of deployment equity and instructional-time utilisation, ensuring independent oversight and long-term accountability.

B Actors Responsible

- DoSE&L
- State Education Departments
- District and Block Education Offices
- SCERTs and EMIS/IT Cells

C Performance Success Indicators

- Percentage reduction in schools facing subject-specific teacher shortages
- Percentage increase in average teacher instructional hours per week
- Percentage reduction in teacher administrative workload
- Functionality and usage rates of the Teacher Workforce Management System

(ii) Improve Teacher Preparation, Subject Expertise, and Professional Development

Teacher effectiveness depends on strong pre-service preparation, continuous professional development, and a deep understanding of subject-pedagogical mastery. Many States face persistent gaps in subject expertise, especially in Mathematics, Science, English, Foundational Literacy, and early childhood education. Strengthening pre-service pathways, modernising TEIs, and establishing a competency-based CPD architecture are critical for improving instructional quality at scale.

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct a diagnostic assessment of teacher subject knowledge (foundation to secondary) to identify individual and system-wide gaps.
- Strengthen practicum in pre-service programmes by designating Model Practice Schools attached to DIETs and TEIs.
- Integrate AI-assisted classroom observation tools to strengthen practicum supervision and structured feedback.
- Expand availability of high-quality blended training modules through DIKSHA/NISHTHA, with micro-learning pathways.
- Strengthen practicum supervision through minimum observation hours, standard feedback formats, and structured mentor-teacher engagement.
- Introduce state-developed modules on inclusive education, FLN, multilingual pedagogy, and experiential learning for uniform use across TEIs.

Medium-Term (2-5)

- Strengthen SCERTs and DIETs for Practice-Based Teacher Education to support TEIs with practicum design, case materials, and mentor-teacher training.
- Formalise collaboration between TEIs, SCERTs, and DIETs for coherence between pre-service and in-service expectations.
- Strengthen faculty development programmes focusing on subject pedagogy, classroom observation, and the use of digital tools.
- Develop AI-supported practicum platforms to enhance mentor feedback, track classroom observations, and strengthen school-based practice

Long-Term (5+Years)

- Build research capacity in SCERTs, DIETs, and universities to inform curriculum and training with local evidence and pedagogic innovations.

B Actors Responsible

- NCTE
- SCERTs, RIEs, and DIETs
- District & Block Resource Centres
- Universities, Higher Education Institutions, RIEs
- Model Practice Schools and School Complexes

C Performance Success Indicators

- Improvement in teacher diagnostic assessment scores
- Percentage of teacher educators completing annual faculty development modules
- Percentage of teachers completing competency-based CPD linked to progression stages

D State Good Practice

Kalika Chetarike, Karnataka[84]

The Department of State Educational Research and Training (DSERT), Karnataka, conceptualised and launched Kalika Chetarike as a learning recovery initiative aimed at addressing learning loss due to prolonged school closures during the COVID-19 pandemic. The programme redesigns classroom instruction for Class 1-9 around clearly defined competencies rather than textbook-based syllabi, indicating a systemic shift towards competency-based learning (CBL).

The initiative emphasises that classroom instruction be focused on attaining subject-wise, grade-specific learning outcomes through activities. Activity books were designed by teachers through a series of workshops to cover specific learning outcomes aligned with grade-specific competencies. The programme promotes activity-based learning, encouraging active-participatory learning through group discussions, practical tasks and reflection-based learning in everyday classroom practice. It also includes a large-scale teacher training component undertaken by the DSERT. 2 lakh teachers across the State have been trained in activity-based learning, competency-based learning methods and assessment tools. Kalika Chetarike has successfully made academics more joyful for students and helped improve classroom engagement and learning levels.

84 *United Nations Development Programme. (2023). Kalika Chetarike: Karnataka Department of School Education.*

5.1.7 Strengthen and Expand Digital and Broadcast-Based Learning for Inclusive Education

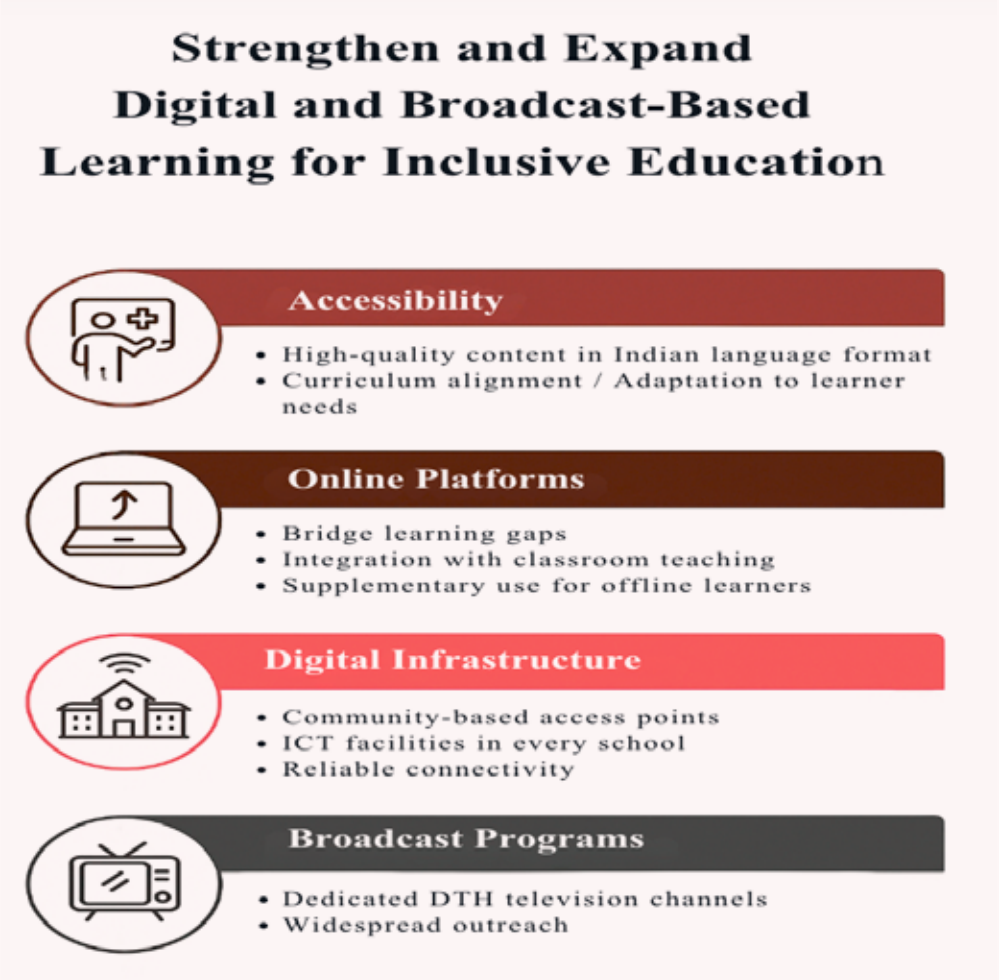


Figure 5.5: Digital Broadcast- Based Learning for Inclusive Education

NEP 2020 emphasises the use of technology to improve access, equity, and quality across all stages of school education. It calls for the integration of digital and broadcast-based platforms with classroom teaching, ensuring that high-quality learning resources are available in multiple Indian languages, in accessible formats, and adapted to the needs of diverse learners. The policy envisions these platforms as both supplementary tools for enrichment and compensatory mechanisms to bridge gaps faced by learners in remote, under-resourced, or otherwise disadvantaged contexts.

Recent national initiatives have demonstrated the potential of technology-enabled learning to extend quality educational resources to large numbers of students, including those without reliable internet access, through a combination of online platforms, dedicated DTH television channels, and community-based access points. However, the reach and quality of such content vary considerably across subjects, grades, and languages. The next phase should prioritise systematic expansion, stronger integration with pedagogy, and sustained quality improvement, with particular focus on ensuring that the curriculum is well-aligned, accessible, available in multiple languages, and locally contextualised. Digital learning should become a core element of the schooling process, bridging learning gaps for children in rural and underserved areas, and providing inclusive formats for children with disabilities to ensure equitable opportunities for all learners.

A Implementation Roadmap

Short-Term (1-2 years)

- Conduct a national mapping of existing digital and broadcast-based resources to identify gaps in language coverage, curriculum alignment, grade levels, and accessibility features (including for CwSN).
- Strengthen State-Centre coordination to ensure alignment of digital content with NCERT/ SCERT curricula.
- Develop guidelines for accessible digital learning that cover universal design principles, captioning, sign language, audio description, and screen reader compatibility.
- Introduce targeted capacity-building for teachers on integrating digital and broadcast resources into lesson plans.
- Pilot community-based access models (e.g., through schools, panchayat libraries, and Anganwadi centres) to reach students without personal devices or internet connectivity.

Medium-Term (2-5 Years)

- Equip every school with reliable ICT infrastructure, power backup, and access to both online and broadcast learning platforms.
- Establish district-level community digital learning hubs to provide after-school and weekend access.
- Integrate digital learning platforms with State Management Information Systems (MIS) for usage and impact tracking.
- Facilitate content translation and localisation to ensure resources are available in all major Indian languages and adapted to local socio-cultural contexts.

Long-Term (5+Years)

- Ensure universal, equitable access to quality digital and broadcast learning across all States/UTs.
- Embed digital resource creation and pedagogy into pre-service and in-service teacher training.
- Maintain a dynamic national repository of curriculum-aligned, high-quality, and inclusive digital content, subject to periodic review.

B Actors Responsible

- DoSE&L, Central Institute of Educational Technology (CIET), NCERT
- Central Institute of Indian Languages (CIIL)
- State Education Departments, SCERTs, and State ICT Cells.
- District/Block Education Offices,
- PRIs and ULBs
- Community Organisations.

C Performance Success Indicators

- Percentage of schools with functional ICT labs and reliable connectivity
- Percentage of teachers regularly using digital resources in classroom instruction
- Extent of multilingual and accessible content coverage in repositories
- Percentage increase in usage statistics for online and broadcast learning platforms
- Measurable improvement in learning outcomes where blended learning models are adopted

D Central Government Initiative

SWAYAM[85]

The "Study Webs of Active-Learning for Young Aspiring Minds" (SWAYAM) platform launched on July 9, 2017 is the Government of India's initiative, providing free online courses from Class 9 up to post-graduation. It seeks to democratise access to high-quality educational content and support blended and distance learning models. Beneficiaries include school and higher education students, teachers, and lifelong learners. Implemented by the Ministry of Education in coordination with UGC, AICTE, NCERT, IGNOU, and other national coordinators, More than 14,750+ MOOCs have been offered through the SWAYAM Platform, and the total number of enrolments in these courses has crossed 4.8 crores. 37 lakh SWAYAM certificates have been issued.

PM e-Vidya DTH TV Channels[86]

Launched on May 17, 2020, PM e-Vidya is a nationwide digital education initiative offering over 200 dedicated free-to-air DTH TV channels, each mapped to grades 1-12 and available in multiple Indian languages. The programme aims to ensure accessible, equitable, and quality supplementary education for all students, particularly those in remote areas or without internet access. In 2024, the government also introduced a dedicated Indian Sign Language (ISL) DTH channel to support hearing-impaired learners, strengthening the initiative's inclusive focus. Implemented by the Ministry of Education in collaboration with NCERT and States/UTs via MoUs, the scheme has expanded from 12 to 200 channels as of 2024, significantly increasing multilingual and inclusive access.

5.1.8 Promote Equity and Inclusion

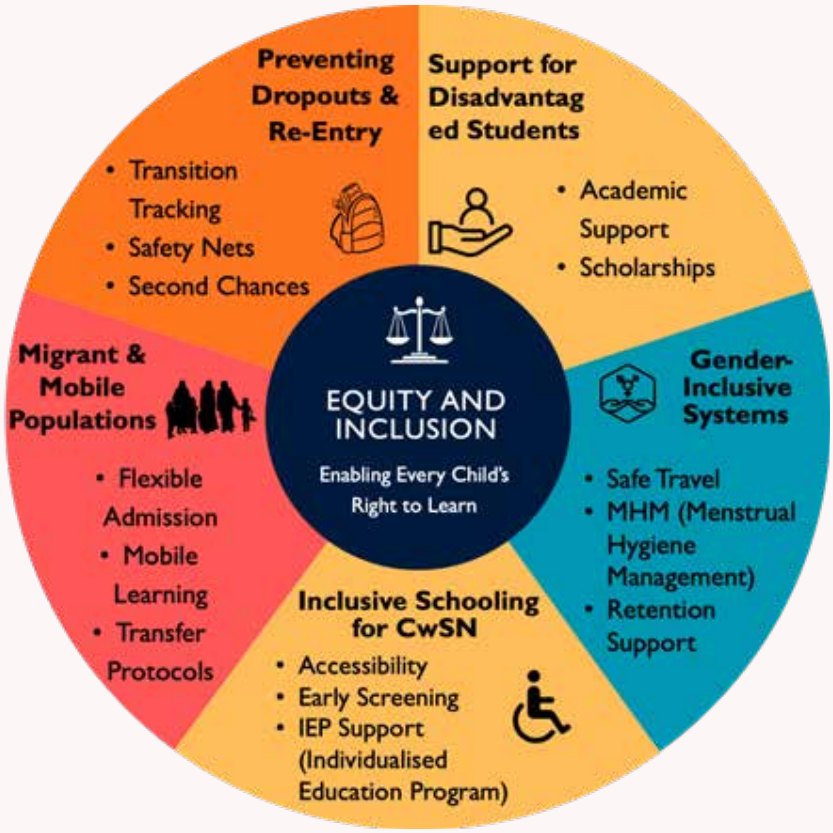


Figure 5.6: Equity and Inclusion

85 *Government of India, Ministry of Education. SWAYAM: Study Webs of Active Learning for Young Aspiring Minds.*
86 *Press Information Bureau. (2020, September 17). PM eVIDYA: Multimode access to digital education [Press release]. Ministry of Education, Government of India.*

(i) Strengthen Contextualised Support for Socially and Economically Disadvantaged Students

States must institutionalise targeted academic, financial, and socio-emotional support systems to ensure equitable progression and learning outcomes for students from SC, ST, OBC, and other disadvantaged backgrounds. This includes deploying culturally responsive pedagogy, localised remedial instruction, and need-based scholarships to address foundational learning gaps and facilitate school completion.

State-level academic support units, data-driven learning interventions, and convergence with welfare departments are required to design integrated support packages. Scholarship schemes should be streamlined through integrated digital platforms and DBT pipelines to ensure timely disbursal. Conditional cash transfers may be introduced in high-burden districts to improve attendance and transitions at secondary stages. Academic support must be complemented by local mentorship, peer-led bridge programmes, and multilingual resources tailored to community contexts.

Academic support must be complemented by structured school-level Mentor-Mentee frameworks, wherein designated teachers are assigned to monitor academic progress, attendance, transition readiness, and socio-emotional well-being of identified SEDGs students, particularly at critical transition stages. Such structured engagement can strengthen personalised academic support, improve retention, and build student confidence through sustained guidance.

A Implementation Roadmap

Short-Term (0-2 Years)

- Mandate State Academic Support Cells under Samagra Shiksha to design SEDGs focused interventions.
- Roll out remedial learning and bridge courses (Grades 3-9) using bilingual/multilingual content developed by SCERT.
- Institutionalise school-level Mentor-Mentee mapping for identified SEDG students in Grades 6-12, with defined interaction protocols, academic review formats, and periodic parent engagement mechanisms.
- Integrate and digitise all scholarship schemes under a single-state portal with DBT-enabled disbursal.
- Expand mentorship and peer-led learning models in tribal and low-literacy districts.

Medium-Term (2-5 Years)

- Deploy district-wise learning dashboards to track disaggregated progress among disadvantaged groups.
- Operationalise counselling and guidance services in all blocks, with culturally aware practitioners and outreach models.

Long-Term (5+ Years)

- Transition from application-based to entitlement-based scholarship disbursal, automatically linked to educational milestones.

B Actors Responsible

- Ministry of Social Justice and Empowerment
- State School Education Departments
- SCERTs and District Academic Resource Centres
- Tribal Welfare and Welfare Departments of States

C Performance Success Indicators

- Timely scholarship disbursal for eligible SC/ST/OBC students
- Improved transition rates in Grades 5-6, 8-9, and 10-11 among disadvantaged groups
- Reduction in SEDGs learning gaps in NAS/PARAKH assessments
- Percentage of identified SEDG students assigned a designated mentor and receiving periodic academic review support

D Central Government Initiative

Eklavya Model Residential Schools (EMRS)[87]

Established in 1997-98, Eklavya Model Residential Schools provide quality residential education for Scheduled Tribe (ST) children in remote and tribal-dominated areas. The objective is to ensure holistic development, academic, physical, and cultural, for students from Classes 6 to 12. Funded fully by the Central Government and implemented by the Ministry of Tribal Affairs in partnership with State Governments, EMRS has 479 operational schools, with 235 schools under construction as of July 2025. The model has improved access, retention, and educational outcomes among tribal students.

(ii) Enhance Gender-Inclusive Systems

Advancing girls' education requires a comprehensive strategy that goes beyond enrolment to address retention, progression, and agency. States must integrate gender-sensitive infrastructure, targeted incentives, and community-level interventions to create enabling environments for adolescent girls to complete secondary and higher secondary education.

NEP 2020 emphasises that special attention will be given to reduce the barriers faced by girls and transgender students in gaining access to education. (Clause 6.8) This must translate into practical actions, such as ensuring safe travel, adequate menstrual hygiene management facilities, and local support systems that counter social pressures leading to early dropout or marriage. Partnerships with community-based organisations such as SHGs can enhance gender sensitisation among families and build a sustained support ecosystem.

87 *Government of India, Ministry of Education. SWAYAM: Study Webs of Active Learning for Young Aspiring Minds.*

A Implementation Roadmap

Short-Term (0-2 Years)

- Introduce safety-linked transport vouchers or bicycle schemes for girls in remote and high-dropout zones.
- Ensure that every secondary and senior secondary school has gender-segregated functional toilets, Menstrual Hygiene Management (MHM) facilities (including disposal, water access, and private spaces), and handwashing stations, through convergence with the JJM and SBM.
- Operationalise school-level adolescent support groups and peer mentoring initiatives focused on girls' retention.
- Roll out training modules on gender sensitisation for all teachers and school management committees.
- Establish structured career counselling services in secondary schools, complemented by awareness drives and interactions with local women role models to inspire aspirations and informed career choices.

Medium-Term (2-5 Years)

- Expand Kasturba Gandhi Balika Vidyalayas (KGBVs) in underserved areas.
- Develop and implement community-based early warning systems to prevent dropouts due to marriage or household burden through SHGs and other CBOs.
- Institutionalise bridge learning and re-entry pathways for girls who have dropped out post Grade 8 or Grade 10.
- Introduce school-level MHM awareness modules and training for SMCs.

Long-Term (5+ Years)

- Embed gender-inclusion indicators within district-level performance reviews and school quality frameworks.
- Achieve full convergence between girls' education programmes and adolescent health missions Rashtriya Kishor Swasthya Karyakram (RKSK), Weekly Iron and Folic Acid Supplementation (WIFS).

B Actors Responsible

- State Departments of School Education and Women & Child Development
- PRIs, ULBs and SMCs
- Community-based organisations and adolescent health programmes

C Performance Success Indicators

- Percentage schools equipped with functional girls' toilets and menstrual hygiene provisions
- Percentage Reduction in dropout rates among adolescent girls
- Integration of gender modules in teacher induction and in-service training programmes

D Central Government Initiative

The Beti Bachao Beti Padhao (BBBP) Scheme[88]

Launched on 22 January 2015, it is a centrally funded initiative to improve the survival, protection, and education of girls. The scheme targets improvements in the Sex Ratio at Birth (SRB), institutional deliveries, early antenatal registration, secondary-level enrolment, skill development, and menstrual hygiene awareness, while reducing dropout rates. Between 2014-15 and 2023-24, SRB improved from 918 to 930, institutional deliveries rose from 61% to 97.3%, early antenatal registration increased from 61% to 80.5%, and girls' secondary enrolment rose from 75.51% to 78%.

E State Good Practice

Namo Lakshmi Yojana Scholarship Scheme, Gujarat[89]

Launched in 2024, the Namo Lakshmi Yojana offers up to ₹50,000 in financial assistance to girls from families with an annual income of less than ₹6 lakh, aiming to reduce dropouts in Classes 9-12. Beneficiaries receive ₹10,000 each in Classes 9 and 10 and ₹15,000 each in Classes 11 and 12, disbursed partly as monthly stipends and partly upon passing board exams. With a ₹1,250 crore allocation in 2024-25, the scheme targets around 10 lakh girls through DBT into student or mother accounts, monitored via Gujarat's Child Tracking System and linked to 80% attendance. Early outcomes show a 16% increase in girls' secondary enrolment and a 27% rise in science stream uptake, supported by the complementary Namo Saraswati Vigyan Sadhana Yojana.

(iii) Prevent and Address Dropouts through Education Continuity and Re-Entry Pathways

Ensuring that every child progresses smoothly through all stages of schooling is central to NEP 2020 and SDG-4. Evidence shows that dropout risks rise sharply at key transition points: entry into upper primary (Grade 6), entry into secondary (Grade 9), and entry into higher secondary (Grade 11). At these stages, children often face compounded barriers, including weak foundational learning, social pressures (especially for girls), financial constraints, and the challenge of adjusting to new curricula and environments. States must therefore adopt a dual strategy: preventing dropouts at these critical junctures through targeted academic, financial, and social support, while also providing flexible re-entry pathways for those who have already left school. This approach will safeguard continuity, raise survival rates, and ensure that no child is denied the right to complete education.

A Implementation Roadmap

Short-Term (0-2 Years)

- Introduce an Early Warning System (EWS) by adding an "at-risk student" flag in UDISE+ school registers, using indicators such as attendance, learning levels, and basic socio-economic vulnerability, drawing on approaches piloted in Gujarat.
- School readiness at entry: Strengthen Balvatikas and provide bridge kits for Grade 1 entrants without ECCE exposure.

88 *Press Information Bureau. (2024). Progress update on Beti Bachao Beti Padhao*
89 *Department of Education, Government of Gujarat. Namo Lakshmi Yojna Scheme*

- Immediate safety nets: Provide bicycles/transport vouchers for Grade 6 and 9 transitions; ensure scholarship disbursal before secondary entry.
- Bridge courses: Run short-term remedial classes at Grade 5 and 8 to prepare students for the next stage.

Medium-Term (2-5 Years)

- Transition tracking: Each block to record how many students move from Grade 5 to 6, 8 to 9, and 10 to 11, and follow up with those who do not transition to prevent dropouts.
- Create individualised support plans for at-risk children using EWS case management.
- Introduce structured Mentor-Mentee systems, peer mentors, and school counsellor support at Grade 6, 9, and 11 transition points, integrating Early Warning Systems with personalised academic guidance, adolescent support services, and socio-emotional follow-up.
- Flexible schooling: Scale up part-time/open schooling for working adolescents, with credit transfer to mainstream schools.
- Re-entry packages: Offer accelerated bridge courses along with recognition of prior learning for out-of-school children.

Long-Term (5+ Years)

- Institutionalise dropout prevention cells at district level to track risk and coordinate re-entry.
- Expand the reach and range of National Institute of Open Schooling (NIOS), vocational bridges, and digital platforms as mainstream second-chance options.

B Actors Responsible

- DoSE&L
- Ministries of WCD, Social Justice, Labour
- State Education Departments, SCERTs
- District Education Offices, BRCs/CRCs, School Heads
- PRIs, ULBs, SMCs
- NGOs/CSOs

C Performance Success Indicators

- Reduction in dropout rates at Grade 5, 8, 10, and 12 stages
- Percentage of at-risk students flagged and supported before transitions
- Percentage of re-enrolled students completing bridge courses and re-integrating into mainstream classes
- Annual block-level "transition survival rate" published and reviewed

(iv) Facilitate Education Continuity for Migrant and Mobile Populations

To address the educational disruption experienced by migrant and mobile children, the system must shift towards flexibility, portability, and institutional responsiveness. Migration-sensitive interventions must be embedded within school processes and supported by inter-state coordination mechanisms.

NEP 2020 emphasises the need to include all children, including migratory and seasonal children, through open schooling, special training centres, and flexible entry and exit points. (Clause 3.3) Building on this vision, a structured approach is required to ensure curriculum continuity, uninterrupted enrolment, and localised academic support for children affected by migration.

Efforts must also recognise the intersectionality of gender, poverty, and mobility, which disproportionately impacts girls and those from marginalised communities. A combination of child tracking systems, flexible schooling provisions, and convergence with labour and social protection schemes can help create an enabling environment for educational continuity.

A Implementation Roadmap

Short-Term (0-2 Years)

- Integrate migrant status tracking fields within UDISE+ and school admission registers to monitor mobility-linked disruptions.
- Provide flexible admission and re-enrolment policies at the school level, including mid-year entry and provision for class re-adjustment.
- Create School-community worker roles (e.g., community volunteers) to support household outreach, re-entry, and attendance tracking.
- Create interstate academic transfer protocols.

Medium-Term (2-5 Years)

- Develop multi-lingual and mobile learning resources tailored for migrant populations using digital and community-based platforms.

Long-Term (5+ Years)

- Scale up successful models such as mobile schools, seasonal learning centres, and bridge education programmes through government-civil society partnerships.

B Sctors Responsible

- DoSE&L
- Ministry of Women and Child Development
- State and District Education Departments
- Labour Department
- PRIs and ULBs
- NGOs, civil society organisations,

C Performance Success Indicators

- UDISE+ capturing migration-linked indicators across all districts
- Percentage of migrant children provided re-enrolment and transition support
- Inter-state transfer and recognition protocols implemented in major migration corridors
- Reduction in dropout rates among identified migrant students across elementary and secondary levels

(v) Enable Inclusive Schooling for Children with Disabilities and Diverse Learning Needs

Ensuring equitable education for children with disabilities and diverse learning needs requires a transition from tokenistic inclusion to meaningful participation. States must adopt a whole-school approach that integrates barrier-free infrastructure, personalised support systems, and specialised pedagogical tools. NEP 2020 explicitly states that children with disabilities will be enabled to fully participate in the regular schooling process from the foundational stage to higher education (Clause 6.10). To operationalise this vision, schools must be made physically accessible, instructionally adaptable, and emotionally supportive.

Infrastructure gaps may be addressed through universal design principles, while academic inclusion demands early screening, targeted support for learning disabilities, and teacher training in differentiated instruction. Furthermore, convergence with health, social welfare, and rehabilitation departments is essential to deliver comprehensive support for CwSN.

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct an accessibility audit of all government schools to assess gaps in infrastructure and learning accommodations.
- Ensure that all new school buildings and renovations follow the Harmonised Guidelines and Space Standards for Universal Accessibility.
- Operationalise early screening systems at school entry to identify learning disabilities using tools like the Pre-Assessment Holistic Screening Tool (PRASHAST) developed and validated by NCERT and NIEPID.
- Train teachers in the use of inclusive Teaching Learning Material (TLMs), classroom adaptations, and managing diverse learning needs through DIET-led modules.

Medium-Term (2-5 Years)

- Appoint cluster-level Inclusive Education Resource Persons to support mainstream teachers and facilitate Individualised Education Plans (IEPs)
- Integrate ICT-based assistive technologies and audio-visual aids for children with visual, hearing, and cognitive impairments.
- Institutionalise partnerships with NGOs and Civil Society Organisations (CSOs)to provide in-school therapy, counselling, and parental support networks.

Long-Term (5+ Years)

- Develop state-level Inclusion Support Cells to coordinate resource material, policy implementation, and monitoring.
- Establish model inclusive schools in each district to demonstrate best practices and guide system-wide replication.

B Actors Responsible

- State Departments of School Education and Social Welfare
- SCERTs, DIETs, and Composite Regional Centres (CRCs)
- Samagra Shiksha (Inclusive Education Component)
- PRIs, ULBs

C Performance Success Indicators

- Increase in the percentage of new schools and major renovations compliant with accessibility standards
- Percentage of Screening coverage for learning disabilities in all schools
- Proportion of clusters with >5 CwSN enrolled that have at least one IERP deployed
- Percentage Increase in retention and transition rates for CwSN across schooling stages

D Central Government Initiative

DAISY (Digitally Accessible Information System)[90]

DAISY is a digital format designed to provide audio and e-text learning resources, ensuring accessibility for students with visual and other print disabilities. In India, DAISY-based e-content has been developed by the NIOS and made available through the DIKSHA platform and YouTube channels.

Under this initiative, 3,345 audio book chapters and 2,031 textbook-based Indian Sign Language (ISL) videos (of which 541 are uploaded on DIKSHA) have been created, along with a 10,000-word ISL dictionary, to ensure multi-format accessibility for learners with visual and hearing impairments. Implementation is supported through Samagra Shiksha, NCERT, and State Welfare Departments. Several States, such as Andhra Pradesh, have also distributed DAISY players free of cost to visually challenged students from secondary to higher education levels, with cost assistance linked to family income.

90 *DAISY Consortium India. What is DAISY?*

5.2 Academic Recommendations

5.2.1 Transform Pedagogy, Assessment, and Foundational Learning

(i) Shift from Textbook Completion to Foundational Mastery and Level-based Instruction

To ensure meaningful learning outcomes, States must reorient pedagogy around actual student readiness rather than grade-level textbook completion. NEP 2020 calls for a paradigm shift from rote learning and mere textbook completion to foundational mastery and instruction tailored to learning levels. This involves prioritising foundational literacy and numeracy as an urgent national mission, reforming the curriculum to emphasise conceptual understanding and critical thinking (Clauses 4.4, 4.5).

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct baseline learning assessments at the beginning of the academic year.
- Introduce dedicated "foundational hours" in school timetables for daily practice in literacy and numeracy.
- Provide teachers with simple diagnostic tools and handbooks for implementing level-based instruction.
- Initiate FLN-focused support drives in low-performing districts under the NIPUN Bharat Mission.

Medium-Term (2-5 Years)

- Institutionalise Teaching-at-the-Right-Level (TaRL) models across elementary grades.
- Embed level-based pedagogy in pre-service and in-service teacher training modules.
- Redesign school-level assessments to capture learning progress rather than syllabus coverage.
- Integrate FLN learning progression metrics into the UDISE+ dashboard.

Long-Term (5+ Years)

- Transition to curriculum structures that allow flexible pacing in the foundational and preparatory stages.
- Establish School Academic Monitoring Cells at block level to support implementation and feedback.

B Actors Responsible

- PARAKH, NCERT
- State Education Departments and SCERTs
- DIETs, BRCs/CRCs
- NGOs, CSOs

C Performance Success Indicators

- Proportion of schools implementing foundational learning blocks
- Percentage of teachers trained in differentiated instruction
- Year-on-year improvement in FLN indicators (e.g., NAS, ASER)
- Inclusion of learning progression indicators in state-level dashboards

D Central Government Initiative

Prerana: A Programme for Experiential Learning and Values

Prerana is a week-long experiential learning programme of the Ministry of Education designed to instill core human values and a sense of national pride in students. The programme is conducted at the historic Vernacular School in Vadnagar, Gujarat, and has engaged 1,320 students and 660 "Guardian Teachers" from 660 districts across the country. Its curriculum, aligned with the principles of NEP 2020, is structured around nine core values including dignity, courage, compassion, and innovation and reflects the emphasis on value-based and experiential learning highlighted in the policy. Participants undertake hands-on activities such as model building and CGI video creation and visit historic sites, enabling them to develop critical thinking and social responsibility. The programme also provides Guardian Teachers with innovative pedagogical skills, enabling them to serve as change agents in their communities. Prerana alumni have taken part in national events, interacted with national leaders, and continue to uphold and disseminate the programme's values in the spirit of Ek Bharat, Shreshtha Bharat.

E State Good Practice

Graded Learning Programme, Uttar Pradesh[91]

Launched in 2018 and scaled statewide by January 2019, the Graded Learning Programme (GLP) is based on Teaching at the Right Level (TaRL) principles to strengthen foundational literacy and numeracy in Grades 1-5. Instead of grouping students by age or grade, it assesses each child's learning level and regroups them accordingly, with two hours of daily, activity-based instruction tailored to their proficiency. A 3,500-member resource team trained 2.3 lakh teachers, while a mobile app enables real-time progress tracking in 1.13 lakh schools across all 75 districts. Within 3 months of launch, 17 lakh children in Grades 4 and 5 advanced to reading Grade 1 Hindi. Over 84 lakh students have benefitted since 2018, making the programme a rapid, scalable model for improving foundational learning.

(ii) Sustain Foundational Learning and Extending FLN Beyond Grade 3

Foundational learning remains the bedrock of all future educational progress. Students who do not build strong literacy and numeracy skills in the early years often struggle throughout their schooling. The NIPUN Bharat Mission has taken initial steps to improve these competencies up to Grade 3, but long-term success depends on consistent support beyond the foundational stage. (NEP 2020, Clauses 1.7, 2.2, 4.5) National assessments by PARAKH reveal that many students lose ground in FLN as they move into higher grades, making it critical to extend structured support into the middle years.

91 *Development Monitoring and Evaluation Office. (2020). Graded Learning Program (GLP) based on Teaching at the Right Level (TaRL) in Uttar Pradesh: Case Study 4.*

A Implementation Roadmap

Short-Term (0-2 Years)

- Strengthen NIPUN Bharat implementation through updated state-level FLN plans and improved academic support systems.
- Define specific FLN targets for Grades 1-5 aligned with the National Curriculum Framework and linked to PARAKH-led monitoring.
- Introduce foundational literacy and numeracy modules in Balvatikas to improve school readiness.

Medium-Term (2-5 Years)

- Extend FLN-focused learning and remediation into Grades 4-6, with support from school-level academic mentors.
- Integrate FLN tracking into teacher appraisal systems and school improvement planning.
- Provide structured training to Cluster Resource Persons (CRPs) and DIET faculty for sustained FLN support.

Long-Term (5+ Years)

- Embed FLN as a continuum extending up to Grade 8 in curriculum, pedagogy, and assessments.
- Develop state-level dashboards using UDISE+ and PARAKH to track FLN outcomes and guide local interventions.

B Actors Responsible

- DoSE&L
- PARAKH, NCERT
- SCERTs, DIETs
- Cluster Resource Coordinators

C Performance Success Indicators

- Percentage of students in Grades 3-5 meeting grade-level FLN benchmarks
- Districts with integrated FLN strategies across primary and middle grades
- Completion rates of teacher training for extended FLN pedagogy

(iii) Contextualise and Localise Curricular Content for Inclusive Learning

To ensure equitable access to meaningful learning, curriculum content must be rooted in students' social, linguistic, and cultural contexts. NEP 2020 highlights the importance of local and contextual material in making education more relatable. (Clause: 4.29) States must take the lead in localising textbooks, integrating regional knowledge systems, and co-creating supplementary content with SCERTs, local educators, and community-based institutions.

Language of instruction in the early grades may be the child's home or local language, as recommended by NEP 2020 (Clause 4.11), to ensure stronger conceptual understanding and continuity of learning. Curriculum contextualisation may include local illustrations, examples, names, festivals, livelihoods,

and geographies, helping students relate to what they are taught. Additionally, flexible content should be made available for mobile and migrant learners through multilingual and modular formats that allow on-demand entry into grade-level content.

A Implementation Roadmap

Short-Term (0-2 Years)

- Direct SCERTs to assess the curriculum to identify gaps in contextual relevance.
- Commission district-level teams (led by DIETs and experienced teachers) to co-develop supplemental reading and activity books in local contexts and languages.
- Integrate simple place-based activities into the classroom (e.g., mapping local markets, crops, and festivals).
- Develop supplementary learning materials in local dialects with community input for Grades 1-5.

Medium-Term (2-5 Years)

- Integrate local knowledge systems, stories, and region-specific content into textbooks during the next revision cycles in partnership with NCERT and CIET.
- Expand digital libraries on DIKSHA to include contextualised multimedia content in multiple regional languages.
- Create guidelines for context-sensitive curriculum planning for school complexes and clusters.
- Launch pilot initiatives in tribal districts and Aspirational Blocks to model localised curriculum delivery.

Long-Term (5+ Years)

- Develop a national repository of best practices and case studies on curriculum contextualisation to guide future reforms.

B Actors Responsible

- CIET, NCERT
- SCERTs and State Education Departments
- PRIs and ULBs
- Community organisations, local teacher collectives

C Performance Success Indicators

- Percentage of textbooks updated with contextual/localised content
- Percentage of primary schools using supplementary learning material in local languages
- Number of community contributors engaged in curriculum development
- Percentage increase in student engagement and attendance levels in schools with localised curriculum

D State Good Practice

Comic Textbooks, Manipur

Manipur has introduced Comic Textbooks for Grades 1 to 5 as an innovative measure to make foundational learning more engaging and accessible. These visually enriched, story-based textbooks reinterpret curriculum content into age-appropriate narratives that support comprehension and sustained interest, while remaining aligned with the competencies and learning outcomes prescribed in the NCF-Foundational Stage and the broader objectives of NEP 2020. The State has further expanded this approach by developing Comic Textbooks for Grades 6 to 8 in English, Manipuri, Mathematics, Social Science, and Science, mapped to the NCF-School Education for the Middle Stage. These supplementary resources simplify complex concepts through coherent storylines and illustrations, enhance classroom instruction, and promote independent reading. Observations from classroom use indicate improved student attention, clearer understanding of lessons, and better recall, with learners able to associate visual cues with key concepts during subsequent learning.

(iv) Institutionalise Competency-Based Assessments to Inform Pedagogy

In alignment with NEP 2020, which calls for competency-based assessments that test higher-order skills such as analysis, critical thinking, and conceptual clarity (Clause 4.34), school systems must move beyond rote-based evaluation models. Competency-based assessment must be integrated into classroom practice to enable a continuous, formative understanding of each child's learning trajectory.

Such assessments should be developmentally appropriate, contextualised to local learning environments, and designed to inform teaching strategies, rather than merely certify student achievement. Feedback mechanisms should be built into assessment cycles to support student growth and facilitate course corrections throughout the academic year.

A Implementation Roadmap

Short-Term (0-2 Years)

- Introduce classroom-based formative assessment tools aligned to NCF learning goals.
- Begin piloting alternative assessment formats in select districts that are aligned with the National Curriculum Framework for School Education (NCF-SE).
- Build the capacity of teachers to design and utilise assessments that evaluate conceptual understanding.
- Introduce structured feedback formats that enable student-teacher learning conversations.
- Leverage existing platforms like DIKSHA to disseminate sample competency-based assessment tools.

Medium-Term (2-5 Years)

- Develop state-level banks of validated formative assessments by SCERTs in partnership with NCERT and PARAKH.
- Link student performance insights to remedial and enrichment programmes.
- Mandate structured school-based summative assessments to include minimum 30% application and reasoning-based questions.

- Establish school-level Academic Resource Groups to guide assessment planning and usage.
- Train school heads and CRC/ BRC officials in data interpretation and usage for academic planning.

Long-Term (5+Years)

- Use large-scale learning surveys (PARAKH, ASER and state-level assessments) as tools for policy feedback, not just ranking.

B Actors Responsible

- SCERTs, NCERT, PARAKH
- State School Boards
- DIETs and District Education Departments
- BRC/CRC and school-level Academic Resource Groups

C Performance Success Indicators

- Percentage of schools using formative assessments for pedagogy planning
- Proportion of assessment items aligned to competencies (not recall)
- Share of students receiving feedback-based academic support
- Integration of learning assessment data into school improvement plans

5.2.2 Promote Holistic Education and Student Wellbeing

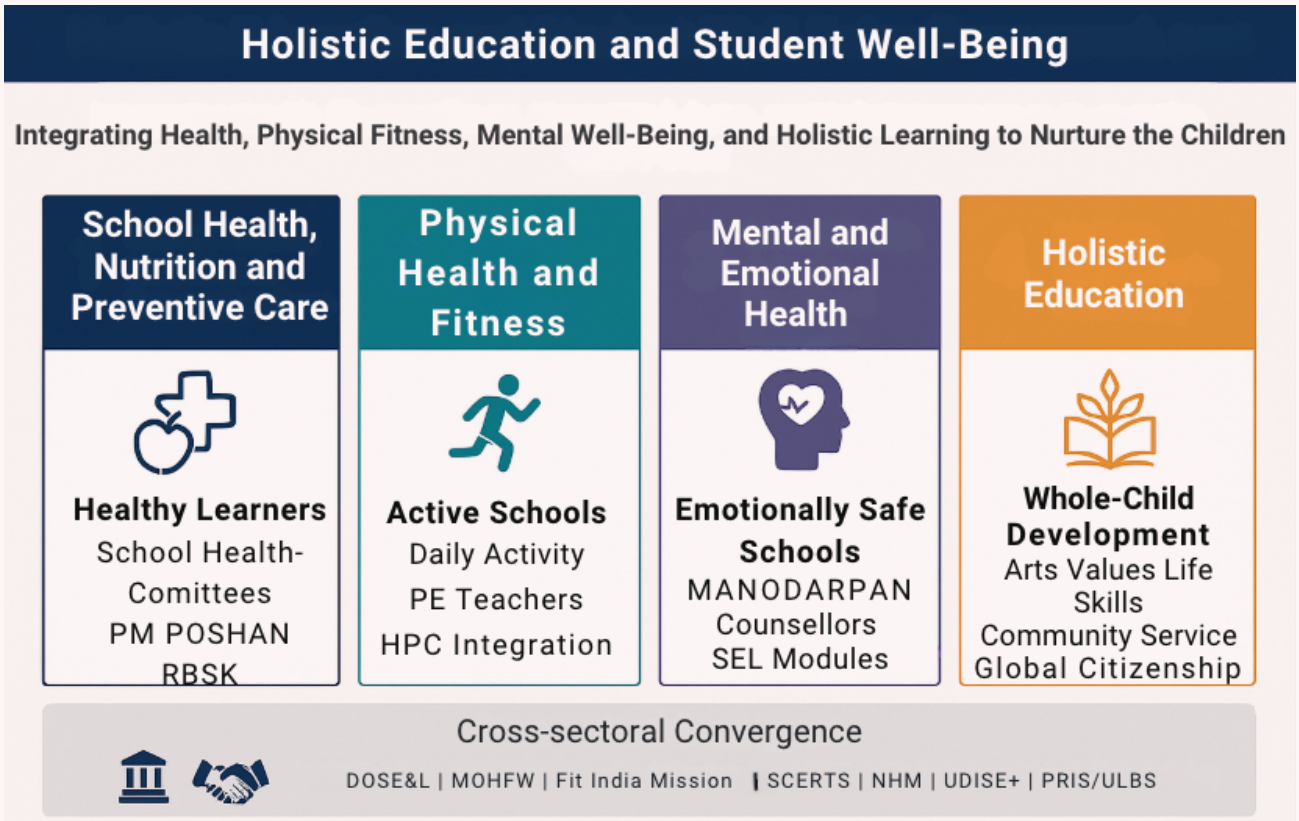


Figure 5.7: Holistic Health and Student Well-Being

(i) Institutionalise School Health, Nutrition, and Preventive Care

Good health and nutrition are critical for effective learning and regular school attendance. When children are unwell or undernourished, their ability to engage meaningfully in education is compromised. Regular health check-ups, preventive screenings, and adequate nutrition form the foundation for student well-being and learning readiness as envisaged in NEP 2020, Clause 2.9. Schools, in collaboration with local health systems, should serve as active platforms for delivering these services, ensuring the early detection of health issues, timely referrals, and sustained follow-up.

A Implementation Roadmap

Short-Term (0-2 Years)

- Establish joint School Complex-level implementation committees comprising representatives from the education and health departments to coordinate PM POSHAN, School Health and Wellness Programme (SHWP), Anemia Mukta Bharat (AMB), and Rashtriya Bal Swasthya Karyakram (RBSK) activities.
- Deploy two trained Health and Wellness Ambassadors in every school under SHWP to deliver weekly sessions covering 11 core health promotion themes, with mandatory reporting through a centralised MIS.
- Conduct regular anaemia and vision screenings for all students through RBSK mobile health teams, ensuring on-site distribution of Iron and Folic Acid (IFA) supplements and referral linkages for follow-up care.
- Integrate school health records with local Primary Health Centres (PHCs) and the UDISE+ platform to enable early flagging of recurring health issues.

Medium-Term (2-5 Years)

- Develop state-level school health dashboards integrated with UDISE+ for real-time tracking of screenings, nutrition, and immunisation.
- Add age-appropriate health and nutrition literacy to upper-primary, secondary and higher secondary curricula.
- Formalise district-level referral protocols linking schools to designated health facilities, with case tracking to ensure continuity of care.
- Implement targeted interventions in districts with high prevalence, using fortified foods, supplementation, and nutrition education.
- Establish student-led clubs to promote hygiene, first-aid awareness, and peer education on nutrition and preventive health practices.

Long-Term (5+ Years)

- Embed preventive health education modules into pre-service teacher training.
- Institutionalise biennial school health audits at the school complex level to evaluate service quality, health outcomes, and programme coverage.

B Actors Responsible

- DoSE&L, NCERT
- Ministry of Health & Family Welfare, National Health Mission

- State Education Departments, SCERTs, State Nutrition Missions, State Health Authorities
- District Magistrates (DMs)
- PRIs and ULBs
- Health & Wellness Ambassadors, Local PHCs

C Performance Success Indicators

- Percentage of schools with functional Health & Wellness Ambassadors delivering weekly health sessions
- Percentage coverage rates for annual health screenings (anaemia, vision, dental, immunisation) and follow-up completion
- Percentage reduction in anaemia prevalence among students over baseline levels
- Schools meeting hygiene infrastructure norms (toilets, drinking water, handwashing stations)
- Integration of health and nutrition literacy into the curriculum and teacher training

D State Good Practice

Shala Swasthya Parikshan, Rajasthan

Rajasthan's Shala Swasthya Parikshan initiative introduced a rapid, technology-enabled system for comprehensive health screening of school children. The state digitally screened over 75 lakh students across more than 70 health parameters, including vision, hearing, nutrition, dental health, and physical fitness. The mobile app-based system replaced slow manual processes, ensured accurate documentation, and generated individual health records to support timely referrals, surgical interventions, and coordinated follow-ups with the Health Department. The data has informed targeted health and nutrition planning at the state level, and Year 2 efforts include strengthening questionnaires in alignment with RBSK norms. This large-scale, data-driven model has significantly improved early identification and management of health issues, establishing a strong foundation for student well-being and learning.

(ii) Strengthen School-Based Physical Health and Fitness

Physical health and fitness are essential for students' growth and development. Daily participation in structured physical activity builds endurance, strength, flexibility, and coordination, while promoting discipline, teamwork, and resilience. A sports-integrated approach develops important life skills such as collaboration, responsibility, and self-discipline through organised sports, yoga, fitness training, and indigenous games. NEP 2020 envisions sports and physical education as a core part of the school timetable fxsrom the early years through secondary education, ensuring age-appropriate activities that foster lifelong fitness and character. (Clause 4.8) It calls for embedding movement, fitness, and wellness practices into the daily rhythm of school life.

A Implementation Roadmap

Short-Term (0-2 Years)

- Mandate 30-45 minutes of structured physical activity in the daily timetable for all schools, with flexibility to include sports, yoga, fitness drills, and indigenous games.
- Train generalist teachers to deliver age-appropriate physical education in schools without PE specialists.

- Introduce an annual fitness assessment for all students and teachers to monitor flexibility, endurance, strength, and coordination.

Medium-Term (2-5 Years)

- Appoint qualified Physical Education instructors, with school complex models enabling shared deployment in smaller schools.
- Provide multipurpose activity spaces and basic sports infrastructure, prioritising underserved areas.
- Incorporate physical fitness indicators into the Holistic Progress Card (HPC).

Long-Term (5+ Years)

- Establish State Physical Education or Wellness Cells to oversee curriculum integration, infrastructure planning, and monitoring.
- Partner with sports federations, NGOs, and local clubs to organise sports festivals, competitions, and coaching camps.
- Promote activities such as yoga, martial arts, and traditional games alongside modern sports.

B Actors Responsible

- DoSE&L, NCERT
- Ministry of Youth Affairs and Sports, Fit India Mission
- SCERTs
- SMCs, PE Teachers
- Community Sports Organisations

C Performance Success Indicators

- Percentage of schools implementing daily structured physical activity
- Percentage of schools with at least one functional physical activity space
- Percentage of teachers trained in delivering sports-integrated learning
- Improvement in student fitness scores over baseline

(iii) Institutionalise Mental Health and Socio-Emotional Learning Systems

To nurture holistic development and create emotionally safe school environments, States must build comprehensive mental health and socio-emotional learning (SEL) systems embedded in the daily operations of every school. This includes structured counselling support, SEL curricula, and proactive mental health promotion through teacher capacity-building. Initiatives such as the Government of India's MANODARPAN have been a positive step in this direction, offering psychosocial support and reinforcing the importance of mental well-being in the school system. In line with NEP 2020, there is a need to develop emotional intelligence, stress tolerance, and resilience among students, positioning mental well-being as a core educational outcome. (Clause 4.28)

A Implementation Roadmap

Short-Term (0-2 Years)

- Integrate components of Government of India's MANODARPAN initiative across all government schools, including dissemination of psychosocial support materials, access to helpline resources, and periodic well-being surveys.
- Designate one teacher in each school as a 'Well-being Nodal Teacher' trained in basic mental health literacy, with support from district resource teams.
- Develop Social and Emotional Learning (SEL) aligned teaching-learning material and sensitisation modules for teachers and principals.
- Introduce structured SEL content, including Human Values Education, meditation and mindfulness, and resilience exercises in Grades 6-12 via DIKSHA and SCERT modules.
- Conduct periodic workshops and classroom sessions on exam-related stress management, focusing on coping strategies, time and anxiety management, relaxation techniques, and peer support mechanisms, particularly before and during board examination cycles.

Medium-Term (2-5 Years)

- Institutionalise school and cluster-based counsellors, ensuring every secondary school cluster receives rotating or fixed mental health professionals.
- Integrate SEL into regular classroom practice and teacher training (both in-service and pre-service).
- Launch school wellness clubs, peer mentoring programmes, and regular mental health awareness events.
- Converge with adolescent health initiatives like RKSK and school health screenings to identify and refer at-risk students.

Long-Term (5+ Years)

- Establish a dedicated cadre of certified school counsellors and psychologists integrated into state education systems, with defined service norms.
- Institutionalise a School Happiness and Well-Being Index, capturing student self-reports on emotional safety, community engagement, stress levels, exam-related stress management, and peer/teacher relationships, and link results to school improvement plans

B Actors Responsible

- DoSE&L
- MoHFW
- State Education Department, State Health Department
- SCERTs/DIETs
- District/Block Education Offices
- NGOs/CSOs, SHGs
- PRIs, ULBs

C Performance Success Indicators

- Percentage of schools with two trained Health & Wellness Ambassadors
- Reduction in self-reported stress and anxiety levels in student surveys over baseline

D Central Government Initiative

Manodarpan, Ministry of Education[92]

Manodarpan launched on July 21, 2020 is a coordinated programme aimed at supporting the mental health and emotional well-being of students, teachers, and families during and beyond the COVID-19 period. It combines expert guidance, counselling services, and accessible resources to strengthen psychosocial support across the education system. The initiative provides advisory guidelines, a dedicated web portal, helplines, and a directory of trained counsellors to ensure timely assistance. It is supported by NCERT's nationwide counselling services, interactive sessions, and wellness resources, alongside CBSE's tele-counselling for students in India and abroad. Linked with the School Health Programme under Ayushman Bharat, Manodarpan embeds emotional well-being within the broader framework of health and wellness education, reinforcing schools as safe, inclusive, and supportive environments for holistic student development.

E State Good Practice

Anand Sabha, Madhya Pradesh[93]

Anand Sabha was launched under the broader vision of the Rajya Anand Sansthan, which is India's first State-level Happiness Department. It was piloted in 2023-24 and is set to be formally implemented across all government secondary and higher secondary schools from the academic year 2025-26. Students in Grades 9 to 12 will now have weekly 1.5 hour sessions dedicated to themes such as self-awareness, emotional regulation, family relationships, and social harmony. The curriculum is structured to evolve with the age and cognitive development of students, focusing on the 'self' and one's own body in Grades 9 and expanding to themes of family, society, and nature in higher grades. This initiative aims to respond to the growing mental health concerns and emotional challenges among adolescents, who often struggle with stress, lack of motivation, peer pressure, and academic anxiety in a rapidly changing world. Over 3,500 teachers have been trained as master trainers to further train school teachers in SEL facilitation and integrating happiness education into the school curriculum.

(iv) Strengthen Holistic Education in Schooling

Holistic education is an approach that nurtures the learner's intellectual, emotional, social, physical, moral, creative, and environmental development in an integrated manner. It goes beyond subject mastery to cultivate the values, attitudes, and competencies needed for lifelong learning, personal well-being, social responsibility, and active citizenship. NEP 2020 identifies holistic education as central to transforming India's school system, aligning it with both national priorities and global frameworks such as UNESCO's Four Pillars of Learning and Global Citizenship Education (GCED) principles.

As envisioned in the NEP 2020, values-based education is an integral part of holistic education. It includes the development of humanistic, ethical, Constitutional, and universal human values of truth (Satya), righteous conduct (Dharma), peace (Shanti), love (Prem), nonviolence (Ahimsa), scientific

92 NCERT. Manodarpan: Psychosocial support for students.
93 Rajya Anand Sansthan, Madhya Pradesh. Anand Sabha.

temper, citizenship values, and also life-skills. Lessons in Seva (service) and participation in community service programmes are also integral parts of holistic education. (Clause 11.8)

Embedding holistic education in practice requires curriculum, pedagogy, and assessment to be interdisciplinary, experiential, and learner-centred; teachers to be equipped and motivated to guide multi-dimensional learning; infrastructure to support co-scholastic domains alongside academics; and sustained engagement with families and communities to reinforce learning beyond the classroom.

A Implementation Roadmap

Short-Term (1-2 years)

- Introduce in-service modules on socio-emotional learning, human values, arts integration, physical education pedagogy, environmental literacy, meditation and mindfulness through SCERT and DIET platforms.
- Mandate dedicated instructional time for arts, sports, life skills, and community and rural service exposure.
- Begin phased establishment of essential co-scholastic spaces such as multipurpose rooms that can serve for art, music, and counselling in schools lacking dedicated facilities.
- Conduct awareness programmes that promote balanced learning goals, including exposure to fundamental duties enshrined in the constitution, global citizenship values, alongside academic and co-scholastic growth.
- Collaborate with NGOs, industry, and higher education institutions to provide mentorship, internships, and experiential learning opportunities.
- Fully align curricula with SDG 4.7 by ensuring every student demonstrates competencies in environmental responsibility, intercultural understanding, and democratic participation.

Medium-Term (3-5 years)

- Scale the existing HPC framework developed under NEP 2020 for universal adoption across all schools and integrate global citizenship indicators (e.g., intercultural understanding, civic participation, environmental stewardship), ensuring teacher training, digital tools, and integration into state assessment systems.
- Mandate community service projects in urban and rural areas for secondary and higher secondary students as part of the curriculum.
- Deploy specialised teachers in arts, sports, and cultural skills across schools within each school complex to address staffing gaps.
- Establish state-level awards for schools demonstrating exemplary holistic education practices, fostering healthy competition and peer learning.

B Actors Responsible

- DoSE&L
- PARAKH, NCERT
- State Education Departments, SCERTs
- PRIs and ULBs
- SHGs, Community-Based Organisations

C Performance Success Indicators

- Share of schools meeting minimum infrastructure standards for arts, sports, and counselling
- Percentage of teachers trained in at least 3 non-academic domains
- Integration of holistic learning indicators in school assessment systems
- Percentage increase in student participation in co-scholastic activities within five years

D State Good Practice

Olympic Values Education Programme (OVEP), Chandigarh

Chandigarh implemented the Olympic Values Education Programme (OVEP) following the signing of an MoU with the International Olympic Committee. OVEP has been extended to all 111 Government schools and presently covers more than 1.5 lakh students. Implementation is undertaken by 216 master trainers, and over 713 sessions have been conducted since February 2025 in collaboration with the Abhinav Bindra Foundation. The programme employs structured, sport-based activities including volleyball, kabaddi, football, leg cricket, and guided interactive exercises to familiarise students with the Olympic values of excellence, respect, and friendship. Engagement was sustained during the summer break through initiatives such as the Let's Move campaign and International Yoga Day. OVEP provides a formal mechanism for life-skills development and aligns with the NEP 2020, which emphasises holistic and experiential learning.

5.2.3 Strengthen Vocational Education and Skill Integration in Schooling

(i) Mainstream Vocational Education as an Aspirational and Integrated Pathway in Schooling

In line with the NEP 2020, substantial progress has been made in integrating vocational education within the school system. Skill education programmes have been implemented across Grades 6-12 at scale, supported by curriculum expansion by NCERT and CBSE, publication of Kaushal Bodh textbooks, introduction of "bagless" days for experiential learning, alignment of all vocational courses with NSQF levels, and large-scale capacity building of vocational trainers. Structured career guidance mechanisms, including the Career Guidance Book and the My Career Advisor App, have further strengthened informed student choice.

The next phase of reform must focus on deepening integration, improving quality of delivery, and strengthening progression pathways, so that vocational education functions as a core, mainstream component of schooling, seamlessly integrated with academic learning rather than operating in parallel. This requires moving from exposure-led implementation to systematic instructional integration, competency-based assessment, credit portability, and clear school-to-skilling and school-to-work pathways, in alignment with the National Credit Framework (NCrF).

Consistent with the vision of NEP 2020 of dismantling the academic-vocational divide and overcoming social perceptions associated with vocational streams (Clauses 16.4-16.6), vocational education must be institutionalised from the middle stage (Grades 6 to 8) onwards, supported by professional career guidance, regional relevance, industry participation, and flexible progression into higher education, formal skilling, apprenticeships, and entrepreneurship.

A Implementation Roadmap

Short-Term (0-2 Years)

- Institutionalise vocational education within school timetables by standardising and strengthening existing skill periods, experiential modules, and NEP 2020 mandated bagless days, rather than introducing parallel structures.
- Undertake district-level mapping of existing vocational and skilling infrastructure, including school skill labs, ITIs, community training centres, and industry-supported facilities through the District Skill Committee to rationalise utilisation, identify infrastructure gaps and optimise resource sharing.
- Strengthen and augment existing vocational infrastructure such as toolkits, simulation facilities, and shared resource centres with phased integration of infrastructure for emerging technologies, to support hands-on, future-ready practical learning.
- Rationalise and deploy trained vocational trainers already available under national capacity-building programmes, and address local gaps through convergence with MSDE, NSDC, and Sector Skill Councils.
- Provide orientation and training modules for academic teachers to support integration of vocational themes and project-based learning across subjects.
- Operationalise the hub-and-spoke model for vocational skilling, linking schools with nearby ITIs, skill labs, and shared facilities at the sub-block/school cluster level.
- Implement practical competency-based assessments for vocational subjects using rubrics aligned with NSQF levels.
- Align school-level vocational delivery with strengthened NSTIs to support trainer development and advanced skill exposure.
- Strengthen school level monitoring of vocational periods to standardise templates and digital reporting systems.
- Support States/UTs in expanding the implementation of Kaushal Bodh in Grades 6-8 through curriculum integration, teacher orientation, and structured in-service training of existing school teachers.

Medium-Term (2-5 Years)

- Upgrade select secondary schools into "Vocational Hubs" offering a range of regionally relevant trades, linked to the local employment and entrepreneurship ecosystem.
- Operationalise the dual certification for school students, enabling formal employment and skilling recognition.
- Expand industry-relevant skill courses in Grades 9-12, increasing the proportion of secondary and higher secondary schools offering such courses
- Facilitate State/UT-level adoption of the NCrF in school education by enabling credit mapping of vocational courses, integration with the Academic Bank of Credits (ABC) for vocational streams to enable mobility and progression pathways, including multiple entry and exit points through credit accumulation and transfer.

- Increase the diversity of vocational offerings based on local ecosystems (geography, industry presence, and infrastructure availability).
- Establish digital repositories of trade-wise lesson plans, demonstration videos, and assessments via DIKSHA platform.
- Launch awareness campaigns showcasing vocational success stories, particularly of first-generation entrepreneurs and high-earning skilled graduates.
- Introduce structured career counselling modules from Grade 8 onwards, integrating information on skill pathways, hybrid careers, and higher education linkages.
- Organise school-wide vocational fairs, local skill exhibitions, and district-level internship/ apprenticeship fairs to connect students with industry and service sectors.
- Provide vocational learners with access to scholarships, loan schemes, start-up incubation, and enterprise mentorships as part of school-to-work transition
- Provide ongoing professional development for vocational trainers, including industry exposure, refresher training, and pedagogical support.

Long-Term (5+Years)

- Embed vocational education across all schools as part of the foundational education strategy, with clear learning outcomes, infrastructure norms, and staffing ratios.
- Fully integrate vocational education pathways with mainstream academic tracks through the NCrF, ensuring credit portability across school, higher education, and skilling systems.
- Facilitate school-to-work transitions by aligning vocational offerings with apprenticeships, formal skilling programmes, and local entrepreneurship ecosystems.

B Actors Responsible

- DoSE&L
- State Education Departments and SCERTs
- NCVET, NSDC, NIOS and Sector Skill Councils
- Ministry of Skill Development and Entrepreneurship (MSDE)

C Performance Success Indicators

- Percentage of secondary schools with dedicated vocational infrastructure
- Percentage of students assessed on practical vocational competencies annually
- Percentage increase in certified vocational trainers in the school system
- Inclusion of vocational students in NCrF, ABC and skill-linked government schemes
- Integration of vocational curriculum with State textbooks and learning assessments

D State Good Practice

Unique Selling Proposition (USP) Initiative, Manipur

Manipur has introduced the USP initiative to provide structured vocational exposure to students in Grades 6-8 by drawing on the skills of local artisans. Schools collaborate with carpenters, potters, weavers, gardeners, and other practitioners who conduct hands-on sessions on activities such as clay work, weaving, planting, and basic carpentry. The initiative enables students to develop practical skills and an appreciation for local craftsmanship, while also strengthening school-community linkages. By integrating applied learning into the regular timetable, the programme offers students a richer learning environment and helps bridge the long-standing separation between academic instruction and vocational skills.

(ii) Build Market Linkages and Enhance Regional Relevance of School-based Vocational Education

The NEP 2020 emphasises integrating vocational education into all schools in a phased manner, with a focus on aligning it with local opportunities through skill gap analysis and regional mapping (Clause 16.6). To realise this vision, it is crucial to build robust market linkages and enhance the regional relevance of school-based vocational education. This would ensure that students gain context-specific skills and exposure to local economies, increasing their chances of employability and promoting community-based development.

A Implementation Roadmap

Short-Term (0-2 Years)

- Conduct district-level skill demand mapping and prepare District Skill Development Plans (DSDPs) in collaboration with State Skill Development Missions (SSDMs), ITIs, and local Chambers of Commerce.
- Facilitate school-industry partnerships for at least one trade per school complex, including exposure visits, guest lectures, and micro-internships.
- Identify and integrate local livelihoods and traditional skills into school-level vocational offerings, linked with the One District One Product (ODOP) initiative.
- Deploy mobile skilling units to extend training access to remote and underserved areas.

Medium-Term (2-5 Years)

- Embed regional skill corridors into school development plans with shared training infrastructure (e.g., repair centres, eco-tourism).
- Design modular vocational packages (30-60 hours) based on local economies (e.g., handloom, agro-processing, digital marketing).
- Institutionalise industry mentorship and project-based internships as part of annual learning calendars in Grades 9-12.

Long-Term (5+ Years)

- Enable pathways for students to transition directly from school-based vocational training to skilling centres, short-term and long-term skilling programmes, apprenticeships, entrepreneurship, or higher education.

B Actors Responsible

- Ministry of Micro and Small Entreprises (MSME)
- Ministry of Skill Development and Entrepreneurship (MSDE)
- State Skill Development Missions (SSDMs)
- National Skill Development Corporation
- Local Industries
- PRIs, ULBs
- District Education Departments
- ITIs and Higher Education Institutions

C Performance Success Indicators

- Percentage of vocational courses linked with regional skills
- Percentage of schools with at least one active industry or livelihood linkage
- Percentage of students completing industry exposure projects or internships by Year 5

5.2.4 Strengthen ECCE

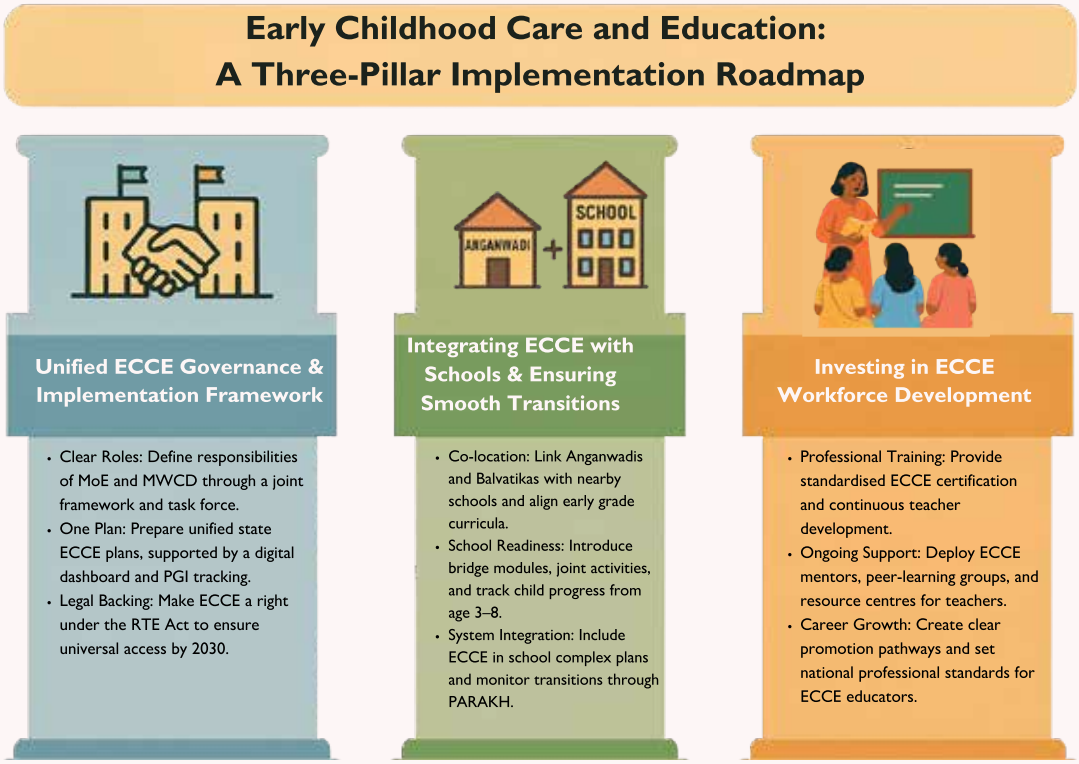


Figure 5.8:Three Pillars of ECCE Implementation Roadmap

(i) Integrate ECCE with the Formal School System and Ensure Smooth Transitions

Early childhood constitutes the foundational stage of learning under the NEP 2020's 5+3+3+4 structure, with Anganwadis and Balvatikas envisaged as integral components of the schooling continuum. Building on ongoing initiatives under Mission Saksham Anganwadi and Poshan 2.0, Poshan

Bhi Padhai Bhi (PBPB), and the NCF-FS 2022, there is a need to further strengthen institutional convergence between Anganwadis and primary schools to ensure continuity in care, pedagogy, and learning outcomes.

The co-location of Anganwadi Centres within Government primary schools and School Complexes, as already initiated through joint MoE-MWCD advisories and co-location guidelines, provides a strong foundation for smoother transitions into Grade 1. The focus going forward should be on operationalising and deepening this integration, so that children enter the formal schooling system developmentally ready and well supported. (NEP 2020: Clauses 1.1, 1.5)

A Implementation Framework

Short-Term (0-2 Years)

- Strengthen State and district-level mapping of Anganwadis and Balvatikas with nearby primary schools, in line with existing co-location guidelines, to prioritise feasible co-location and functional linkages.
- Conduct targeted infrastructure and functionality assessments of co-located Anganwadis and Balvatikas, aligned with NCF-FS and Saksham Anganwadi standards, focusing on child-friendly design, safety, sanitation, and inclusive access.
- Strengthen curriculum continuity by aligning FLN pedagogy in Grades 1-2 with NCF-FS learning outcomes and existing ECCE curricula (Aadharshila and Navchetana).
- Facilitate access to existing school health, nutrition, and well-being services, where appropriate and administratively feasible, for children attending Balvatikas in school premises.
- Mandate at least two structured transition activities annually:
  - Joint Anganwadi-school open days.
  - Orientation visits for children and parents to familiarise them with the primary school environment.

Medium-Term (2-5 Years)

- Formalise joint coordination mechanisms like SMCs for co-located Anganwadis and primary schools to promote shared accountability.
- Leverage APAAR ID and Poshan Tracker-UDISE+ linkages to monitor enrolment, attendance, and transition of children across the Foundational Stage (ages 3-8).
- Introduce school readiness bridge modules in Balvatikas and ensure structured sharing of readiness reports with receiving primary schools.
- Utilise existing training ecosystems like DIETs, SCERTs, ITIs, Savitribai Phule National Institute of Women and Child Development (SPNIWCD) to support skill-based and pedagogical capacity-building of Anganwadi workers.
- Ensure periodic reporting to MoE and MWCD on co-location and compliance with infrastructure standards.

Long-Term (5+ Years)

- Integrate Foundational School Readiness Indicators into PARAKH learning assessments.

B Actors Responsible

- DoSE&L
- Ministry of Women and Child Development
- State School Education and ICDS Directorates
- SCERTs, DIETs
- PRIs and ULBs
- SMCs

C Performance Success Indicators

- Percentage of Anganwadis co-located with or formally linked to a primary school
- Transition activities held in linked centres annually
- Number of States where SDPs include ECCE components in all School Complexes

(ii) Establish a Unified ECCE Governance and Implementation Framework

NEP 2020 strongly emphasises that universal provisioning of quality early childhood development, care, and education (ECDCE) must be achieved as soon as possible, and not later than 2030 (Para 1.1). Although convergence mechanisms between the MWCD and the MoE are in place, ECCE delivery continues to operate through parallel platforms: Anganwadi Centres under Mission POSHAN 2.0 and Balvatikas in schools under Samagra Shiksha, resulting in coordination gaps and uneven outcomes across States and UTs. Strengthening governance convergence is therefore essential to ensure coherence, accountability, and system-wide alignment across the Foundational Stage.

A Implementation Roadmap

Short-Term (0-2 Years)

- Strengthen the existing Joint ECCE/ECDCE Convergence Framework between MoE and MWCD, defining roles, responsibilities, and accountability mechanisms for both Ministries.
- Strengthen and fully operationalise the National ECCE Task Force, ensuring regular meetings, defined workplans, and inter-ministerial convergence in line with NEP 2020. (Clause 1.9)

Medium-Term (2-5 Years)

- Roll out a Unified State ECCE/ECDCE Implementation Plan in each State/UT based on the NCPFECCE, aligning ICDS and Samagra Shiksha planning cycles.
- Launch a Common Digital Dashboard to track Early Child Education service delivery across ministries, integrated with UDISE+.
- Introduce an AWC grading system based on infrastructure, ECCE/ECDCE delivery, operational days, SNP distribution, child nutrition outcomes, home visits, and staff training to incentivise quality and guide targeted support.

Long-Term (5+ Years)

- Progressively strengthen the policy and legal framework for ECCE/ECDCE, informed by State readiness and implementation experience, including consideration of enhanced enforceability within the existing RTE framework.
- Institutionalise periodic joint reviews and public reporting on ECCE/ECDCE governance, convergence outcomes, and service quality to reinforce transparency and accountability.

B Actors Responsible

- DoSE&L, NCERT
- MWCD
- National ECCE Task Force
- SCERT, State Departments of School Education and WCD

C Performance Success Indicators

- Joint MoE-MWCD ECCE framework notified and adopted by States
- Co-location or functional linkage between Anganwadis and primary schools in Aspirational Districts

(iii) Invest in ECCE Workforce Development and Professionalisation

NEP 2020 states that Anganwadi workers/teachers with qualifications of 10+2 and above shall be given a 6-month certificate programme in ECCE, others shall undergo a one-year diploma (Clause 1.7). Yet, the absence of professional orientation and training, ongoing mentoring, and structural career progression pathways for ECCE educators has weakened pedagogical quality. A targeted investment in professional development, mentoring systems, and institutional support is essential to realise the policy vision of universal access to high-quality ECCE.

A Implementation Roadmap

Short-Term (0-2 Years)

- Implement comprehensive, multi-level training for all Anganwadi Workers (AWWs) through the PBPB cascade model, ensuring that certifications are aligned with the NSQF to provide formal recognition of competencies.
- Establish Field Mentorship Networks by identifying "Champion AWWs" at the block, and district levels to provide on-site guidance, motivation, and peer learning support.
- Establish ECCE/ECDCE Resource Pools of Master Trainers at the District and Block levels to provide continuous refresher training and academic support for the delivery of the Aadharshila and Navchetana curricula.
- Develop and implement standardised ECCE/ECDCE teacher certification programmes of 6 months to 1 year, delivered through the NCERT-NIPUN Bharat-DIKSHA platform, and aligned with the NCPFECCE curriculum framework as outlined in NEP 2020 [Clause: 1.7].
- Ensure the regular conduct of Monthly ECCE/ECDCE Days and Yoga Days across all centres to foster parent-AWW interactions and promote children's holistic development.

Medium-Term (2-5 Years)

- Develop a National Professional Standards Framework for ECCE educators, aligned with NPST and NCF-SE.
- Develop and implement structured career progression and promotion pathways for AWWs and Anganwadi Helpers to elevate their professional status and reinforce their roles as early educators.
- Establish ECCE Teacher Resource Centres co-located within SCERTs or DIETs to support continuous training, materials, and peer resource groups.

- Roll out blended learning CPD modules via POSHAN Tracker app, local language DIKSHA content, and state-run tele-counselling for ECCE teachers.

B Actors Responsible

- DoSE&L, NCERT
- MWCD
- NIPCCD
- SCERTs
- State ICDS Directorates
- CRCs

C Performance Success Indicators

- Percentage of ECCE workforce trained through standardised certification
- Dedicated ECCE mentor deployed in every CRC by Year 2030
- Percentage of Balvatikas linked with an ECCE mentor

D State Good Practice

Mission Sunehra Kal - Poshan Bhi Padhai Bhi, Uttar Pradesh[94]

Launched in Saharanpur district of Uttar Pradesh, this Early Childhood Care and Education (ECCE) initiative focused on addressing the neglected learning needs of young children aged 3-6 years. While Anganwadi centres in India have predominantly focused on nutritional support, they have largely neglected early foundational learning, particularly in literacy and numeracy, resulting in poor school readiness and learning gaps even before a child starts their schooling journey. Recognizing that early childhood learning and development is the most crucial period for a child's physical, cognitive, emotional and social development, the district administration, in collaboration with ITC and Pratham Foundation, launched this holistic model to integrate play-based education with health and nutrition services.

Pratham co-developed an age-appropriate curriculum aligned with the government's PAHAL guidelines, focusing on each of the 5 developmental domains. SCERT provided teaching-learning materials (TLM), including development toys and books, to 864 Anganwadi centres. Prior to this, most Anganwadi Workers were trained only in nutrition and mid-day meal delivery. This programme delivered comprehensive ECCE training, including on child psychology and interactive teaching methods, creating a pool of master trainers and implementing ongoing mentoring. Over 137 master trainers and all 864 Anganwadi workers received hands-on training. More than 75 Anganwadi Centres were revamped into child-friendly spaces, with new buildings, improved sanitation, play materials, and BALA (Building as Learning Aid) methodologies.

94 *ITC Limited. (2017). Sustainability Report 2016–17: Mission Sunehra Kal - Social Investments Programme. Retrieved from https://www.itcportal.com/sustainability/sustainability-report-2017/social/mission-sunehra-kal.aspx*

5.2.5 Integrate Artificial Intelligence for Pedagogical Innovation and System Readiness

The integration of AI in school education calls for a well-planned and balanced approach that strengthens teaching, learning, and governance. AI should be viewed as a supportive tool that enhances classroom instruction, enables differentiated learning, and improves formative assessment rather than as a substitute for the teacher.

In light of emerging research on the cognitive effects of AI overuse, balanced digital exposure and age-appropriate safeguards should be incorporated to sustain learners' attention, creativity, and independent thinking abilities.

A Implementation Roadmap

Short-Term (0-2 Years)

- Introduce AI awareness and literacy modules from the upper-primary stage, focusing on digital reasoning, problem-solving, and responsible use.
- Conduct orientation and capacity-building programmes for teachers and school leaders on integrating AI in classroom teaching and assessment.
- Develop national and state-level guidelines on ethical AI use, data privacy, authorship, and transparency in educational contexts.
- Initiate pilot sandbox environments in selected school complexes to demonstrate responsible and context-specific applications of AI tools.

Medium-Term (2-5 Years)

- Integrate AI pedagogy modules into pre-service and in-service teacher education curricula through25led adaptive learning tools in digital platforms for formative assessment and personalised feedback.

Long-Term (5+ Years)

- Institutionalise AI-integrated pedagogy across curricula and teacher training frameworks, ensuring sustainability and continuous professional development.
- Constitute State-level AI Ethics and Innovation departments within education departments to monitor implementation and guide responsible use.
- Implement cognitive-safety protocols and age-appropriate usage norms across schools to safeguard attention, creativity, and independent thinking.
- Achieve universal access to AI-enabled digital infrastructure with particular focus on underserved and rural regions.

B Actors Responsible

- DoSE&L, CIET, NCERT
- MeitY
- SCERTs/DIETs
- TEIs

C Performance Success Indicators

- Share of schools implementing AI-integrated teaching and assessment practices
- Percentage of teachers trained in AI pedagogy and ethical use
- Inclusion of AI literacy modules in NCERT/SCERT curricula
- Existence of national and state-level AI ethics frameworks
- Improvement in students' digital reasoning and problem-solving skills in PARAKH/ASER

D State Good Practice

Mukhyamantri Shikshit Rajasthan Abhiyan, Rajasthan[95]

Launched in 2023, under the Mukhyamantri Shikshit Rajasthan Abhiyan, this initiative enables large-scale, low-cost, and real-time assessment of learning outcomes for students. Traditional assessments are time-consuming, inconsistent in evaluation, and offer no objective diagnosis for improvement. To address this, the state developed the Shikshak app that allows teachers to photograph student answer sheets and generate automatic analysis. The app uses Optical Character Recognition (OCR) and AI algorithms to evaluate responses instantly, aligned to specific learning competencies in Hindi, English, and Math.

Assessments are conducted 3 times a year across all government schools. This enables teachers to receive real-time information on learning gaps, allowing them to plan their further lessons to cater to the needs of the students. Each student also receives a simplified report card indicating performance by competency level, making it easy for parents to understand and teachers to plan remediation. The feedback loop has accelerated student progress and helped over 400,000 students to move out of learning poverty and has driven 8-10% annual improvement in learning. The effectiveness of this initiative is also reaffirmed by the PARAKH report 2024, which finds that Rajasthan's students consistently demonstrated above national average proficiency in all domains and being one of the top 10 performing States across all levels.

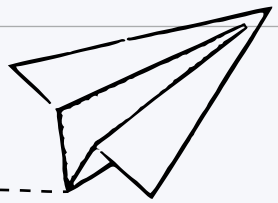
Complementing the assessment reforms, the AI-based educational programme "Padhai with AI" (Study with AI) has further strengthened outcome-oriented learning in government schools. Initiated in Tonk District under the leadership of the District Collector, the programme integrates digital learning and AI through a dedicated web portal designed for students' self-paced learning. The platform provides remedial practice, drill exercises, and personalised learning pathways, particularly in Mathematics, enabling students to solve textbook problems, practise similar questions, and address identified weak areas.

Implemented in 351 government schools with a focused three-month action plan for Class 10 (2025 session), the initiative directly targeted low mathematics performance. The intervention yielded measurable improvement, with Tonk's overall pass percentage exceeding the State average, demonstrating the effectiveness of AI-supported remediation in improving board examination outcomes.

Together, AI-enabled competency assessments and personalised learning platforms such as Padhai with AI reflect Rajasthan's transition toward data-driven governance in school education, aligned with the objectives of the NEP 2020 moving from rote evaluation to competency-based, technology-enabled, and student-centric learning ecosystems.

95 *Government of Rajasthan, Department of School Education & Literacy. (2025). Mukhyamantri Shikshit Rajasthan Abhiyan (MSRA): Competency-based assessment guidelines. Shaladarpan Portal. Retrieved from https://rajshaladarpan.nic.in*

ANNEXURES



Annexure-I

National Workshop on Quality Education

28th February 2025

Dr Ambedkar International Centre, New Delhi

09:30-10:30 AM	**Registration & Tea**	
10:30-10:35 AM	**Welcome Address**	Ms. Sonia Pant, PD (Education), NITI Aayog
10:35-10:45 AM	**Special Remarks**	Ms. Joyce Poan, Programme Specialist and Chief of Education, UNESCO New Delhi, South Asia Regional Office
10:45-12:15 PM	**Panel Discussion 1:** **Getting the Basics Right:** • Ensuring good quality school infrastructure, facilities and required number of teachers • Strengthening Early Childhood Education and Foundational Literacy and Numeracy **Followed by Q&A**	**Panellists:** Shri Rahul Singh, Chairperson, CBSE Ms. Archana Sharma Awasthi, Joint Secretary, DoSE&L, Govt. of India Shri Karthik Menon, Lead Operations, PRATHAM Shri Subir Shukla, Principal Coordinator, IGNUS Shri Anustup Nayak, Project Director, Central Square Foundation (CSF) **Moderator:** Dr. I.V. Subba Rao, Distinguished Fellow, NITI Aayog
12:15-12:30 PM	**Tea Break**	
12:30-01:30 PM	**Panel Discussion 2:** **Shaping Teachers as Instructional Leaders** **Followed by Q&A**	**Panellists:** Ms. Kanchan Verma, Director General-School Education, U.P. Prof. Dinesh Prasad Saklani, Director, NCERT Prof. Rishikesh B.S., Azim Premji University Shri Madhukar Reddy Banuri, Founder Director, Leadership for Equity Ms. Urmila Choudhary, Education Director & Co-founder, Peepul **Moderator:** Prof. Shashikala Wanjari, Vice Chancellor, NUEPA
1:30-01:40 PM	Special Remarks	Shri Sanjay Kumar, Secretary, DoSE&L, Govt. of India
01:40-01:50 PM	Keynote Address	Dr. V.K. Paul, Member (Education), NITI Aayog

01:50-02:30 PM	**Lunch Break**	
02:30-3:30 PM	**Panel Discussion 3: Nurturing School leadership for sustained systemic improvement:** School Rationalisation, Staff deployment, Integrated School Complexes, Effective community engagement through School Management Committees **Followed by Q&A**	**Presentation 1**- Shri Mukesh Kumar, Principal Secretary (School Education), Gujarat **Presentation 2**- Shri Thavaseelan K, Principal Director, Nagaland **Presentation 3**- Shri Mayank Chaturvedi, DC, Dantewada, Chhattisgarh **Moderator**: Ms. Sonia Pant, PD (Education), NITI Aayog
3:30-3.45 PM	**Tea Break**	
03:45-04:55 PM	**Panel Discussion:4:** **Technology for Education**	**Presentation 1:** Shri Jagdish Babu, COO, EkStep Foundation **Presentation 2:** Ms. Nidhi Anarkat, CEO, NavGurukul Foundation **Presentation 3:** Ms. Swati Vasudevan, MD, Khan Academy **Presentation 4:** Shri Ravichandran Venkataraman, Chairperson, eVidyaloka **Moderator:** Shri Neeraj Huddar, Resident Fellow, NITI Aayog
04:55-05:00 PM	**Vote of Thanks**	Ms. Sonia Pant, PD (Education)
05:00 PM	**High Tea**	

Annexure-II

Consultation with Stakeholders

The consultation was convened by Dr I.V. Subba Rao, Distinguished Fellow, NITI Aayog on 2 December 2025 at NITI Aayog.

Name	Designation and Organisation
Ms. Saadhna Panday	Chief of Education, UNICEF
Shri Ramachandra Rao Begur	Education Program Specialist, UNICEF
Prof. Reetu Chandra	Lecturer, NCERT
Ms. Romonika D Sharan	Project Director, Policy and Communications, Central Square Foundation

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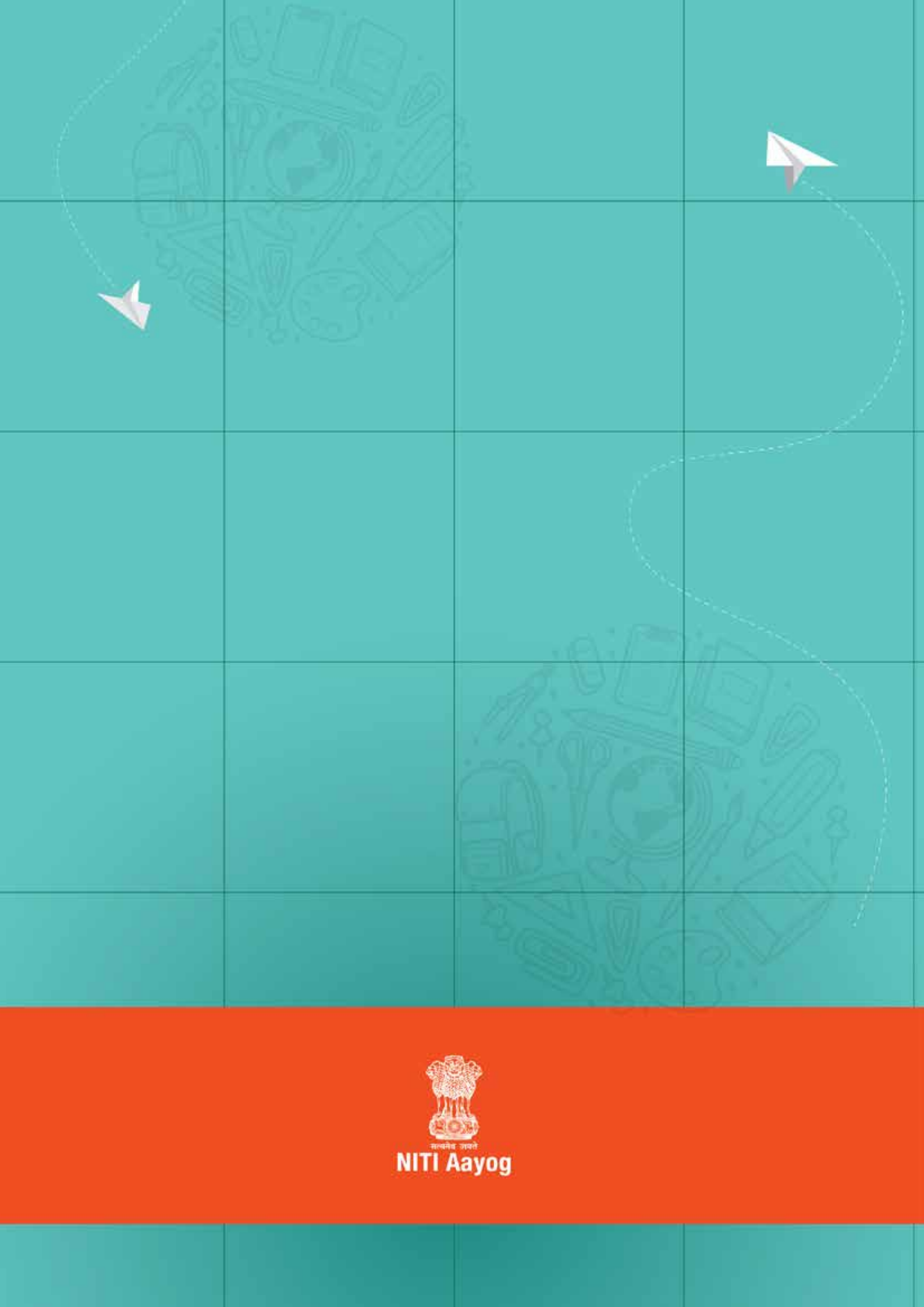
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