

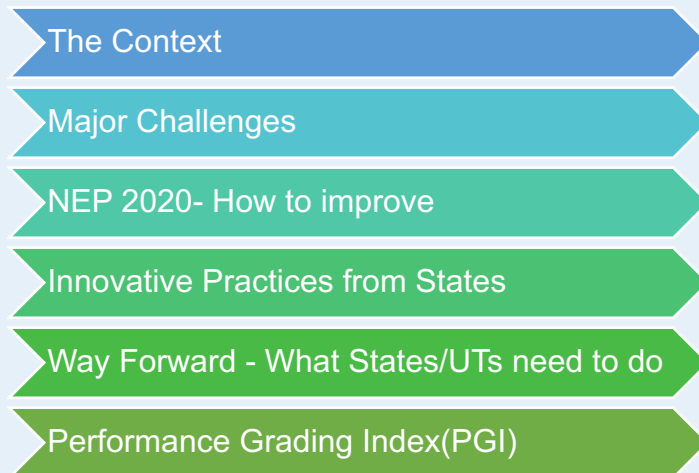
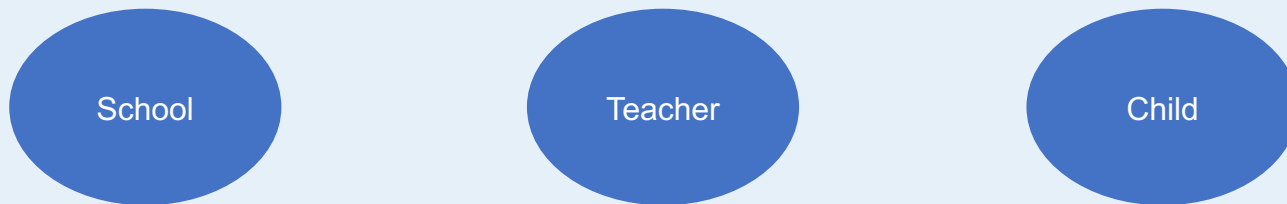


Transforming School Education



STRUCTURE OF THE PRESENTATION

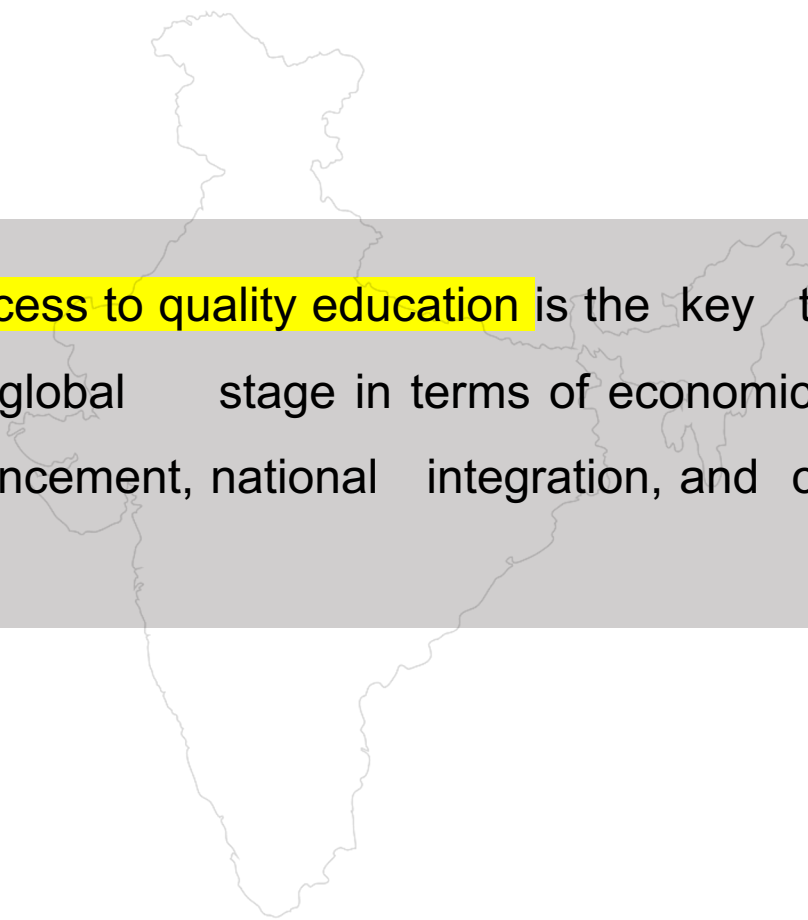
The presentation is divided in three segments:



A photograph of a classroom full of children. In the foreground, a young boy with dark hair, wearing a light blue shirt, sits at a wooden desk and looks directly at the camera. To his left, a girl in a light blue shirt and a dark vest is looking down at a book. Other children are visible in the background, some looking towards the camera and others looking away. The image has a blue overlay, and the text "IMPROVING ACCESS TO SCHOOL EDUCATION" is centered in white.

IMPROVING ACCESS TO SCHOOL EDUCATION

NEP 2020 on Access

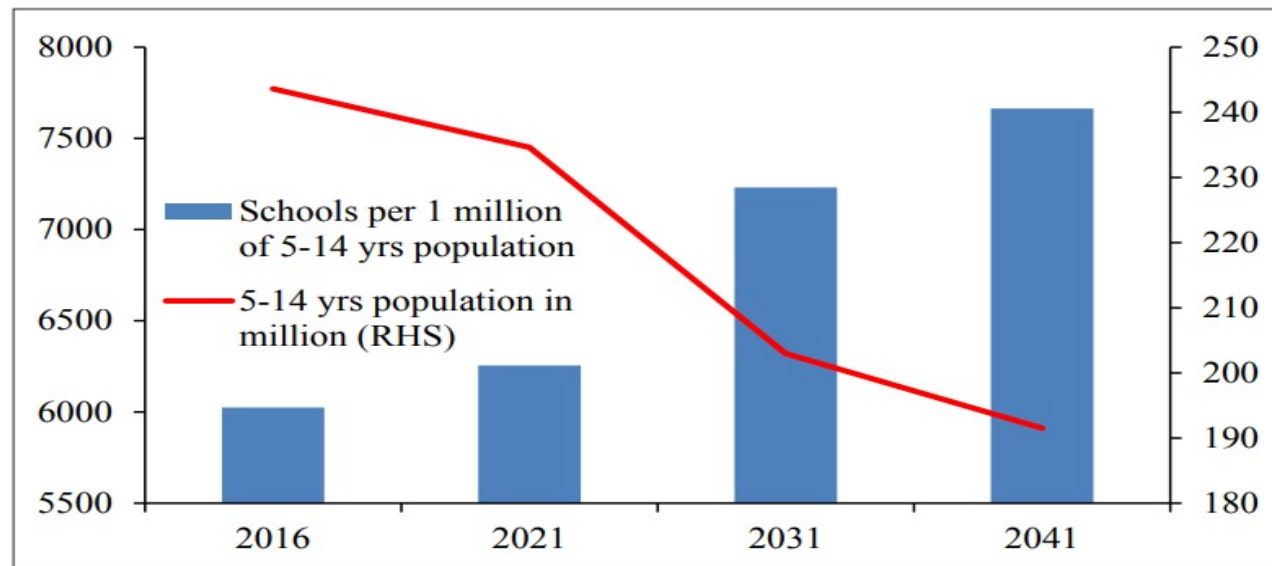
A faint, light gray outline map of India is centered in the background of the slide.

“Providing universal access to quality education is the key to India’s continued ascent, and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation.....
.....”

Requirement of Schools in Future

142 | Economic Survey 2018-19 Volume 1

Figure 7: Number of Elementary Schools in India per 1 million of 5-14 Years Population under Status Quo

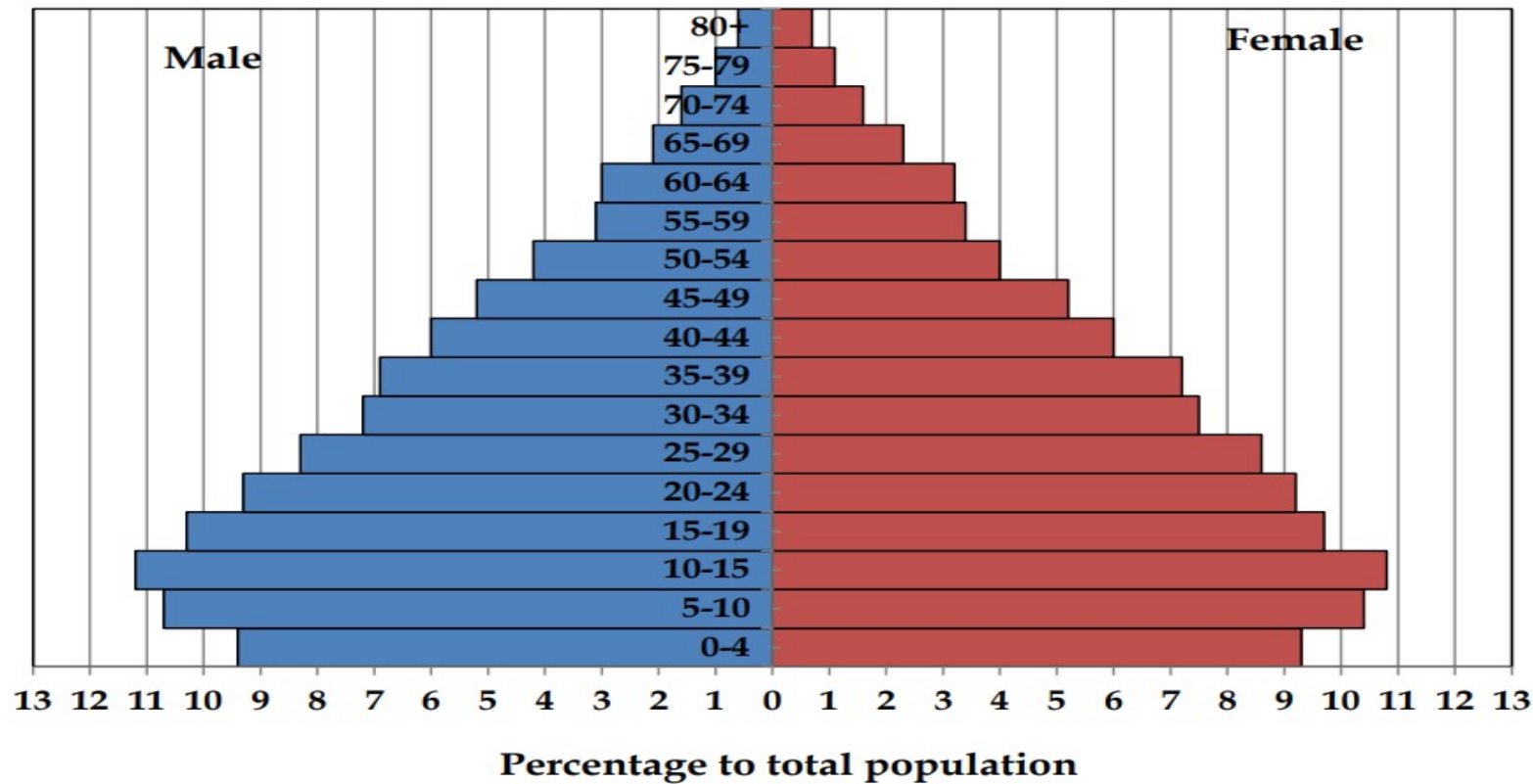


Source: Unified District Information on School Education, Sample Registration System, IIPS.

Note: Calculations are based on projected 5-14 years population for 2021-41 from IIPS and number of elementary schools at 2016 levels.

India 2011: Percentage to total population – largest share is of age 5-24

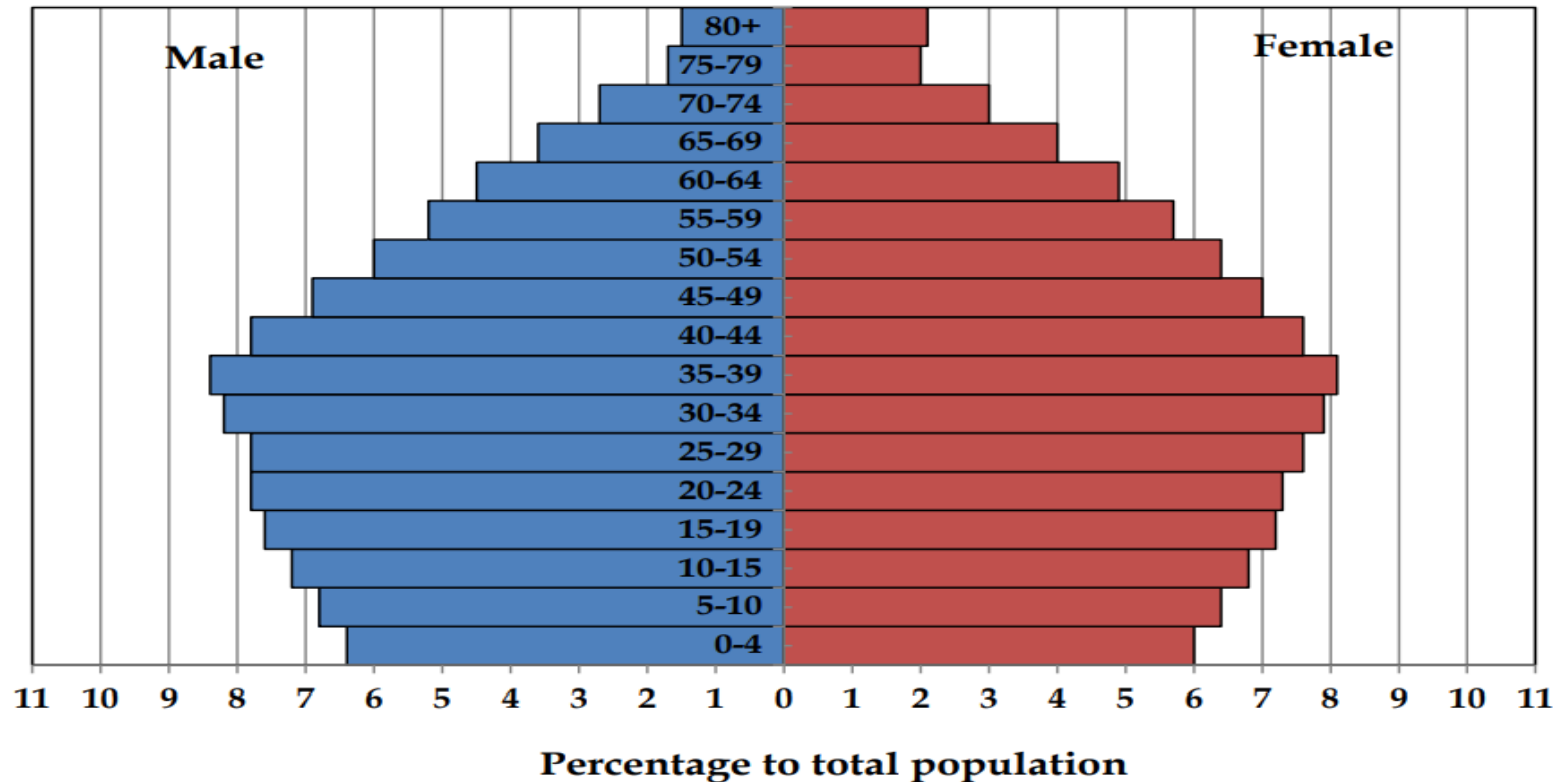
Figure 2- Actual Population pyramid: India - 2011



Source: https://nhm.gov.in/New_Updates_2018/Report_Population_Projection_2019.pdf

India 2036: Percentage to total population – shifts to 20-44

Figure 3- Projected Population pyramid: India - 2036



Major challenges related to ACCESS

- Improvement in HDI index, GER, Annual drop out rate, retention rate, etc.

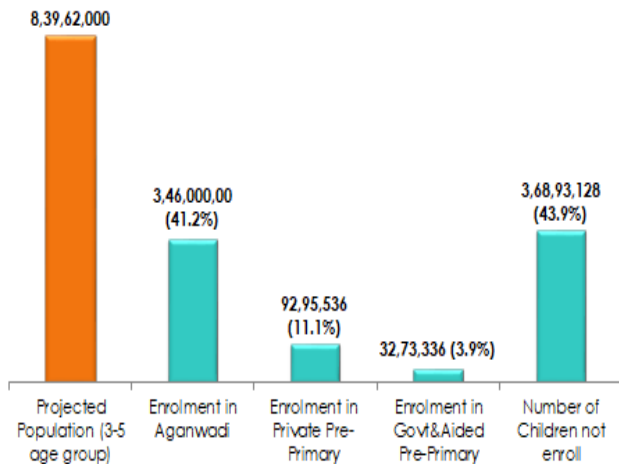
	INDIA	HIGHEST	LOWEST
Human Development Index	0.56	0.8 (Chandigarh)	0.44 (Bihar and Ladakh)
GER - primary	103.3	Meghalaya (179.5%)	A & NI (73.1%)
GER – upper primary	92.2	Delhi (125.1%)	Lakshadweep (56.6%)
GER – secondary	79.8	Delhi (116.3%)	Ladakh (58.7%)
GER – higher secondary	53.8	Himachal Pradesh (85.6%)	Assam (32.3%)
Annual Dropout rate (ADR)– primary	0.8%	0 (7 States & 4 UTs)	8.6% (Manipur)
ADR – upper primary	2.3%	0 (6 States & 2 UTs)	8.9% (Meghalaya)
ADR - secondary	14.0%	0 (Chandigarh & Lakshadweep)	30.3% (Assam)
PTR	Primary: 26 Upper Primary: 19 Secondary: 19 Higher Sec.: 27	Primary: 57 (Bihar) Upper Primary: 34 (Delhi) Secondary: 54 (Bihar) Higher Sec.: 64 (Odisha)	Primary: 7 (Sikkim) Upper Primary: 4 (Ladakh) Secondary: 7 (Ladakh) Higher Sec.: 10 (A & NI and Himachal Pradesh)
Retention rate	Grades 1-8: 80.6%	Grades 1-8: 100% (2 States & 3 UTs)	Grades 1-8: 43.4% (Arunachal Pradesh)
	Grades 9-10: 69.8%	Grades 9-10: 100% (4 States & 4 UTs)	Grades 9-10: 36.1% (Nagaland)
	Grades 11-12: 43.1%	Grades 11-12: 100% (Chandigarh & Kerala)	Grades 11-12: 14.4% (Arunachal Pradesh)

Inaccessibility of quality ecce: Enrolment of ECCE and FLN

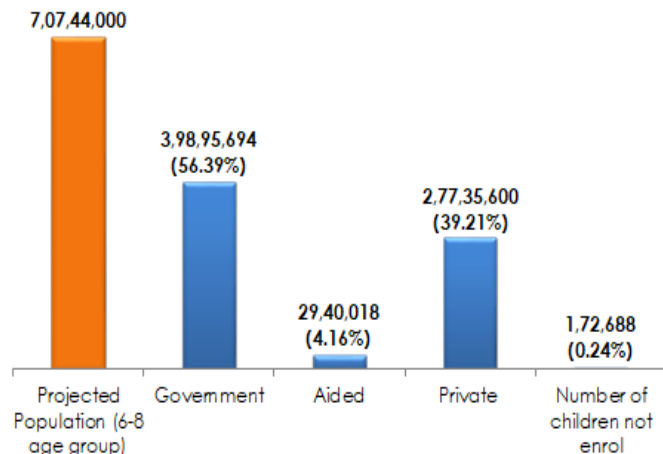
Total Number of Children in 3-9 years (projected): 15.47 crore

Source: UDISE+ and data from MWCD

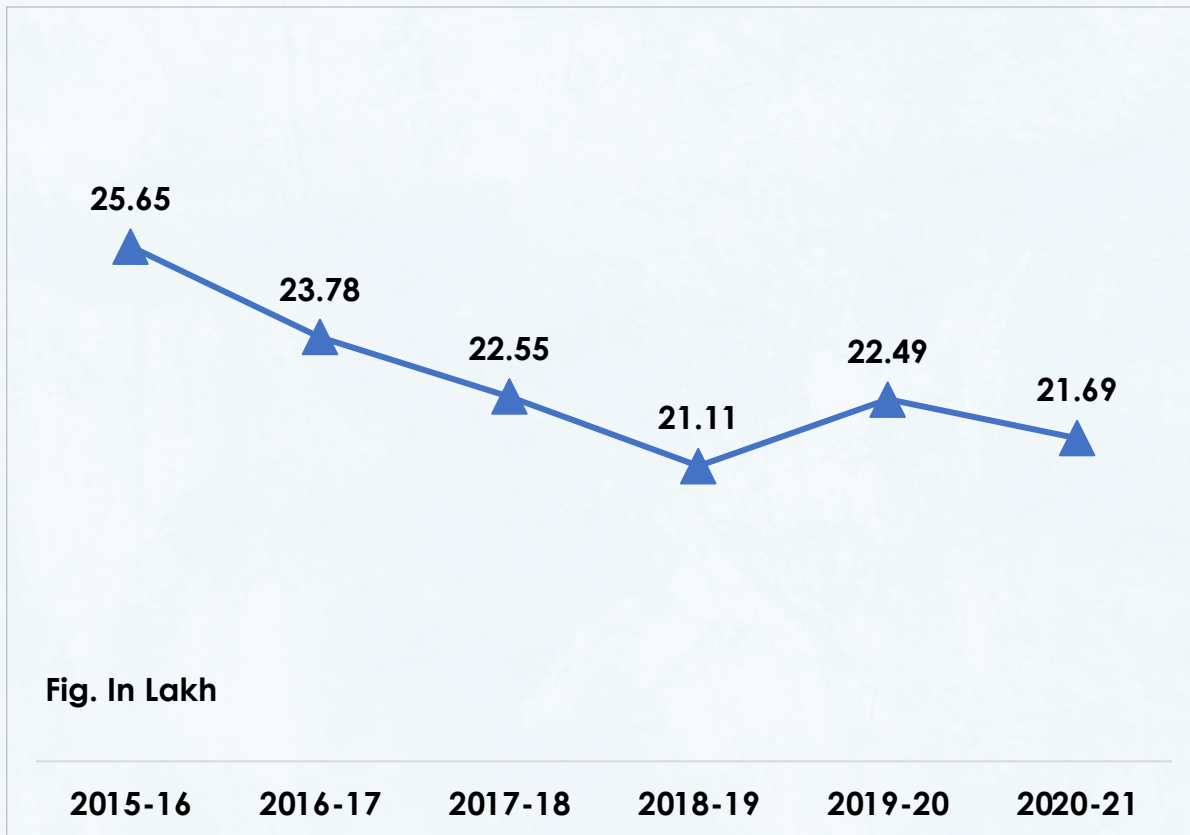
Anganwadi and Pre-Primary enrolment



Enrolment in Grade (I,II,III)



Accessibility for CWSN: Decline in enrolment of Children with Special Needs (CwSN)



States/UTs with sharp decline in CWSN enrolment (%)	
Puducherry	55.99
Ladakh	29.71
Nagaland	26.59
Himachal Pradesh	26.23
Chandigarh	22.31
Tripura	20.08
Rajasthan	19.24

Future trends



The share of India's 0-19 population on the decline*

Projected to drop from 41% in 2011 to 25% by 2041.

Overall number of school-going children will decline by 18.4% between 2021-2041.

Number of schools per capita will rise significantly across all major states even if no more schools are added.

Nations like Japan, China, South Korea, Singapore and Canada with similar trends have already begun mergers/consolidation.

Climate change at the present rate

Climate change at the present rate may impact the design of school infrastructure, timings, etc. Green infrastructure and renewable energy need of the hour (Intergovernmental panel for Climate Change report, 2021).

NEP 2020: how to improve access

- **Not later than 2030: Universal provisioning of quality ECCE** - all students entering Grade 1 school ready.
- **By 2030: Achieve universal participation in school** - Bring back all out-of-school children; prevent dropouts; achieve 100% GER at all levels.
- **By 2025: State/UT governments to innovatively group or rationalize schools.**
- **State School Standards Authority:** Certain minimal professional and quality standards are to be followed by all schools.
- **Provide for the integration of children with disabilities.**
- Wherever possible, **the medium of instruction until at least Grade 5**, will be the home language/mother tongue/ local language/ regional language.
- Use a **bilingual approach; bilingual teaching-learning materials.**

Innovative Practices from States

Bihar

'Praveshotsav', Special Enrolment Drive through Street Plays, Prabhat Pheri, IEC materials, etc.

J&K

Mainstreaming of OoSCs of nomadic tribes through community and counsellors involvement

Ladakh

Residential schooling facilities for Nomadic children.

Andhra Pradesh

Nadu Nedu programme for Transforming School Infrastructure in all Government Schools in a period of 3 years in three phases.

Gujarat

Attendance Assessment through Vidya Sameeksha Kendra

Karnataka

Learning Recovery Strategy & Student Achievement Tracking System (SAT).

Odisha

'Mo School' or 'My School' to bring alumni, alumnas and the community around government-run or government-aided schools.

Uttar Pradesh

Operation Kayakalp "EK NAYI SOCH" wherein infrastructure in schools is being saturated on 18 Basic Parameters.

Way Forward- ACTIONS by states/UT

Schools of the future and future of schooling

**Monitor enrolment,
drop out and retention
at each school level**

**Overall state and
district level
monitoring only gives
average picture**

- **Review school buildings vs requirement**
- **Improve GER and Reduce Drop out rate:**
particularly at secondary level (grade 9-12)
- **Set up School Standard Setting Authority**
- Provide functional gender segregated toilets, ramps, potable drinking water, sports and library facilities, electricity, etc. in every school to help retention

WAY FORWARD for ECCE

No 0-6-year-old child to be left behind

Tap the brain development phase of every child upto age 6

- Plan for age-appropriate educational inputs for every child in 3-6 age group
- Converge efforts with Women and Child Development Dept. to bring all children to either Anganwadi, pre-primary or nursery schools
- Take the responsibility for training Anganwadi workers
- Build capacities of parents to give stimulating environment for learning

WAY FORWARD for school

**Focus on Learning Recovery
– clearcut strategy**

**End to end tracking of every
child from pre-school to
higher education through
100% student registry**

- **Identify and mainstream Out of School Children (OoSC).**
- **Identify infrastructural gaps; fill them in a planned manner - GIS Mapping (BISAG).**
- **Focus on girl child education:** undertake special interventions
- **Focus on retention** in every grade in every school – use mother tongue
- **Focus on inclusion of Divyang students** – Special educators, Content for visually impaired children, Indian Sign Language Dictionary, Block identification camps.

WAY FORWARD

Community Involvement
through VIDYANJALI-
National Portal

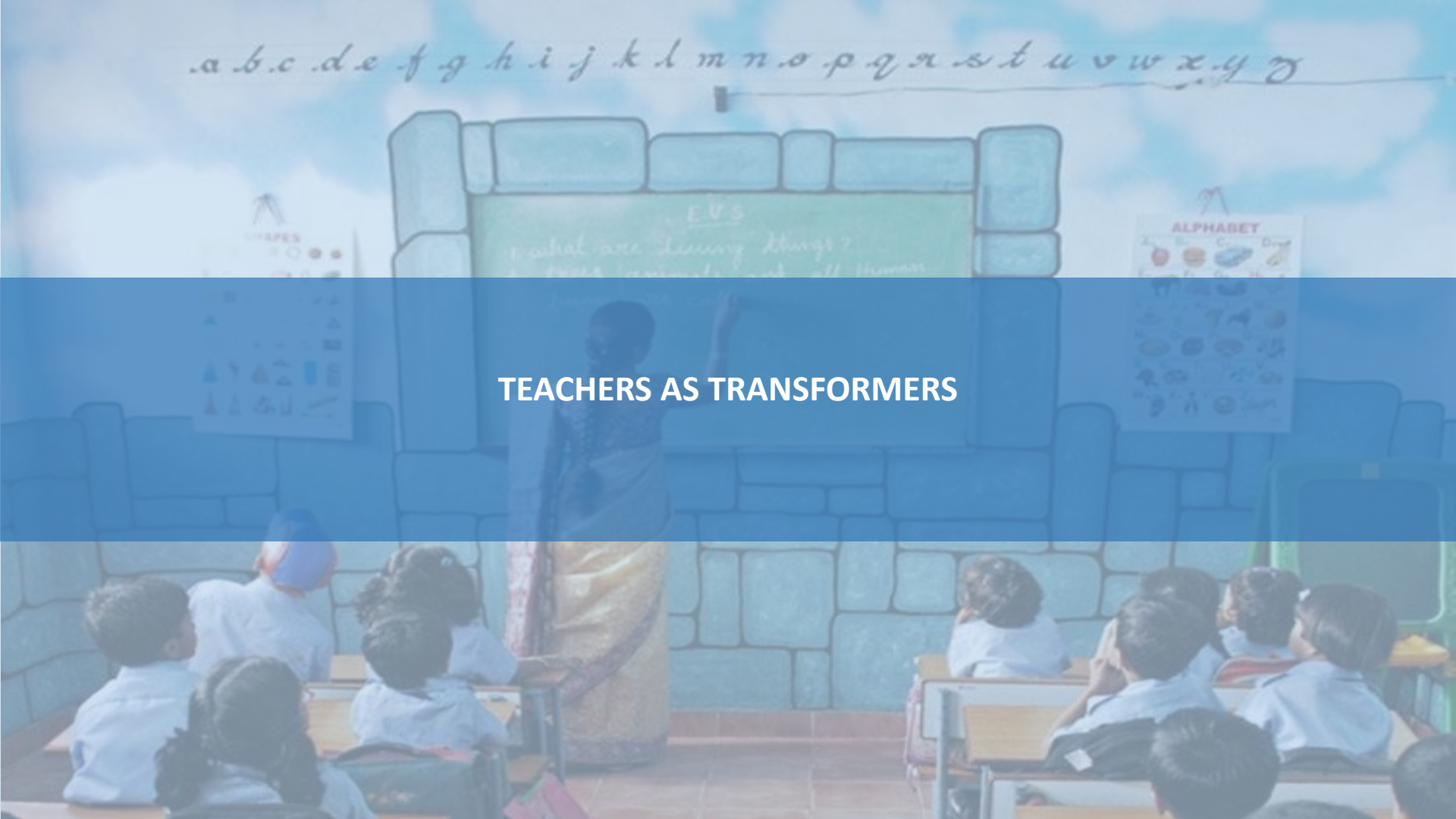
Manordarpan Initiatives:
Focus on mental and physical
health and well-being of child

- **Integration of Technology:**

- ✓ Reduce administrative burden on teachers
- ✓ Establish Vidya Sameeksha Kendras - Real time monitoring
- ✓ Ensure Student, Teachers and School Registries with unique ID - connect to all benefits and achievements

a b c d e f g h i j k l m n o p q r s t u v w x y z

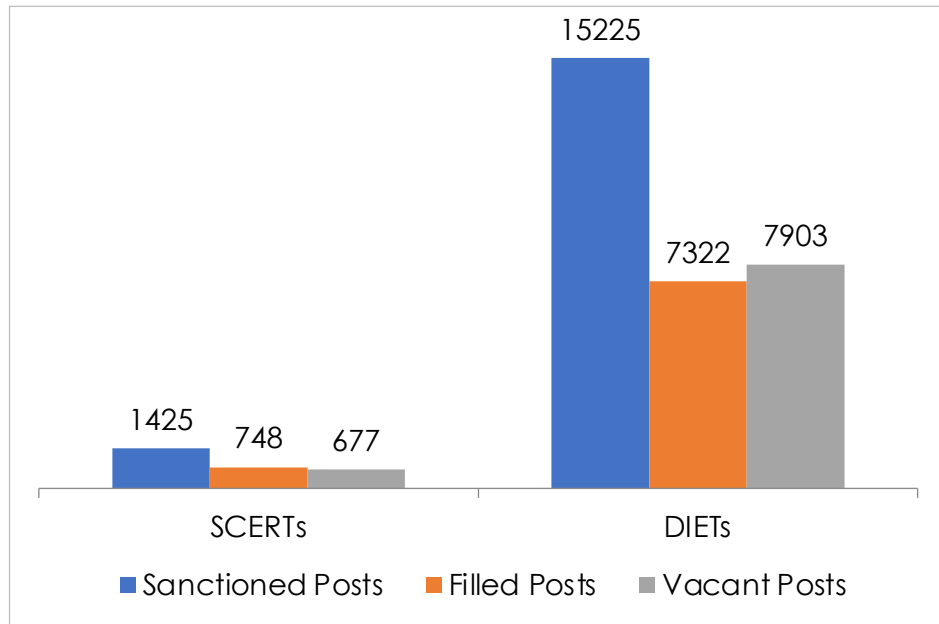
TEACHERS AS TRANSFORMERS



Major challenges



1. Status of Vacancies in Academic Posts in SCERTs & DIETs



Vacancies as per Scheme:

- Around 47.51 percent Academic positions are vacant in SCERTs
- Around 51.91 percent Academic positions are vacant in DIETs

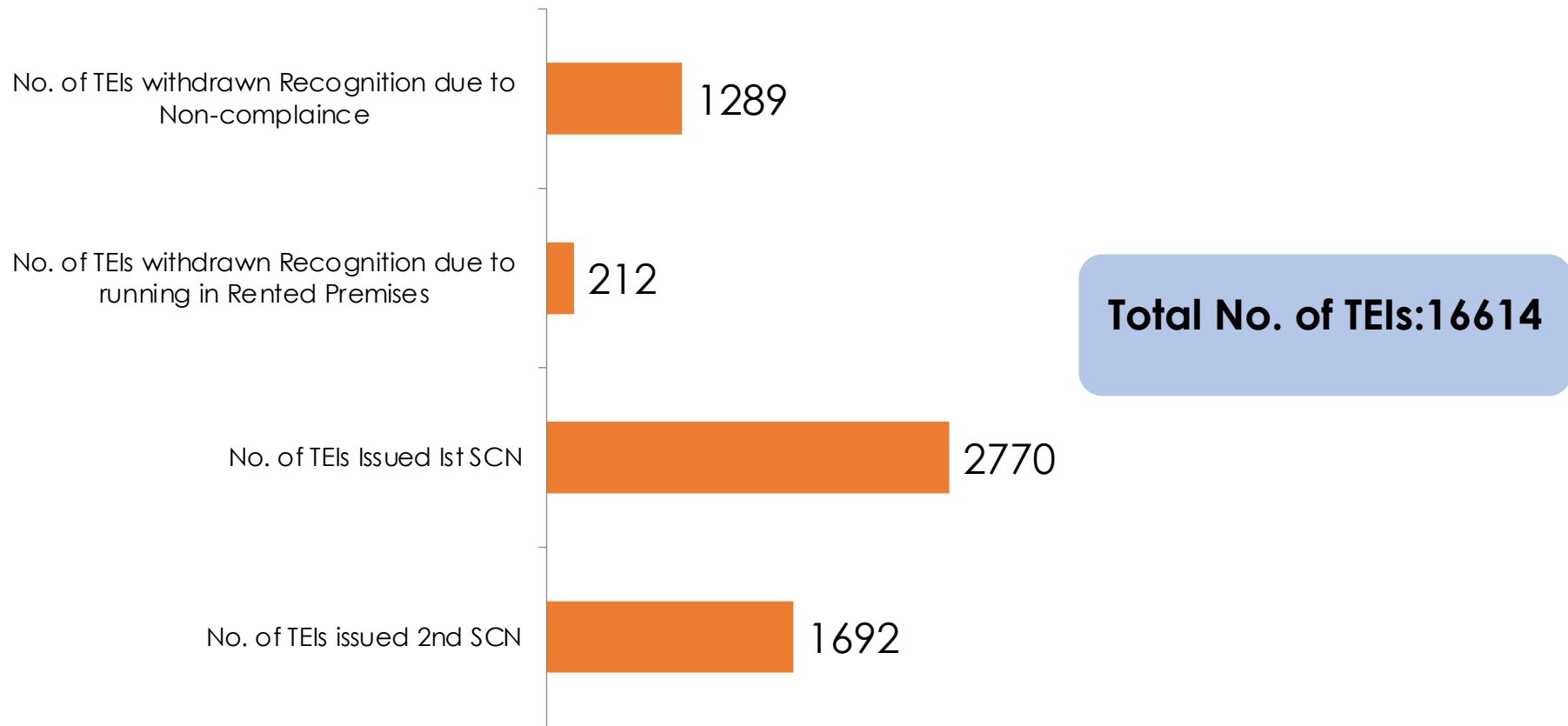
States/UTs having high % of vacancies in SCERTs:

- Goa: 93.33
- Arunachal Pradesh: 84.44
- Odisha: 80.00
- Telangana: 77.78
- Punjab: 77.78
- West Bengal: 77.78
- Tripura: 71.11
- A&N Islands: 66.67
- Bihar: 62.22
- Manipur: 60.00

States/UTs having high % of vacancies in DIETs:

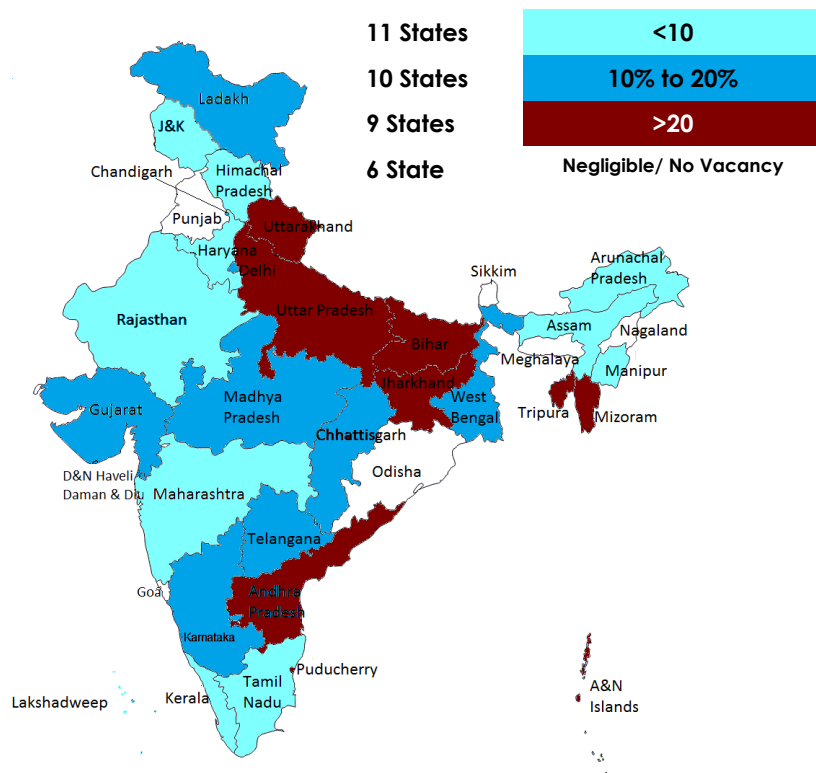
- Punjab: 89.41
- West Bengal: 85.26
- Arunachal Pradesh: 75.27
- Jharkhand: 75.17
- Madhya Pradesh: 73.45
- Telangana: 70.00
- DnD & DNH: 68.00
- Maharashtra: 66.30
- Goa: 64.00
- Gujarat: 59.87

2. Status of Substandard Teacher Education Institutions

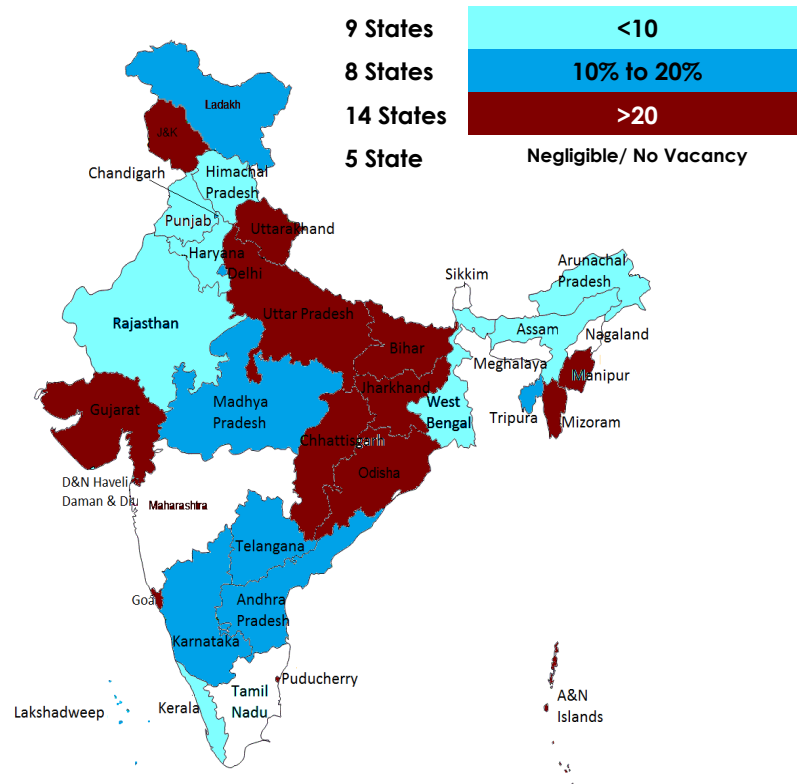


3. Teacher Vacancy (1/2)

Elementary Level

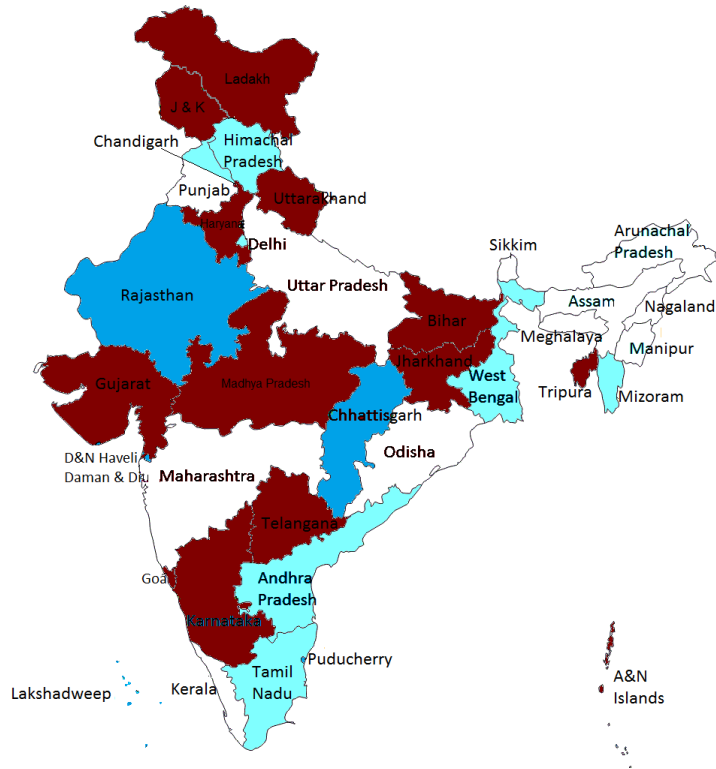


Secondary Level



Source: AWP&B 2022-23 (Provisional)

4. Teacher Vacancy (2/2)

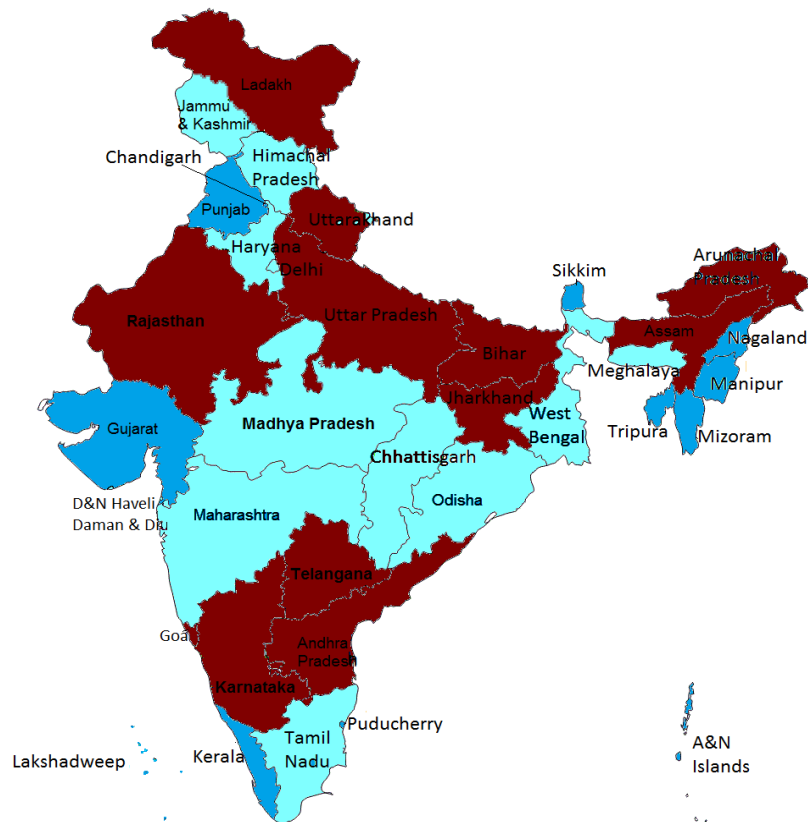


Higher Secondary Level

06 States	<10
5 States	10% to 20%
14 States	>20
11 State	Negligible/ No Vacancy

** Higher Secondary teacher vacancy data is not available for Mizoram, Odisha & Meghalaya*

5. RTE Compliant Pupil Teacher Ratio (PTR) (Govt. Elementary Schools)



< 70%	12 States/UTs
71% to 89%	12 States/UTs
>=90%	12 States/UTs

Source:- UDISE+ 2020-21

6. Single Teacher Schools: (Government)



> 5000 Schools	07 States
1000 to 5000	10 States/UTs
< 1000	14 States/UTs
No Single teacher schools	05 States/UTs

Source:- UDISE+ 2020-21 (Provisional)

Other challenges

Unequal Distribution of Teacher Education Institutions (TEI) and Programs:
Four states (UP, Rajasthan, Maharashtra and TN) account for 54% of all TEIs. Only 12 states/UTs have at least one TEI in each district.

Dysfunctional TEIs.

Poor Quality Programmes and Outcomes - across pre- and in-service training.

Unavailability of trained teachers from different mother tongues/marginalized communities.

Suboptimal teacher recruitment process

Lack of individualization in training.

Limited incentives for additional responsibilities.

NEP 2020 – FUTURE OF TEACHING

Areas	Past	NEP Future
Instruction	Subject-based	More project-based, experiential and multi-disciplinary
Flow of Resources	Hierarchical system	Collaborative; teachers-students as co-creators
Teaching	Different students taught in same way	Differentiated approach to learning
Goals	Standardisation and compliance	Personalise learning & assessment to foster talent
Technology	Schools/states as technological islands	Leverage technology to connect
Policy	Provide infrastructure and education	Focus on access and outcomes for all
Administration	Limited to school management	Instructional leadership
Classroom transactions	Top-down approach	Autonomy of pedagogy
Engagements	With parents to a limited extent	Innovative partnerships

Innovative Practices from states

Kerala

Collaborative Research, an innovative research programmes in association with Higher Education Institutions, DIETs and NGOs.

Haryana

Four year B.Ed. Integrated programme at state institute of advance studies at Jhajjar district.

Gujarat

Training on Demand for teachers who require academic support for classroom transaction.

Rajasthan

Voluntary Teacher Forums established by teachers in schools of Tonk and Sirohi district.

Manipur

On school reopening, developed 2 sets of Condensed Syllabus for 60 and 90 days for classes I-IX for use in the physical/offline and trained teachers.

Madhya Pradesh

Shaishik Samvad, integrated professional upgrading of teachers and CM rise programme for digital training of teacher.

Karnataka

DIETs as Educational Resource Centres for School Support and Professional Development of Teachers & Teacher Educators.

A photograph of a classroom scene. A female teacher with dark hair, wearing a yellow shawl over a colorful striped dress, is pointing her right hand towards a chalkboard. In the foreground, the back of a young student is visible; the student is wearing a blue checkered shirt, grey trousers with a belt, and has red ribbons tied in their braids. The chalkboard is filled with handwritten text in Hindi and mathematical equations. At the top right, the word 'गणित' (Ganit) is written and underlined. Below it, the equations $2 \times 2 = 4$ and $2 \times 3 = 6$ are visible. Further down, $+4 = 16$ and $= 15$ are partially visible. The background is a grey chalkboard with some faint, illegible writing.

Teachers as Transformers

Way Forward - Actions to be taken by states/UT

1. Review quality of Teacher Education Institutions (TEI); STRENGTHEN THEM

**Qualitative Pre-service
education to equip teachers
with the capacities to
implement NEP**

- **Review** all affiliations, infrastructure, curriculum and functioning of all TEIs within state/UT.
- **Take necessary action** against dysfunctional TEI.
- **Teacher Eligibility Test (TET):** being extended to all levels of school education. Prepare for it.

2. Strengthen in-service teacher education

Adopt professional standards for teachers and institutionalize mentoring

- **Fill vacancies** in SCERT/ DIETs/ BRC/ CRC - make them vibrant.
- **Training** every year for every teacher for minimum 50 hours
- **NISHTHA:** Ensure teacher participation.
- **Orient teachers to technology integration in classrooms:** Digital tools, FOSS, OER initiatives (available on PM eVIDYA).
- **Build Peer Learning Communities.**
- **Ensure 100% Teacher Registry.**

3. Recruitment and Deployment of teachers

**Recruitment to be based
on projections**

- Transparent teacher recruitment.
- Process of recruitment to include:
 - ✓ NCTE qualifications
 - ✓ Teacher Eligibility Test
 - ✓ A demonstration/interview
 - ✓ Knowledge of local language(s)
- Rational deployment of teachers.
- Teacher allocation to schools needs to be rationalized in every state before beginning of every academic session.

4. Suggestions by teachers, BRC, CRC and DIETs during consultations

Provide tools to teachers for the purpose of self-appraisal

- Integrate motivational training in teacher training.
- Develop a forum for exchange of ideas for teachers at block/district/state levels.
- Conduct special training on stage wise learning outcomes for school leadership.

Way forward

Providing trained teachers to every school is the foremost responsibility of states/UTs

Provide Teacher Resources for introducing innovative pedagogies – use technology

- **100% teacher registry – track teacher competencies**
- **No single teacher schools**
- **Training Need Analysis**
- **DIETs:** Build capacity/equip for monitoring Learning Outcomes at BRC/CRC/School levels

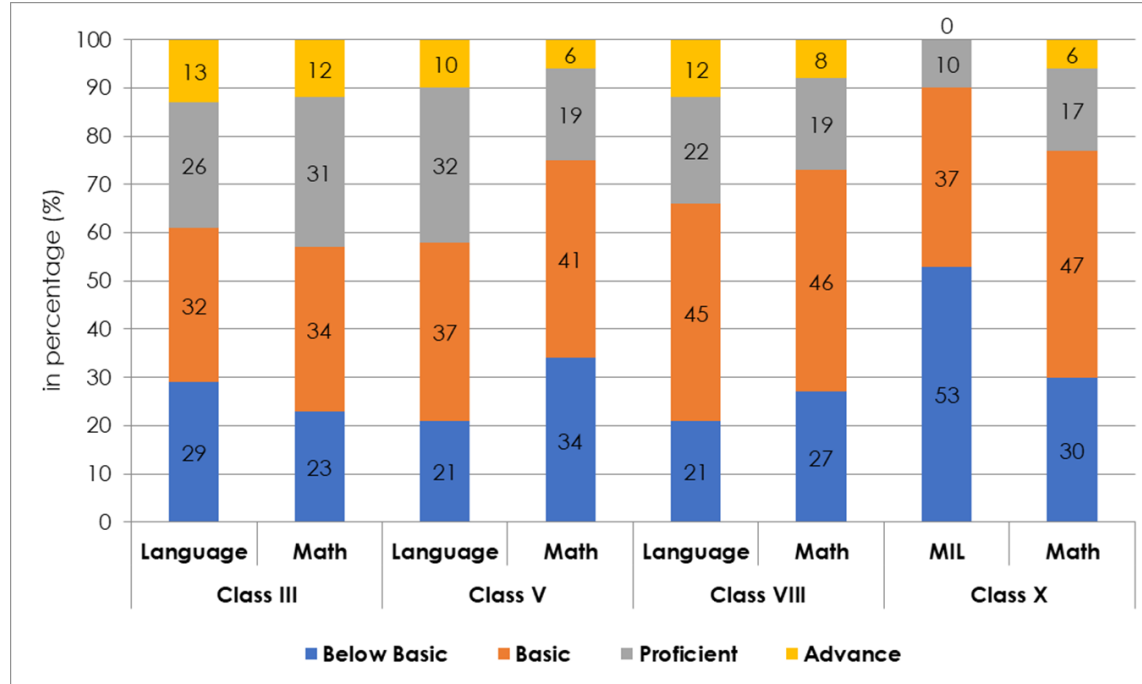


STRONG FOUNDATION FOR FUTURE READINESS

Major challenges



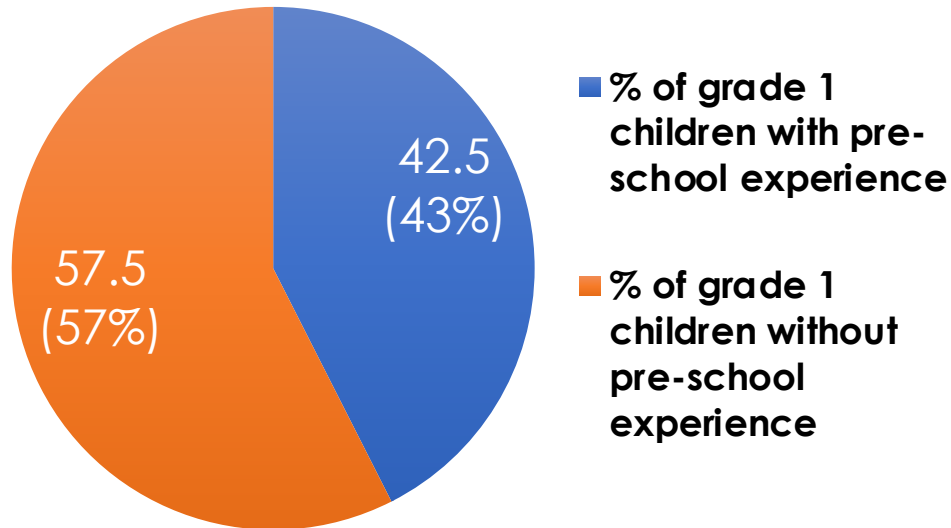
Proficiency levels in Language and Maths for all grades (NAS 2021)



Major challenges

Children not exposed to pre-school education -
Enrolment Gaps.

Enrolment of children with prior pre-school experience



States with lowest % of children having pre-school experience in Grade-I	
State	% of children with pre-school experience
Karnataka	10.32
Bihar	12.56
Uttar Pradesh	15.30
Rajasthan	24.93
Arunachal Pradesh	29.51

Major challenges

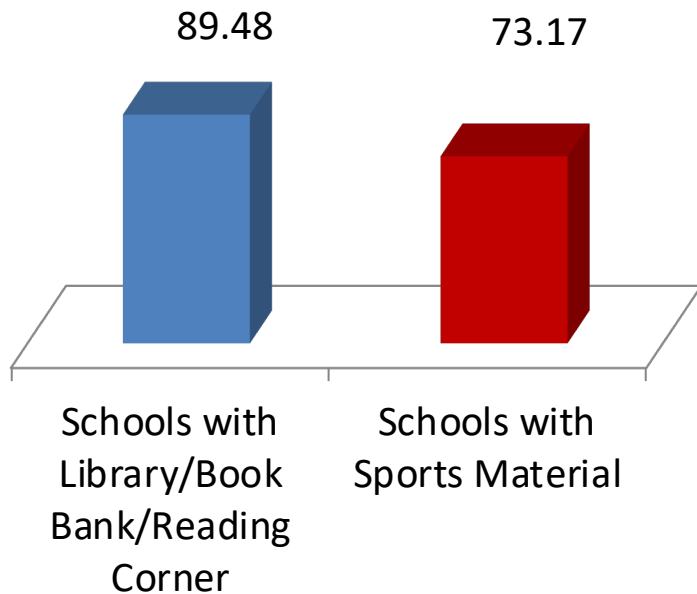
Access to ICT infrastructure and devices.

ICT infrastructure

% age secondary/higher secondary schools	INDIA	Highest	Lowest
With ICT labs	49.7	100% - Chandigarh	3% - M.P
With digital board	76.2	100% - Chandigarh, DD & DNH, Lakshadweep, Puducherry	18% - Bihar
With electricity	97.3	100% - A&N islands, Chandigarh, DD & DNH, Delhi, Goa, Gujarat, Kerala, Lakshadweep, Puducherry, Punjab, Sikkim, TN	62.6% - Meghalaya
With Internet	48	100% - Chandigarh, Lakshadweep, Puducherry	8.6% - Bihar

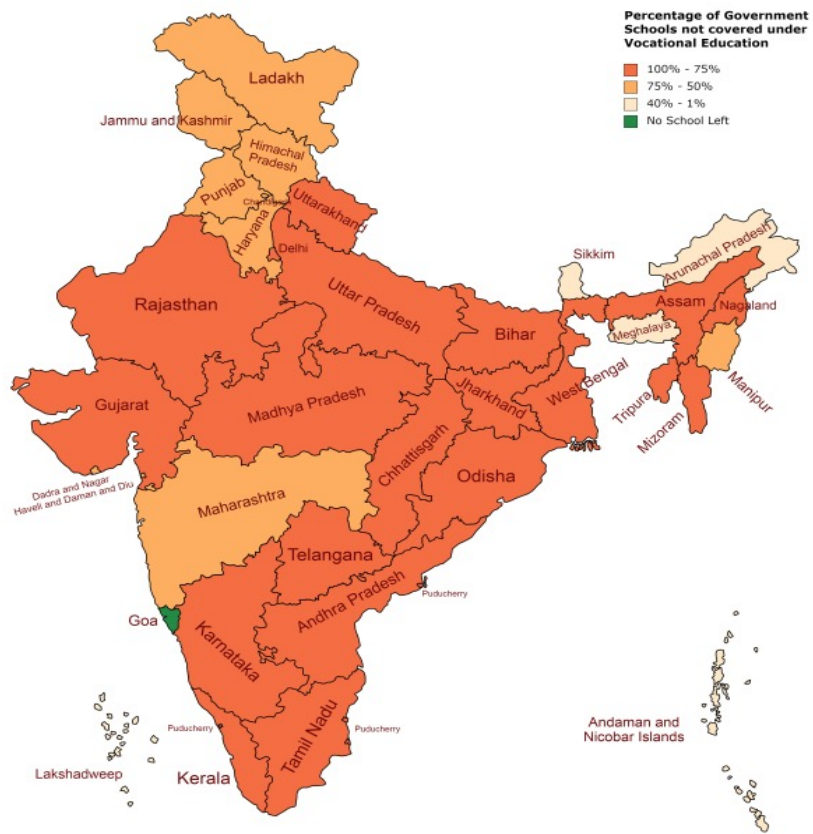
% Government Schools with Library & Sports Material

India	
Sports Material	7,55,154
Library/Book Bank/RC	9,23,519

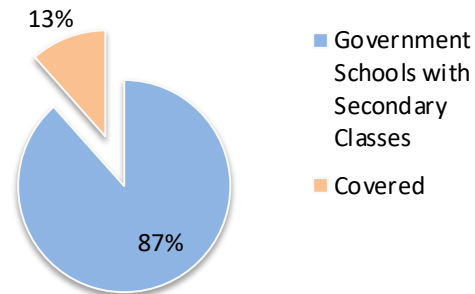


Highest States/UTs			
Library/Book Bank/Reading Corner		Sport Material	
Punjab	100.00	Lakshadweep	100.00
Goa	100.00	Punjab	99.18
Chandigarh	100.00	Daman & Diu and Dadra & Nagar Haveli	98.77
Delhi	100.00	Chandigarh	98.35
Daman & Diu and Dadra & Nagar Haveli	100.00	Puducherry	96.68
Lowest State/UTs			
Manipur	10.95	Meghalaya	3.87
Meghalaya	15.78	Nagaland	29.67
Arunachal Pradesh	38.03	Manipur	36.69
Nagaland	56.20	Telangana	43.00
Bihar	58.63	Bihar	43.43

Gaps in coverage under Vocational Education



VE Coverage



Future Readiness = Disruption Readiness

“While students must have a large amount of flexibility in choosing their individual curricula, **certain subjects, skills, and capacities should be learned by all students** to become good, successful, innovative, adaptable, and productive human beings in today’s rapidly changing world...” (NEP, 2020)

NEP – Skills for future-readiness

- Foundational Literacy and Numeracy
- Vocational exposure and skills
- Proficiency in languages
- Scientific temper
- Creativity
- Aesthetics and art
- Communication
- Health and nutrition; physical education, fitness, wellness, and sports
- Collaboration
- Problem solving

- Digital literacy, coding, and computational thinking
- Ethical and moral reasoning;
- Constitutional values;
- Gender sensitivity;
- Fundamental Duties; citizenship skills and values;
- Knowledge of India;
- Environmental awareness including water and resource conservation, sanitation and hygiene;
- Current affairs

Innovative Practices from states

Karnataka

Ganita Kalika Andolan and Student Registry: A mathematics learning program to improve numeracy skills and Student Registry system for tracking the benefits received, attendance, transition, monitoring, assessments, report cards, etc.

Haryana

Saksham Haryana for foundational Literacy and Numeracy.

Gujarat

Setting up of Vidya Samiksha Kendra to track the overall progress of child.

Uttar Pradesh

Mission Prerna: Flagship program in 1.6 lakh schools; Prerna Soochi for teachers to track LOs.

Odisha

Multilingual education in tribal languages, particularly at elementary level

Himachal Pradesh

Vocational education in 1100 schools and exposure to skills at upper primary level

Goa

Awareness drive by Vocational Trainer during pandemic: healthcare sector trainers took up health and nutrition awareness drives at large scale.

Chhattisgarh

Motor iskool: Motorcycle Guruji travel to remote locations and conduct classes for kids in their settlement areas.

CBSE

Artificial Intelligence introduced as skill subject from class 8, since 2019.

Way Forward - Action to be taken by states/UT



1. Holistic Learning:

Teach in mother tongue

**Track competencies,
skills and abilities of
every child**

- Reduce curriculum.
- No silos between curricular areas, and between govt departments.
- Multi-dimensional and holistic assessment

2. Foundational Learning:

Invest more in lower grades

Reading is the key

- Mission mode - FLN in pre-school to grade 3
- Yearly State Achievement Survey.
- Introduce School Preparation Module for every grade 1 child from 2022- 23.
- NISHTHA 3.0 – train 100% teachers.
- DIKSHA – use available resources.

3. DEEPER & EXPERIENTIAL LEARNING

Leverage the potential of technologies available

200 TV channels

- Use innovative pedagogies such as toy pedagogy, experiential learning, story-telling, art-integrated pedagogy, etc.
- Prepare engaging, high-quality content in mother tongue/ local/ regional languages for all digital modes.

4. PEER LEARNING

5. COLLABORATIVE LEARNING

**Buddy system in
Chandigarh and
Navodaya Vidyalayas**

- Institutionalize Peer learning, Group/teamwork and collaboration.
- Introduce Topic Circles at all levels.
- Mentor each child – institutionalize mentoring.

6. SKILL BASED LEARNING

Introduce and integrate certain skills and capacities in all grades, including IT and new age and industry 4.0 skills

- Map local industry
- Introduce vocational exposure, including cutting edge technology and 21st C skills in grades 6-8.
- Strengthen ICT infrastructure at schools/CRC/BRC/DIETs/SCERTs.
- Saturate vocational education in grades 9-12.
- Introduce VE for senior school dropouts.
- Tie up with NIOS/SIOS.



Priority areas for States/UT

Foundational Learning	Skilling	Use of technology
Improvement of student proficiency level in language & mathematics in Class III – focus on reading with comprehension	Integration of all 21 st century skills and cutting edge areas of skilling in the Curriculum from pre-school to grade 12	Integrate in teaching and learning at all stages
Implement 90 days School Preparation Module in all Schools in grade 1 in 2022-23 academic session;	Map requirements of local industry	100% availability of ICT, electricity and internet in all schools;
100% training of teachers in innovative pedagogy.	Vocational exposure at Middle stage;	More e- content in vernacular/local languages to be made available on DIKSHA;
Mother tongue/regional language as medium of instruction	Development of teacher resources;	100% energized textbooks with QR codes tagged to e-content

Performance Grading Index- State

- A tool designed by DoSEL to:
 - Provide insights on the status of school education in States & UTs, including key levers that drive their performance and critical areas of performance.
 - Catalyse transformational change in the field of school education.



Structure of State PGI

S.No.	Category	S.No.	Domain	Indicators	Weight
1	Outcomes	1	Learning Outcomes	12	240
		2	Access	8	80
		3	Infrastructure	12	160
		4	Equity	16	220
		5	Teacher Education & Training	10	100
2	Governance & Process	1	Governance Processes	19	200
			Total	77	1000

Thank You!