Challenges in Education for a Vikasit Bharat

NEP 2020 and the Road to 2047

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Let us start here



Goals of Vikasit Bharat by 2047

Six pillars that together define India's aspiration for its centenary year.

Economic Growth

USD 30 trillion economy with per-capita income of USD 18,000–20,000.

Technological Leadership

India as a global hub for cutting-edge research and innovation.

Social Equity

Inclusive development; poverty below 5%.

Environmental Sustainability

Net-zero by 2070; 500 GW non-fossil capacity; 50% renewables by 2030.

Infrastructure

200,000 km national highway grid by 2025; world-class connectivity.

Good Governance

Transparent, efficient and secure public administration.

Education is the engine of these ambitions

Across decades of evidence, the strongest predictor of a nation's trajectory is the depth of its human capital.

01

Higher growth

Each extra year of schooling is associated with long-term growth of ~0.58 percentage points higher.

— Hanushek & Woessmann

02

Higher productivity

Quality of education is an essential factor in raising basic literacy and numeracy and lifting productivity.

— UNESCO

03

Higher incomes

Popularisation of higher education contributes to poverty reduction and rising household incomes.

— Tilak

04

Empirical evidence

Higher education, scientific and technological capacity drive higher growth rates across 36 OECD countries.

— Jian Li and others

Why a new policy — and why now

Three forces converged after 2014 to make a fresh national framework unavoidable.



Demographic Dividend

A young population peaking around 2030 — the once-in-a-century window that has lifted every major economy of the last 60 years.



Right to Education (RTE) Act, 2009

Universalised access to elementary schooling; the system's task shifted from enrolment to learning.

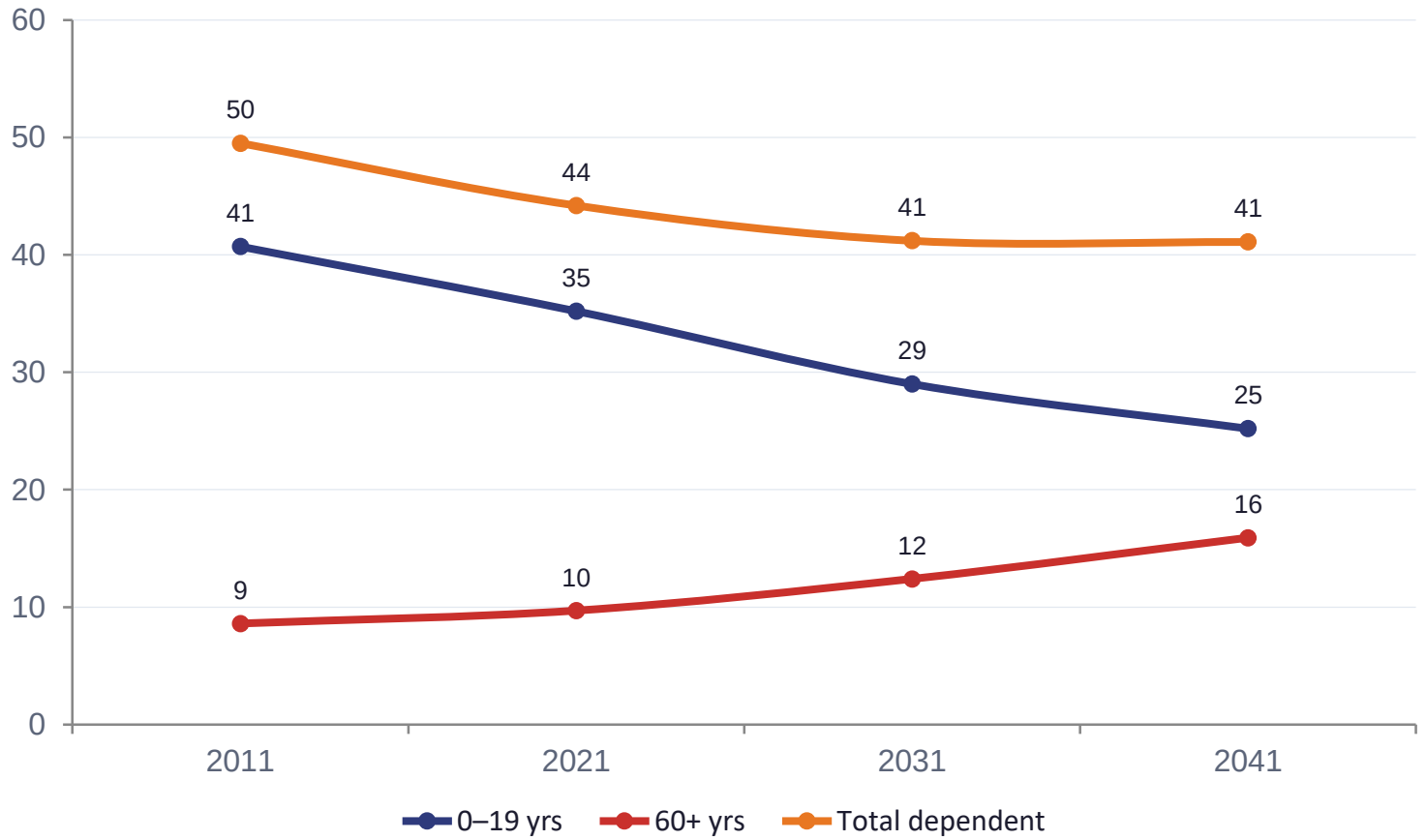


Tectonic Changes

Internet, communication, innovation, data, AI/ML — and the global demand for a skilled workforce — rewrote what education must produce.

The dependent population is coming down

Share of population aged 0–19 vs 60+, and the resulting dependent total (%).

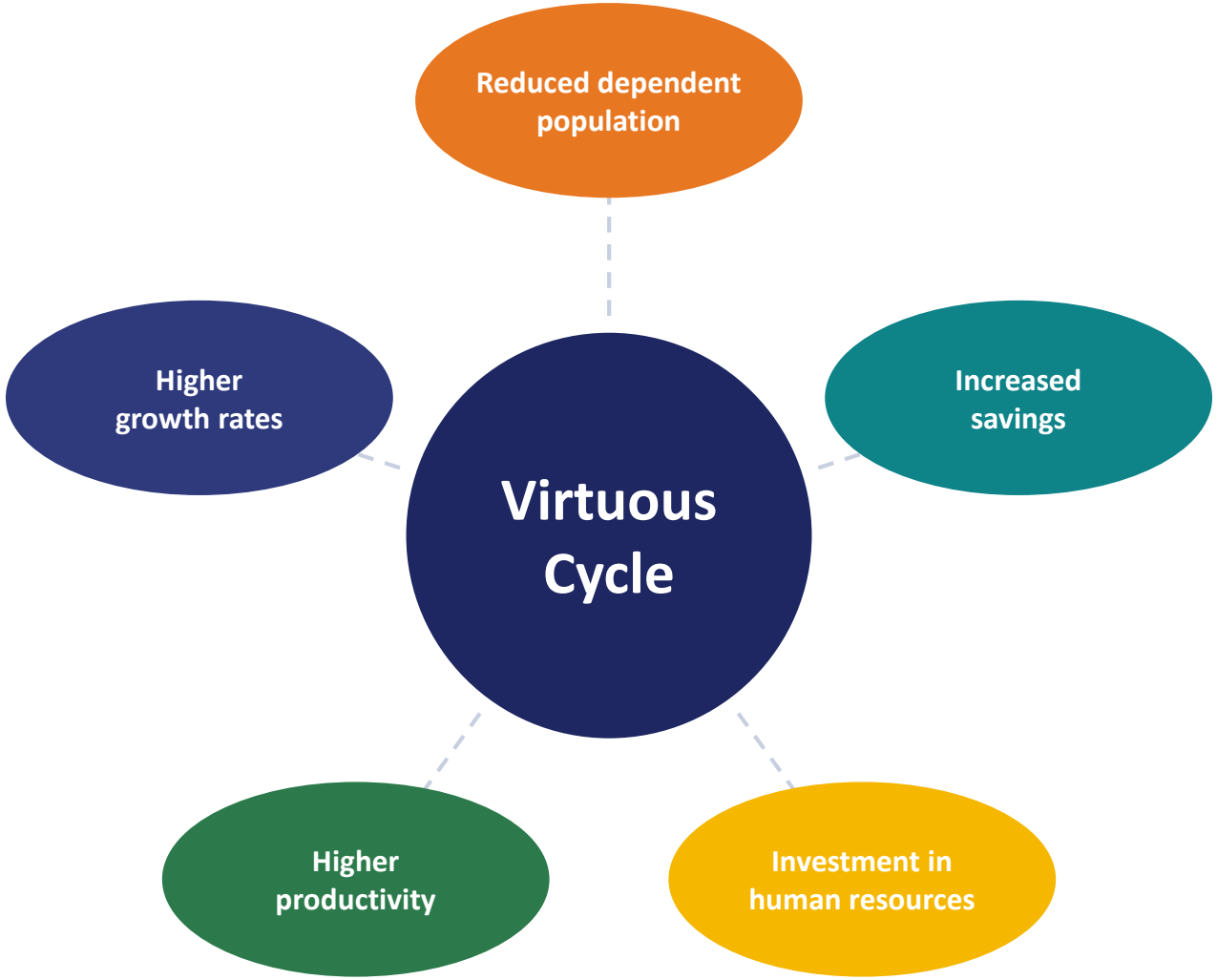


An unprecedented opportunity is knocking at our doors.

The working-age share peaks around 2030. We have one generation to turn demography into prosperity.

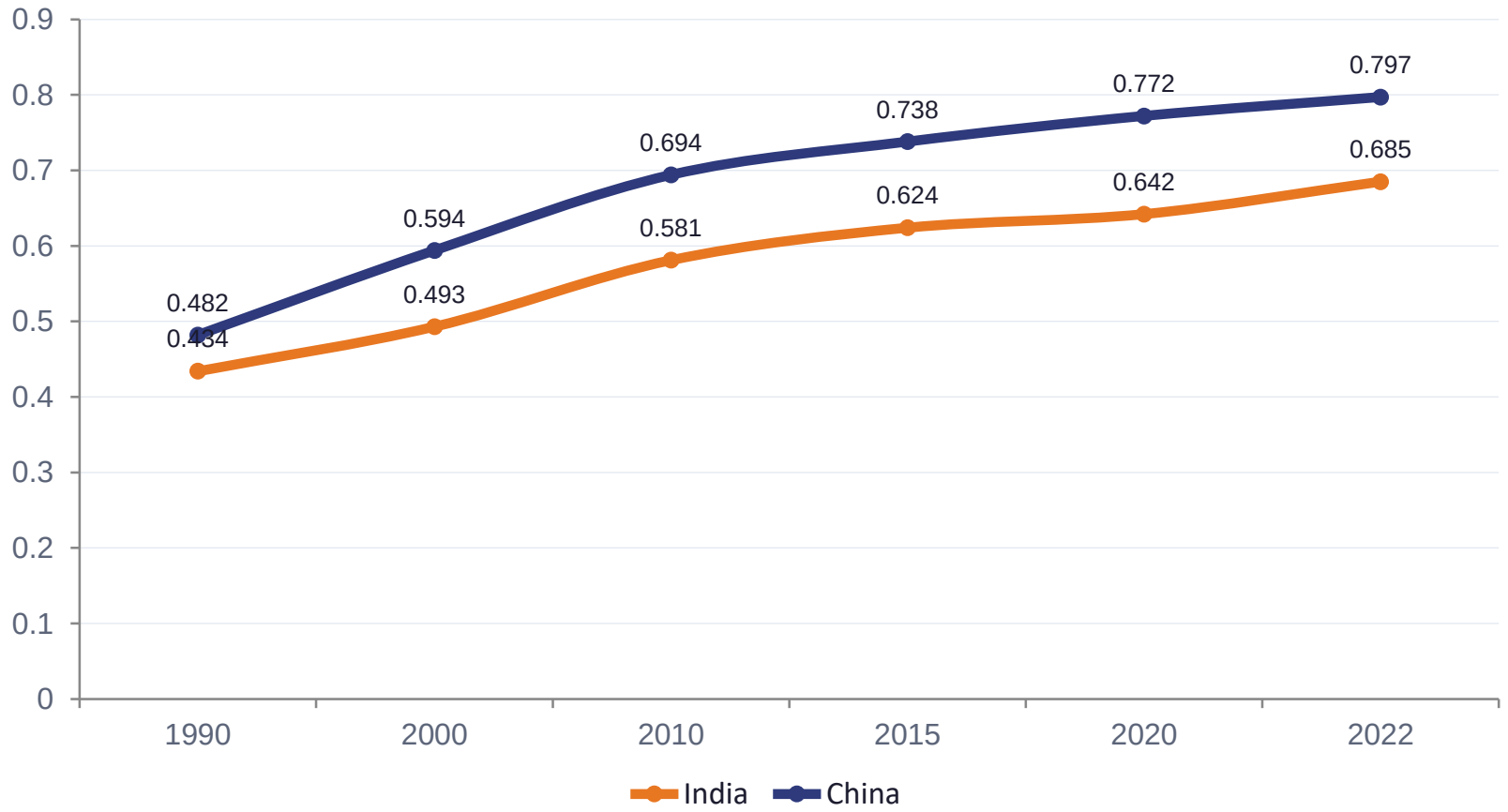
Strengthen the virtuous cycle — now or never

Each link reinforces the next. Break one and the whole chain weakens.



HDI journey: India vs China (1990–2022)

The two countries started close. Three decades of sustained investment in human development opened the gap.



India 1990 → 2022

0.434 → 0.685

+58% over 32 years

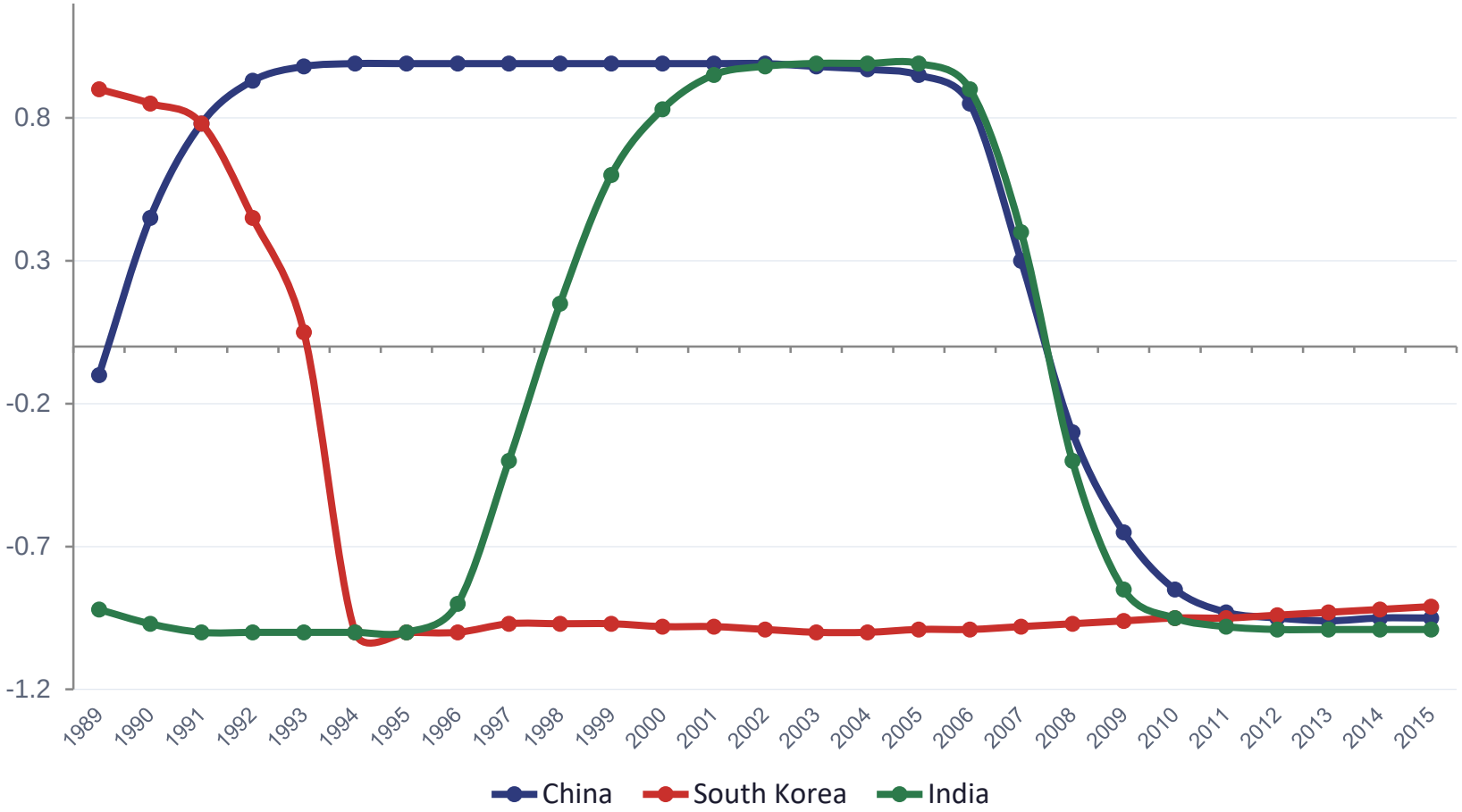
China 1990 → 2022

0.482 → 0.797

+65% over the same span

Education spending leads growth — with a five-year lag

Rolling correlation between national education expenditure and GDP growth (5-year lag), 1989–2015.



WHAT THIS SHOWS

Correlation reads as: high education spending in year N predicts GDP growth in year N + 5. Near +1 = strong link; near –1 = none.

THE PATTERN

China held near +1 for thirteen years (1993–2005) — a decade of compounding human-capital gains. **India** caught the curve a decade late — peak 2001–2005, then fell back. **Both fall after 2007** — GDP outran what the State was spending to keep building human capital.

Our scorecard — SDG 4

Where India stands today against its own SDG 4 targets. Green is on track. Red is the work ahead.

Indicator	Current	Target	Achieved
Adjusted Net Enrolment Rate, Elementary	96.5	100	96%
Annual dropout rate, Secondary (Class 9–10)	12.6	≤7.7	61%
GER, Higher Secondary (Class 11–12)	57.6	100	58%
Grade 8 students at learning outcome level	77.2	100	77%
GER, Higher Education (18–23 yrs)	28.4	50	57%
Persons with disability, Secondary (15+ yrs)	19.3	100	19%
Gender Parity Index, Higher Education	1.01	1.00	100%
Literacy, 15+ yrs	76.7	100	77%
Schools with basic infrastructure (power/water)	88.7	100	89%
Schools with computers	47.5	100	48%
Trained teachers, Secondary	92.2	100	92%
SDG 4 Index Score	61	100	61%

New challenges — the ones our framework was not built for



Gen Z

- Greater and more independent access to knowledge
- Focused on solutions rather than process
- Lower tolerance for academic stress
- Short attention span; learning by snippet



Advent of AI tools

- Instant solutions on demand
- Growing dependence on digital intermediaries
- Assessments need a rethink — what is the student's own work?
- Pedagogy can use AI, but must not be displaced by it

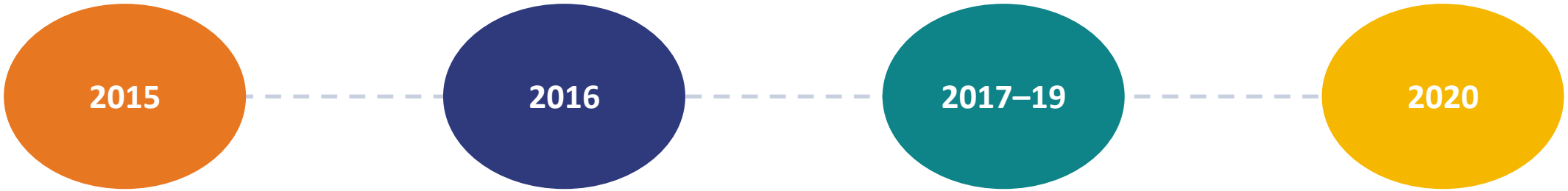


Employability

- Persistent education–skill chasm
- Curriculum often disconnected from practice
- Low cognitive abilities at exit
- Industry signals not feeding back into HEIs

How NEP 2020 came about — the process

Six years of consultation, two expert committees and a Cabinet-approved final draft.



Extensive consultations

Block, district and State-level inputs from 2.5 lakh+ gram panchayats and thousands of stakeholders.

TSR Subramanian Committee

First expert committee submits report identifying core problems and reform directions.

Kasturirangan Committee

Draft NEP prepared, refined through public feedback in multiple Indian languages.

Cabinet approval — final draft

First national policy on education in 34 years; replaces NPE 1986/1992.

The approach of NEP 2020

Four core competencies and six pedagogical commitments — together a single educational philosophy.

FOUR CORE COMPETENCIES

1. Learn how to learn
2. Critical thinking & problem solving
3. Creativity & innovation
4. Multidisciplinary thinking

SIX PEDAGOGY COMMITMENTS

- ✓ Experiential
- ✓ Inquiry-driven
- ✓ Discovery-oriented
- ✓ Learner-centred
- ✓ Discussion-based
- ✓ Flexible

PART I

School Education

Foundations of every later success — and where the system's deepest cracks still show.

1 Early Childhood Care & Education

85%
Brain development before age 6

2030
Universal ECCE target year

1.08L
Single-teacher schools in India

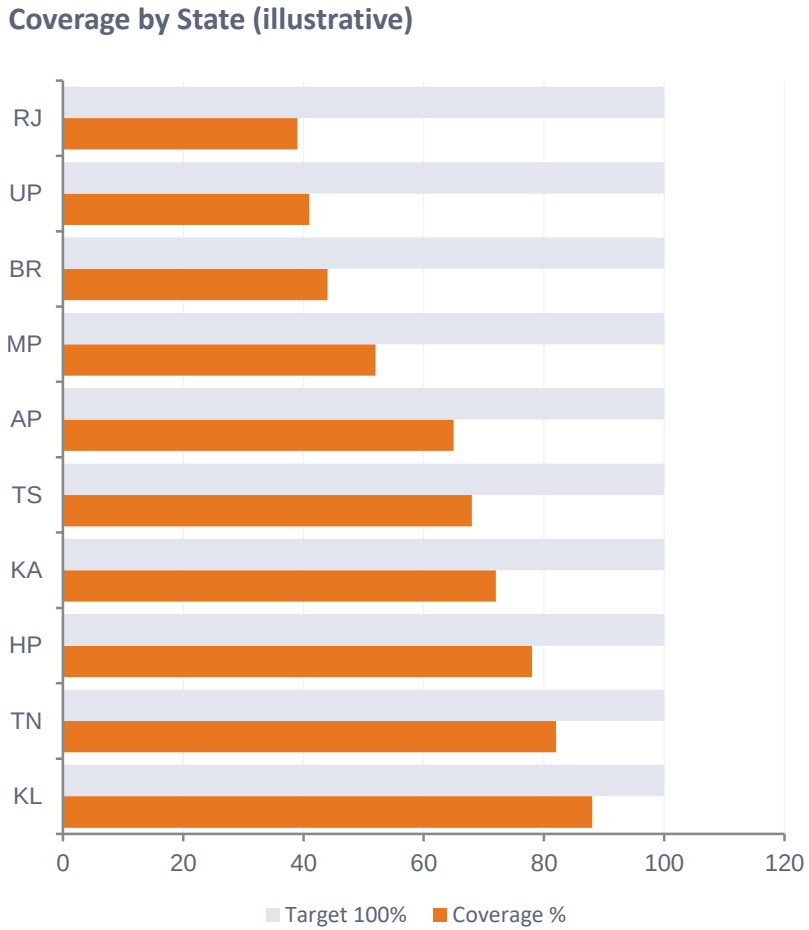
FOUR ECCE DELIVERY MODELS

01
Stand-alone Anganwadis

02
Anganwadi + Primary School

03
Pre-primary sections in schools

04
Stand-alone Pre-schools



2 Foundational Literacy & Numeracy

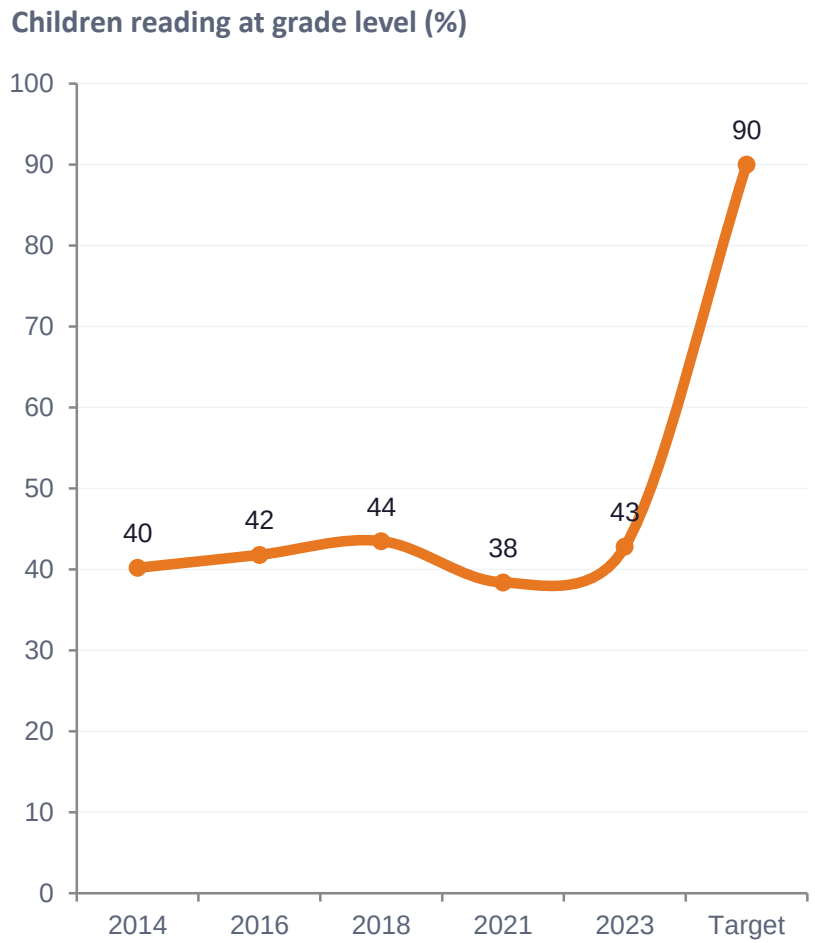
5 Cr+
Students lack basic literacy / numeracy

2025
Mission target year

30:1
Maximum pupil-teacher ratio

KEY INTERVENTIONS

- DIKSHA digital repository
- 50 hrs CPD per year for teachers
- Peer-tutoring programmes
- Nutritious breakfast + midday meal



3 Curtailing dropout — universalising access

3.22 Cr
Out-of-school children (6–17 yrs)

100%
GER target by 2030

50%
Target GER in higher ed by 2035

15 Yrs
Phase-out of affiliated colleges

SOLUTIONS

- Infrastructure and hostels for girls
- Social workers tracking attendance
- NIOS — open-school pathways
- Alternative education centres
- Bridge programmes for over-age learners
- Cash transfers tied to attendance

4 Curriculum & pedagogy — the new 5+3+3+4 structure

OLD: 10 + 2

Ages 6–18 · 2 stages

NEW: 5 + 3 + 3 + 4

Ages 3–18 · 4 stages

Foundational	Preparatory	Middle	Secondary
5 yrs	**3 yrs**	**3 yrs**	**4 yrs**
Ages 3–8	Ages 8–11	Ages 11–14	Ages 14–18
Anganwadi + Grades 1–2	*Grades 3–5*	*Grades 6–8*	*Grades 9–12*

PEDAGOGY SHIFTS

✕ Rote learning	→ ✓ **Critical thinking**
✕ Single stream	→ ✓ **Multidisciplinary flexibility**
✕ Summative exams	→ ✓ **Formative assessment**
✕ English-only	→ ✓ **Mother tongue first**

PART II

Higher Education

Where the largest reform ambitions of NEP 2020 will be tested.

THE SCALE OF INDIAN HIGHER EDUCATION

World's 2nd largest system — AISHE 2023-24

1,289	48,246	4.50 Cr	17.32 L
Universities	Colleges	Students	Teachers

From 20 universities in 1947 to 1,289 today — a 64× expansion. Enrolment has grown 31% in one decade.

ACCESS & GROSS ENROLMENT RATIO

GER crossed 30% for the first time — AISHE 2023-24



India GER 2023-24

31.2% — **Female GER**

Exceeds male GER of 28.9%

1.08 — **Gender Parity Index**

Women lead for 7 consecutive years

50% — **NEP 2035 Target**

Projected ~46% at current pace

QUALITY & GLOBAL RANKINGS

Impressive growth — but the quality gap is stark

Top Ranked Institutions

IIT Bombay	#118 QS World
IIT Delhi	#150 QS World
IISc Bengaluru	#211 QS World
IIT Madras	#227 QS World

NAAC Accreditation

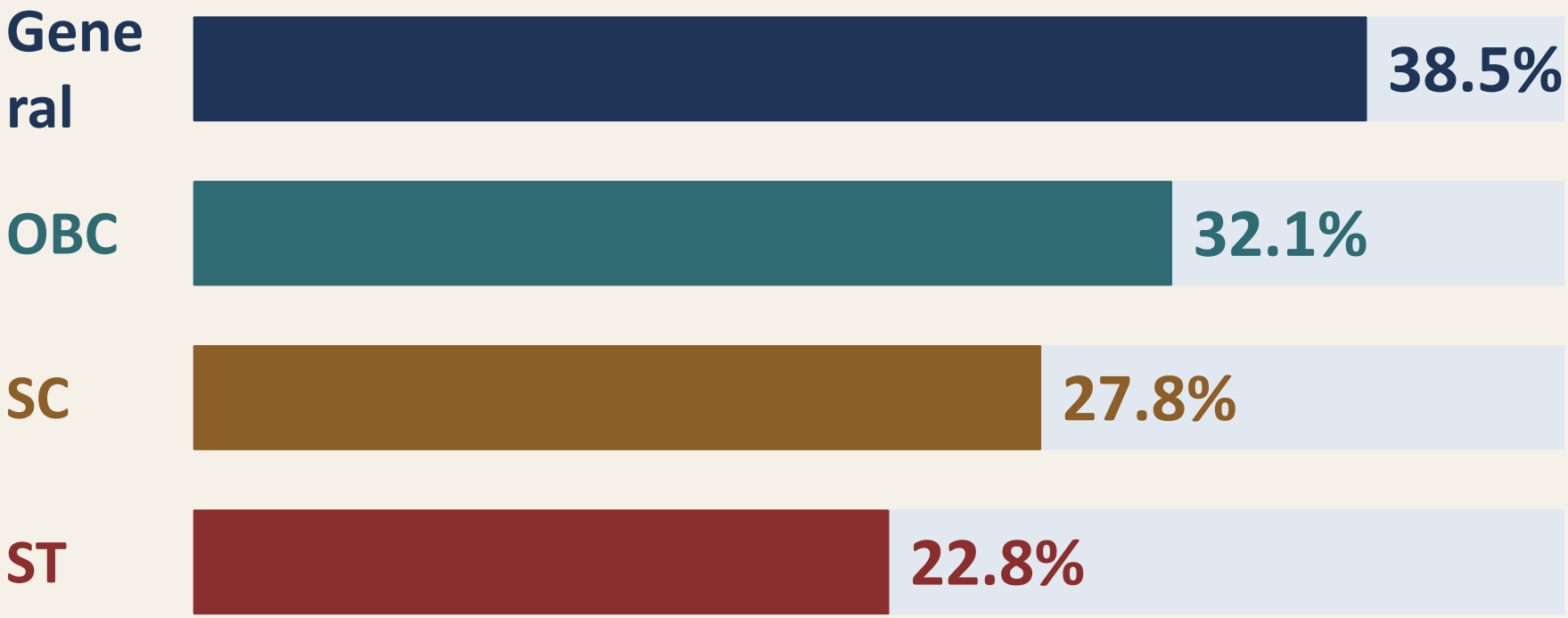
A++ / A+	**~5%**
B / B+	**~30%**
Unaccredited	**~65%**

128 Indian universities in THE Asia Rankings 2026 — none in the top 40

EQUITY & INCLUSION

Progress made — but the gaps remain significant

GER by Social Group — 2023-24



Women: 49.7% of total enrolment · Female GER 31.2% exceeds Male 28.9% · GPI = 1.08

NATIONAL EDUCATION POLICY 2020

India's most comprehensive education reform in 34 years

01 Multidisciplinary

4-year UG with multiple exit options; liberal arts + sciences integration

02 Academic Bank of Credits

Flexible entry-exit; credits stored and transferred digitally

03 GER 50% by 2035

Community colleges and skill universities to bridge the gap

04 Mother Tongue Medium

Technical education now available in 11 Indian languages

05 National Research Foundation

Rs. 50,000 Cr corpus; research mandatory in 4-year UG

06 Internationalisation

Foreign universities permitted; IITs expanding globally

FIVE STRUCTURAL CRISES

Challenges that no single reform can solve in isolation

01

Quality Vacuum

▸

02

Employability Crisis

▸

03

Cognitive Collapse

▸

04

Leadership Deficit

▸

05

Research & Innovation

▸

Each crisis explored in its own slide →

01

QUALITY VACUUM

~80%

of all colleges have NEVER been accredited

Only ~9,000 of 48,246 colleges hold any NAAC grade.

The accreditation process is slow, costly, and designed for large institutions — structurally excluding the majority.

No accreditation means no UGC grants, no accountability, and no quality benchmark.

NEP 2020 · Promise vs Reality

NEP 2020 PROMISED	IMPLEMENTATION REALITY
NAAC for all HEIs by 2025 Mandatory accreditation; graded system; lighter-touch process for small colleges	**Deadline missed entirely** 2025 passed; ~80% still unaccredited. NAAC reform delayed repeatedly.
New accreditation ecosystem Multiple accrediting agencies; NAAC no longer the only route	**Single-agency bottleneck** No new accreditation body notified. NAAC remains the sole pathway.
Phased quality induction Small colleges mentored into clusters; TLCs in each state	**Cluster model not launched** TLCs announced; barely functional. Small college mentoring absent.

Verdict: Legislated intent; near-zero structural change on the ground. The crisis deepens.

02

EMPLOYABILITY CRISIS

45–50%

of graduates considered industry-ready (NASSCOM / FICCI)

Curricula are rigid, theory-heavy, and designed for exam performance — not workplace competence.

For most students, a degree is a credential for government jobs, not a pathway to productive employment.

The mismatch between what universities teach and what employers need is structural — not incidental.

NEP 2020 · Promise vs Reality

NEP 2020 PROMISED	IMPLEMENTATION REALITY
Vocational integration from school 50% of learners to gain vocational skills; credit parity with academic streams	**Vocational still second-class** Credit parity not notified. Vocational stream remains stigmatised, not mainstream.
Internship in UG curriculum Compulsory internship for all 4-year UG students; industry linkage mandated	**Internship uneven, unmonitored** Some universities mandate it; most have no industry tie-ups. Quality is nil.
Outcome-based curriculum reform UGC to shift to outcome-based frameworks; industry-academia councils established	**Curricula largely unchanged** OBE framing adopted on paper; classroom practice unchanged. Councils ceremonial.

Verdict: Frameworks exist on paper. Workplace relevance of a degree remains largely unchanged.

03 COGNITIVE COLLAPSE

Recall without Reasoning

Rote memorisation dominates at every level of the system.

Closed-book exams, prescribed texts, passive lectures, and a culture that penalises questioning have produced graduates who cannot analyse, critique, or create.

Modern work, citizenship, and democratic life all demand reasoning. The system still rewards memory.

NEP 2020 · Promise vs Reality

NEP 2020 PROMISED	IMPLEMENTATION REALITY
Competency-based learning Move away from rote; emphasis on critical thinking, creativity, analysis across all stages	**Pedagogy virtually unchanged** Teachers teach to the test. No large-scale retraining on competency methods.
Reform of Board Examinations Two attempts per year; modular, competency-tested; no high-stakes single-day format	**Two-attempt reform stalled** CBSE announced modular exams; not implemented. States have not adopted the change.
Holistic Progress Card 360° assessment of cognitive, social, emotional, physical development — not just marks	**Progress Card not scaled** HPC trialled in few CBSE schools. No systemic rollout. Marks remain the primary signal.

Verdict: The aspiration is right. The pedagogy has not moved. Memory still dominates every classroom.

04 LEADERSHIP DEFICIT

HEIs run as bureaucracies, not campuses

VC appointments are political. Academic governance is weak. Administrators lack training in academic leadership.

Institutional culture punishes risk-taking and rewards compliance.

Most campuses have no professional development pathway for Heads, Deans, or Registrars.

Where there is no academic

NEP 2020 · Promise vs Reality

NEP 2020 PROMISED	IMPLEMENTATION REALITY
Professional VC selection Merit-based, transparent VC appointments via independent search-cum-selection committees	**VC appointments remain political** Search committees exist in statute; practice unchanged. High-profile controversies continue.
Academic governance reform Academic and Executive Councils to have faculty majority; Boards of Governors empowered	**Governance structures cosmetic** Faculty majorities not enforced. External board members rarely engaged. Senate power intact.
HEI leadership capacity NIEPA to train HEI leaders; institutional autonomy linked to performance	**Leadership training marginal** NIEPA runs short programmes; reach limited. No systemic pipeline for academic leaders.

Verdict: NEP correctly diagnoses the leadership gap; the prescription sits unimplemented on the shelf.

05

RESEARCH & INNOVATION GAP

9th in research volume

48th in citation impact

R&D spending at 0.65% of GDP — one-third of the global average.

Fewer than 400 patents per million researchers vs 10,000+ in South Korea.

90%+ of colleges have no research mandate, no incubator, no industry linkage.

India is a knowledge consumer — not yet a creator.

NEP 2020 · Promise vs Reality

NEP 2020 PROMISED	IMPLEMENTATION REALITY
National Research Foundation Rs. 50,000 Cr corpus over 5 years to fund basic and applied research across disciplines	**NRF enacted but underfunded** NRF Act passed in 2023. Actual fund flow far below Rs. 50,000 Cr target. Industry not contributing.
Research in 4-year UG All 4-year UG programmes to include research component; research culture from undergraduate level	**UG research component patchy** 4-year UG with research honours launched in some HEIs; no national standard or framework.
Industry-academia research clusters Technology clusters, science parks, joint R&D mandated; MSME linkages encouraged	**Industry linkage largely symbolic** Science parks in elite institutions; majority of HEIs have no industry interface whatsoever.

Verdict: NRF is a real legislative step. But India's research ecosystem needs money, culture — and time.

Major initiatives for implementation — Higher Education

Five flagship instruments through which NEP 2020 is being translated into operation.



SWAYAM Plus & SWAYAM Prabha

Massive open online courses; satellite-delivered higher education channels.



Anusandhan National Research Foundation

₹50,000 crore corpus to seed and scale research across institutions.



Apprenticeship-Embedded Degrees

Earn-while-you-learn programmes co-designed with industry partners.



National Credit Framework

Single credit currency across school, higher ed and skilling.



Academic Bank of Credits — multiple entry/exit

Students stop, restart and transfer credits across institutions.

How to get the best out of NEP 2020

Five commitments every institution and every educator can begin acting on, today.

01



Use SWAYAM courses for multidisciplinary learning

02



Pedagogical changes that promote thought processes

03



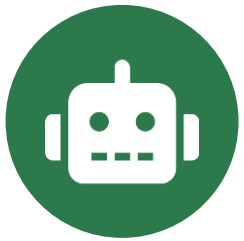
Build cognitive abilities — the 4Cs

04



Teach 21st-century skills through SWAYAM Plus

05



Embrace AI in education — pedagogy and assessment

THANK YOU

Questions & Discussion

Part I: AISHE 2023-24 · UGC · NIRF · QS · THE · NEP 2020
Part II: CRISP Policy Paper — Reform of Public Examination Systems in India (July 2026)