Annexure 9: The landscape of large-scale assessments in India

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Introduction

Large-scale assessments (LSAs) serve as critical tools for measuring educational outcomes, guiding policy decisions, and ensuring that educational systems meet their intended goals. These assessments are essential for tracking student performance, identifying learning gaps, and informing educational interventions that will contribute to the development of robust and effective educational frameworks. Countries have developed a variety of assessment programs to measure learning outcomes with diverse approaches to what is assessed and how the assessment is conducted.

Internationally, recent years have seen increasing focus on assessments of foundational skills. The State of Global Learning Poverty: 2022 Update from the World Bank highlights the troubling reality that this shifting focus responds to: nearly 70% of 10-year-olds in low- and middle-income countries (LMICs) are unable to read and understand a simple written text.[4] This challenge has spurred governments, international organisations, and civil society groups to develop new tools. For example, the Assessment for Minimum Proficiency Levels (AMPL),[5] International Common Assessment of Numeracy (ICAN),[6] and the Early Language and Literacy and Numeracy Assessment (PAL-ELANA)[7] aim to monitor the progress of education systems toward the Sustainable Development Goal (SDG) indicators 4.1.1a and 4.1.1b,[8] using frameworks such as the Global Proficiency Framework (GPF)[9] and Learning Progression Explorer (LPE).[10]

ICAN and PAL-ELANA were developed based on the citizen-led assessment model pioneered by Pratham Education Foundation in India, which has been adopted by over 15 countries in the Global South. These unique assessments rely on citizen volunteers to assess children's learning in households across the country. First implemented in 13 LMICs across Africa, America and Asia in 2019, ICAN provides a common set of metrics to assess and compare children's early numeracy skills. PAL-ELANA builds upon and expands the ICAN framework, covering early numeracy, language, and literacy abilities in 10 languages, utilising tablet-based Computer Adaptive Testing (CAT) to adjust the assessment to each child's abilities. These assessments are designed to address the critical need for robust, large-scale, and internationally comparable data on children's learning outcomes.

The assessment landscape in India

In India, the National Education Policy (NEP) 2020 and National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) 2021 Guidelines emphasise the importance of improving learning outcomes, with a target to achieve Foundational Literacy and Numeracy (FLN) for every child in India by the end of grade 2 by 2026-27. NEP 2020 encourages the use of evidence-based assessments to monitor progress and inform policies.

Several LSAs in India provide evidence relevant to these objectives, and also align with the global mission of improving FLN. The Annual Status of Education Report (ASER),[11] Performance Assessment, Review, and Analysis of Knowledge for Holistic

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[4] World Bank Group. "70% of 10-Year-Olds Now in Learning Poverty, Unable to Read and Understand a Simple Text." World Bank, July 25, 2023. https://www.worldbank.org/en/news/press-release/2022/06/23/70-of-10-year-olds-now-in-learning-poverty-unable-to-read-and-understand-a-simple-text

[5] Walker, M., Schwantner, U. and Mestan, K. (2024) A new tool to fill the data gap on learning: AMPL, ACER. Available at: https://www.acer.org/in/discover/article/a-new-tool-to-fill-the-data-gap-on-learning-ampl

[6] ICAN is an open-source, robust, and easy-to-use assessment tool available in 11 languages, that offers international comparability of results aligned to SDG 4.1.1a. Available at: https://palnetwork.org/ican/

[7] Fiszbein, A. and Bhattacharjea, S. (2023) The Foundational Learning Data Challenge: A civil society view from the Global South, World Education Blog. Available at: https://world-education-blog.org/2023/12/06/the-foundational-learning-data-challenge-a-civil-society-view-from-the-global-south/

[8] Goal 4 | Department of Economic and Social Affairs. (n.d.-b). https://sdgs.un.org/goals/goal4#targets_and_indicators

[9] Global Proficiency Framework: Reading and Mathematics. (n.d.). Education Links. https://www.edu-links.org/resources/global-proficiency-framework-reading-and-mathematics

[10] Learning Progression Explorer: The LPE developed by Australian Council of Education Research (ACER) is a common learning metric – also known as the UIS reporting scales – to describe and quantify learning progress in reading and mathematics. Tell us what you think. (2017, August 18). UNESCO UIS. https://uis.unesco.org/en/news/learning-progression-explorer-tell-us-what-you-think

[11] ASER Survey - ASER: Annual Status of Education Report. (n.d.). ASER: Annual Status of Education Report. https://asercentre.org/aser-survey/ (2024).

Development (PARAKH) 2024,[12] Foundational Learning Study (FLS) 2022,[13] and State Educational Achievement Survey (SEAS) 2023,[14] all offer insights into learning gaps and provide a framework for addressing these challenges and ensuring that all children have access to quality education. While PARAKH, SEAS, and FLS focus on school-based assessments, ASER is unique for its household-based approach, that not only assesses the learning levels of children but also provides valuable data on those children who are not enrolled in school.

Comparing results across assessments can be challenging due to the different purposes and designs of each program. Direct comparisons are difficult as they must account for several factors, including alignment between content standards and assessments, the target populations assessed, the nature of student participation, the diversity of participating education systems, the scale of the assessments, and the accuracy of measurement for each assessment.

A brief overview of each of these assessment models is provided below. More details are available in the table, which provides a comparative view of the key similarities and differences among these assessment programs.

Parakh Rashtriya Sarvekshan (PARAKH): Previously referred to as the National Achievement Survey (NAS), PARAKH Rashtriya Sarvekshan 2024 is a nationwide assessment initiative led by the National Assessment Centre - PARAKH. It is an independent centre established in 2023 under the National Council for Educational Research and Training (NCERT).

■ The PARAKH assessment is implemented collaboratively by the Ministry of Education (MoE), NCERT, Central Board of Secondary Education (CBSE), and state-level bodies like the State Council of Educational Research and Training (SCERT), and District Institutes of Education and Training (DIETs).

■ Most recently administered on December 4, 2024, this survey covered 88,000 schools, reaching more than 2.3 million students in Std III, VI, and IX in 782 districts. The survey assesses subjects including Language, Mathematics, Science, Social Science, and The World Around Us, providing comprehensive insights into students' educational progress in 23 languages.

■ PARAKH is a school-based assessment administered through a pen and paper format using OMR technology for data capture and analysis.

■ Building on NAS, PARAKH 2024 evaluates schools as holistic entities, focusing on the overall health of the education system across all districts, including State Government, Government-Aided, Central Government, and Private Recognized Institutions. It uses a paper-based approach with Optical Mark Recognition (OMR) technology, ensuring a robust evaluation process.

■ One cycle of PARAKH has been implemented to date. The results from this assessment are not yet available.

State Educational Achievement Survey (SEAS): SEAS has been implemented state-wise by NCERT in collaboration with SCERTs, in 2023.

■ SEAS integrates student performance data at the block level across learning stages with state-specific information. This includes details on school infrastructure and resources, policy implementation, and curriculum and assessment practices, offering a holistic understanding of the factors affecting learning outcomes.

■ SEAS aims to assess the overall health of the education system at the block level, focusing on competencies at the foundational (Std III), preparatory (Std VI), and middle stages (Std IX) of education, particularly Language and Mathematics. The survey covered about 8 million students in 300,000 schools across 5,917 blocks. The assessment is administered in 19 languages.

■ SEAS is a school-based assessment that uses a pen and paper approach with OMR technology employed for data capture and analysis.

■ SEAS emphasises the importance of teacher training at the end of each educational stage, and advocates for "Competency-Based Assessment" methodologies. The integration of data from Pupil Questionnaires (PQ), Teacher Questionnaires (TQ), and School Questionnaires (SQ) is crucial in understanding and measuring learning competency achievements.

■ One cycle of SEAS has been implemented to date. The results from this assessment are not yet available.

Foundational Learning Study (FLS): MoE launched NIPUN Bharat in July 2021, a mission to enable all children at the end of Std III to attain foundational skills by the year 2026-2027. As a crucial step towards strengthening efforts in 2022, MoE

[12] National Council of Educational Research and Training, New Delhi, India & UNICEF. (2024). Operational Guidelines & training manual. https://ncert.nic.in/parakh/pdf/OPERATIONAL_GUIDELINES2024.pdf
[13] Ministry of Education, Government of India, National Council of Educational Research and Training, New Delhi, India [NCERT], & UNICEF. Foundational Learning Study 2022. https://ncert.nic.in/pdf/FLS/FLS-Report-8-4-2024.pdf
[14] Ministry of Education, Government of India & National Council of Educational Research and Training, New Delhi, India. (2024). State Education Achievement Survey. https://ncert.nic.in/parakh/pdf/report_seas.pdf

and NCERT conducted FLS in schools to establish benchmarks for reading fluency and comprehension, and proficiency in numeracy.

- FLS was conducted in 20 languages in 36 States and UTs, which included approximately 86,000 Std III students from 10,000 government aided, private recognized, and central government schools.

- FLS is a school-based assessment, which was administered in a one-on-one setting, where each child responded to a set of questions orally.

- The study aimed to establish a baseline for achieving the NIPUN Bharat goals, setting benchmarks for FLN, and providing data on SDG indicator 4.1.1a.

- Based on this study, a policy linking methodology was implemented to arrive at the benchmarks in literacy and numeracy.

- FLS was designed as a benchmarking study rather than an LSA; it has been implemented once in 2022. Both the national findings and the state-wise results from this study are available on the NCERT website, https://ncert.nic.in

Annual Status of Education Report (ASER): ASER is an annual citizen-led survey facilitated by the Pratham Education Foundation. ASER's primary goal is to generate large-scale, actionable evidence on children's schooling status and their basic reading and arithmetic abilities.

- ASER provides reliable estimates of children's schooling and learning levels in rural India, focusing on basic reading and arithmetic skills of children aged 5-16, and enrollment status of children aged 3-16. The ASER survey is carried out in 19 languages across India.

- In 2024, ASER reached almost 650,000 children across 605 districts (as per Census 2011) in 26 states and 2 UTs.

- ASER uses a simple one-on-one tool which is administered orally in the household.

- Since its inception in 2005, ASER generates representative estimates at the district, state, and national levels. Conducted annually from 2005 to 2014, and every alternate year since 2016, the survey has employed consistent tools and methods, enabling an analysis of trends over time in children's basic reading and arithmetic abilities.

- All ASER results and process documents are available in the public domain on its website, www.asercentre.org.

Conclusion

It is welcome news that the ambit of assessments in India is growing, and that assessments are being acknowledged as a means to improve the education system rather than to point to its shortcomings. PARAKH evaluates the overall performance of India's education system, emphasising both academic achievements and holistic development; it provides a broad view of whether educational goals are being met across the country. SEAS focuses on the quality of education at the school and block level, offering insights to states on the possible methods of collecting and using data on grade-level outcomes. FLS presents granular evidence of foundational literacy and numeracy at the district level, which is essential in planning for early-grade education. Lastly, ASER offers representative data on children's schooling and learning at the district, state, and national level. The world's largest citizen-led learning assessment, it is the only source of comparable data on basic reading and arithmetic levels in India over the past two decades.

ASER continues to play a central role in driving improvements in education. Its core message — that children are in school but are not learning — has contributed to significant policy shifts. Key among these are the 2017 amendment to the Right of Children to Free and Compulsory Education (RTE) Act 2009, which for the first time mandated the preparation of class-wise and subject-wise learning outcomes; NEP 2020 which acknowledges the importance of universal FLN acquisition; and the NIPUN Bharat Mission which lays out the roadmap for achieving NEP's lofty goal. ASER Centre's work has been referenced in several key national and international policy documents. The NIPUN Bharat guidelines cite the India Early Childhood Education Impact Study (2017), conducted jointly by ASER Centre, Ambedkar University, and UNICEF, which emphasises the importance of quality early childhood care and education in acquiring FLN by Std III. The impact of ASER extends far beyond India, with its data frequently cited in global reports by UNESCO, UNICEF, and the World Bank, with notable references in reports like the Global Education Monitoring Report 2022, the State of the Global Education Crisis Report 2021, and the World Development Report 2018.

In a rapidly developing India, large-scale assessments like PARAKH, SEAS, FLS, and ASER play a critical role in shaping the future of education in India. While each of these assessments follow different methodologies, their purpose remains unified: to identify learning gaps, and to inform policy to bridge these gaps. Together, these assessments provide a 360-degree view of education quality, and contribute to making meaningful changes to the Indian education landscape at various levels of governance.

Large-scale assessment landscape in India: A comparative view

Indicator	Annual Status of Education Report (ASER)	Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH Rashtriya Sarvekshan)	Foundational Learning Study (FLS)	State Education Achievement Survey (SEAS)
Type	National assessment	National assessment	National assessment	State-level assessment
Organisations	Implemented by ASER Centre and facilitated by Pratham Education Foundation, with participation from over 500 district partner organisations each year	Implemented by the National Assessment Centre – PARAKH; initiative of the Ministry of Education (MoE) and housed at the National Council of Educational Research and Training (NCERT)	Implemented by NCERT in collaboration with the states and UTs, and also with technical support from other organisations	Implemented by State Council of Educational Research and Training (SCERT) in collaboration with the NCERT
Purpose	To provide annual, reliable, current, and actionable evidence relating to the enrollment patterns and basic learning outcomes of children in rural India	To develop a comprehensive assessment framework to evaluate the learning outcomes of students in a holistic and multidimensional manner	To provide reliable and valid data about Std III students' learning outcomes in Foundational Literacy and Numeracy (FLN); to establish reading proficiency benchmarks for fluency and comprehension in 20 languages	To assess students' learning outcomes at the state level, identify areas of improvement, and provide insights for policymakers and educators to enhance the quality of education
Key features	One-on-one household survey assessing rural Indian children's learning outcomes in reading and arithmetic, providing district-level data to inform education policy	Written assessment in school designed to evaluate competency-based learning outcomes; focuses on measuring holistic learning of students in Std III, VI, and IX	One-on-one oral and performance-based test conducted in schools; the results establish benchmarks for reading and numeracy proficiency across different Indian languages	Comprehensive evaluation of school quality, assessing infrastructure, teaching effectiveness, and learning outcomes to guide school improvement initiatives at the block level
Target age/grade	Age 5-16 years	Std III, VI, and IX	Std III	Std III, VI, and IX
Content area/domains	In addition to basic reading and arithmetic, different domains are explored in different years, such as basic English, reading comprehension, functional competencies, and most recently, digital abilities in 2024	Std III: Foundational stage competencies Std VI: Language, Mathematics, The World around Us Std IX: Language, Mathematics, Science, and Social Science	Foundational literacy: oral language comprehension, phonological awareness, decoding, reading comprehension, and oral reading fluency with comprehension Foundational numeracy: number identification and comprehension, number operations, multiplication and division facts, measurement, fractions, patterns, and data handling	Language and Mathematics

Indicator	Annual Status of Education Report (ASER)	Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH Rashtriya Sarvekshan)	Foundational Learning Study (FLS)	State Education Achievement Survey (SEAS)
Initial assessment year	2005	2024[15]	2022	2023
Frequency	Every year till 2014, and every alternate year after 2016 (except 2020)	Earlier versions were referred to as NAS, which was conducted periodically from 2001 to 2021	It has been conducted once	It has been conducted once
Sample size and coverage	Close to 650,000 children in over 600 rural districts (as per Census 2011) across India (2024)	More than 2,300,000 students in over 732 districts (2024)	Approximately 86,000 Std III students from 10,000 schools (2022)	Approximately 11,272,836 students from 408,048 schools across 7,466 blocks (2023)
Sample design	ASER uses a two-stage sampling design with Census 2011 as the frame – in the first stage, 30 villages are randomly selected using Probability Proportional to Size (PPS), and in the second stage, 20 households are sampled randomly from each village	PARAKH 2024 uses a two-stage PPS sampling design based on the UDISE+ 2022-23 database, selecting schools, then sections, and finally students; up to 30 students per grade are surveyed	FLS uses a multistage PPS sampling design, selecting schools by management type and allocating samples based on enrollment; it surveys 30 Std III students per school, or all if enrollment is lower, focusing on Std III or newly admitted Std IV students, based on the NAS 2021 and UDISE+ 2019-20 frames	SEAS uses a two-stage PPS sampling design, where schools are selected in the first stage and students are selected in the second stage
Mode of assessment administration	Oral one-on-one assessment	Pen and paper based assessment with OMR for data capture and analysis	Oral one-on-one assessment	Pen and paper based assessment with OMR for data capture and analysis
Testing time	Approximately 7-8 minutes	Std III and VI: 90 minutes Std IX: 120 minutes	Up to 35 minutes per student for Language and Mathematics each	Std III: 60 minutes Std VI: 75 minutes Std IX: 90 minutes
Data quality (training and monitoring)	The ASER uses a three-tier cascading training model at the national, state and district level; monitoring and recheck is followed at every stage of the survey; about 40% of all sampled villages are monitored, rechecked or both.	PARAKH uses a cascading training model to equip SLCs[16], DLCs[17], and Field Investigators (FIs)[18] for the large-scale assessment; PARAKH National Observers[19] were involved in the monitoring process to ensure data quality	Information not available	SEAS uses a cascading training model to equip the SLCs, DLCs and FIs for the implementation of the survey

[15] PARAKH was conducted in 2024, building upon the foundations established by the National Achievement Survey (NAS), which began in 2001.

[16] SLCs: State Level Coordinators: 180+ SLCs were engaged - From SCERT Directors to associates from Samagra Shiksha, these strategic leaders ensure seamless execution in each state.

[17] DLCs: District Level Coordinators: 3128+ DLCs were engaged - PARAKH DEOs & Principal DIETs - DLCs lead operations at the grassroots, ensuring every school is engaged and ready for action.

[18] On-the-ground teams ensure accurate data collection at schools.

[19] CBSE Regional Coordinators & Observers: Providing regional oversight and quality assurance

Indicator	Annual Status of Education Report (ASER)	Performance Assessment, Review, and Analysis of Knowledge for Holistic Development (PARAKH Rashtriya Sarvekshan)	Foundational Learning Study (FLS)	State Education Achievement Survey (SEAS)
Comparability over-time	The ASER survey is comparable due to its use of standardised and consistent tools since its inception	PARAKH has been administered for the first time using the new and more comprehensive evaluation strategy and target grades; data from PARAKH 2024 is not comparable with data from previous years of NAS	FLS was a benchmarking study for FLN, and thus it does not have further additional cycles for comparisons over time	SEAS has been rolled out once so far in 2023, and its frequency in the upcoming years will determine its comparability across years
Languages	19 languages	23 languages	20 languages	19 languages
Availability of data and tools	ASER data, report and assessment tools are publicly available	PARAKH 2024 sample questions are publicly available but results have not been published yet	FLS data and reports are available, but the assessment tools are not in the public domain	Neither the data nor the assessment tools for the State Education Achievement Survey (SEAS) are publicly available.