

The State of Foundational Learning in the Global South: 2025 Report

Data for Action on SDG 4.1.1(a)
using ICAN-ICAR Tools



Legal Disclaimer and Citation

The State of Foundational Learning in the Global South: 2025 Report

Data for Action on SDG 4.1.1(a) using ICAN-ICAR Tools

Date of publication: 25th November 2025

The photographs used in this report were taken by staff from the People's Action for Learning (PAL) Network member organisations and the PAL Network Secretariat as they visited communities, with informed consent.

Any maps displayed in this report are for illustrative purposes only. The representation of political boundaries, colours, denominations and any other information shown on these maps does not necessarily reflect the position of the PAL Network or its member organisations on international issues of recognition, sovereignty, jurisdiction or nomenclature. The PAL Network has made every reasonable effort to ensure the accuracy and validity of the information contained in this report. Any errors or omissions are accidental.

The report is also available on the PAL Network website at <https://www.palnetwork.org/ican-icar>.

Suggested citation: PAL Network. (2025). *The State of Foundational Learning in the Global South: 2025 Report – Data for Action on SDG 4.1.1(a) using ICAN-ICAR Tools*. Nairobi, Kenya: People's Action for Learning (PAL) Network.

For more information, contact

PAL Network

Daykio Plaza, First Floor, Room 1.5, Ngong Lane

Nairobi, Kenya

info@palnetwork.org

Designed by: Ferdinand Muganda & ASER Bangladesh/IID

Message from the CEO, PAL Network

For nearly two decades, the PAL Network has worked alongside communities, educators, and governments across the Global South to make children's learning visible. Our shared conviction to see a world where all children have a foundation for lifelong learning has guided us from the earliest Citizen-Led Assessments (CLAs), started in 2005 in India, to today's landmark ICAN-ICAR initiative.

This report represents one of the most ambitious collective undertakings in our Network's history. Even within our PAL family, this work has been a learning process—imperfect in parts but strengthened at every step by the power of our togetherness and our shared commitment to doing better for children. It should be read in that spirit. It attempts to bring together the technical rigour required for global comparability with an unwavering commitment to local ownership, cultural relevance, and citizen agency. More than a dataset, these findings embody the trust of families who opened their doors to us, the dedication of thousands of citizen volunteers who walked from home to home, and the leadership of our member organisations who ensured that no child was left unseen.

At a moment when the world desperately needs up-to-date data on foundational learning, this report offers countries a reliable, equitable, and scalable way to understand foundational reading and math skills for all children, including those who are often invisible in school-based assessments. The partners acknowledged in this report have demonstrated what is possible when communities, civil society, and national institutions act together with purpose.

As we look to 2030, I am confident that the evidence presented here will inform policy, strengthen accountability, and support the work of governments and communities striving to ensure that all children learn. We also look forward to deepening the inclusiveness of our assessments by integrating a socio-emotional learning component to capture foundational learning more holistically, and by reaching the most marginalised children, including those with hearing and visual impairments and children on the move.

I extend my deepest gratitude to every individual and organisation whose commitment made this achievement possible.

Armando Ali

Chief Executive Officer

People's Action for Learning (PAL) Network

Kenya

For the last ten years, the People's Action for Learning (PAL) Network has led the way in generating foundational learning data from the Global South. The data has been a critical driver in raising awareness and building the momentum to prioritise foundational learning for all globally. Ten years on, an increasing number of governments are prioritising education reforms so that more children can read for meaning and do maths with understanding. Regular and good quality foundational learning data continues to be essential to understand whether education is truly delivering for children, including building their socio-emotional skills.

The PAL Network's Citizen-Led Assessments (CLAs) are unique in the way they engage citizens in the production and use of evidence while reaching remote communities globally. This type of awareness building regarding children's learning levels, starting with the community, is essential for creating the long-term demand from citizens, to hold leaders to account on delivering on the promise of quality education for all. It also encourages parents to talk to their children about what they are learning, enabling the subsequent benefits accruing from strong parental engagement in children's learning.

The inclusive approach to evaluating foundational learning for all, taken by citizen led assessments is important. The assessments are carried out in the household, and reach all children, including those not in school. In addition, they are delivered in different languages and contexts, while still generating an opportunity for reliable and comparable data on learning. These contextualised and tailored assessments carried out by local partners and supported by south-south partnerships are an important way to ensure data is generated, owned and used at the local level.

The credibility of ASER and Uwezo bears testament to the rigour and power of this type of citizen led data. These assessments have provided invaluable sources of evidence through recent years, nationally and globally. More recently, the efforts to promote comparability of data across contexts was recognised by the WISE award in 2023. This championed the PAL Network's efforts on their comparable numeracy assessment and showcased the power of working collectively as a global network, to tell the story of foundational learning for all.

In 2025, the PAL Network has worked tirelessly to innovate, refine and ultimately deliver both the International Common Assessment of Numeracy and Reading (ICAN-ICAR), simultaneously across 12 countries in the Global South. This is a huge achievement, in the context of decision makers often relying on out of date, unreliable learning data that are not comparable over place or time.

Not only, have the PAL Network ensured the tools meet the needs of local communities, but also that they speak to the global indicators to track learning globally for the Sustainable Development Goal on quality education. These tools can allow countries to showcase their progress, or, more importantly, the achievements of the children and their teachers as they secure better and more comparable learning outcomes.

This report arrives at a moment when there is increasing demand for more and better learning data, that can be used to drive the urgent action needed to improve learning for all children globally.



Foreword

At FCDO, we are proud to support and celebrate the achievements of the PAL Network as they mark their ten-year anniversary and the launch of the timely ICAN-ICAR report.

We call on national governments, the global community and citizens to engage with the new findings and the rigorous tools, so that we can collectively better understand, track and accelerate learning globally, in the countdown to 2030.

Judith Herbertson

Head of Girls' Education Department

Foreign Commonwealth and Development Office (FCDO)

United Kingdom



Acknowledgements

This report is the product of a global collaboration, embodying the unrelenting commitment of member organisations and the unwavering partnership of technical experts and institutional allies of PAL Network. This initiative aims to merge the rigor required for global comparability with the foundational principle of local ownership and citizen agency, grounding global standards in the realities of the Global South.

PAL Network Leaders and Implementing Project Management Teams (PMTs)

This work would not have been possible without the dedication of the PAL Network member organisations and the tireless efforts of the Country Leaders and Project Management Teams (PMTs) who ensured an end-to-end implementation of the assessment. We offer our deepest appreciation to the implementing teams in the participating countries, including:

- **South Asia:** Syeed Ahmad, Kazi Ferdous Pavel, Maisha Tasnim, and Faria Rahman (ASER Bangladesh/ IID); Suman Bhattacharjea, Sudipto Kar and Anil Kumar Kamath (ASER India); Rajib Timalsina, Gunjan Jha, and Manisha Gahatraj (ASER Nepal); and Baela Jamil, Sahar Saeed, Talha Iftikhar, and Zulfiqar Ali (ASER Pakistan).
- **Eastern and Southern Africa:** Emmanuel Manyasa, Zachary Kwena, Carol Onsumu and Ochi Boaz (Usawa Agenda, Kenya); Tarcisio Abibo, Amélia Maria Ussene and Lino Andre (TPC Moçambique, Mozambique); Baraka Mgohamwende, Daud Siwalaze, Otto Millinga, and Benjamini Masebo (Uwezo Tanzania); Mary Goretti Nakabugo, Faridah Nassereka, Joseph Kasasa, Judith Nyakaisiki, Vincent Kalibbala, Dativah Ahabwe, Bonita Namatovu and Grace Agaba (Uwezo Uganda); and Moitshepi Matsheng, Noam Angrist, Amanda Beatty, Changu Maundeni, and Kago Dithlhong (Youth Impact, Botswana).
- **Western Africa:** Massaman Sinaba, Bréhima Traoré, and Adama Danioko (OMAES, Mali); and Rokhaya Cissé, Ndèye Sokhna Cissé, Binta Diedhiou and Alioune Badara Fall (LARTES, Senegal).
- **Americas:** Anabel Velásquez-Durán, Tania Ibet Zavaleta Herrera, Karel Verónica Cober Jiménez and Edgar Santiago González Martínez (Medición Independiente de Aprendizajes MIA, México); and Carla Yeneris Caballero, Herman Van de Velde, David Sarantes, Maribel Ochoa, Arline Calderón, and Naida Medina (ÁBACOenRed, Nicaragua).

We gratefully acknowledge the essential support and partnership provided by government entities in participating countries. Specifically, we extend our appreciation to the Ministries of Education, National Statistical Offices (NSO), and Country Technical Advisory Committees. Their direct engagement, particularly in leading or validating the Enumeration Area (EA) selection using national census frames in several countries, was crucial. This collaboration signifies strong government partnership, which is key to strengthening the credibility and national relevance of the assessment design. We also thank the many Test Panellists who dedicated their time and expertise to refining the assessment tools.



Acknowledgements

We also extend heartfelt appreciation to the vast network of enumerators, coordinators, master trainers, and community volunteers whose commitment and empathy brought ICAN-ICAR to life in thousands of homes. We thank the local leaders, village elders, community representatives, and parents who built trust and engaged with the process at every step.

Our deep appreciation goes to the 137 partner organisations across all the participating countries whose leadership, local knowledge, and mobilisation efforts made this large-scale implementation possible. Their collaboration strengthened the assessment's reach, contextual relevance, and credibility in every community we entered. A complete country-wise list of partner organisations is provided in Annex A.

Finally, we are thankful to every child who took part in ICAN-ICAR. Your curiosity, courage, and joy gave life to this effort. Your voices remain at the heart of ICAN-ICAR and the reason this work matters.

Technical Advisory Group (TAG) and Technical Expert Panel Members

We are deeply grateful to the Technical Advisory Group (TAG) members, Mary Goretti Nakabugo, Wilima Wadhwa, Ketan, Samana Vergara-Lope Tristan, Syeed Ahamed, Kazi Ferdous Pavel, Soufianou Moussa, Emmanuel Manyasa, and Patrick Montjourides whose insight and guidance strengthened every stage of this work, from tool design to data analysis planning.

We commend the Technical Expert Panel members, Nicolás Buchbinder, Ketan, Catalina Henriquez, and Hetal Thukral, who provided critical guidance in areas such as data analysis, quality assurance, and reporting standards. The Panel helped confirm that the items functioned as intended, reviewed the field-test data, checked for potential bias in item performance across groups, and made sure the results were robust enough to support reliable comparisons across countries.

Institutional Partners

We gratefully acknowledge the foundational and sustained support of our funding partners, as anchors to the initiative's success. The primary funding comes from the Foreign, Commonwealth and Development Office (FCDO) through its "Data for Foundational Learning" (D4FL) programme. Echidna Giving, The Hempel Foundation, and Gates Foundation, as key supporters, provided essential resources to advance the initiative.

Beyond funding, we highly value our ongoing collaboration with Australian Council for Education Research (UK Office), the Global Partnership for Education (GPE), Porticus, Education Cannot Wait (EcW), and UNICEF in the shared mission of strengthening foundational learning worldwide.

Acknowledgements

Secretariat

This initiative was made possible through planning, coordination, and technical leadership from the PAL Network Secretariat in Nairobi. We extend our appreciation to colleagues across action and advocacy, research, finance, governance, MEL, and operations for the steady support that enabled smooth multi-country implementation. The assessment team played a central role with Muhammad Usman leading the overall design and delivery of the assessment across countries; Manisha Upreti handling data quality systems and documentation to ensure global alignment, and Pramila Bisunke and Jorge Cruz coordinating day-to-day implementation, troubleshooting in real time with country teams and keeping field activities aligned with timelines and protocols.



Executive Summary

Foundational learning, the ability to read with understanding and to work confidently with numbers, remains a critical challenge across the Global South. Despite sharp increases in school enrolment, large numbers of children progress through the early primary grades without acquiring the essential skills needed for further learning. This report presents the first multi-country, household-based implementation of the International Common Assessments of Numeracy (ICAN) and Reading (ICAR) across 11 countries in Africa, Asia, and the Americas, providing a coherent and comparable picture of foundational learning aligned with global expectations for SDG 4.1.1(a). A separate school-based proof-of-concept pilot in Botswana explored whether the ICAN–ICAR tools which are typically administered one-on-one in households can be adapted for use in schools.

The assessment reached a scale unprecedented within the PAL Network's history. Across the eleven nationally representative countries, 2,917 Enumeration Areas were successfully covered, leading to surveys in 56,913 households and direct assessment of 89,185 children. Implementation spanned Bangladesh, Kenya, Mali, Mexico, Mozambique, Nepal, Nicaragua, Pakistan, Senegal, Tanzania, and Uganda, with sample sizes ranging from 3,820 to 7,220 households and from 4,694 to 13,167 children assessed per country. More than 96,000 children were surveyed overall, covering both enrolled and out-of-school children aged 5–16, and assessments were conducted in 18 languages to reflect the linguistic diversity of the sampled communities.

The assessment used a two-stage, stratified, probability sampling design that ensured national representativeness in each participating country. Enumeration Areas were selected with probability proportional to size, followed by systematic or spatial selection of households, ensuring representation of households in proportion to the urban-rural population distribution. Tools were adapted into local languages through a structured double-translation and linguistic review process, and field teams were trained through a tiered capacity-building model connecting PAL technical staff to national teams, Master Trainers, and citizen enumerators. Real-time monitoring, structured data quality assurance procedures, inter-rater reliability checks, and field verification, maintained consistency and data quality across all stages. In late 2024, teams across the participating countries ensured that ICAN and ICAR meet the global criteria for reporting SDG 4.1.1(a), and in 2025, Minimum Proficiency Level cut-points on these assessments were aligned with the Global Proficiency Framework through an international Pairwise Comparison Method workshop.

Minimum Proficiency Levels represent globally agreed benchmarks defining what children at the end of lower primary should be able to do. In reading, this includes demonstrating basic comprehension of short texts and locating or interpreting explicit information. In math, this includes confident work with whole numbers up to 100, basic operations, and simple problem solving. ICAN–ICAR results are presented both for Grade 4 and for ten-year-olds to account for variation in national grade structures and to ensure inclusion of out-of-school learners.



Executive Summary

Results show substantial variation across countries. MPL achievement among ten-year-olds in math ranges from above eighty percent in Mexico to below fifteen percent in Mali. In reading, Nicaragua records the highest share of ten-year-olds reaching MPLs, whereas several countries report rates below twenty percent. In most of the eleven household-study countries, less than half of all ten-year-olds reach MPLs in both subjects. Math results are consistently higher than reading results, a pattern often associated with language-of-instruction mismatches and limited exposure to the test language at home. Gender differences are small across the dataset. Urban children generally outperform their rural peers, and age-based learning trajectories show slow or stagnant progress in many countries. Grade-based trajectories are steeper but mask exclusion, as out-of-school and over-age children are captured only in age-based results.

Contextual data provides important insight into the learning environment in which children grow up. Access to children's books is low in most contexts, digital devices are rare outside a handful of countries, and parental education levels vary widely. Textbook availability remains inconsistent, and language mismatch is common, particularly where assessment and instruction occur in languages that differ from children's home languages. These disparities help explain the gaps observed in MPL achievement.

The findings carry important implications for national policies and system strengthening. Investments in early-grade instruction, especially in reading and language transition support, remain crucial. Expanding access to books and print-rich environments, supporting children with functional difficulties, and strengthening community-based and remedial programmes are necessary steps to ensure learning for all. Comparable, household-based assessment models also offer governments a reliable mechanism for tracking progress toward SDG 4.1.1(a).

This 2025 cycle establishes a historic baseline for foundational learning across eleven education systems. The school-based pilot in Botswana provides complementary evidence on feasibility, logistics, and follow-up mechanisms in settings with consistently high school attendance. The next ICAN-ICAR cycle in 2027-28 will create the first opportunity to measure progress over time and to contribute evidence that strengthens policy dialogue, accountability, and action on foundational learning.

Table Of Contents

Message from the CEO, PAL Network	iii
Foreword	iv
Acknowledgements	vi
Executive Summary	viii
List of Acronyms	xiii
List of Figures and Tables	xiv
I Introduction and Rationale	2
1 The State of Learning and PAL Network's Response	2
2 Objectives and Scope of the initiative	4
3 Overview of the Assessment Approach	6
II Results and Findings	9
1 Reader's Guide to ICAN-ICAR Results	9
2 Learning Outcomes for 10-Years-Old children	14
- 10-Year-Olds: Minimum Proficiency Levels Across Countries	14
- 10-Year-Olds: Minimum Proficiency Levels by Gender	16
- 10-Year-Olds: Minimum Proficiency Levels by Location	16
- Learning Trajectories by Age	17
- Learning Trajectories by Age and Gender	19
- Learning Trajectories by Age and Location	20
3 Learning Outcomes for children in Grade 4	21
- Children in Grade 4: Minimum Proficiency Levels Across Countries	21
- Children in Grade 4: Minimum Proficiency Levels by Gender	22
- Children in Grade 4: Minimum Proficiency Levels by Location	23
- Learning Trajectories for Children in Grade 4	24
- Learning Trajectories by Grade and Gender	25
- Learning Trajectories by Grade and Location	26
4 Contexts of Learning	27
5 Relationship between contextual information and learning outcomes	33
III Implications and the Way Forward	39
1 What the Data Reveals	39
2 The Contribution of ICAN-ICAR as tool	40
3 What We Achieved as a Network	40
4 Cost-Effectiveness Considerations	41
5 Policy Engagement and Data Use	41
6 Open Data and Research Access	41
7 The Next Rounds of ICAN-ICAR (2027-2028)	42
IV Assessment Design and Global Alignment	45
1 Assessment Tool Structure (ICAN and ICAR)	45
2 Alignment with Global Standards (SDG 4.1.1a and GPF)	48
3 Benchmarking and Comparability	48
4 Contextual Questionnaire and Disability Screening	49



Table Of Contents

V	Methodology and Implementation	53
1	Sampling Strategy	53
2	Capacity Building and Training Cascade	56
3	Field Implementation and Data Quality Assurance (DQA))	59
4	School-Based Pilot Study in Botswana	62
	Glossary of Terms	68
	References	70
	Annexes	71





List of Acronyms

This section documents a comprehensive list of all acronyms and specialized terminology used throughout the report. Key terms to include are:

ACER	– Australian Council for Educational Research
ADBG	– Associação para Democracia e Boa Governança (Association for Democracy and Good Governance)
AMME	– Associação Moçambicana Mulher na Educação (Mozambican Women in Education Association)
ASA	– Associação para Sanidade Ambiental (Association for Environmental Health)
ASER	– Annual Status of Education Report
CAREF	– Cellule d'Appui à la Recherche et à la Formation (Support Unit for Research and Training)
CBO	– Community-Based Organisation
CCM	– Conselho Cristão de Moçambique (Christian Council of Mozambique)
CLA	– Citizen-Led Assessment
DC	– District Coordinator
DIF	– Differential Item Functioning
EA	– Enumeration Area
EHED	– Education, Health and Environmental Development Welfare Organisation
ELANA	– Early Language, Literacy, and Numeracy Assessment
FCDO	– Foreign, Commonwealth and Development Office
FLN	– Foundational Literacy and Numeracy
FT	– Field Testing
GADEC	– Groupe d'Action pour le Développement Communautaire (Action Group for Community Development)
GAML	– Global Alliance to Monitor Learning
GEM	– Global Education Monitoring
GPF	– Global Proficiency Framework
ICAN	– International Common Assessment of Numeracy
ICAR	– International Common Assessment of Reading



List of Acronyms

IRR	– Inter-Rater Reliability
ITA	– Idara-e-Taleem-o-Aagahi (Centre for Education and Consciousness)
LARTES-IFAN	– Laboratoire de Recherche sur les Transformations Économiques et Sociales – Institut Fondamental d'Afrique Noire (Research Laboratory on Economic and Social Transformations – Fundamental Institute of Black Africa)
LPS	– Learning Progression Scales
M&R	– Monitoring and Recheck
MCED	– Mohmand Community for Education and Development
MEPT	– Movimento Educação para Todos (Movement for Education for All)
MPL	– Minimum Proficiency Level
OMAES	– Organisation Malienne pour l'Amélioration de l'Enseignement Scolaire (Malian Organisation for the Improvement of School Education)
PAL Network	– People's Action for Learning Network
PCM	– Pairwise Comparison Method
PESAP	– Pastoralist Education Smart Adaptation Programme
PMT	– Project Management Team
PPPS	– Probability Proportional to Population Size
SDG	– Sustainable Development Goals
SEL	– Socio-Emotional Learning
SPECCHILDREN	– Special Children's Organisation
TAG	– Technical Advisory Group
UIS	– UNESCO Institute for Statistics

List of Figures and Tables

Table 2.1: School calendar and survey dates, by country	9
Table 2.2: Sample Description	10
Table 2.3: Languages used for ICAN-ICAR Assessments across Participating Countries	11
Table 2.4. Percentage households with selected characteristics.	27
Table 2.5. Percentage households with selected educational context variables.	28
Table 5.1: Number of trainings conducted, by country	58
Table 5.2: Profile of citizen volunteers for data collection	59
 Figure 1.1: Implementation Timeline	5
Figure 2.1. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country.	15
Figure 2.2. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country and gender.	16
Figure 2.3. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country and location.	17
Figure 2.4. Age Learning Trajectories of achievement of MPL in Math, Reading and Both by country.	18
Figure 2.5. Age Learning Trajectories of achievement of both MPLs (Math and Reading) by country and gender.	19
Figure 2.6. Age Learning Trajectories of achievement of both MPLs (Math and Reading) by country and location.	20
Figure 2.7. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country.	21
Figure 2.8. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country and gender.	22
Figure 2.9. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country and location.	23
Figure 2.10. Grade Learning Trajectories of achievement of MPL in Math, Reading and Both by country.	24
Figure 2.11. Grade Learning Trajectories of achievement of MPL in Both domains by country and gender.	25
Figure 2.12. Grade Learning Trajectories of achievement of MPL in Math, Reading and Both by country and location.	26
Figure 2.13. School Enrolment. Ages 10-14.	29
Figure 2.14. Percentage of not enrolled children by gender and country. Ages 10-14.	30
Figure 2.15. Percentage of not enrolled children by country and location. Ages 10-14.	31
Figure 2.16. Age distribution in Grade 4.	32
Figure 2.17. MPL achievement in Math and Reading by enrolment status.	33
Figure 2.18. MPL achievement in Math and Reading by parental education level.	34
Figure 2.19. MPL achievement in Math and Reading by home language-test language correspondence.	35
Figure 2.20. MPL achievement in Math and Reading by access to technology in the household.	36
Figure 5.1: Stakeholders in the capacity building cascade	56
Figure 5.2: Key Training Events	57
Figure 5.3: Training agenda for ICAN-ICAR capacity building cascade	58





Chapter I

I. Introduction and Rationale

1. The State of Learning and PAL Network's Response

The global community currently faces a profound and pervasive learning crisis. Globally, an estimated 617 million children and adolescents, or six in ten worldwide, are not achieving minimum proficiency in reading and mathematics (UIS, 2017). Strikingly, two-thirds of these children are enrolled in school but not learning, unable to read a simple text or solve basic math problems. In low- and middle-income countries (LICs and MICs), nearly 70% of 10-year-olds are lacking basic reading comprehension skills (World Bank, 2022).

This systemic crisis, deepened by the COVID-19 pandemic, is further complicated by a critical learning data gap. While over 200 countries report on school enrolment, only 37 report learning outcomes at the lower primary level (UIS, 2024). Many more countries collect learning data through national or regional assessments, but these results are not always reported to UIS or aligned to global indicators (UIS, 2024). This imbalance reveals that while education systems know how many children are in school, they don't often have reliable, up-to-date data on how many children are actually learning. Addressing this evidence gap is essential for tracking progress toward the Sustainable Development Goals (SDGs) and tackling the crisis of low foundational learning effectively.

The PAL Network's Solution: Citizen-Led Assessments (CLAs)

The People's Action for Learning (PAL) Network is a South-South partnership of organisations operating across 15 countries in Africa, Asia, and Americas, dedicated to improving foundational literacy and numeracy (FLN). Recognising that global education goals require approaches that reach all children, including those who cannot yet read, attend school irregularly, or are out of school entirely, the PAL Network advanced the Citizen-Led Assessment (CLA), drawing on ASER's innovation in India and its organic spread across the global south.

CLAs at PAL Network offer a practical, community-driven, scalable approach designed to make children's learning visible in the Global South. The model's key characteristics strive to ensure inclusivity and relevance:

- **Inclusivity and Reach:** Assessments are conducted in households rather than in schools, ensuring the inclusion of all children aged 5 to 16, regardless of their schooling status.
- **Methodology:** The assessments are simple, oral, and administered one-on-one with each child. This makes them appropriate for children that are developing their reading skills.
- **Scale and Impact:** Since 2005, CLAs have reached over 9 million children and involved nearly a million volunteers across three continents. This model leverages the involvement of trained citizen volunteers (mobilised by civil society organisations) to catalyse citizen agency, bringing the state of children's learning to the forefront of policy and practice.



ICAN-ICAR: Evolution to Global Comparability and Scalability

Traditional CLAs such as ASER and Uwezo were highly effective in measuring learning levels within their respective countries, intentionally designed around national curricula and local contexts. Because each country used methods and standards tailored to its own system, these traditional CLAs were not intended for cross-country comparison. In response, PAL Network developed the International Common Assessments of Numeracy and Reading (ICAN-ICAR) as the latest evolution to the legacy CLAs, among a suite of common assessment initiatives to enable cross-country comparison and align with international metrics. These tools provide comparable, low-cost, and scalable tools to measure foundational learning skills in numeracy and reading for children aged 5 to 16 years.

ICAN-ICAR are rigorously designed to meet international requirements for education data

i.

Global Alignment: ICAN-ICAR is aligned with the Global Proficiency Framework (GPF) and meets technical requirements for reporting on Sustainable Development Goal (SDG) indicator 4.1.1(a) which measures the proportion of children in Grades 2/3 achieving at least a minimum proficiency level (MPL) in reading and mathematics. Following comprehensive review and revision in collaboration with the Australian Council for Educational Research (ACER), both tools show alignment with first four requirements under Criteria 1 relating to assessment alignment¹. The UNESCO Institute for Statistics (UIS) has officially confirmed that the ICAN-ICAR tools meet the global reporting criteria for SDG 4.1.1(a) (UIS, 2024).

ii.

Local language adaptation: One of ICAN-ICAR's advantages is the depth of its translation and adaptation process, which goes beyond direct translation. Across all participating countries, the tools were adapted into 18 languages by local item writers and reviewers to ensure local relevance, and administered by enumerators from the same communities, making the assessment process accessible, fair, and rooted in local realities.

iii.

Scalability: The ICAN-ICAR instruments, along with their administration and scoring instructions, are designed for large-scale implementation across diverse contexts. The current cycle of implementation spans 11 countries surveying approximately 56,000 households and reaching over 96,000 children.

The data produced with ICAN-ICAR positions the PAL Network to inform policy, strengthen accountability for quality education, and track global progress toward foundational learning for all.

¹The first four requirements under Criteria 1 of the global reporting standards for SDG 4.1.1(a) relate to the assessment's technical design: 1.1a (Test Length), 1.2a (Depth in Core Domain), 1.3a (Breadth in Core Domain), and 1.4a (Breadth in Non-Core Domains).



2. Objectives and Scope of the Initiative

CAN-ICAR are designed to strengthen global foundational learning measurement and translate data into sustained educational policy impact. The assessment model builds directly on the successful legacy of the Citizen-Led Assessments (CLAs) pioneered by the PAL Network members.

The purpose of the ICAN-ICAR is multi-fold: to generate high-quality, comparable data from the Global South, to strengthen national capacity, ensure local ownership, and help turn learning measurement into a driver of systemic reform.

A core objective is to focus on generating and scaling locally relevant evidence through simple, inclusive tools adapted to each country's context and implemented by trained local volunteers.

Another objective is to ensure alignment with global standards, specifically the Global Proficiency Framework (GPF) and Minimum Proficiency Levels (MPLs) in reading and mathematics for children in Grades 2/3, so more low- and middle-income countries are equipped to produce comparable data and report on SDG 4.1.1(a).

Beyond data collection, the initiative seeks to communicate findings through accessible reports and visualizations to raise the visibility of FLN in the Global South and support remedial action and catalyse citizen agency to hold systems accountable.

The assessment is intentionally designed to balance technical rigor with contextual appropriateness for the Global South.

- **One-on-one administration:** ICAN and ICAR assessments are fundamentally paper-based instruments, which means that volunteers assess each child at home using a printed assessment booklet for the tasks, while capturing all responses digitally in SurveyCTO. This oral, one-on-one format includes both in-school and out-of-school children and allows early skills to be observed directly.
- **Adaptive Design with Stop Rules:** ICAN- ICAR incorporates “stop rules” which makes the assessment adaptive. This ensures children who struggle with easier items are not asked harder ones, reducing fatigue and keeping the assessment within their ability range. ICAN advances to set 3 only if set 2 is passed; ICAR skips word items if letters are not mastered and skips comprehension if words are not mastered.
- **Parallel Booklets:** Two parallel booklets (Booklet 1 and Booklet 2) were designed to have identical difficulty levels which

ICAN-ICAR assesses children

**5-16
Years**

and gathers contextual data to complement academic results and explain learning outcomes.



is helpful when assessing multiple children within the same household.

- **Contextual information:** ICAN-ICAR assesses children aged 5 to 16 years and gathers rich contextual data on children's family, household, community, and functional difficulties (using the Washington Group questions) to complement the academic results and help explain learning outcomes.

Timeline

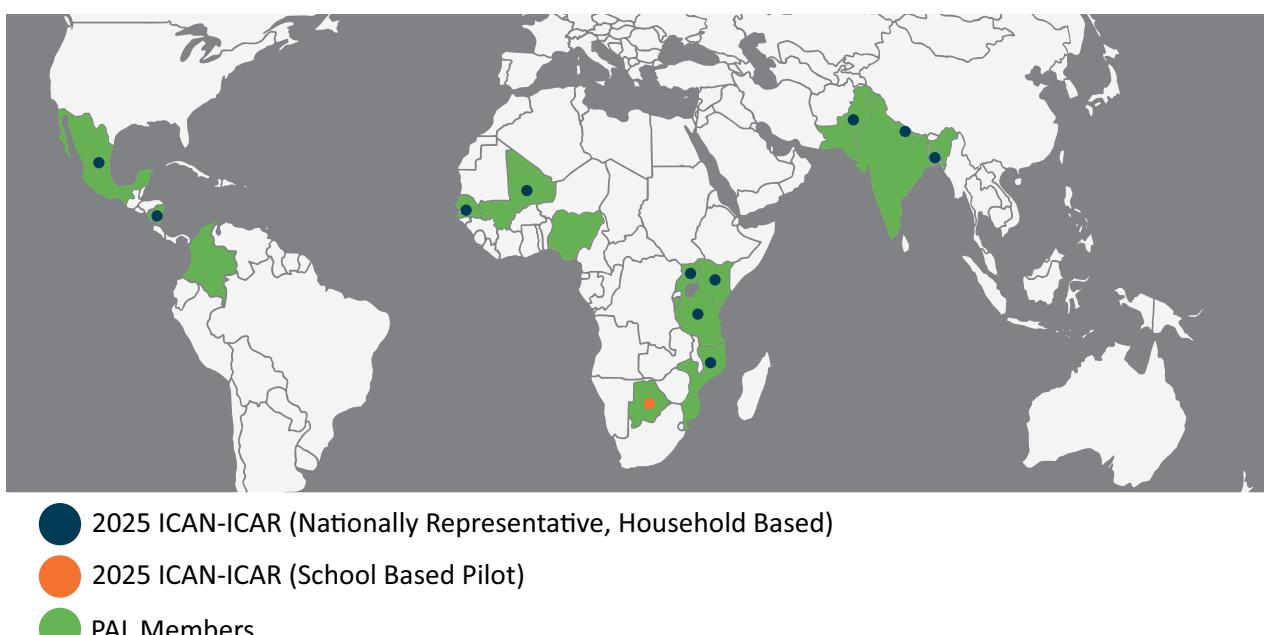
The ICAN-ICAR initiative is structured as a multi-year effort to provide sustainable, longitudinal data. The 2025 assessment cycle is the first of two planned assessment cycles by 2030. This is intended to provide multiple rounds of data to track progress toward SDG 4.1.1(a). Over 18 months, this effort brought together 12 participating countries, technical partners, and thousands of community actors, moving step by step from global design to local adaptation, field validation, and large-scale implementation. Data for the 2025 cycle was collected between the second and third quarters of the year, with all participating countries completing data collection by September 30, 2025.



Figure 1.1: Implementation Timeline

3. Overview of the Assessment Approach

This report draws on the 2025 implementation of the ICAN-ICAR assessment across eleven countries using a harmonised, household-based methodology designed to reach all children aged 5–16, including those out of school. The assessment followed a two-stage, stratified sampling design, with Enumeration Areas drawn using probability proportional to size and households selected systematically within each EA. Tools were adapted into 18 languages through a structured translation and review process, and assessment teams were trained through a tiered capacity-building model led by national Project Management Teams and supported by PAL Network. Data were collected through one-on-one, paper-based assessments using digital devices for capture and real-time monitoring. Full methodological details, including sampling frames, translations, field protocols, quality assurance processes, scoring, and Minimum Proficiency Level alignment, are presented in Chapter IV and Chapter V of this report.



Countries	Communities Reached	Household surveyed	Children assessed
12	2,917	5,913	89,185



Chapter II

II. Results and Findings

1. Reader's Guide to ICAN-ICAR Results

Survey and academic calendar

This edition of the ICAN-ICAR assessment includes data from 12 participating countries. In 11 countries, the assessment was implemented in households within sampled communities. In Botswana's South-East region, the assessment was implemented in schools to explore how ICAN-ICAR could be delivered in a school-based setting. Additional information on this pilot is provided in Chapter V. Methodology and Implementation.

Most countries implemented the assessments during the months of August and September 2025. School term dates and holiday periods vary across countries and can influence learning momentum at the time of assessment and comparability across countries. Understanding academic calendars is useful for interpreting results as it helps clarify where children were in their learning journey during the academic year. A summary of academic calendars for all participating countries is provided in the following table.

Table 2.1: School calendar and survey dates, by country

Countries	Start of the Academic Session	Survey Start Date
Bangladesh	First week of January	Second week of August
Kenya	First week of January	Second week of August
Mali	First week of October	Second week of August
Mexico	Last week of August	Second week of August
Mozambique	Last week of January	First week of August
Nepal	Second week of April	Second week of August
Nicaragua	Last week of January	First week of September
Pakistan	First week of October	Second week of August
Senegal	Last week of September	Second week of August
Tanzania	First week of January	Last week of August
Uganda	First week of February	Last week of August

Sampling design, response rates, weighting, and sample description.

The ICAN-ICAR assessment uses a nationally representative, probability-based sampling design that captures all children aged 5 to 16 years, including both in school and out of school children. Countries applied a multistage, stratified approach. In the first stage, Enumeration Areas were selected using Probability Proportional to Population Size. In the second stage, twenty households were selected within each Enumeration Area.

In the ICAN ICAR sampling design, the probability that a household is selected depends on two components: the probability that its Enumeration Area is selected in the first stage, and the probability that the household is selected within that area in the second stage. Since the number of Enumeration Areas allocated to each stratum varies according to population size, the overall probability of selection differs across strata. Sampling weights are calculated as the inverse of this overall probability of selection. After the base weights are calculated, these are adjusted for household and child nonresponse to ensure that the final weighted estimates accurately represent the total number of households in the sampling frame. **Exception to the weighting calculation include the estimates from Tanzania, which are unweighted.**

For more information on the sampling design, see Section V: Methodology and Implementation.

A detailed description of the achieved sample, including the number of Enumeration Areas, households and eligible children assessed in each country, is presented in the following table.

Table 2.2: Sample Description

Countries	Enumeration Areas (n)	Household surveyed (n)	Children Surveyed (n)	Children Assessed (n)
Bangladesh	275	5,499	6,664	6,479
Kenya	222	4,459	7,076	6,669
Mali	200	3,882	10,091	9,588
Mexico	334	5,480	8,351	8,150
Mozambique	255	5,082	8,255	8,022
Nepal	191	3,820	4,801	4,694
Nicaragua	361	6,731	7,310	6,230
Pakistan	283	6,318	10,510	9,202
Senegal	202	4,059	9,117	8,098
Tanzania	372	7,220	14,796	13,167
Uganda	222	4,363	9,531	8,886

Assessment instruments and testing languages

The assessments were administered orally and one-on-one in children's households. The ICAN-ICAR assessments consist of two test instruments designed to measure foundational numeracy and literacy among children aged 5 to 16. The ICAN includes 36 mathematics items that cover areas such as number knowledge, basic operations, measurement, geometry, simple data handling, and pattern recognition. The ICAR includes 30 items spanning comprehension of oral language, decoding of letters and familiar words, and reading comprehension of short texts. Both assessments were translated and adapted into the languages children use at home and in school, following a structured translation process that included backward translation, review for linguistic and cultural appropriateness and redevelopment of items where direct translation was not possible. For more information on assessment instruments, see Section IV. Assessment

Design and Global Alignment. Test languages used across participating countries are shown in following table.

Table 2.3: Languages used for ICAN-ICAR Assessments across Participating Countries

Countries	Language of Assessment
Bangladesh	Bangla
Kenya	English
Mali	French, Bamanankan
Mexico	Spanish
Mozambique	Portuguese
Nepal	Nepali
Nicaragua	Spanish
Pakistan	Urdu, Sindhi
Senegal	French, Wolof, Soninke, Sereere, Pulaar, Mandinka, Joola, Diola
Tanzania	Kiswahili
Uganda	English

Minimum proficiency levels (MPLs)

SDG 4.1.1(a)

Sustainable Development Goal (SDG) 4.1 focuses on ensuring that all children complete free, equitable and quality primary and secondary education that leads to effective learning outcomes. Within this goal, Indicator 4.1.1(a) reports the proportion of children in Grades 2/3 who achieve at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex. To enable comparable measurement across countries, the UNESCO Institute for Statistics (UIS) developed global Minimum Proficiency Levels (MPLs), which describe the essential foundational skills children should demonstrate by the end of lower primary. MPLs provide a common benchmark that allows countries to interpret whether children have mastered the minimum competencies needed for future learning and to track progress toward SDG 4.1.1(a).

The MPLs were established through a multi-year, international technical process led by UIS between 2018 and 2022. The resulting MPLs represent a global reference point for foundational learning and form the basis for determining whether children in the ICAN-ICAR assessment are “at or above” the minimum proficiency standard (Australian Council for Educational Research, 2022).

Choice of grade and age for reporting

Interpreting SDG 4.1.1(a) is challenging because education systems differ widely in how primary grades are organised: in some countries Grade 2 is the second year of school, while in others it may be the third or fourth. These variations make the global reference to “Grades 2/3” difficult to apply consistently across countries. To ensure comparability, ICAN-ICAR adopts Grade 4



as the reporting point for foundational learning under SDG 4.1.1(a), as this is a stage by which children can reasonably be expected to have acquired the MPL in reading and mathematics associated with the end of lower primary. In addition, ICAN-ICAR reports results for children aged 10, providing a grade-neutral benchmark that supports comparability across children who are below, at, or above their expected grade level, as well as children who are not currently enrolled in school.

Definition of MPLs

To be aligned with the SDG 4.1.1(a) MPL in reading, an assessment must capture the Grade-2 skills described in the Global Proficiency Framework (GPF). UIS requires that reading assessments include at least 20 score points mapped to the GPF, of which a minimum of 10 score points must assess Grade-2 reading comprehension. This includes the two core subconstructs that define the MPL:

- Recognise the meaning of common words; and
- Retrieve explicit information from a Grade-2-level text.

The remaining score points may draw on precursor skills such as decoding, listening comprehension, or vocabulary development while still ensuring that Grade-2 reading comprehension remains the central construct. In practice, an MPL-aligned reading assessment must therefore determine whether children can accurately decode and understand simple text and extract basic meaning from it.

For mathematics, alignment to SDG 4.1.1(a) requires at least 20 score points linked to Grade-2 content in the GPF, with a minimum of 10 score points dedicated to the Number and Operations domain. Within this domain, assessments must include items representing at least three of the four Grade-2 subconstructs:

- Identify and count in whole numbers, and identify their relative magnitude,
- Represent whole numbers in equivalent ways,
- Solve basic operations with whole numbers, and
- Solve simple real-world problems involving whole numbers.

Assessments must also include a minimum of 10 items from non-number domains—such as measurement, geometry, statistics, or probability—to ensure broader curricular coverage, even though these items do not contribute to the MPL threshold. Together, these requirements ensure that an MPL-aligned mathematics assessment measures core foundational numeracy skills with an emphasis on number sense, basic computation, and simple problem-solving.

Interpreting MPL Cut-points: What It Means to Be Proficient in ICAN-ICAR

To report ICAN-ICAR results in line with global SDG 4.1.1(a) expectations, the assessments were linked to the international MPL benchmarks through the Pairwise Comparison Method (PCM). PCM is a standard-setting approach in which experts compare items in pairs to judge their relative difficulty and determine where each item sits in relation to the global MPL (UNESCO & ACER,



2025). In August 2025, PAL Network and ACER-UK convened approximately 40 international literacy and numeracy experts to apply this method to ICAN-ICAR items. Through this process, MPL-aligned cut-points were established for both reading and mathematics, enabling ICAN-ICAR to classify the proportion of children who meet or exceed the globally defined standard for foundational learning.

For reading (ICAR), the cut-point corresponds to the point on the scale where children reliably demonstrate Grade-2 reading skills—specifically, recognizing common grade-level words and retrieving a single piece of explicit information from a short, simple text, typically by matching a word or idea in the question to its equivalent in the passage. At or above this point, children can answer straightforward “who”, “what”, “when”, or “where” questions when the relevant information is clearly stated, and not obscured by competing content. Being above the MPL therefore indicates that the child can read Grade 2-level texts (about 40 words in length) with understanding to extract basic meaning—reflecting the globally defined threshold for foundational literacy.

For mathematics (ICAN), the cut-point reflects the point on the scale where children reliably demonstrate the Grade-2 number and operations skills expected at the MPL. Children who meet the MPL can count, compare, and order whole numbers up to 100, and can solve basic addition and subtraction problems within 20 using objects, pictures, or number symbols. They can also work with simple multiplicative ideas, such as doubling small quantities or dividing a small group of objects into two equal sets. At or above this point, children show the foundational number sense, computation skills, and straightforward problem-solving abilities that mark the global threshold for minimum proficiency in mathematics.

In combination, proficiency on ICAN-ICAR indicates that a child attains the minimum proficiency threshold in each construct separately, demonstrating the essential reading and mathematics competencies associated with foundational learning under SDG 4.1.1(a).

How MPL results are presented in this report

ICAN-ICAR presents MPL results using a set of clear, visual summaries that show the proportion of children who are above the minimum proficiency standard in reading, mathematics, and both learning areas combined. Results are shown for age 10 and Grade 4, the two global reporting points, and are disaggregated by country, gender, and rural–urban location. Additional “learning trajectory” charts illustrate how the share of children reaching the MPL increases across ages and grades within each country. Together, these visuals allow readers to quickly understand overall performance levels as well as key inequalities in foundational learning.

Using MPL results for policy and programmes

These results help citizens, governments and partners identify which groups of children are furthest behind and at what stage learning gaps begin to widen. Countries can use MPL data to track progress toward SDG 4.1.1(a), target interventions to specific ages or grades, prioritise support for disadvantaged populations, and monitor whether reforms—such as curriculum changes, teacher training, or remedial programmes—lead to improvements in foundational



learning. By highlighting where learning recovery or acceleration is most urgently needed, MPL results provide a practical evidence base for national planning, budgeting, and programmatic action.

In the pages that follow, we will offer the evidence of achievement of minimum proficiency that we found in our study. We believe it is important to interpret them globally. It is tempting to attribute low learning outcomes to problems in schools. However, learning outcomes are not only a product of the work that schools do, they are the product of all educational opportunities that children experience in the places where they live, in their schools, in their neighbourhoods, and in their households. Schools themselves often face great challenges (lack of monetary resources, capacity building, etc.) to carry over their mandates. If anything, these results should be a call for the society to demand for consistent efforts to increase and improve education opportunities for their children

2. Learning Outcomes for 10-Years-Old children

10-Year-Olds: Minimum Proficiency Levels Across Countries

Figure 2.1 presents the percentage of children of 10 years old that achieve Minimum Proficiency Levels (MPL) in mathematics, reading, and both domains at the same time. As explained in the previous pages, focusing on this age group allows us to include children that are enrolled and children that are not enrolled in school. If children are enrolled, focusing on an age group includes children that are following the expected schooling trajectory and children that do not, because they dropped out and re-enrolled or because they were retained.

Given that SDG4.1.1(a) was defined for Grades 2/3, we would expect that all children of 10 years old would achieve minimum proficiency, but that is not what we can see in Figure 2.1. There is great variability in MPL achievement across countries. In math, Mexico is the country with the highest percentage of children that achieve minimum proficiency, with 82.7%. In the other end, Mali and Mozambique have the lowest percentages, with 10.9 and 18.1%, respectively. The relative achievement of MPLs in these countries is similar for reading, although the percentages are in general lower. In reading, Nicaragua is closer to Mexico, with 67.5% of children achieving minimum proficiency.

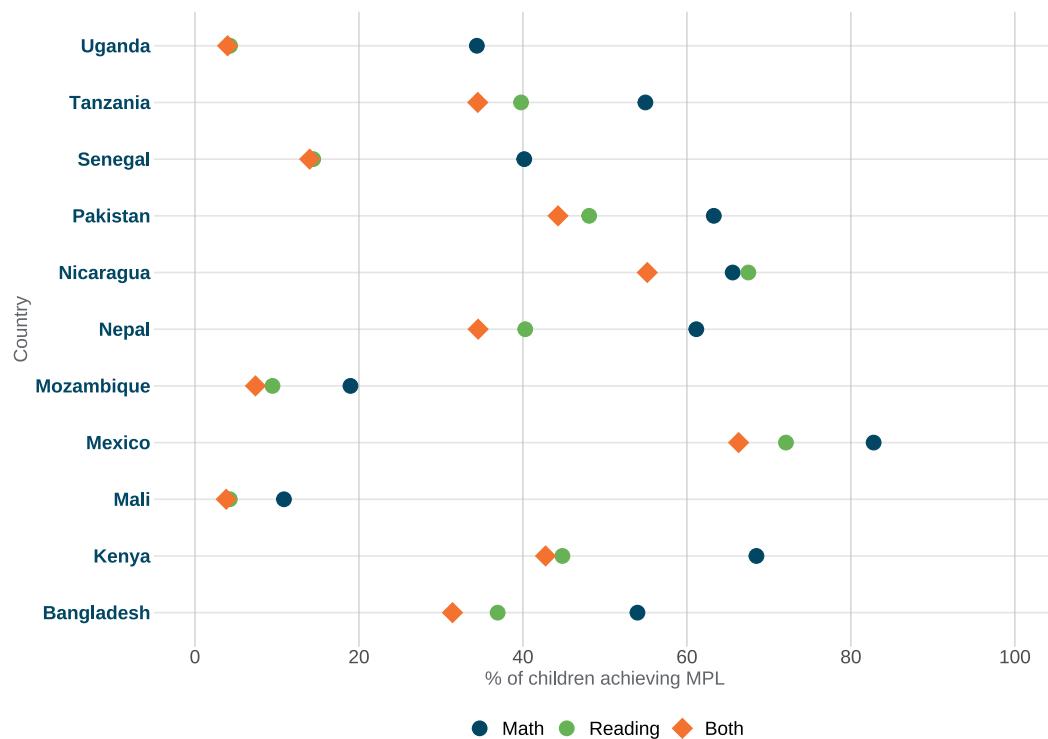
Even though the age group that is being analysed in this graph should in theory have achieved the MPLs, in all of these countries there is a vast number of children that are not achieving minimum proficiency in math or in reading in the test language. Even in Mexico, the country that has the highest achievement in both MPLs, one third of children of 10 years old do not achieve either the math or reading benchmark. For 9 out of 11 countries in this study, less than half of their 10-year-old children achieve MPLs in both reading and math.

It is noteworthy how much MPL achievement varies in some countries when math and reading are compared. Except for Nicaragua, the percentage of 10-year-old children that achieve the math MPL is higher than for the reading MPL. These differences are as little as 6.6 percentage points (p.p.) in Mali and as big as 30.1pp in Uganda. This could be due to several reasons. In many of these countries, the test language (which is planned by design to be the same as the



language of instruction) is not the language that children speak at their homes, and this may be affecting their reading comprehension performance. This however may not be affecting so much children's performance in math, since the language component of this assessment is much less intensive. Another reason may be that the MPL benchmarks for math and reading may not be equally demanding in terms of local grade-level expectations.

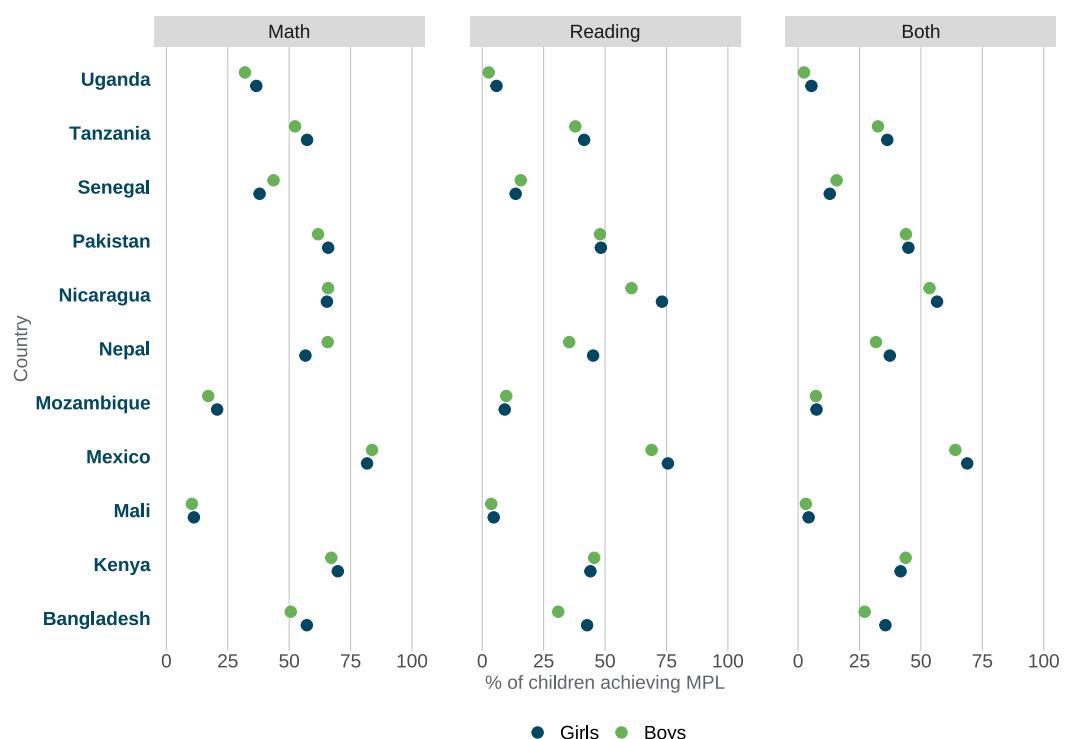
Figure 2.1. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country.



10-Year-Olds: Minimum Proficiency Levels by Gender

Figure 2.2 shows the percentage of children of 10 years old achieving the MPL by gender in each country. In general, we do not observe great differences between girls and boys in these countries. The largest difference between girls and boys is 12.4pp in reading MPL achievement in Nicaragua, and this is the only statistically significant difference. In eight countries, we see girls slightly outperforming boys in reading, whereas in math we see that this is the case in six countries.

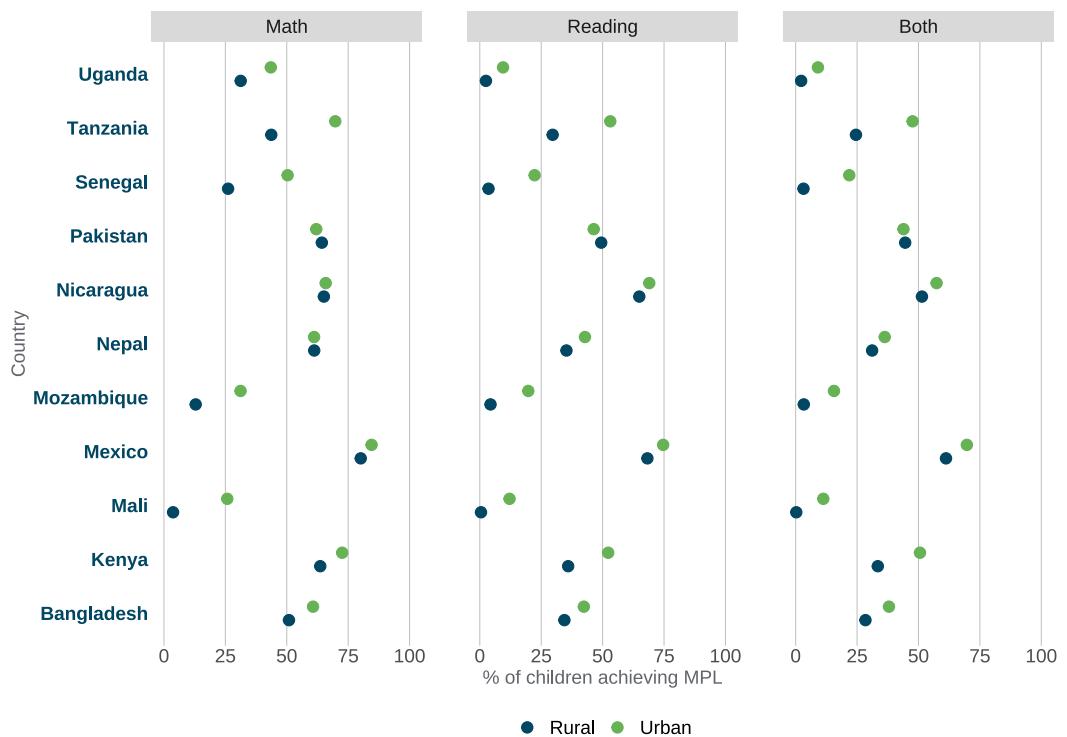
Figure 2.2. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country and gender.



10-Year-Olds: Minimum Proficiency Levels by Location

Learning outcomes differ much more in terms of the household location, when we compare urban and rural households (Figure 2.3). Only in Pakistan we observe that children in rural households have better performance than children in urban households, but this difference is not statistically significant. In the rest, children in urban households achieve MPL in both math and reading in a higher percentage, with statistically significant differences in Uganda, Senegal, Mali, Kenya (for reading and both).

Figure 2.3. Percentage of children of 10 years old achieving Minimum Proficiency Levels in Math, Reading and Both by country and location.

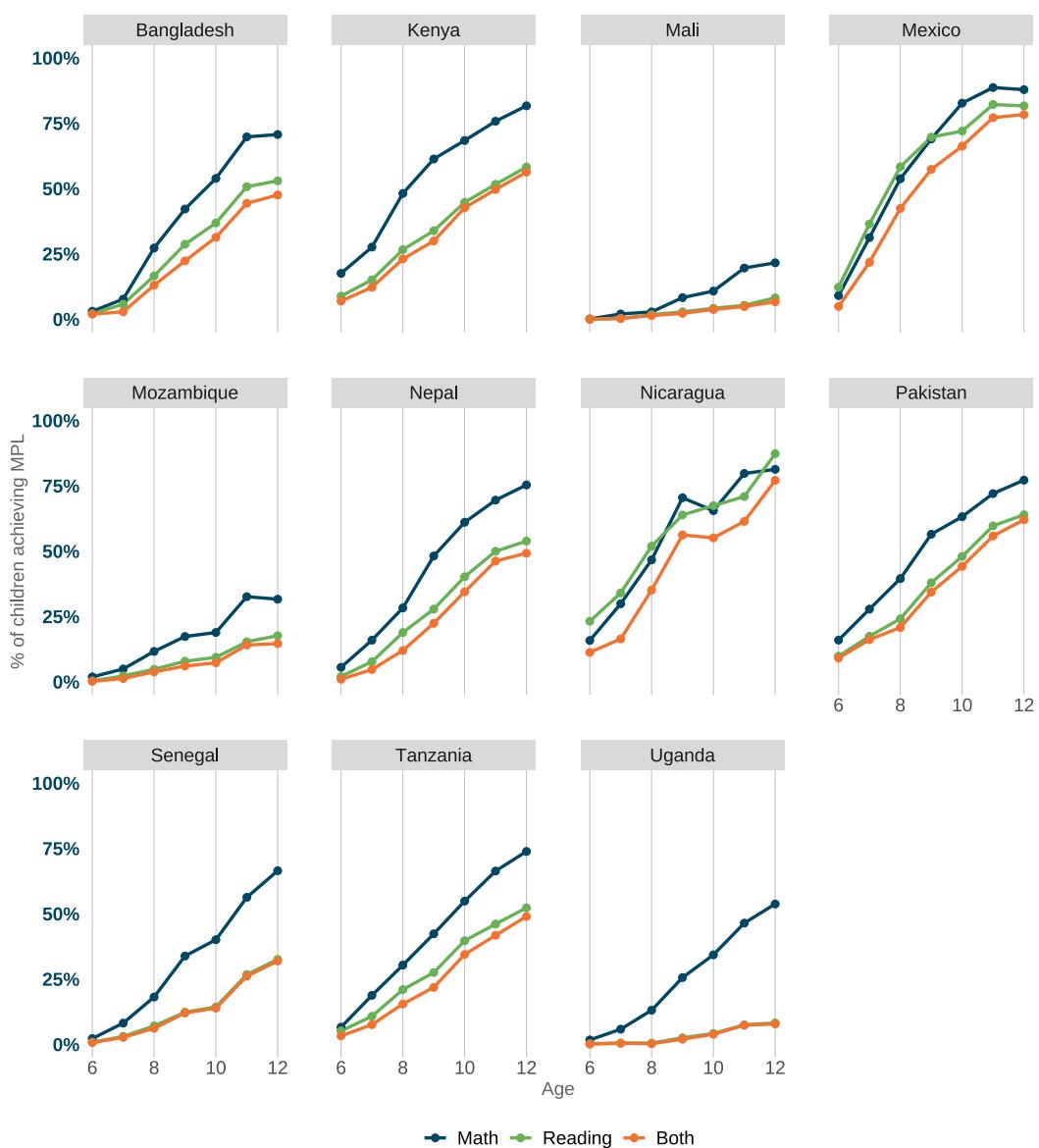


Learning Trajectories by Age

Figure 2.4 present the “Learning Trajectories” for children in these countries, as proposed by the Research on Improvement Systems of Education (RISE) (Kaffenberger & Pritchett, 2020, 2021). This visualization shows the percentage of children that achieve the MPL at different ages. This is not a longitudinal trajectory, as in this study we do not follow students during multiple years. The learning trajectory is in this sense “hypothetical”, as it offers a profile of a trajectory using cross-sectional data. Rather than focusing on specific percentages, what we focus on in these graphs is the trend, aiming to observe at which age all children achieve minimum proficiency.

We can observe in that there are varied trajectories represented in this study, but in the vast majority of the countries even at age 12 the percentage of children achieving minimum proficiency in math and reading is far from 100%. In some countries, like Mexico and Nicaragua, the trajectories are steeper, signalling a progressive achievement in terms of the MPLs. In other countries, the trajectories are flat, and the percentage of children that achieve the MPL does not increase much by year. This is especially evident in the cases of Mali, Mozambique and Uganda for the reading MPL. It is also noteworthy that in many countries the line that represents the achievement of both MPLs tends to overlap with the lowest of the math or reading MPL achievement.

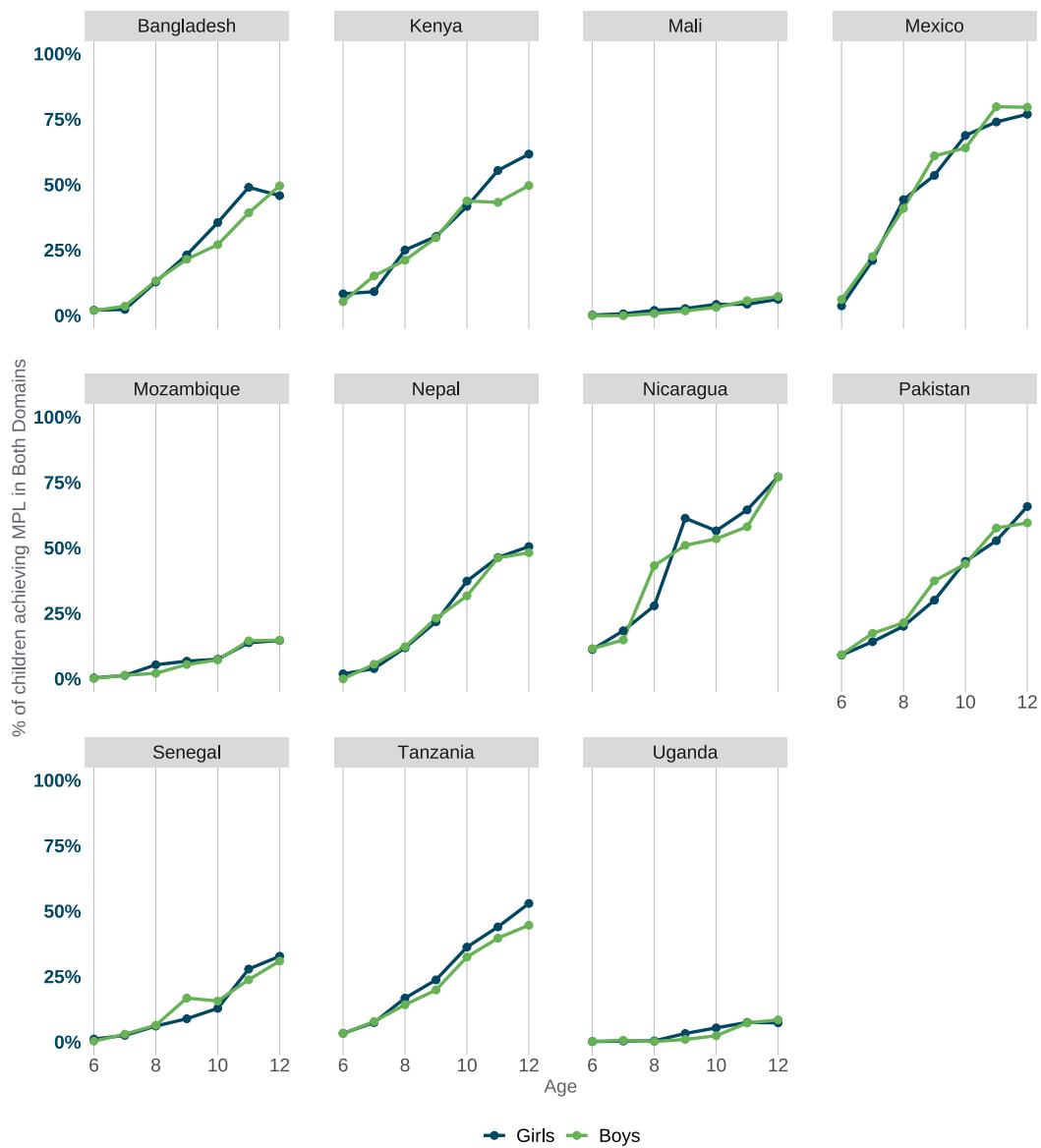
Figure 2.4. Age Learning Trajectories of achievement of MPL in Math, Reading and Both by country.



Learning Trajectories by Age and Gender

We can also see the learning trajectories for different groups. Figure 2.5 shows the learning trajectory for the achievement of both MPLs. As we saw above for the differences at age 10, the trends between boys and girls are similar in all countries. There are specific locations in the graphs in which one of the trends tends to differ from the others, but those differences probably express noise due to smaller sample sizes in some countries for specific age and gender combinations.

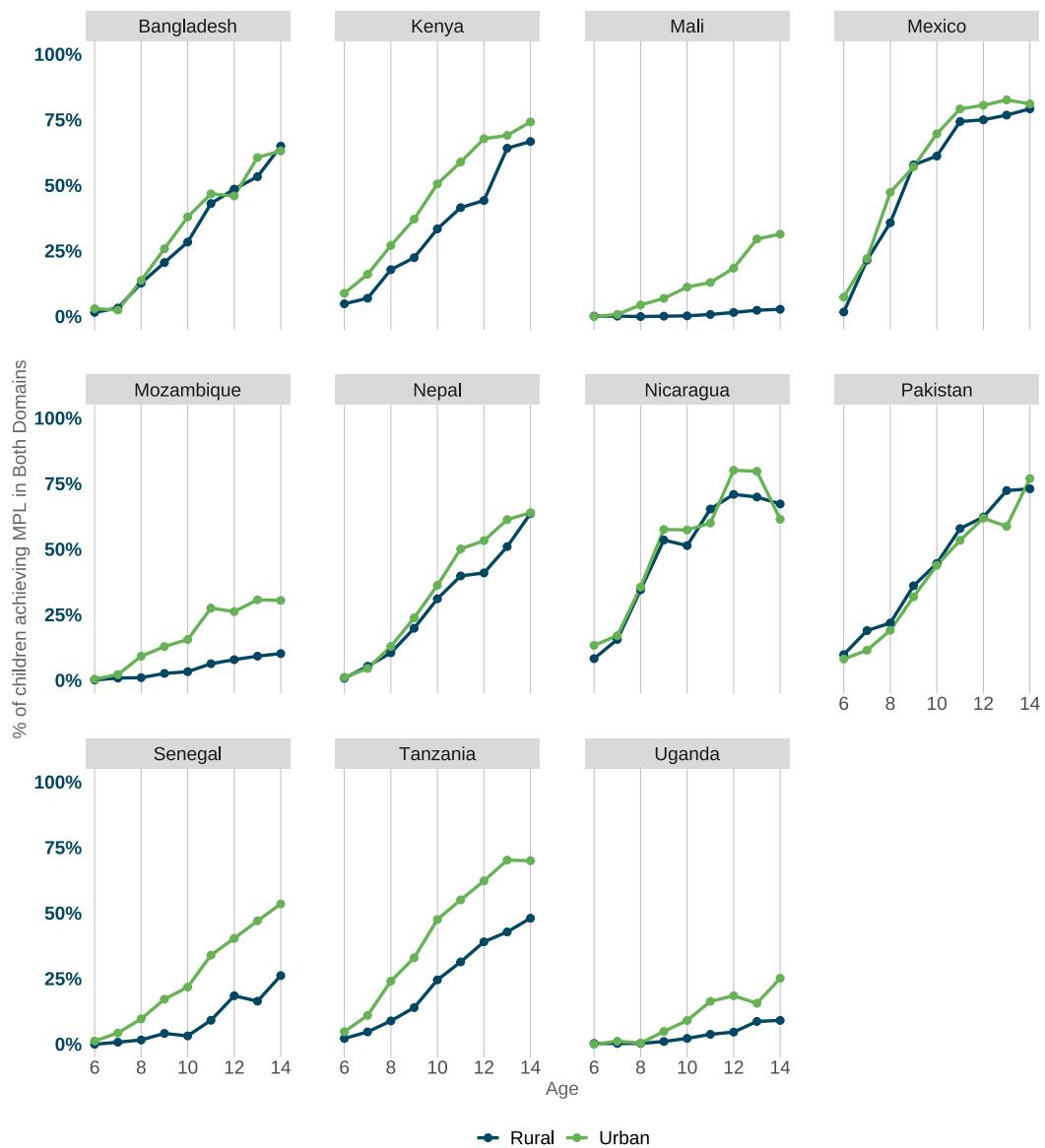
Figure 2.5. Age Learning Trajectories of achievement of both MPLs (Math and Reading) by country and gender.



Learning Trajectories by Age and Location

When we observe the trajectories for children living in urban and rural households, the differences that we observed above are also visible in terms of differing trends. In most countries where we saw statistically significant differences in age 10 (except for Kenya), not only there are differences in achievement between children in urban and rural households, but those differences also seem to widen as children grow.

Figure 2.6. Age Learning Trajectories of achievement of both MPLs (Math and Reading) by country and location.



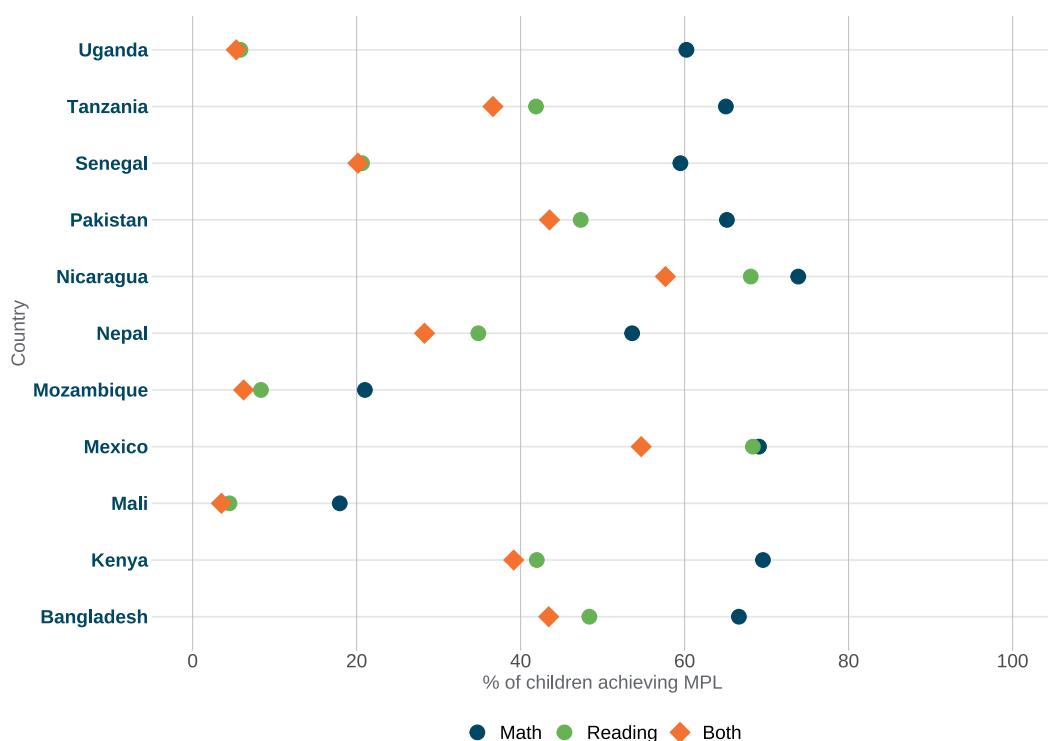
3. Learning Outcomes for children in Grade 4

Children in Grade 4: Minimum Proficiency Levels Across Countries

An alternative to analysing learning based on children's age is to look at learning focusing on what grade children are enrolled in. Figure 2.7 shows the percentage of children enrolled in Grade 4 achieving minimum proficiency in math, reading and both. Focusing on a grade level allows us to think in terms of learning goals that children should achieve as they progress in school. SDG4.1.1(a) was defined for grades 2 and 3, so we would hope to see all children in grade 4 to have achieved both MPLs. As the figure shows, this is still not the case.

There are some noteworthy features when we compare this graph with Figure 2.1. The first thing to notice is that the percentage of children achieving minimum proficiency is higher in most countries, even if children in grade 4 can be younger than 10 years old (see Figure 2.16 for more details). This difference is probably because, when we focus on an age group, we are capturing children that are enrolled in school and children that are not enrolled, and within children that are enrolled, whether children that have been retained in early grades. Interestingly, when we focus on children in grade 4, the math MPL achievement is remarkably similar across most countries, while reading MPL achievement tends to vary much more.

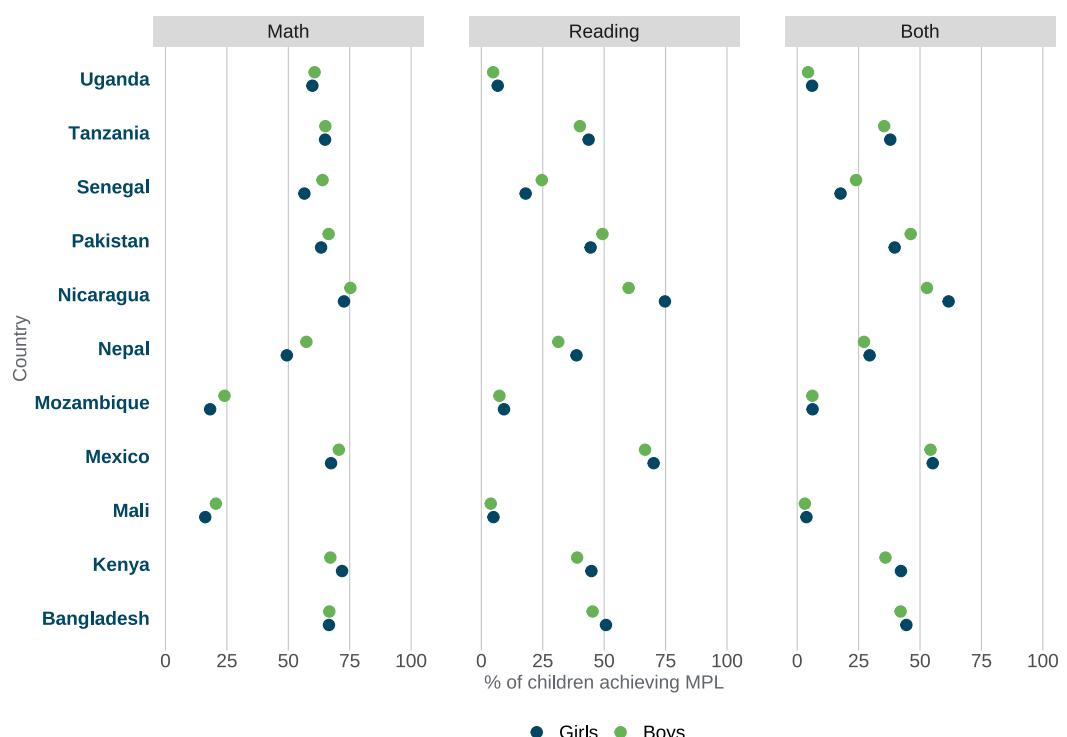
Figure 2.7. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country.



Children in Grade 4: Minimum Proficiency Levels by Gender

We can also observe if there are differences in terms of learning between boys and girls when focusing on children enrolled in Grade 4. Overall, we see something similar than what we observed in Figure 2.2, there are no systematic or large differences between boys and girls in MPL achievement. However, something interesting to note in the comparison with Figure 2.2 is that here boys outperform girls in math in 10 out of 11 countries, although these differences are not statistically significant.

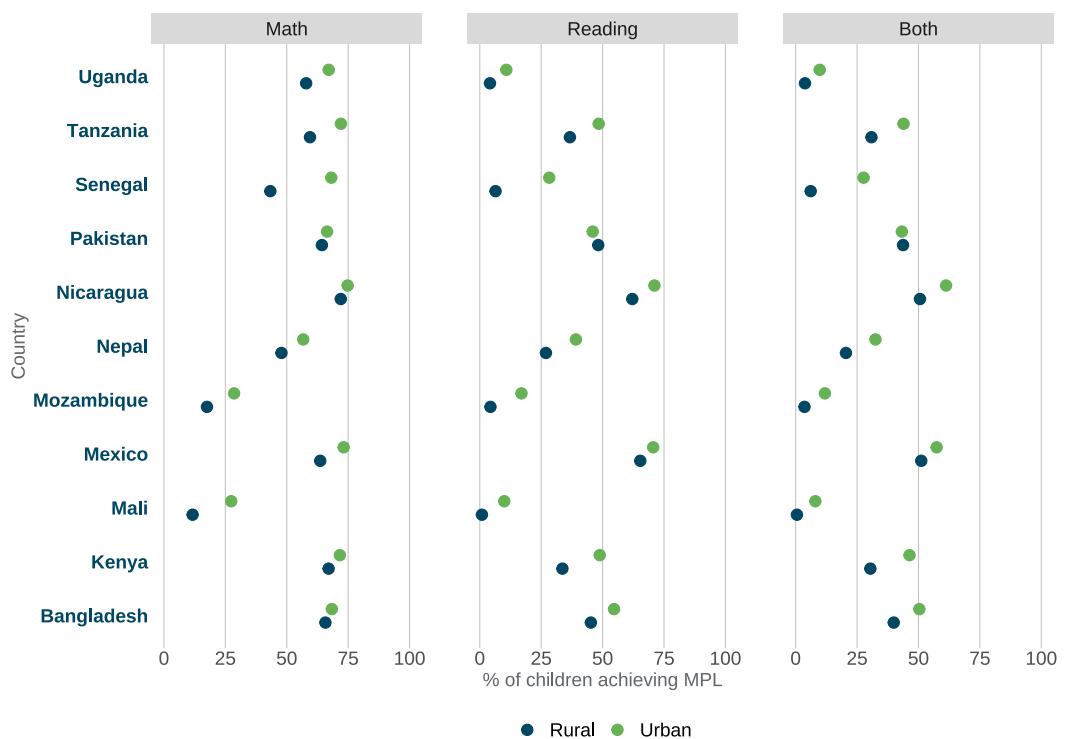
Figure 2.8. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country and gender.



Children in Grade 4: Minimum Proficiency Levels by Location

In terms of differences between children living in rural and urban areas, we can see in Figure 2.9 similar trends than what we found in Figure 2, with the interesting caveat that differences in performance between children living in rural and urban households is smaller, especially in the countries where we saw bigger differences when focusing on children of age 10.

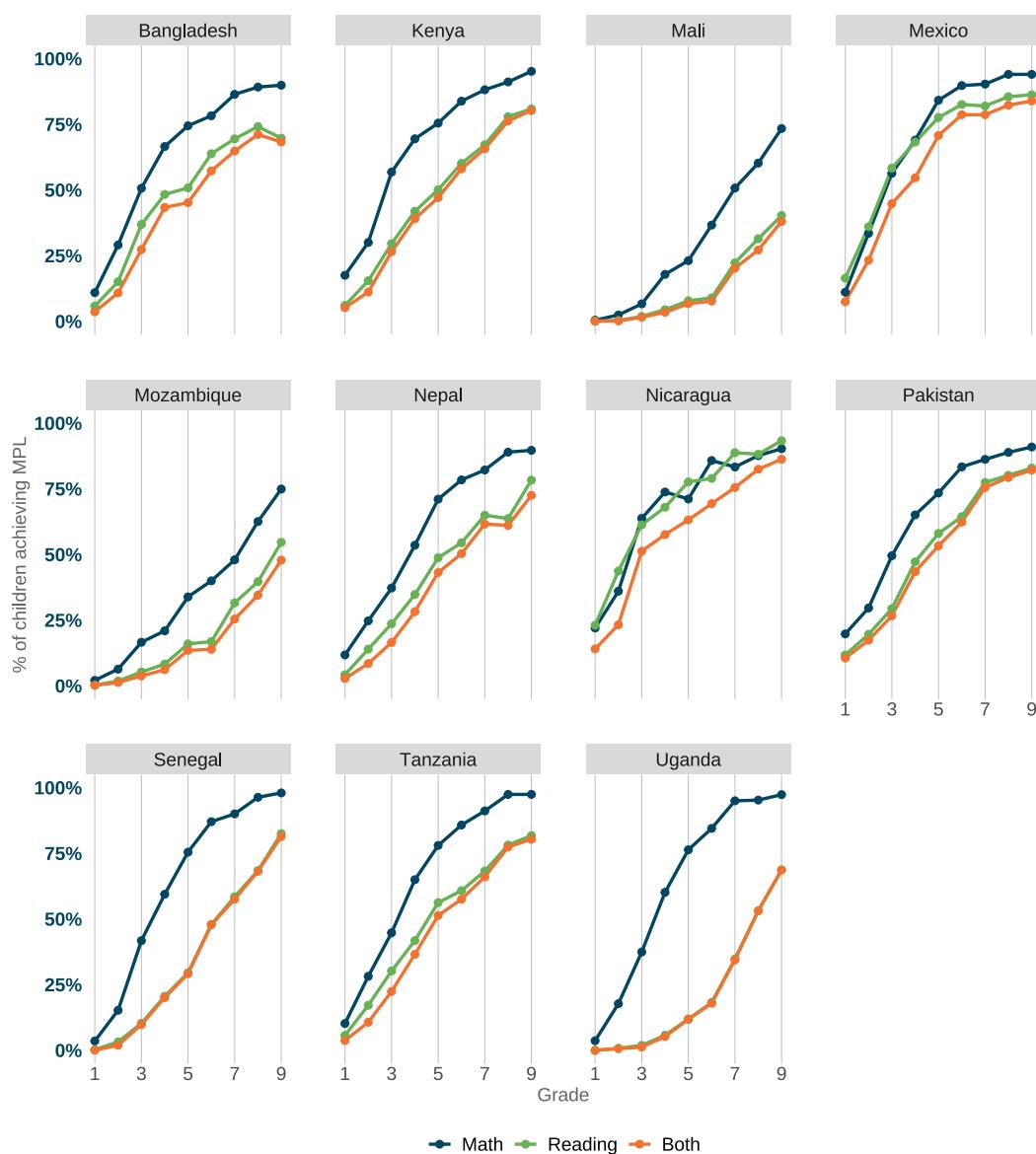
Figure 2.9. Percentage of children in Grade 4 achieving Minimum Proficiency Levels in Math, Reading and Both by country and location.



Learning Trajectories for Children in Grade 4

We can also draw the learning trajectories of countries based on the grade that children are enrolled in, as shown in Figure 2.10. There is a great contrast in this graph compared to what we saw for Figure 2.4. When we look at the percentage of children achieving minimum proficiency by grade, learning trajectories are for most countries much steeper, even if still there are large proportions of children that are not achieving minimum proficiency even in advanced grades. This reveals how a focus on children that are enrolled in school in a given grade may underestimate how much children in the Global South are not achieving the minimum skills expected by the end of lower primary school. These graphs also show that there are vast proportions of children reaching secondary school education without mastering content from lower primary school in reading and math.

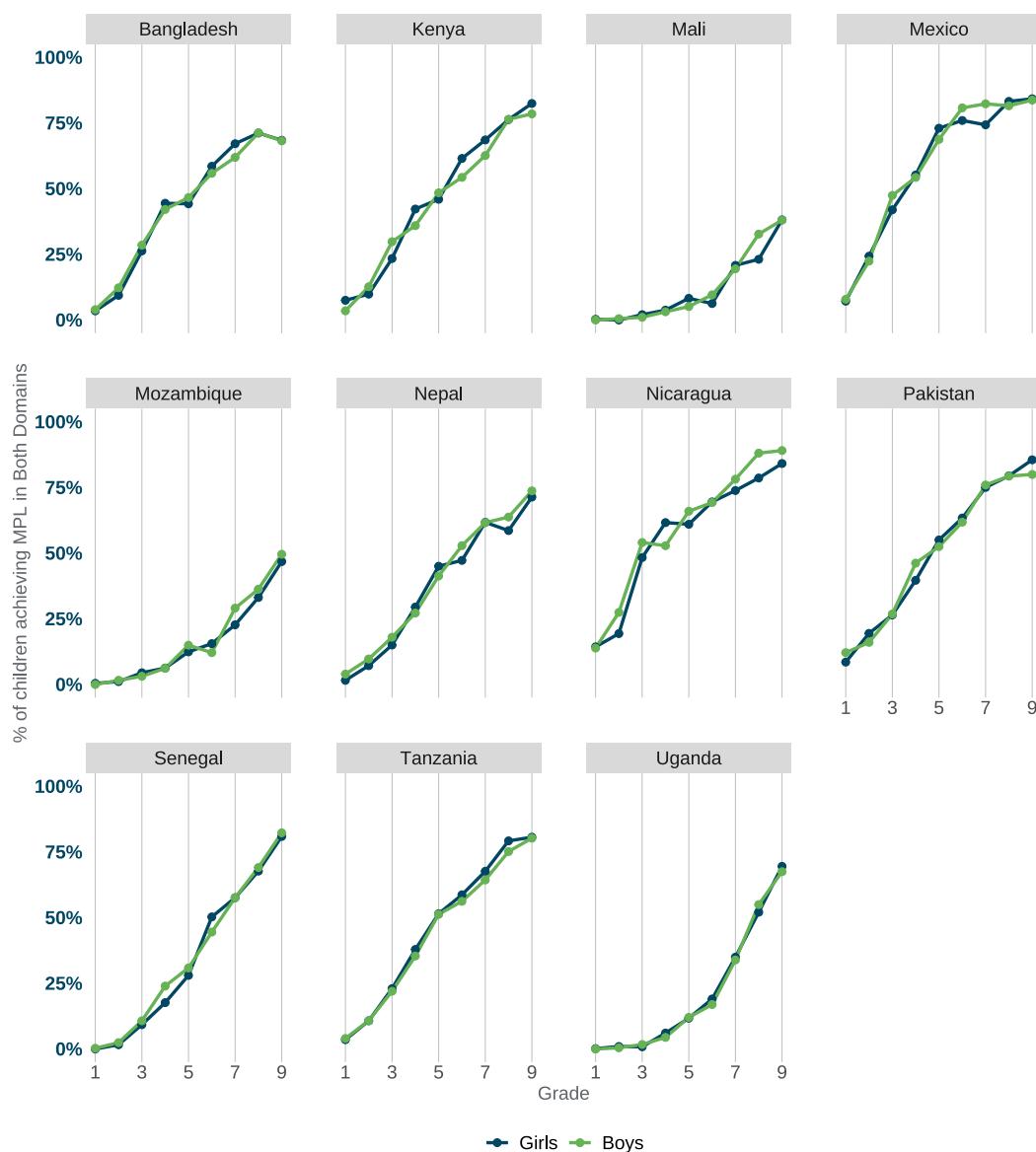
Figure 2.10. Grade Learning Trajectories of achievement of MPL in Math, Reading and Both by country.



Learning Trajectories by Grade and Gender

As we saw in earlier figures, we do not see differences in achievement between boys and girls in the learning trajectories when we draw them using the grade that children are enrolled in.

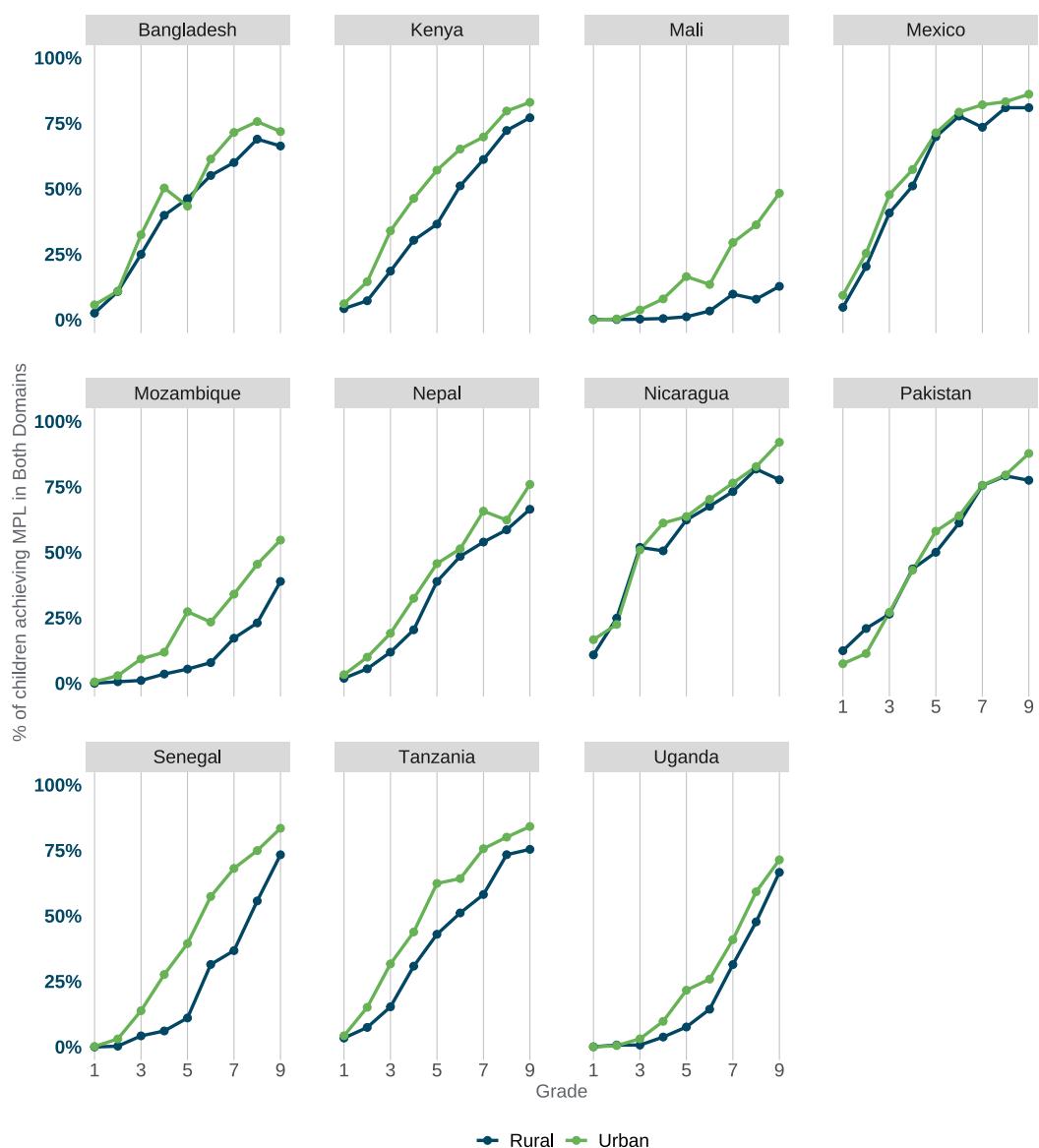
Figure 2.11. Grade Learning Trajectories of achievement of MPL in Both domains by country and gender.



Learning Trajectories by Grade and Location

Similarly to what we saw in Figure 2.9, the grade learning trajectories are much closer than when the same are drawn using ages. Interestingly, with the exception of Mali, we do not see such a strong divergence of learning trends.

Figure 2.12. Grade Learning Trajectories of achievement of MPL in Math, Reading and Both by country and location.



4. Contexts of Learning

In this section we attempt to understand better the contexts that children live and learn. For the entire section, we focus on children between 10 and 14 years old. Focusing on an age group is relevant since we want to include in these analyses children that are not enrolled in school, either because they never enrolled or because they dropped out. Future analyses will expand on other age groups.

Table 2.4 offers a glance at some characteristics of the households that children live in. The table shows that most children live in households where there is basic hygiene infrastructure (represented here by the availability of toilets or latrines in the households). However, we can also see that in Mozambique around 2 out of 10 children do not have access to this basic infrastructure.

There is great variability in terms of primary education completion in these countries: in Nicaragua, 83.7% of children live in households in which at least one parent completed primary education, and that percentage is as low as 27.5% in Uganda. Most children in these countries do not have access to books appropriate to their age, only in Mexico more than two out of three children have access to these kinds of books.

In terms of assets, children in these countries have a relatively low access to digital devices. Only in Senegal and Mexico around half of children live in households in which there are computers, laptops or tablets. In Tanzania, Mozambique, Bangladesh, and Uganda, less than one out of ten children have access to these kinds of devices. In contrast, mobile phones and TVs are much more available. Around nine out of ten children live in households with access to mobile phones in all countries in this study, with the exception of Mozambique (63.5%).

Table 2.4. Percentage households with selected characteristics.

Countries	Toilet/ latrine	One parent with at least primary education	Children's books	Computer/ laptop/ tablet	TV	Mobile phone
Bangladesh	91.6	72.6	22.6	7.3	49.1	97.9
Kenya	92.6	67.5	51.1	10.6	54.1	90.1
Mali	96	28.8	29.5	33.7	72.3	93.8
Mexico	98.3	76.5	72.1	49.5	94.4	97.9
Mozambique	81.5	53.4	15.6	7.6	36	63.5
Nepal	95.5	57.2	21.8	20.7	47.8	97.3
Nicaragua	97.4	83.7	58.9	35.1	87	93.1
Pakistan	93.9	60.2	28.5	22.1	62.9	88.2
Senegal	91.1	30.9	54.6	51.2	79.8	91.5
Tanzania	95.7	62.6	31.9	9.4	40.6	87.4
Uganda	88.9	27.5	19	3.4	23	87.2

Table 2.5 shows a different set of contextual variables, these ones directly related to the educational context in which children learn. In all countries, this study design aimed to test children in their language of instruction. Table 2.5 shows that for many children the test language is not the same as the language they speak at home. In countries like Bangladesh, Mexico, Nicaragua and to a lesser degree in Tanzania, this is the case for almost all children. In the rest there is great variability. In Pakistan, Mozambique and Mali, between 50 and 60% of children live in households where the language of the assessment was the most frequently spoken. In Kenya, Senegal, and Uganda, this percentage is between 20 and 30.

For children that are enrolled in school, there is great variability in the percentage that has textbooks for the current grade. In countries like Bangladesh, Nepal and Pakistan, at least nine out of ten children have the corresponding textbooks. In Mexico (81.2%), Nicaragua (65.6), Mozambique (71%), and Kenya (63.6%), a vast majority has access to textbooks. Uganda is the country with the lowest percentage of children that have access to textbooks, with 18.2%.

In terms of support, children are helped with schoolwork by household members with some variability: in Nicaragua and Mexico, 71.6 and 76.8% of children are helped by household members, while this percentage is 30.3 and 33.8 in Tanzania and Mozambique, the countries where we see this percentage being smallest. In addition, many children take paid tuition or tutoring. This practice is much more common in Bangladesh (57.6%) than in the rest of the countries, with Pakistan also having a high percentage (40%). In the rest of the countries, this percentage ranges from 6.7 to 26.1.

Table 2.5. Percentage households with selected educational context variables.

Countries	Speaks test language at home	Has textbooks for current grade	Takes paid tuition	Receives help for school homework in household
Bangladesh	99	98.6	57.6	63.4
Kenya	23.2	63.6	26.1	58.8
Mali	60.7	48.5	9.7	33.8
Mexico	99.8	81.2	14	71.6
Mozambique	52.8	71	6.7	46.3
Nepal	88	98.1	25.1	52.3
Nicaragua	98.3	65.6	16.6	76.8
Pakistan	53.7	90.2	40.8	42.8
Senegal	22.2	57.7	21.4	53.6
Tanzania	85.4	35.8	14.8	30.3
Uganda	29	18.2	17.1	37.5

The vast majority of children in these countries are enrolled in school, based on the information that was reported by respondents in households, as shown in Figure 2.13. Mali has the lowest percentage of enrolment, with 77.6%. In Senegal and Mozambique, this percentage is 86.4 and 89.6. In the rest of the countries, less than one out of ten children are not enrolled in school.

The percentage of children that are enrolled in government schools varies across countries. In Bangladesh and Nepal, 42.5 and 40.2% of children attend private schools, respectively. In Pakistan and Uganda, this percentage is 31.5 and 32.8, respectively. In Mexico, Tanzania, and Mozambique, around nine out of ten children from 10 to 14 years old are enrolled in government schools.

Figure 2.13. School Enrolment. Ages 10-14.

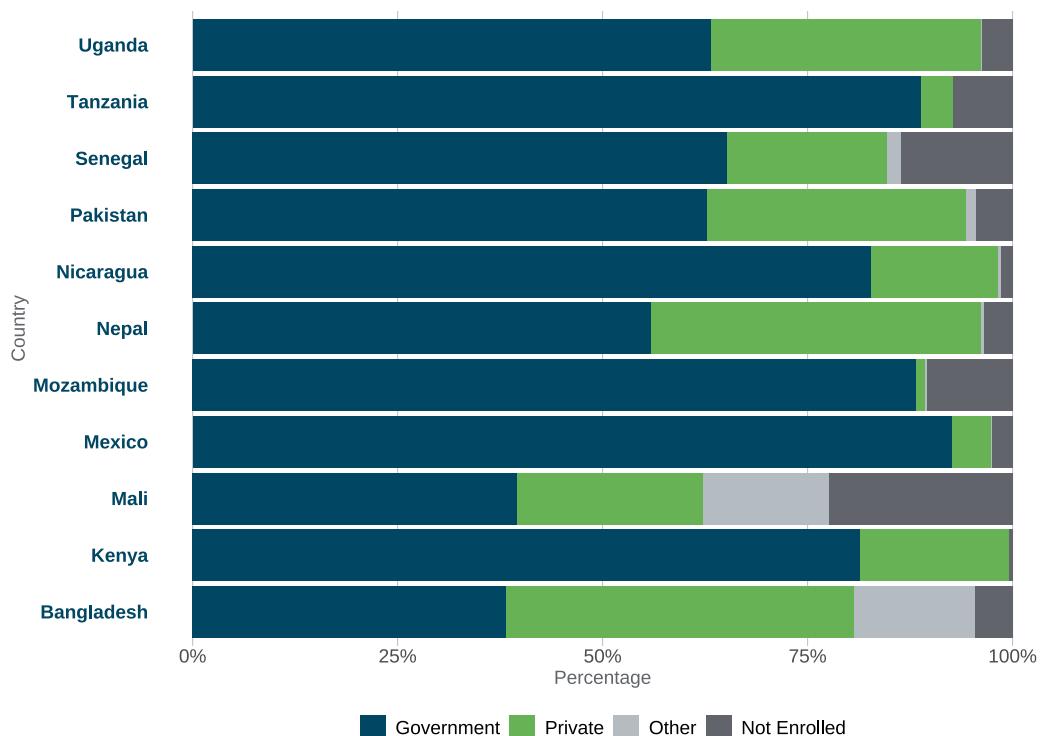
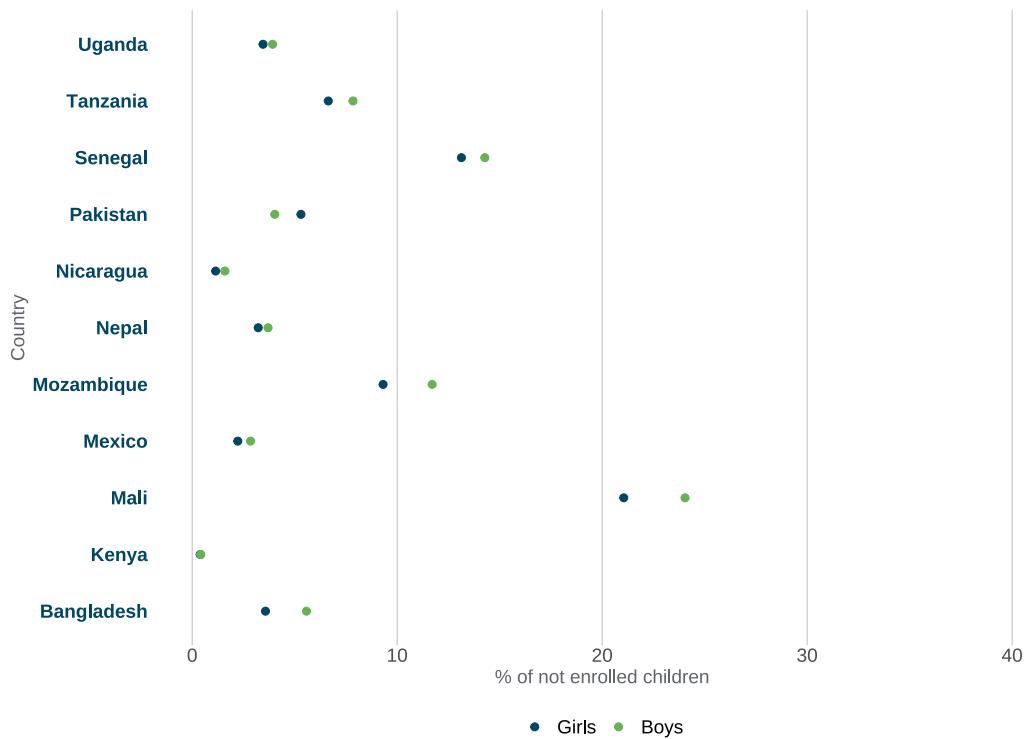


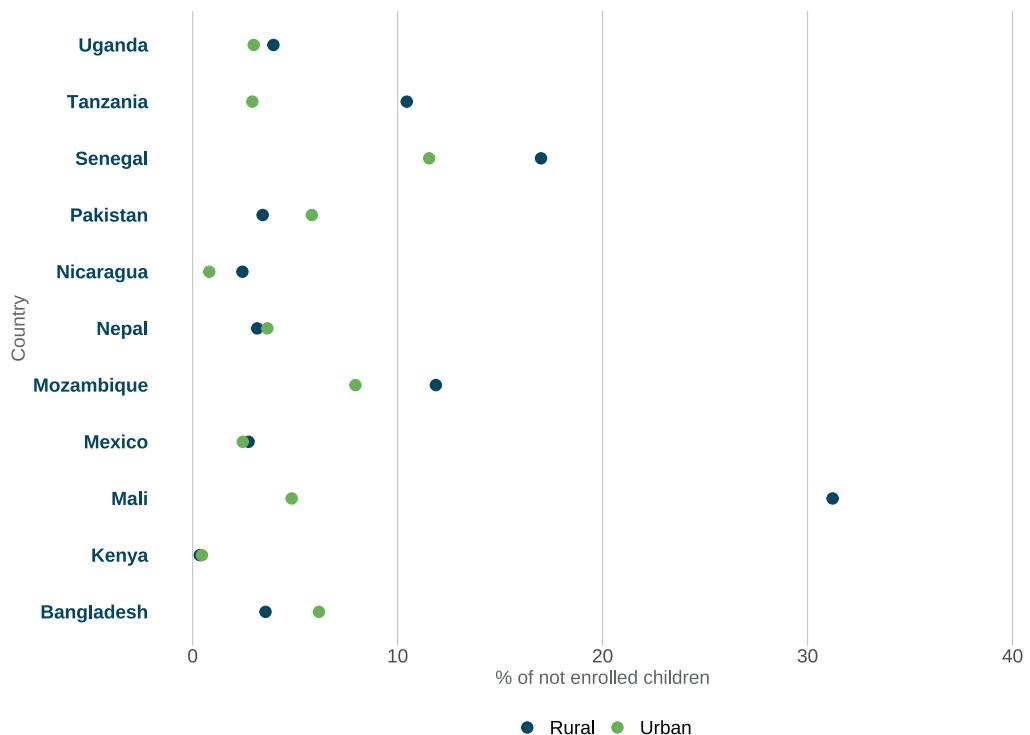
Figure 2.14 shows the differences between boys and girls in terms of enrolment. We do not observe major differences in enrolment by gender: the largest difference between girls and boys is in Mali, where the percentage of boys between 10 and 14 years old is 3.0pp higher than for girls. Except for Pakistan, boys tend to have a slightly higher percentage of non-enrolment than girls.

Figure 2.14. Percentage of not enrolled children by gender and country. Ages 10-14.



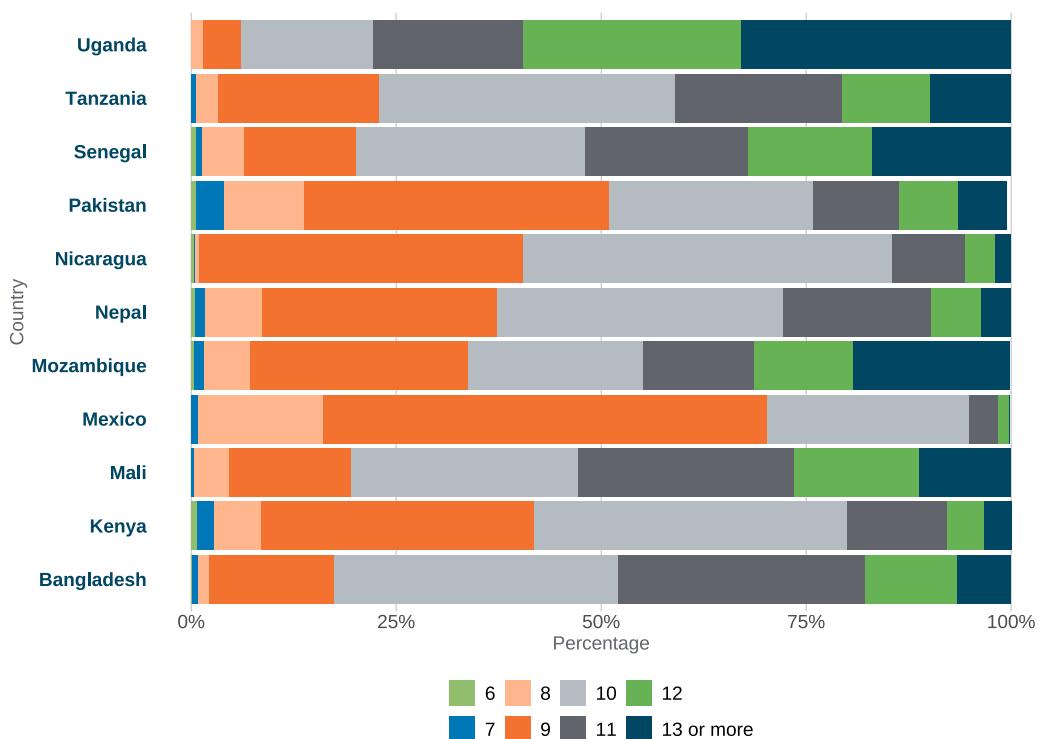
In contrast, we see larger differences between children living in rural and urban households in terms of enrolment. In Bangladesh, Kenya, Mexico, Nepal, Nicaragua, Pakistan and Uganda, the difference is small, but in the other countries, differences range from 26.3pp in Mali and 3.9pp in Mozambique. In most countries where we see differences, children living in rural areas are enrolled in a smaller percentage than children in urban areas. An exception to this trend in Pakistan, where the percentage of enrolled children in rural areas is slightly higher than in urban areas.

Figure 2.15. Percentage of not enrolled children by country and location. Ages 10-14.



We can also analyse, for children that are enrolled, what is the age distribution for each grade. This can help us understand how much children in each country are progressing in school as expected. Figure 2.16 helps visualizing how in each country the age composition of our target grade varies. In Mexico, we observe that most children in Grade 4 are 9 and 10 years old, which corresponds to the expected trajectory. Pakistan, Nicaragua, and Kenya also have most children in Grade 4 with 9 and 10 years old. In the rest of the countries, the age composition in Grade 4 is much more varied, which suggests either higher retention rates or late enrolment in school. In the most extreme case in our study, Uganda, more than half of the children enrolled in grade 4 are 12 years old or more.

Figure 2.16. Age distribution in Grade 4.

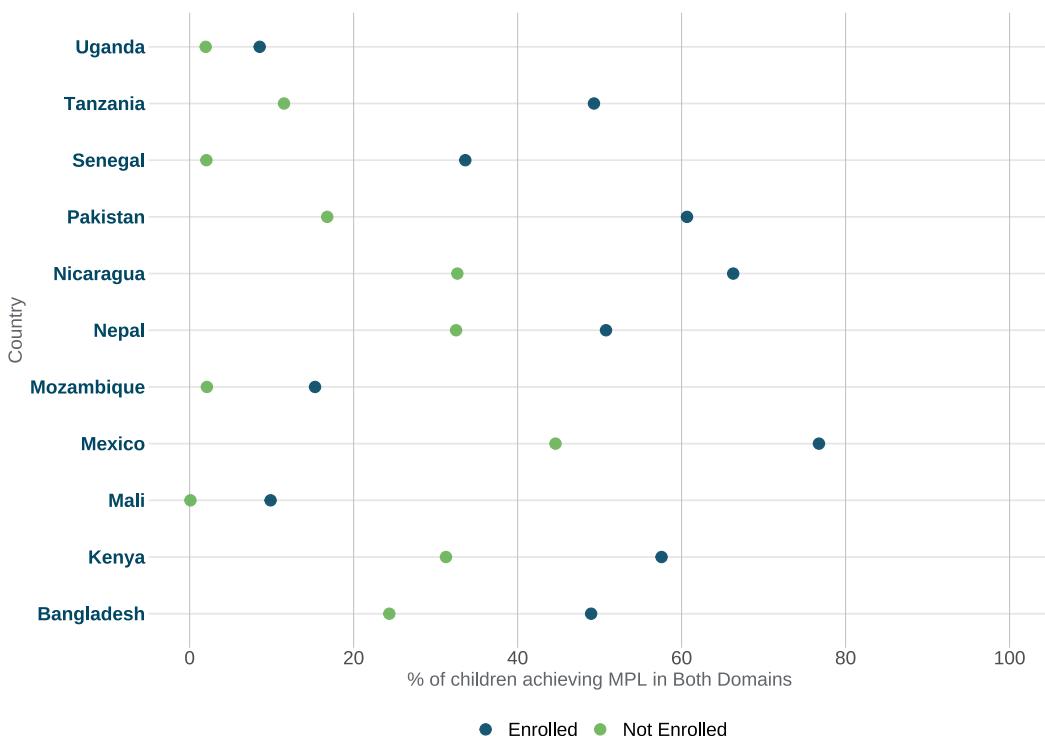


5. Relationship between Contextual Information and Learning Outcomes.

In this section we will focus on how some of the contextual information we analysed in the previous section can help explain learning outcomes in the countries in this study. An important caveat in this analysis is that they are descriptive. Even if they point to suggestive relationships between relevant contextual variables and minimum proficiency achievement, we cannot interpret these relationships as being causal.

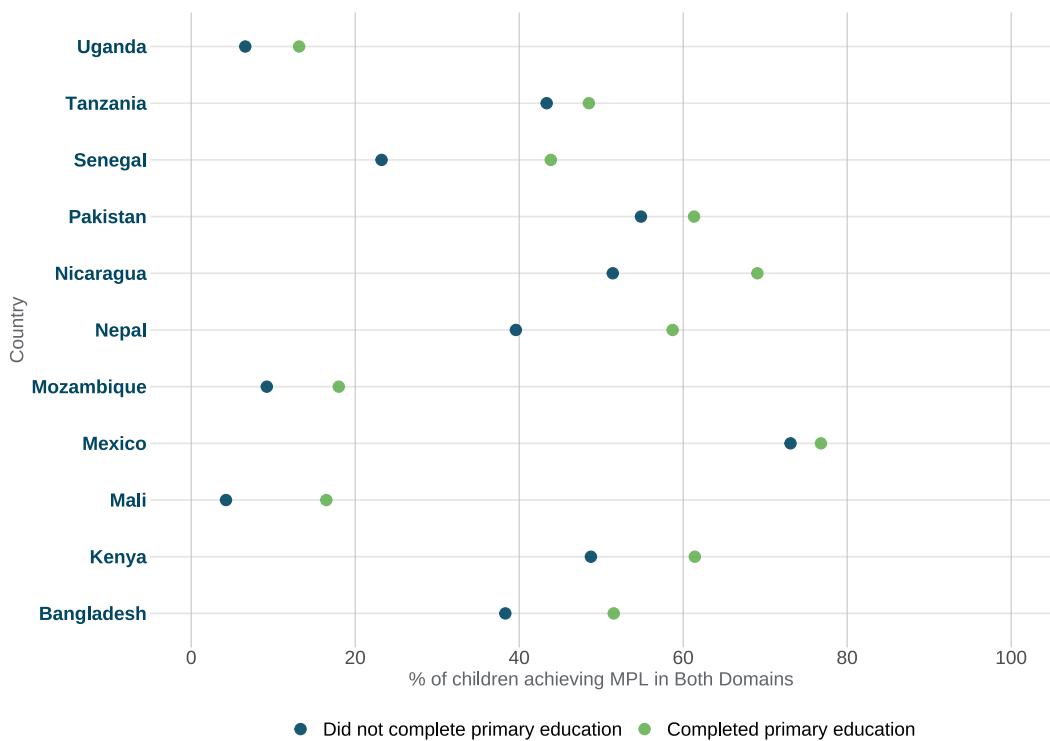
We can exemplify this idea with Figure 2.17. We can observe here the difference in MPL achievement between children that are enrolled in school and children that are not. In all countries, we see that enrolled children achieve minimum proficiency in math and reading at a much larger rate compared to children that are not enrolled. This suggests that school enrolment can make a big difference for learning. However, these groups of children differ not only in terms of their schooling status. They may also differ in their socioeconomic status or, as we saw in Table 2.5, where they live and the opportunities that are associated with that. This is why we cannot say that the difference between both groups in learning is caused by schools.

Figure 2.17. MPL achievement in Math and Reading by enrolment status.



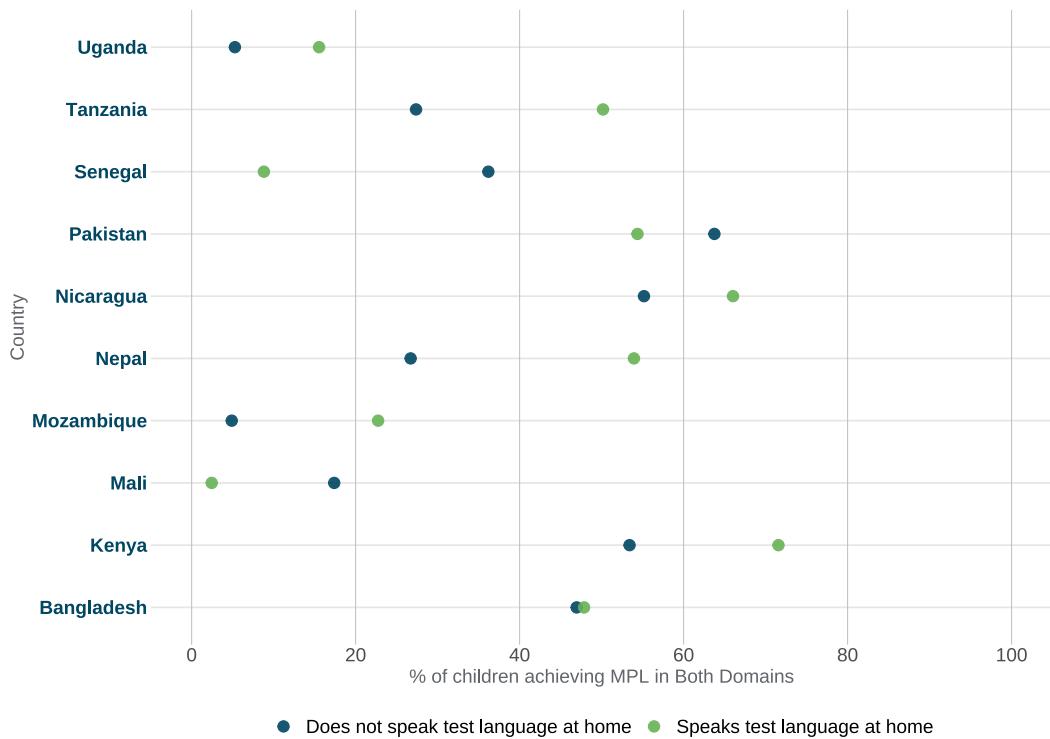
We can also analyse how much MPL achievement varies depending on parental education level. In Figure 2.18, it is clear that in all countries children living in households in which at least one parent has completed primary education achieve minimum proficiency at a much higher rate compared to in households where no parent has completed primary education. This is a trend that can be observed in all countries, although the differences between both groups vary considerably. In Mexico, the difference is just a few percentage points, and in Nepal is of around 20pp. Except for Mexico and Pakistan, these differences are statistically significant.

Figure 2.18. MPL achievement in Math and Reading by parental education level.



Home language is another characteristic that is likely to influence MPL achievement, especially in reading. In Figure 2.19, we observe that in most countries children for which the language spoken at home is the same as the assessment language achieve minimum proficiency in math and reading at a higher percentage than children for which the test language and the language spoken at home differ. However, we see that in Senegal, Mali and Pakistan, this trend is flipped. This is a point that merits further exploration, and may also be influenced by reasons behind why children speak a different language at home than the language of instruction. With the exception of Nicaragua and Bangladesh, differences are statistically significant.

Figure 2.19. MPL achievement in Math and Reading by home language-test language correspondence.

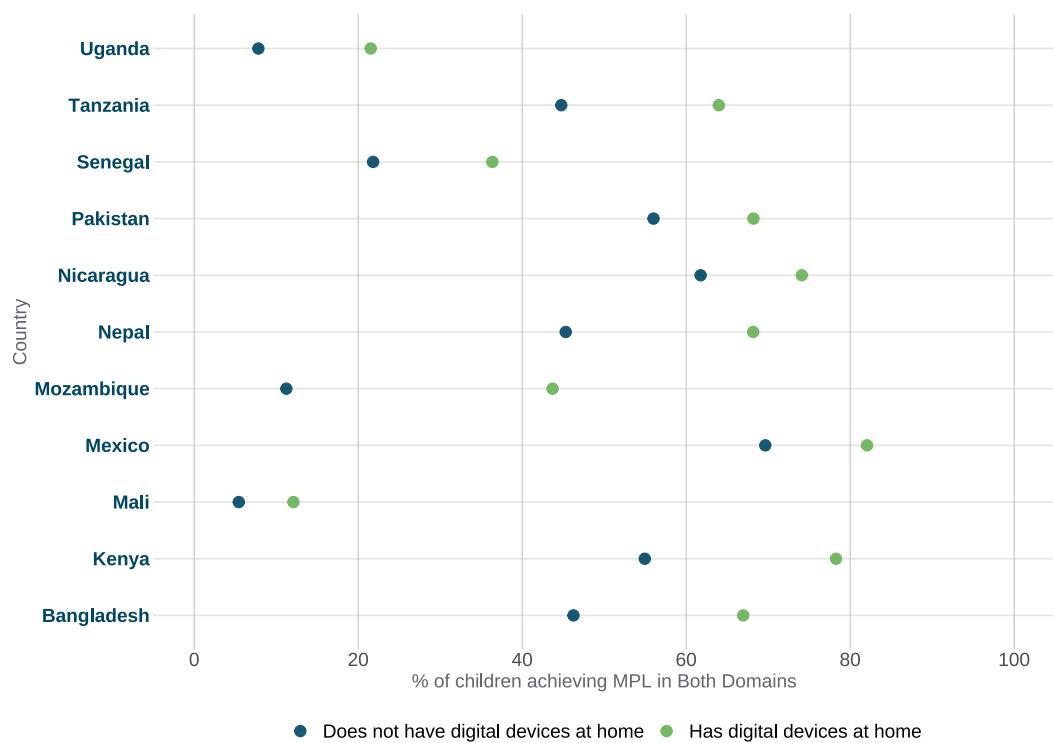


Mexico is not included in this table because only seven children in our sample lived in households that reported not speaking the test language (Spanish).

Finally, Figure 2.20 shows the relationship between MPL achievement and access to digital devices in the households. We again see big differences in MPL achievement between children that have at least one computer, laptop or tablet at home compared to children that do not. All these differences are statistically significant. The difference is the largest in Mozambique, about 30pp, and smallest in Mali, with 7pp.

As was stated before in this section, we cannot attribute this difference to these technological devices. Instead, it is likely more productive to think that households with access to these technologies tend to have higher income than households without access. In this sense, it is more likely that this graph is capturing differences in socioeconomic status more than what it is capturing the effect of having these technologies at home. The exploration of socioeconomic inequalities in learning will be an important feature in future analyses for ICAN/ICAR.

Figure 2.20. MPL achievement in Math and Reading by access to technology in the household.





Chapter III

III. Implications and the Way Forward

The ICAN-ICAR 2025 cycle provides one of the clearest and most comprehensive pictures to date of foundational learning across participating countries in the Global South. By assessing children in their homes, including those who are out of school or frequently absent, this assessment restores visibility to learners who have historically been missing from education data. The results presented in this report describe what children know and can do; they do not offer normative judgments about system performance. They instead underscore a broader truth that has shaped education debates for more than a decade: the acquisition of foundational math and reading remains unequal which persistently hinders their chances at future learning. The evidence from these eleven countries reinforces the need for sustained investment in understanding how children learn, which children are being left behind, and what conditions shape their opportunities to acquire the most essential skills.

1. What the Data Reveals

Across participating countries, the results highlight a pattern well-established in global research: too many children complete the early primary grades without reaching foundational proficiency in reading or numeracy. Differences across countries are wide, and progress in learning by age is uneven. In several contexts, rural children, children who speak a different language at home than the assessment language, and older learners who missed early schooling show consistently lower levels of proficiency. These findings deepen our understanding of the state of learning in household and community contexts, illustrating how school-based indicators alone can mask the experiences of children whose learning pathways do not follow formal grade structures.

The assessment also highlights the diversity of learning patterns across education systems. Some countries show steady improvement by age or grade; others illustrate slow or nearly flat trajectories. These distinctions are important because they shift the conversation from “whether” children are learning to “how” learning evolves and “why” progress varies across contexts. The ICAN-ICAR dataset offers a unique opportunity for national governments, researchers, and practitioners to interpret these differences using their knowledge of curriculum, language policies, school conditions, teacher deployment, and community realities.

2. The Contribution of ICAN-ICAR as tool

This cycle represents the maturation of PAL Network’s second-generation tools, ICAN and ICAR, which extend and update the longstanding CLA model pioneered across the network. These tools retain the core principles that have defined citizen-led assessments for nearly two decades: household-based administration, one-on-one engagement with each child, and



a commitment to visibility, inclusion, and simplicity. At the same time, they incorporate major advances in measurement design, language adaptation, comparability, and the alignment of proficiency standards with global frameworks.

The 2025 cycle demonstrates what the second generation of CLA tools was designed to achieve:

- the ability to generate internationally comparable data in low-cost, community-rooted ways
- the technical rigor required for reporting against SDG 4.1.1(a)
- the inclusion of out-of-school and hard-to-reach children
- the capacity for multilingual adaptation across diverse contexts
- the integration of household contextual factors that shape learning

This cycle marks a milestone for the PAL Network family. It illustrates how a shared technical standard, implemented across countries with very different education systems, can still remain locally grounded and responsive. It also confirms that community-driven assessment models continue to provide meaningful insight in a world where learning inequalities are increasingly driven by factors outside the classroom.

3. What We Achieved as a Network

The 2025 implementation required coordination across thousands of enumerators, supervisors, and community organisations; adaptation into 18 languages; and rigorous monitoring of sampling, assessment procedures, and data quality. That this was achieved across eleven countries speaks to the strength of the network model, the leadership of national teams, and the commitment of the 137 partner organisations who contributed to mobilizing communities and conducting fieldwork.

This cycle also underscored the adaptability of the tools. The small-scale, school-based proof-of-concept pilot in Botswana illustrated how ICAN-ICAR could function effectively within school environments while still maintaining one-on-one administration and opportunities for household follow-up. The pilot offers governments a practical model for integrating these tools into routine monitoring or diagnostic cycles in settings where household-based assessment may be less feasible.

4. Cost-Effectiveness Considerations

One of the persistent strengths of the CLA model has been its cost-effectiveness. This remains true in the ICAN-ICAR cycle, where large-scale household implementation was achieved with modest investment relative to comparable learning assessments. The model leverages:

- local enumerator teams rather than high-cost specialist staffing
- simplified, paper-based tools that maintain rigour while reducing printing costs
- community mobilisation approaches that reduce overheads



- open-source digital platforms for data capture
- a tiered cascade training approach that distributes capacity rather than centralizing it

Future cycles will benefit from reduced start-up costs because sampling frameworks, training materials, and translated tools are already in place. Further analysis during 2026 will quantify cost per household, cost per assessed child, and the projected marginal cost for subsequent cycles.

5. Policy Engagement and Data Use

ICAN-ICAR is designed to support governments and national stakeholders with evidence that can inform foundational learning reforms. While this report does not interpret the results or prescribe policy, the data offer multiple entry points for national dialogue. Ministries may use the findings to understand age-based and grade-based proficiency patterns, the role of home language and socioeconomic conditions, the experiences of out-of-school children, and the relationship between learning trajectories and schooling access.

Throughout 2026, PAL Network will work with national teams to produce country-specific reports that contextualize the results within national policy priorities, curriculum structures, and system challenges. These country reports will be foundational for engaging national governments in conversations about improving instruction, strengthening early-grade learning, and designing targeted interventions.

In addition to national reports, PAL Network intends to produce a series of thematic briefs in 2026 focusing on rural-urban inequalities, age-grade learning trajectories, and functional difficulties. These thematic analyses could offer deeper cross-country insights and strengthen the evidence base needed for policy design, research, and programme development.

6. Open Data and Research Access

Legacy CLAs have always ensured open access to their national datasets. To carry that legacy forward and to maximize the utility, transparency, and long-term value of the ICAN-ICAR data, PAL Network is implementing an open-data strategy in collaboration with DataFirst at the University of Cape Town, an institution recognized globally for data curation and research capacity strengthening. Through this partnership, anonymized microdata, codebooks, metadata, and associated documentation will be curated and released on the DataFirst open data portal, complete with DOIs and detailed access guidance. This initiative ensures that researchers, practitioners, and policymakers worldwide can engage with the dataset responsibly and rigorously, expanding the evidence base for foundational learning and supporting cross-country analysis and policy dialogue.



7. The Next Rounds of ICAN-ICAR (2027-2028)

The next cycle of ICAN-ICAR will be anchored in two priorities: 1) making the assessment more inclusive, and 2) expanding the measurement of foundational learning to domains beyond literacy and numeracy.

Key advancements planned for the next cycle include:

- developing adaptations for children with visual, hearing, and communication difficulties
- strengthening outreach to include children on the move
- introducing a socio-emotional learning component to capture foundational learning holistically
- building stronger national capacity for the use, analysis, and interpretation of ICAN-ICAR data
- exploring hybrid household-school administration models where appropriate

The 2027-28 cycle aims to deepen the principle that has guided PAL Network from the start: measure all, measure early, and measure well. It represents the next step in consolidating a low-cost, community-centred, internationally comparable assessment model that gives visibility to every child's learning.

The 2025 cycle is a milestone for PAL Network, demonstrating both the strength of its second-generation tools and the shared values that continue to define the CLA movement. The evidence presented here forms the basis for a renewed commitment to foundational learning in the years leading to 2030. The next chapter of this collective effort will depend on how governments, communities, and partners use this data to shape learning opportunities for all children and on our ability as a network to innovate, expand, and ensure that every child, regardless of where they live, has the chance to learn.





Chapter IV

IV. Assessment Design and Global Alignment

The design of the International Common Assessments of Numeracy (ICAN) and Reading (ICAR) deliberately balances alignment with the global reporting criteria for SDG 4.1.1(a) and its practical applicability in diverse, low-resource environments. Both ICAN and ICAR have undergone detailed reviews to align with the requirements of Global Proficiency Framework (GPF) and global alignment criteria defined by the UNESCO Institute for Statistics (UIS, 2025).

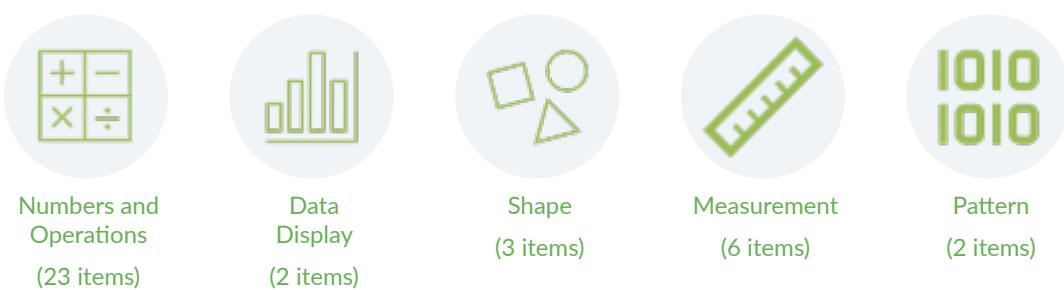
1. Assessment Tool Structure (ICAN and ICAR)

The assessment tools were developed from the item banks of prior PAL Network initiatives (ICAN 1.0 and PAL-ELANA) and refined through extensive field trials, item analyses, and technical consultations with partners like the Australian Council for Educational Research (ACER).

The ICAN-ICAR assessments were administered in 18 languages, with each country team translating and adapting the tools into languages children use at home and in school. This process attempts that every child is assessed in a language they know best, reducing language barriers and allowing results to better reflect true learning levels.

ICAN (International Common Assessment of Numeracy)

The ICAN Numeracy Assessment is composed of a total of 36 items designed to measure foundational numeracy skills. The assessment covers five distinct mathematical domains, ensuring comprehensive measurement across the GPF's foundational constructs.



Key Structural Features of ICAN:

- Domain Focus:** The structure places the heaviest emphasis on Number and Operations, accounting for the largest weight at 64% of the total items. This domain focuses on fundamental skills such as counting, comparing, and solving basic operations (addition, subtraction, multiplication, and division) in both numerical and worded problems.
- Breadth of Coverage:** The remaining non-Number domains (Measurement, Geometry, Statistics/Data Management, and Algebra/Patterns) collectively contribute the remaining

36% of the items. This structure ensures coverage of 10 out of 13 Grade 2 subconstructs and 10 out of 11 Grade 3 subconstructs, demonstrating broad coverage necessary for the SDG 4.1.1(a) criterion.

- **Adaptive Design:** The assessment is divided into three sets. Sets 1 and 2 are administered to all children regardless of their age or schooling status. Set 3 items are only administered based on a child's performance on corresponding items in Set 2. This crucial design with "stop rules" prevents fatigue by ensuring children are tested only within the appropriate range of their ability and helps making the survey process more efficient.

ICAR (International Common Assessment of Reading)

The ICAR Reading Assessment comprises 30 items and is designed to assess foundational literacy across three essential domains. This tool focuses on measuring the progression from oral language understanding to independent reading.



Key Structural Features of ICAN:

- **Domain Focus:** The design places a substantial emphasis on Reading Comprehension (RC) (54%) and Decoding (33%). Reading Comprehension items primarily test retrieval of information and word meaning from written text, while Decoding measures oral reading accuracy, focusing on recognizing letters/symbols and familiar words.
- **Inclusivity and Flow:** The assessment follows a fixed sequence, beginning with Listening Comprehension, followed by Decoding, and then Reading Comprehension. Listening Comprehension items are critical as they use spoken language to assess understanding, so that children who cannot yet read can still demonstrate foundational comprehension skills.
- **Progression and Stop Rules:** The assessment incorporates stop rules. For instance, the administration of later Reading Comprehension passages (L5 and L6) depends on the child's performance in earlier Decoding tasks (L3).
- **Global Alignment:** ICAR's structure achieved alignment status by including 30 items mapped to the GPF, with 16 items dedicated to reading comprehension (ensuring a minimum of 10 at Grade 2) and covering both Grade 2 reading comprehension subconstructs, thereby meeting global criteria for SDG reporting (UIS, 2025).

Translation and Adaptation

- To bridge the gap between global alignment and local relevance, ICAN-ICAR employed a rigorous and structured translation and adaptation process. This process was managed by national teams between late 2024 and early 2025.
- **Personnel and Expertise:** The work involved onboarding local item writers and reviewers with demonstrated expertise in early-grade learning, assessment, or curriculum design, and proficiency in both English and the target language.
- **Equivalence Standard:** The primary goal was to ensure linguistic and cultural equivalence while critically maintaining the conceptual difficulty of the items across all contexts.
- **Methodology for Quality Control:** Each country utilized standardized quality assurance processes to maintain cross-language comparability, primarily through Double Backward Translation. This method involves translating the source text into the target language (Forward Translation). Subsequently, two independent translators translate the target text back into the source language (Backward Translation). By comparing these independent back-translations to the original source, reviewers can ensure the equivalence and high quality of the final target language version.
- **Redevelopment:** This focused on writing entirely new, equivalent items for tasks where direct translation or adaptation was not possible, such as for letter recognition and word-reading items. This ensured that comparable challenge levels were preserved for reading comprehension texts across the 18 assessed languages.

2. Alignment with Global Standards (SDG 4.1.1a and GPF)

The development and scaling of the ICAN-ICAR were technically driven to align the Citizen-Led Assessment (CLA) model with global measurement standards, ensuring the data's relevance for international reporting. This critical work, undertaken in collaboration with the Australian Council for Educational Research (ACER), focused on mapping the assessment content to the Global Proficiency Framework (GPF) and the reporting criteria set by the UNESCO Institute for Statistics (UIS). The core objective was to enable countries to report on SDG indicator 4.1.1(a), which tracks the proportion of children in Grades 2 and 3 achieving minimum proficiency in reading and mathematics.

The revisions addressed initial findings by ACER, which called for enhancements in item coverage and simplification. Specifically, for ICAN (Numeracy), revisions strengthened Number and Operations items and expanded coverage across measurement, geometry, and data domains. For ICAR (Reading), enhancements ensured sufficient Grade 2-level reading comprehension items and better-balanced decoding, listening comprehension, and higher-order tasks.

Following the technical review and subsequent revisions, both ICAN and ICAR achieved Strong Alignment status across all four requirements under Criterion 1 of the international reporting standards for SDG 4.1.1(a). This status affirmed that the tools meet the necessary requirements for test length, depth in the core domain, and breadth in both core and non-core domains at Grade 2. The alignment process concluded in Q1-2025 with ACER-UK's confirmation. This technical recognition affirms the robustness of the ICAN-ICAR tools and their potential to serve as a credible, internationally recognized measure of foundational learning. A full breakdown of item-level alignment and domain coverage is provided in the technical report.

3. Benchmarking and Comparability

To ensure the learning outcomes reported by ICAN-ICAR are credible, robust, and comparable at the international level, the initiative incorporates psychometric analyses and formal benchmarking processes. This advances the Citizen-Led Assessment (CLA) model toward internationally recognized standards while maintaining its local relevance.

The initiative employed psychometric analyses, including both Classical Test Theory (CTT) and Item Response Theory (IRT) modelling, to uphold the reliability and fairness of the assessments across diverse populations. These analyses confirmed that both ICAN and ICAR primarily measure a single dominant construct (unidimensionality), demonstrated high internal consistency (e.g., Cronbach's alpha for both ICAN and ICAR exceed the UIS benchmark of 0.80), and provided their highest measurement precision around the target ability levels. Crucially, Differential Item Functioning (DIF) analysis confirmed that both instruments are largely invariant across key demographic groupings, showing no evidence of bias based on gender or location. Only test language showed evidence of DIF for some



items, which was addressed to ensure equitable functioning across all assessed languages.

A critical step for transitioning country-specific data to globally comparable results is linking the ICAN-ICAR scale to international reference points using the Pairwise Comparison Method (PCM). In collaboration with the ACER-UK, the PAL Network convened two PCM workshops in August 2025. Approximately 40 international experts used ACER's Signum platform to compare and calibrate ICAN-ICAR items against Learning Progression Scales (LPS), generating Minimum Proficiency Level (MPL)-aligned benchmarks. This process fulfils the UNESCO Institute for Statistics (UIS) Criterion 6 on benchmark-based linking, ensuring that the reported proportions of children meeting foundational standards align with global benchmarks for SDG 4.1.1(a).

Details of these psychometric analyses are provided in the Technical Report.

4. Contextual Questionnaire and Disability Screening

The ICAN-ICAR initiative is designed to provide a holistic view of children's learning outcomes by recognizing that assessment scores are deeply influenced by a child's environment and individual circumstances, including functional difficulties. This is achieved through a comprehensive set of Contextual Questionnaires that add essential depth to the assessment data, helping to unpack the "why" behind learning gaps.

The questionnaires collect data at four distinct levels:

Community: Completed by surveyors based on observation and local inquiry upon arrival, the VIF captures community infrastructure and services, such as the availability of roads, electricity, health facilities, and schools (including pre-primary classes).

Household: This records information about the family's living conditions and material well-being, including demographics, household assets (like a computer or tablet), amenities (water source, electricity, toilet), languages spoken at home, and access to books/learning resources.

Parent: This gathers data on the parents or guardians, focusing on their education level, employment/income generation status, and who primarily assists the child with homework.

Child: This records the individual child's demographic and educational background (age, sex, enrolment status, grade level, and access to learning materials).

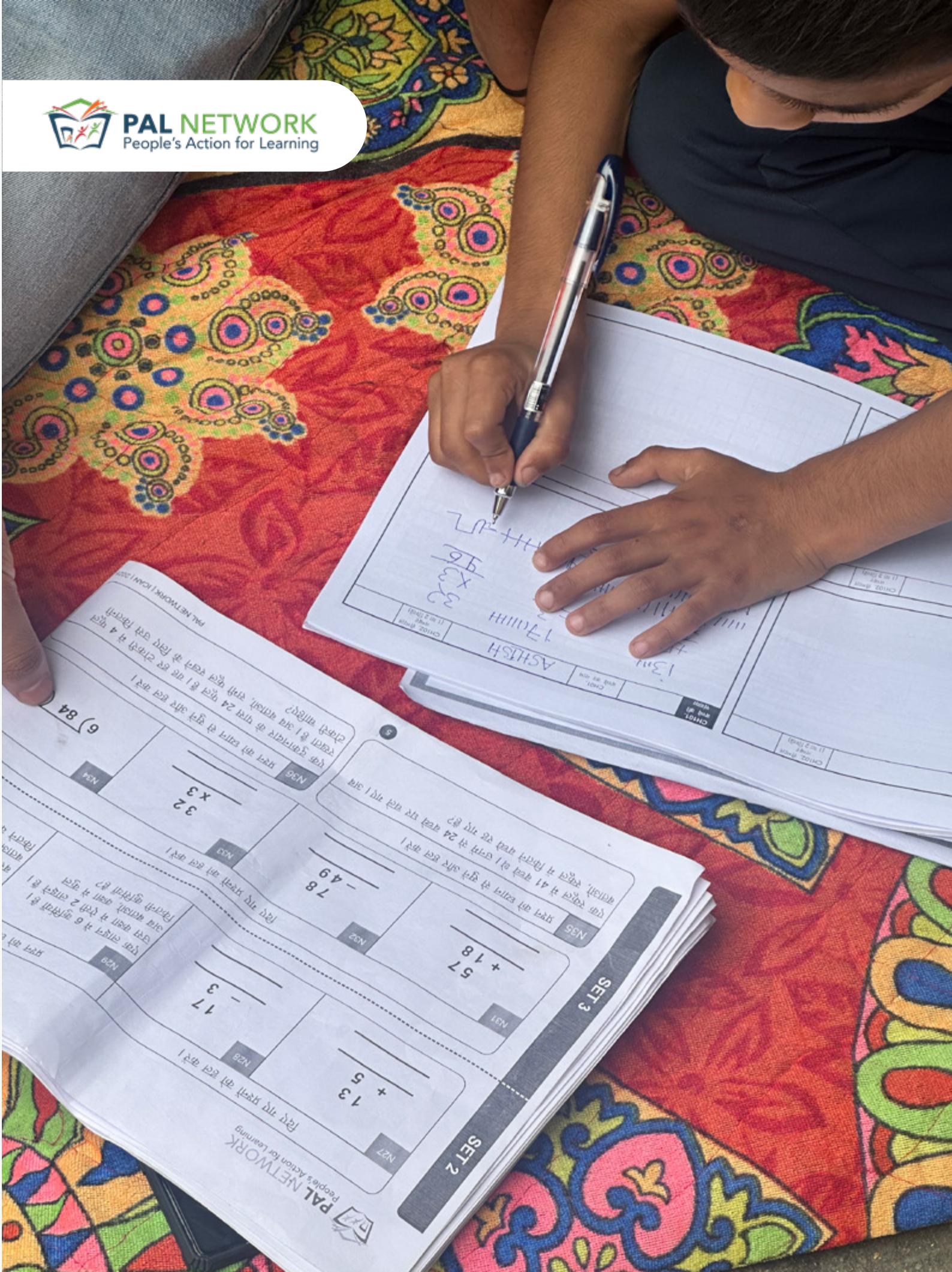
To fulfil our commitment to inclusivity, the Child Information Format integrates the "Washington Group Short Set on Functioning" questions. This specialized module is designed to screen for functional difficulties among children across six key areas: seeing, hearing, walking, self-care, communication, and remembering. The data collected enables disaggregated reporting on the learning outcomes of children with functional difficulties, ensuring they are considered in foundational learning measurement efforts. While children with physical disabilities that don't affect academic tasks are assessed, the initiative acknowledges the need for future specialized adaptations to the main assessment tools to fully include children with visual, hearing, speaking, or severe cognitive disabilities. Further insights into this will be shared in a specialized publication in the future. Technical Documentation (Full Resources Online)



Technical Documentation (Full Resources Online)

This chapter presents a concise overview of the ICAN-ICAR assessment design. Full technical documentation—including the complete ICAN-ICAR Technical Manual—is available at:

<https://www.palnetwork.org/ican-icar/>



Chapter V

V. Methodology and Implementation

The methodology for the ICAN-ICAR is rooted in the proven Citizen-Led Assessment (CLA) model but utilizes complex sampling methods to generate data that is nationally representative. The implementation strategy emphasizes standardization across diverse countries while maintaining local ownership and cultural sensitivity.

1. Sampling Strategy

The sampling strategy is designed to meet the technical standards required for global reporting, particularly for SDG indicator 4.1.1(a), ensuring statistical precision and comprehensive coverage of the target population.

Target Population

The assessment's target population includes children aged 5 to 16 years. Crucially, the methodology ensures the inclusion of all children in this age range, regardless of their enrolment status, meaning the sample comprises both in-school and out-of-school children.

Design

ICAN-ICAR utilizes a multi-stage, stratified probability sampling approach. This leverages national statistical infrastructure to ensure the sample is representative of the entire country.

- **Stage 1:** Selection of Enumeration Areas (EAs): Primary Sampling Units (PSUs), defined as Enumeration Areas (EAs) or villages/urban blocks, are selected using a Probability Proportional to Population Size (PPPS) approach. This ensures that areas with larger populations are proportionately represented in the sample. Stratification typically occurs along geographical regions (e.g., provinces or counties) and urban/rural classifications to capture demographic and contextual variability.
- **Stage 2:** Household Sampling: Two distinct, standardized household sampling approaches were used to select the 20 target households within each Enumeration Area (EA):
 1. **Household Listing Method (Systematic Selection):** This approach involved the assessment team first generating a complete, updated list (frame) of all households within the EA. From this complete list, 20 households were then systematically selected for the survey. This method was the primary approach in most countries.
 2. **5th Household Rule Method (Spatial Coverage):** This approach was designed to ensure even spatial coverage, particularly in EAs without readily available household lists. Enumerators first prepared a rough map and divided the EA into four equal



sections (hamlets). Within each hamlet, five households were selected. Starting from a central point, the first household was selected, and then every 5th household encountered by moving consistently in a single direction (e.g., to the left) was chosen until the five households for that section were identified. This ensured the 20-household sample was distributed evenly across the EA.

In all cases, selection followed the same core protocol: an updated frame was created (either a complete list or a spatial frame via the hamlet method) before the 20 main households were chosen. The selection process was often conducted transparently, with community leaders present. While most countries used the Listing Method, countries including Mali, Senegal, and Nicaragua utilized the 5th Household Rule with the exception of Mexico where, due to higher non-response rate, every 3rd household was selected. In all countries, only households where there was at least one child in the target age-group of 5-16 years were surveyed.

This structured methodology aims to produce nationally representative data that supports the estimations of learning outcomes while addressing the challenges of doing fieldwork in developing countries.

Planned Scale

The standard sample design for the ICAN-ICAR assessment aims to provide national-level snapshots of foundational learning across participating countries.

The planning and sampling framework finalized in Q3 2024 targeted the following scale per country:

- **Enumeration Areas (EAs):** The calculation determined that 222 Enumeration Areas (EAs) per country would be sufficient to estimate sufficiently precise learning outcomes indicators.
- **Households:** With 20 households sampled per EA, the overall planned coverage targets approximately 4,440 households per country.

This global sampling framework served as the standard approach from which each country, working closely with its National Statistical Offices (NSO), adapted and finalized its own sampling strategy and documentation. The exceptions are Mexico and Nicaragua where they worked with survey design and sampling experts to create sampling strategy.

Quality Standards

The sampling and data collection implementation is governed by quality standards aligned with the eligibility criteria for reporting against SDG 4.1.1(a). These included key quality standards like sampling protocols highlighting a minimum 70% response rate and a substitution ceiling of 15%, with reserve EAs used only when necessary (UIS, 2025). These also include all countries applying sampling weights, accounting for cluster effects, and reporting effective sample sizes by gender.

Sampling Documentation

A detailed description of sampling procedures, weighting methodology, and design implementation is available in the ICAN-ICAR Sampling Report, accessible at:

<https://www.palnetwork.org/ican-icar/>

2. Capacity Building and Training Cascade

The ICAN-ICAR results are underpinned by a structured capacity-building model designed to ensure consistent application of assessment protocols across all participating countries. PAL Network implemented a tiered training system through which technical guidance, operational procedures, and quality standards were transferred from the Secretariat to national Project Management Teams, Master Trainers, and field enumerators, enabling coherent implementation across levels.



Figure 5.1: Stakeholders in the capacity building cascade

Phased Training: Flow of Knowledge

The ICAN-ICAR capacity-building process followed a highly structured tiered cascade model. This systematic flow ensured that technical knowledge, ethical standards, and data collection protocols moved from the network leadership down to the volunteers executing the household interviews.

- 1. Network Level Training:** The PAL Network Secretariat led strategic engagements and formal training rounds with the Project Management Teams (PMTs) of all participating countries, aligning them on technical protocols, data quality standards, and implementation timelines.
- 2. Country Level Training (Tier 1 – ToT):** PMTs then cascaded this knowledge to Master Trainers through the Training of Trainers (ToT) sessions.
- 3. Field Level Training (Tier 2 – Enumerators):** Master Trainers, supported by PMTs, trained the citizen Enumerators/Surveyors responsible for the actual household assessment.

Each tier was designed with specific quality control mechanisms, including quizzes, field practice with performance evaluations and feedback, and Inter-Rater Reliability (IRR) checks, to prevent the loss of critical information and ensure readiness at every stage.

Key Training Events

The 2024-25 cycle involved a structured training cascade, beginning with virtual and in-person PMT trainings that refined tools, protocols, and SurveyCTO workflows based on field-test feedback. These sessions prepared country teams to lead high-quality Training of Trainers (ToT) and Enumerator Trainings, ensuring consistent application of skip rules, contextual questionnaires, and child-centred assessment practices. Peer support from experienced PAL teams strengthened quality assurance across participating countries.

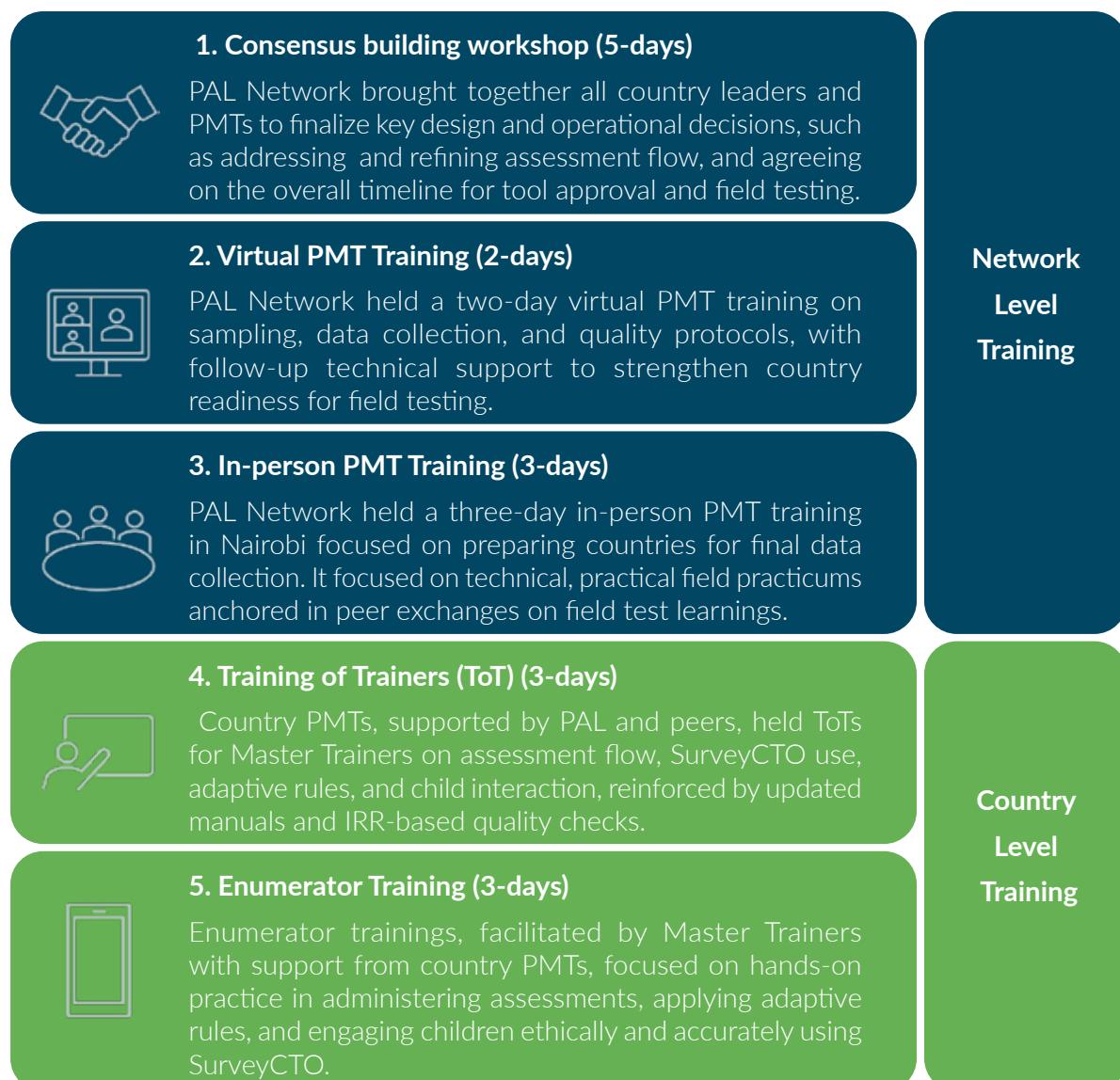


Figure 5.2: Key Training Events

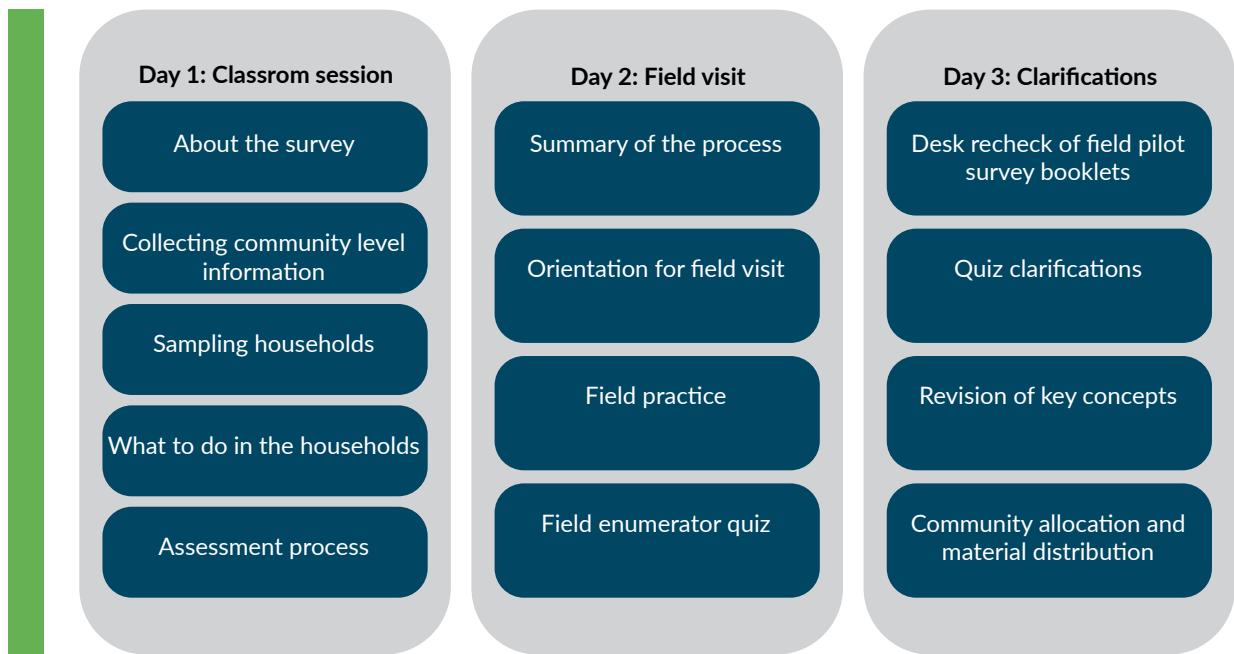


Figure 5.3: Training agenda for ICAN-ICAR capacity building cascade

Across all countries, the data collection phase was supported by a strong training cascade, with 15 Training of Trainers (ToTs) and over 50 enumerator trainings conducted. Attendance was consistently high, often above 95%, and in several countries reaching 100%, showing strong engagement and readiness among field teams. Countries with large enumerator pools, such as Bangladesh, Tanzania, and Nepal, organized multiple training rounds to ensure full coverage, while selection results indicate that most trainees met the required competency standards.

Table 5.1: Number of trainings conducted, by country

Country	Training of Trainers (numbers)	Enumerator Trainings (numbers)
Bangladesh	1	8
Kenya	1	1
Mexico	1	3
Tanzania	2	10
Mali	1	5
Senegal	1	1
Nepal	1	10
Pakistan	4	10
Uganda	1	18
Mozambique	1	10
Nicaragua	2	8
Total	16	84

3. Field Implementation and Data Quality Assurance (DQA)

The execution of the International Common Assessment of Numeracy and Reading (ICAN-ICAR) adheres to a standardized implementation schedule and a comprehensive Data Quality Standards framework (DQSF). This framework is crucial for ensuring the data's reliability, validity, and global comparability, meeting the high expectations of both academics and policymakers.

Data Collection Summary

The main study successfully achieved substantial scale and coverage across the participating countries, demonstrating high fidelity to the sampling design.

Overall, the assessment was completed in 2,917 out of 2,933 Enumeration Areas (EAs) planned for the final data collection, resulting in a 99.08% overall completion rate across the network. This included 100% EA completion in Bangladesh, Kenya, Mali, Nepal, Nicaragua, Pakistan, Senegal, Tanzania, and Uganda, with the remaining countries achieving high completion rates (Mexico at 96.5% and Mozambique at 98.5%).

Across all participating countries, the survey reached 56,913 households and assessed foundational learning in 89,185 children. This large-scale data collection ensures a robust and representative dataset for reporting on foundational learning outcomes.

The assessment maintained a high rate of child participation within the surveyed households, with an average of 92.61% of eligible children successfully assessed across the network. Mexico reported the highest assessment rate 97.59%, while Pakistan 87.52% and Nicaragua 85.23% had the lowest. The average time taken for the ICAR (Reading) assessment was 6 minutes, and for the ICAN (Numeracy) assessment, it was 8 minutes, confirming the tools' design as rapid, efficient, and appropriate for large-scale, door-to-door assessment. The average total survey duration per household was 35 minutes.

Data Quality Assurance (DQA)

Data quality assurance (DQA) for the ICAN-ICAR assessment was achieved through the systematic and multi-layered application of the Monitoring and Recheck (M&R) protocols, which are integral to the Citizen-Led Assessment (CLA) process and adhere to the network-wide Data Quality Standards Framework (DQSF). The DQA process spanned pre-field training, in-field supervision, and post-field verification, ensuring technical fidelity, ethical compliance, and data integrity across all participating countries.

The initiative invested heavily in pre-field processes, including the recruitment and training of over 3,700 citizen volunteers as field enumerators. These enumerators generally possessed high education levels, with over 40% holding university degrees or above in countries like Bangladesh, Senegal, and Mexico. Although prior experience with CLA varied, training performance was uniformly strong, with attendance exceeding 95% and high quiz scores confirming solid comprehension of protocols. Minor initial gaps in pacing and device navigation were addressed through refresher sessions and strategic enumerator pairing, confirming the teams' readiness for deployment.



Table 5.2: Profile of citizen volunteers for data collection

Countries	Citizen Volunteers Mobilised	Percentage of Female	Average Age
Bangladesh	356	42%	26
Kenya	333	51%	28
Mexico	507	70%	39
Tanzania	639	42%	27
Mali	143	24%	31
Senegal	40	55%	28
Nepal	285	44%	26
Pakistan	208	41%	31
Uganda	413	39%	30
Mozambique	346	48%	27
Nicaragua	439	72%	20

During fieldwork, the M&R protocols ensured robust supervision. Monitoring activities included on-site supervision and phone monitoring by Project Management Teams (PMTs), Master Trainers (MTs) and District Coordinators (DCs), allowing for real-time error correction and verification of adherence to survey guidelines. Overall, 57.4% of the surveyed EAs were field monitored. Furthermore, the methodology integrated robust measures for Inter-Rater Reliability (IRR), also known as shadowing activities. Monitors independently scored assessments administered by enumerators in a subset of households to calculate the consistency of scoring. This check successfully confirmed high scoring consistency, meeting the required reliability threshold (80%) and ensuring the objectivity of the assessment results. Ethical protocols, such as obtaining signed informed consent from parents and verbal assent from children, were maintained through rigorous process training and pairing strategies for enumerators.

Post-field, data quality was further secured through two types of Rechecks. Desk Rechecks involved a detailed review of all digital data submissions (via SurveyCTO) for completeness, consistency, and anomalies. This was the most consistently implemented layer, with most countries checking almost 100% of data collected. Field Rechecks involved revisiting selected communities to independently verify the accuracy and fidelity of the original data. This multi-tiered verification confirmed that household and child details largely matched original records and that enumerators followed proper sampling, consent, and testing procedures. Targeted resurveys were conducted (e.g., three in Bangladesh, four in Senegal, and seven in Nepal) to address inconsistencies. The overall DQA framework proved robust, ensuring that the final datasets met global standards for completeness, accuracy, and comparability.

Technical Documentation (Full Resources Online)

The full Field Implementation and Comprehensive Monitoring & Review procedures are described in the Instructions and M&R Manuals. These documents are the adapted version from Kenya and both documents are available at:

<https://www.palnetwork.org/ican-icar/>

4- School-Based Pilot Study in Botswana

School-Based One-on-One Administration of the ICAN-ICAR Assessment

The Botswana ICAN-ICAR assessment under Education Compass 2025 was carried out as a one-on-one foundational learning assessment with 1,265 students, 584 (46%) in Standard 4 and 681 (54%) in Standard 7, across 20 government primary schools in the Southeast region. This was a pilot study aimed to determine whether ICAN-ICAR, which is normally administered one-on-one in households, could be implemented effectively in a school-based setting. This study examined how long it takes to assess a full class, how many enumerators are needed, whether the core administration protocols are maintained, whether household contextual data can still be collected, and whether administering ICAN-ICAR in schools affects the overall assessment experience for children and enumerators.

ICAN was administered in Setswana or English, while ICAR was administered in English only. Preparation for the assessment included two rounds of piloting to refine the sampling approach and strengthen the Setswana translations. This was followed by a competitive recruitment process and nine days of intensive training that equipped 12 enumerators and 2 supervisors with the skills needed to administer ICAN and ICAR. Sampling was conducted using class registers, typically resulting in 8–9 learners per stream being selected for one-on-one assessment.

On average, each full assessment lasted 24 minutes (15 minutes for ICAN and 9 minutes for ICAR). Assessing one full stream of nine children required roughly 3.5–4 hours for one enumerator. With 12 enumerators deployed, the team assessed over 80 students per day. Typically, one enumerator worked with a single class, while 2–4 enumerators operated simultaneously across different streams, using quiet classrooms or office spaces to ensure standardised and child-friendly administration.

Following the assessment in schools, students brought home caregiver letters to collect contact details for follow-up phone interviews. Caregivers could submit their information via a WhatsApp QR code or by returning the paper form through the school, resulting in 1,084 completed caregiver interviews, representing 97% of all returned letters. 402 caregivers (36%) responded through WhatsApp. The phone interviews lasted an average of 18 minutes and gathered information on connectivity and WhatsApp use along with learning environment at the household. Caregivers also shared their views on homework support and disciplinary attitudes.

For Standard 4, an additional phone-based numeracy check was conducted using Youth Impact's ConnectEd programme. 466 of 492 children completed this test, an 80% response rate relative to all in-person assessments and 95% relative to letters returned, showing that school-based assessments can be linked with remote follow-ups.

There are several ways ICAN-ICAR could be explored at a school level. ICAN-ICAR fits school use well, combining a simple one-on-one design with standardised protocols that keep delivery consistent yet locally adaptable. Schools can use the tools for quick diagnostic



checks or periodic sampling to monitor progress, support short learning interventions, or guide coaching visits by helping identify common misconceptions. The tools can also feed into school improvement planning alongside attendance or homework data, and a combined model—using school-based assessments with caregiver follow-up or brief phone-based checks—can provide a more complete picture of children’s learning across school and home.

The Botswana pilot served as a proof of concept, demonstrating that the ICAN-ICAR assessments can be implemented effectively in a school setting while maintaining the tools’ core feature: the one-on-one, child-centered administration. The study provided clear evidence regarding the time required to assess an entire class, the number of enumerators needed, and the feasibility of upholding core administration protocols. Furthermore, high caregiver response rates indicate that school-based assessments can be successfully complemented with household follow-up to gather essential contextual information.

Household-based administration ensures that all children, including those out of school, frequently absent, or facing barriers to access, are represented in foundational learning data. In settings where school attendance is consistently high, however, the pilot shows that ICAN-ICAR can serve as a viable and efficient school-based assessment for routine monitoring. The insights from this pilot give governments practical guidance on staffing, scheduling, and logistics, and show that ICAN-ICAR can be integrated into national systems to monitor learning quality and strengthen foundational literacy and numeracy. The tools can also support school improvement planning alongside data on attendance or homework, and a combined approach, using school-based assessments with caregiver follow-up or brief phone-based checks, can provide a more complete picture of children’s learning at both school and home.

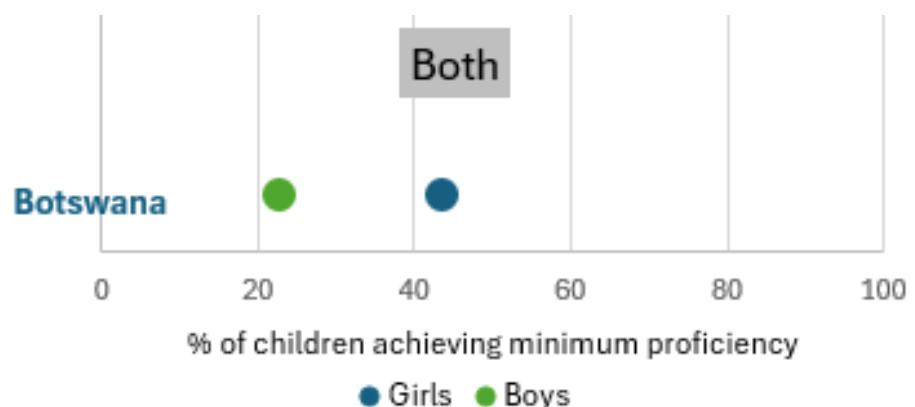
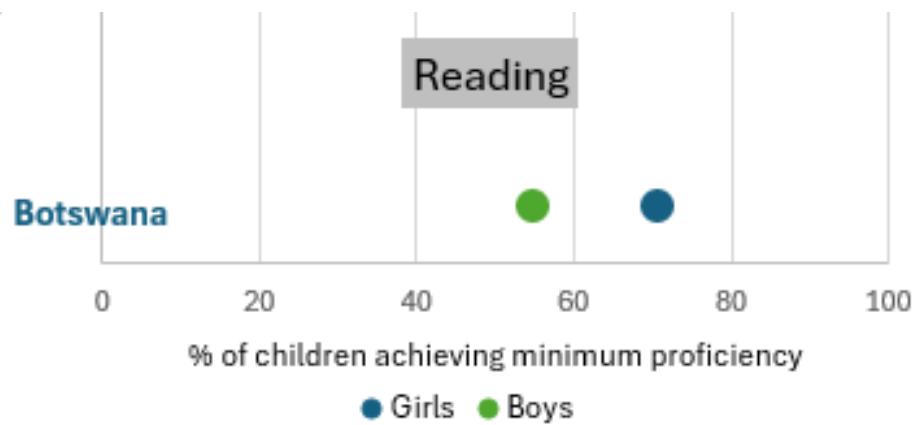
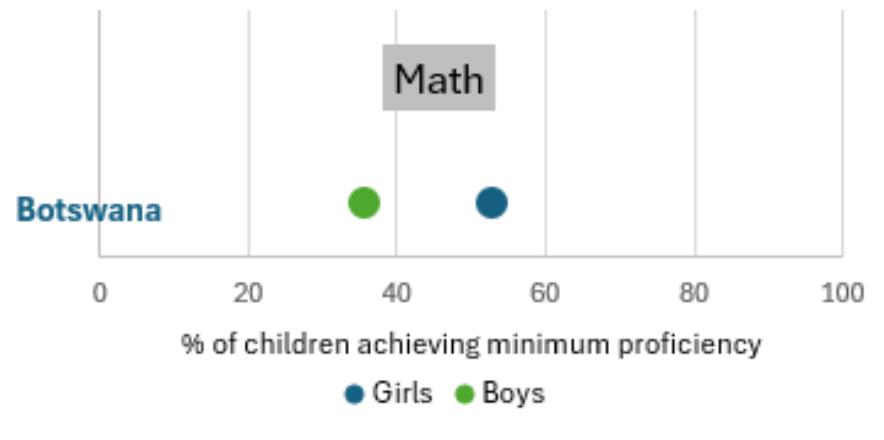
For the analysis, Youth Impact mapped ICAN and ICAR assessment items to the Global Proficiency Framework (GPF) minimum proficiency levels for mathematics and reading by grade level. Due to the pilot nature of Botswana’s data, MPL proxy estimates are used rather than the same MPL calculation used in the main report. We classify children as meeting minimum proficiency if they correctly answered at least 50% of grade-level items attempted. This threshold was selected to approximate minimum proficiency (demonstrating more than half of grade-level competencies) and should be considered preliminary, as they differ from the IRT-based approach used for data from other countries in the ICAN-ICAR initiative.

Percent of grade 4 children meeting a minimum proficiency in math, reading, and both



Math	45
Reading	63
Both	34

Percent of grade 4 boys and girls meeting a minimum proficiency in math, reading, and both

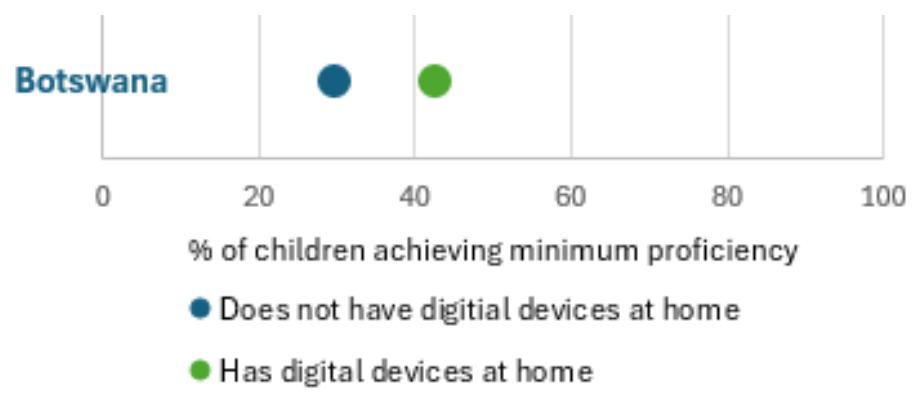


Here we share some data points to correspond with the figures above.

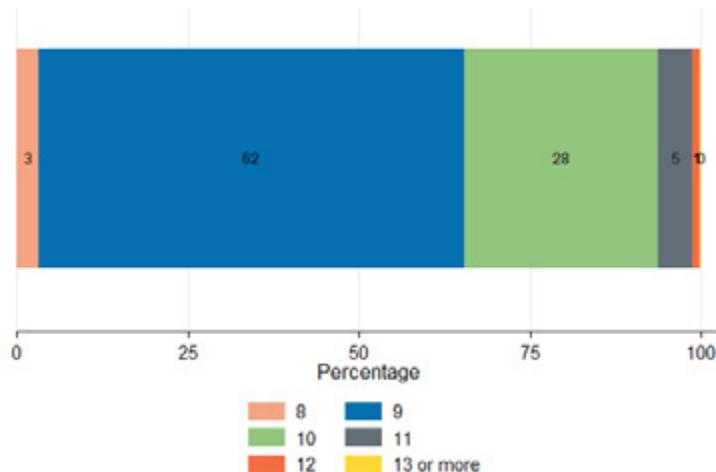
Math - boys	36
Reading - boys	55
Both - boys	23
Math - girls	53
Reading - girls	71
Both - girls	44

Percent of grade 4 children with and without devices meeting a minimum proficiency in both reading and math

Children with devices	43
Children without devices	30



In terms of sharing other data in other parts of the report, here is a figure for Botswana that replicates Figure 16, the age distribution of grade 4 students.





Glossary

Glossary of Terms

PAL Network: The People's Action for Learning Network, a coalition of organisations working together to improve educational outcomes through citizen-led assessments and collaborative efforts.

Citizen-Led Assessments (CLAs): Assessments designed and implemented by community members to evaluate children's learning levels, emphasizing inclusivity and local engagement.

Assessment Framework: A structured plan that outlines the goals, content, and methods used to evaluate student learning outcomes.

Early Language & Literacy and Numeracy Assessment (ELANA): An initiative aimed at assessing foundational literacy and numeracy skills among children aged 4 to 10 in the Global South using computer-based, multi-stage adaptive design.

Field Testing: The process of trialling assessment tools in real-world settings to evaluate their effectiveness and make necessary adjustments before full implementation.

Foundational Learning: Foundational learning includes basic literacy, numeracy, and socio-emotional skills, is the foundation for a life of learning. They also foster social and emotional growth, cognitive development, and civic engagement. These skills are critical, helping today's children become tomorrow's productive people.

Global South: A term used to refer to developing countries, particularly in Africa, Latin America, and parts of Asia, where educational challenges are often more pronounced.

Adaptive Design: A structure where the test adapts to the child's performance using stop rules, avoiding fatigue by not asking questions beyond a child's ability level.

Assessment Blueprint: A blueprint is an assessment design approach that helps to ensure that the assessment meets content requirements. For ICAN-ICAR this is a detailed framework defining domains, items, and difficulty levels to ensure consistency and alignment with global standards.

Contextual Questionnaire: A set of questions on household, parent, and child characteristics that help explain learning outcomes through socioeconomic context.

Differential Item Functioning (DIF): A psychometric check that ensures test items function similarly across groups such as gender, region, or language.

Enumeration Area (EA): EAs are the smallest operational geographic units used for sampling, usually drawn from national census data, for the collection, dissemination, and analysis of census data and are often used as a national sampling frame for various types of surveys.

Global Proficiency Framework (GPF): The Global Proficiency Framework (GPF) describes the global minimum proficiency levels that students in grades 1 to 9 are expected to achieve in reading and mathematics.

Inter-Rater Reliability (IRR): Inter-rater reliability is the extent to which two or more raters (or observers, coders, examiners) agree.

Glossary of Terms

Minimum Proficiency Level (MPL): MPLs are benchmarks of basic knowledge and skills that children and young people are expected to achieve in key areas like reading and mathematics at specific stages of schooling.

Monitoring and Recheck (M&R): A quality assurance process involving supervision, desk reviews, and field verification to ensure accuracy and reliability of collected data.

Pairwise Comparison Method (PCM): The PCM allows countries to determine the benchmark on their assessment for meeting global minimum proficiency. This is achieved by subject matter experts (SMEs) undertaking a pairwise comparison exercise using items from the country's assessment and items that have already been located in relation to the LPS.

Project Management Team (PMT): The country-level team responsible for coordinating assessment implementation, training, monitoring, and data management.

Sampling Frame – The complete list of all possible households or units from which the survey sample is drawn.

SurveyCTO: The digital data collection platform used for recording, storing, and monitoring ICAN-ICAR assessment data.

Stop Rules: Criteria that determine when to stop testing a child once they reach their difficulty threshold to avoid fatigue or frustration.

Technical Advisory Group (TAG): A panel of leaders and experts providing guidance on methodology, data quality, psychometrics, and global alignment.

Training of Trainers (ToT): A capacity-building stage where PMTs train Master Trainers, who then cascade the training to field enumerators.

UNESCO Institute for Statistics (UIS): The UNESCO Institute for Statistics (UIS) is the official and trusted source of internationally-comparable data on education, science, culture and communication. It is also the official UN agency responsible for collecting and verifying global education data and monitoring SDG 4 indicators.

References

Australian Council for Educational Research (ACER). (2022). *Global Proficiency Framework: Reading and Mathematics*. Melbourne, Australia: ACER.

Australian Council for Educational Research & UNESCO Institute for Statistics. (2025). *Benchmarking and Linking for SDG 4.1.1(a): Pairwise Comparison Method Technical Guidelines*. Montreal, Canada: UIS.

Kaffenberger, M., & Pritchett, L. (2020). *A Learning Trajectory for Education Systems: Measurement and Implications*. RISE Programme.

Kaffenberger, M., & Pritchett, L. (2021). *Profiles of Learning: Construction and Interpretation of Hypothetical Learning Trajectories*. RISE Programme.

UNESCO Institute for Statistics. (2017). *More Than One-Half of Children and Adolescents Are Not Learning Worldwide*. Montreal, Canada: UIS.

UNESCO Institute for Statistics. (2024). *SDG 4 Data Digest: Global Education Data Gaps*. Montreal, Canada: UIS.

UNESCO Institute for Statistics. (2024, December 9). *Technical Confirmation Letter on Alignment of ICAN-ICAR with SDG 4.1.1(a) Criteria*. Montreal, Canada: UIS.

UNESCO Institute for Statistics. (2025). *Reporting Requirements for SDG Indicator 4.1.1(a): Global Proficiency Levels and Criteria for Alignment*. Montreal, Canada: UIS.

World Bank. (2022). *The State of Global Learning Poverty: 2022 Update*. Washington, DC: World Bank.

World Bank. (2019–2024). *Learning Poverty Technical Notes and Data Updates*. Washington, DC: World Bank.

Annex A:

Partner Organisations by Country

This annex acknowledges the wide network of implementing partners who contributed to field operations, community mobilisation, data collection, and technical support across all participating countries. Their collaboration was pivotal in ensuring high-quality, community-grounded implementation of the assessment.

Country	Training of Trainers (numbers)
Bangladesh (8 partners)	<ul style="list-style-type: none">• Ashrai• ECONS (Evaluation and Consulting Services Ltd.)• GJUS (Udayan Swabolombee Sangstha)• MSEA (Multipurpose Socio Economic Development Association)• RRF (Rural Reconstruction Foundation)• SERAA (Socio-Economic and Rural Advancement Association)• USS (Udayankur Seba Sangstha)• YPSA (Young Power in Social Action)
Nepal (3 partners)	<ul style="list-style-type: none">• Asian Academy for Peace and Research• Kathmandu University School of Education• Sanidhya Consulting
Pakistan (5 partners)	<ul style="list-style-type: none">• EHED Welfare Organisation• Human Aid• Mohmand Community for Education and Development (MCED)• Society for the Empowerment of People• Sukaar Welfare Organisation
Mozambique (8 partners)	<ul style="list-style-type: none">• Accao para o Desenvolvimento Comunitario (ASADEC)• Associacao Mocambicana Mulher na Educacao (AMME)• Associacao para Democracia e Boa Governacao (ADB)• Associacao para Sanidade Ambiental (ASA)• Conselho Cristao de Moçambique (CCM)• MAGARIRO• Movimento Educacao para Todos (MEPT)• SPECCHILDREN
Tanzania (10 partners)	<ul style="list-style-type: none">• Action for Community Care• CARITAS-Tabora• ELIMISHA• Guluka Youth Environment• Kilimanjaro AIDS Control Association (KACA)• MTWANGONET• New Light Children Centre Organisation (NELICO)• RAFIKI Social Development Organization (Rafiki-SDO)• Safina Women Association• Sawa Wanawake



Annex A:

Partner Organisations by Country

Kenya (46 partners)	<ul style="list-style-type: none">• Alemun Pastoralists Empowerment Initiative• Butula Neighbours Keeper Education Trust• Central Rift Community Development Program• Chuka Youth Information Centre• Delta Voices Youth Group• Dupoto-e-Maa Olkejuado Pastoralist Development Organisation• Enkishon Sidai Africa• Forum for Art in Community Development• Girls Concern CBO• Go Economic Empowerment Programme• Humanitarian International Voluntary Association (HIVA)• Initiative for Cares and Empowerment Support• Inspire Children and Youth Organisation• Jalaqa Self Help Groups• Kakamega County Women Empowerment Program• Kapletundo Community Organisation• KapsooGaa Self Help Group• Kijabe Environment Volunteers (KENVO)• Kitui Network for Sustainable Development• Kwale Youth and Governance Consortium• Logogo Youth Network• Magariro?• Magharibi CBO• Magunga Footsteps Child Support Group• Makueni Youth Network• Meru Peace Initiative• Muslim Women Advancement of Rights & Protection (MWARP)• Partners in Arts and Contemporary Development• Pastoralist Education Smart Adaptation Program (PESAP)• Pioneer Child Development Programme• Rays of Hope-Kenya• Read and Run Centre• SIFA• Sagana Disabled Self Help Group• Samburu Women Empowerment Integrated Program• Save Africa CBO• Siaya Muungano Network• Taveta Children Assistance• Tubonge Youth Initiative CBO• Tuboreshe Pamoja CBO• United??• Victoria Agricultural & Environmental Conservation Organisation (VIAGENCO)• Volunteers Initiative Network Services (VINES) Kenya• Wezesha Jamii Community Based Organisation• Yangat Community Development Organisation• Youth Initiatives-Kenya
Mali	Self-implemented
Nicaragua (1 partner)	<ul style="list-style-type: none">• Ministerio de Educación (MINED), Dirección General de Formación Docente (FD)



Annex A:

Partner Organisations by Country

Uganda (26 partners)	<ul style="list-style-type: none">• African Rural Development Initiatives (ARDI)• Change Lead Agency Social Support (CLASS)• Child Aid Uganda (CAU)• Child To Youth Foundation (C2Y)• Children and Wives of Disabled Soldiers Association (CAWODISA)• Christian Fellowship Ministries (CFM)• Citizens Initiative for Democracy and Development (CIDD)• Community Development and Child Welfare Initiatives (CODI)• Foundation for Inclusive Community Help (FICH)• Foundation for Open Development (FOD)• Friends of Goodwill (FOG)• Help the Crying Voices (HCV)• Holistic Initiative for Community Development (HOLD)• Joy Initiatives Uganda (JOYI)• Kapchorwa Civil Society Organisations Alliance (KACSOA)• Kitaara Civil Society Organisation Network (KICSON)• Kiyita Family Alliance for Development (KIFAD)• Life Concern (LICO)• Literacy Action and Development Agency (LADA)• Lusuganda Development Initiative (LUSUDI)• Partners in Development and Centre for Holistic Transformation (PICOT)• Passion for Development (P4D)• South West Initiative for Community Counselling (SWICCO)• TAPA (Toil and Promote Agriculture)• Teso Dioceses Planning and Development Office (COU-TEDDO)• Uganda Eyenkya
Senegal (5 partners)	<ul style="list-style-type: none">• CAREF• GADEC• Local Partner 1• Local Partner 2• Local Partner 3
Mexico (21 partners)	<ul style="list-style-type: none">• 21 collaborating state teams



Appendix B:

Prevalence of Functional Difficulties Among Children

Introduction

This appendix presents findings from the Washington Group Child Functioning Module (WG-CFM), which was administered as part of the ICAN-ICAR 2025 assessment to establish a baseline understanding of functional difficulties among children across the participating countries. The module provides an internationally comparable measure of disability based on everyday functioning rather than medical or clinical diagnosis, making it well suited for large-scale, household-based assessments. The results included here summarise the prevalence of significant functional difficulty across six domains and offer a reference point for future efforts to strengthen the inclusiveness of ICAN-ICAR tools.

Overview of the Washington Group Child Functioning Module

The WG-CFM is a globally recognised standard developed by the Washington Group on Disability Statistics and UNICEF to measure disability among children aged 2–17 years. It focuses on how children perform key activities in their daily lives, capturing difficulties that may affect participation in schooling, communication, and learning. The module was integrated into the ICAN-ICAR household questionnaire and administered to parents or primary caregivers for each child in the household.

Domains Assessed

The WG-CFM includes six core functional domains that are critical for learning and everyday participation:

1. Seeing – difficulty seeing, even with glasses
2. Hearing – difficulty hearing, even with aids
3. Walking – mobility challenges compared to peers
4. Self-care – challenges with feeding or dressing
5. Communication – difficulty being understood by familiar and unfamiliar people
6. Remembering – difficulty remembering or concentrating

Definition of Significant Functional Difficulty

Each domain uses a four-category response scale:

- No difficulty
- Some difficulty
- A lot of difficulty
- Cannot do at all



Consistent with Washington Group reporting standards, significant functional difficulty is defined as a response of:

- “A lot of difficulty”
- “Cannot do at all”

The estimates below refer to the proportion of children experiencing significant functional difficulty in each domain.

Prevalence Findings Across Countries

Across the participating countries, prevalence varies by domain and context. Communication and remembering difficulties show the highest rates of significant difficulty in most settings, whereas self-care and walking consistently show the lowest. These patterns align with global disability research, which typically finds higher prevalence in cognitive and communication domains among school-age children.

The table below summarises prevalence estimates for each functional domain by country.

Countries	Seeing	Hearing	Walking	Self-Care	Communication	Remembering
Bangladesh	0.12%	0.20%	0.18%	0.33%	0.20%	0.51%
Kenya	0.48%	0.35%	0.33%	0.41%	0.68%	0.69%
Mali	0.16%	0.16%	0.21%	0.19%	0.28%	0.26%
Mexico	0.83%	0.30%	0.41%	0.43%	0.90%	1.80%
Mozambique	0.84%	0.86%	0.81%	1.11%	1.08%	3.06%
Nepal	0.37%	0.35%	0.35%	1.08%	0.23%	0.37%
Nicaragua	0.98%	0.47%	0.53%	0.59%	0.77%	1.48%
Pakistan	1.28%	1.06%	1.02%	1.05%	1.07%	1.23%
Senegal	0.22%	0.24%	0.33%	0.15%	0.29%	0.60%
Tanzania	0.18%	0.34%	0.27%	0.43%	0.38%	0.51%
Uganda	0.35%	0.29%	0.28%	0.24%	0.36%	0.82%

Table B.1. Percentage of children reporting significant functional difficulty (“a lot of difficulty” or “cannot do at all”) across six Washington Group domains, by country.

Notes on Interpretation

The WG-CFM does not diagnose medical disabilities; it identifies functional difficulties relevant to children’s everyday participation and learning.

Prevalence reflects caregiver reporting, which may vary across cultural and linguistic contexts.

These estimates provide a baseline, not a full assessment of disability inclusion within education systems.

Estimates are not disaggregated by age or grade because ICAN-ICAR’s primary learning reporting frameworks (age 10, Grade 4, age trajectories) do not yet include disability-disaggregated MPL results.



Implications for Future ICAN–ICAR Rounds

The 2025 WG-CFM data provide a foundation for strengthening the inclusiveness of ICAN–ICAR in future cycles. The next rounds will focus on:

- Developing adaptations for children with visual, hearing, and communication difficulties
- Refining assessment procedures to improve accessibility
- Exploring reporting structures for disability-disaggregated learning outcomes
- Expanding collaboration with national ministries and disability organisations
- Integrating socio-emotional learning and other domains relevant to inclusive education

The baseline presented in this appendix will support tool development and pilot testing in 2026, and policy dialogue on disability-inclusive foundational learning in the 2027–2028 cycle.



