

MICS-EMIS Analysis

Implementation Manual

Connecting household and school data for better education insights



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Acknowledgements

The MICS-EMIS Analysis Implementation Manual builds on the methodological foundation of the MICS-Link linkage approach, developed through close collaboration between National Statistical Office, Ministries of Education, and the UNICEF MICS team.

The approach has been informed by pilot implementations in Eswatini and Fiji in 2021-2022, which demonstrated the feasibility and value of linking household survey data from MICS with administrative education data (EMIS). The experience and lessons learned from these pilots have been instrumental in shaping this manual.

Sincere appreciation is extended to government counterparts, particularly Ministries of Education and National Statistical Offices, and UNICEF Country Offices, for their collaboration and contributions to the development and implementation of MICS-EMIS Analysis.

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List of abbreviations

Abbreviation	Definition
CO	UNICEF Country Office
ECE	Early childhood education
EMIS	Education Management Information System
GPE KIX	Global Partnership for Education – Knowledge and Innovation Exchange
IDRC	International Development Research Centre
MICS	Multiple Indicator Cluster Survey
MoE	Ministry of Education
NSO	National Statistical Office
RO	UNICEF Regional Office
SDG	Sustainable Development Goal
ToR	Terms of reference
TWG	Technical Working Group

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1. Introduction and overview

1.1 What is the purpose of this manual?

This manual provides practical guidance on how to implement MICS-EMIS Analysis. It outlines the steps required to link household survey data from MICS with administrative school data from EMIS, and to generate policy-relevant insights from the combined data.

1.2 Who should use this manual?

This manual is written for UNICEF Country Office (CO) and Regional Office (RO) staff in countries implementing MICS-EMIS Analysis. It is also intended for national counterparts, particularly Ministries of Education (MoEs) and National Statistical Offices (NSOs) leading or supporting the work.

In addition, it may be used as a reference tool by members of Technical Working Groups (TWGs) and other partners involved in education data integration and analysis.

1.3 How should I use this manual?

This manual is designed as a step-by-step guide. Users can follow the full implementation process from preparation to analysis and dissemination, or consult specific sections depending on their role and stage of implementation.

It is accompanied by the **MICS-EMIS Analysis Data Analysis Manual**, which sets out the technical methodology for preparing, linking and analysing the data. Where this manual describes *what* needs to happen and *who* is responsible, the Data Analysis Manual describes *how* the analysis is carried out.

1.4 What are the key objectives of this manual?

This manual is intended to equip users with an understanding of:

- The goals and purpose of MICS-EMIS Analysis;
- The institutional arrangements required for MICS-EMIS Analysis;
- How MICS-EMIS Analysis is implemented, step by step, from preparation through analysis and dissemination;
- The roles and responsibilities of UNICEF and national partners.

2. About MICS-EMIS Analysis

2.1 What is MICS?

UNICEF launched MICS in 1995 to monitor the status of children around the world, and it has become the largest source of statistically sound and internationally comparable data on women and children worldwide. MICS household surveys are conducted by trained fieldworkers who perform face-to-face interviews with household members on a variety of topics, focusing mainly on those issues that directly affect the lives of women and children.

Over the past 30+ years, more than 300 MICS surveys have been carried out in more than 100 countries. MICS was a major source of data for the Millennium Development Goals indicators and continues to be a major source of data used to measure Sustainable Development Goal (SDG) indicators in support of the 2030 Agenda for Sustainable Development.

MICS is a household sample survey. In each country it is carried out by a government agency, usually the NSO, with technical support from UNICEF. Households are selected through a probability sample of clusters. Because of this design, results are representative of the whole population and, depending on how the sample was designed, of groups defined by characteristics such as sex, urban or rural area, region, and wealth quintile.

This makes MICS different in nature from administrative data. It describes all children, including those who are not in school, on the basis of a sample of households, whereas an administrative system such as EMIS records the schools and students that are part of that system (see Section 2.3).

2.2 What is MICS-Link?

[MICS-Link](#) is UNICEF's broader initiative to integrate MICS data with other data sources, including administrative systems, geospatial data, and service delivery data. The aim is to move beyond standalone household survey analysis and generate more comprehensive, policy-relevant insights by combining different data sources.

In education, this involves linking MICS survey data with EMIS data to better understand how children's home and school environments interact. MICS-Link is a necessary precondition for MICS-EMIS Analysis, as it adds the school identification questions needed to link children in the survey to schools in the EMIS database.

2.3 What is EMIS?

Education Management Information Systems (EMIS) are administrative data systems used by MoEs to collect, manage, and analyse information on schools. These systems typically include data on enrolment, teachers, infrastructure, facilities, and school resources.

EMIS is not a single standard system. It goes by different names in different countries, and the data it holds vary in granularity, from school-level totals to class-level or individual student-level records, and in the range of other details covered. Data quality varies as well, depending on factors such as the number of schools, the size of the student population, and national capacity for collecting and analysing data.

As administrative data, EMIS aims to capture all schools and students within the system, rather than a representative sample as a household survey does. It therefore provides a system-wide

view of the education sector, aimed at supporting planning, monitoring, and resource allocation. However, EMIS data by design omit detailed information on the households where students live or on their living conditions.

2.4 MICS-EMIS Analysis and its objectives

MICS and EMIS are different kinds of data. MICS is a sample-based household survey that is representative of the whole population, while EMIS is an administrative system that captures all schools and students within it. Together they offer complementary perspectives on children's education: MICS captures characteristics of children and the households they live in, while EMIS captures the characteristics of the schools they attend.

MICS-EMIS Analysis leverages MICS-Link (see Section 2.3) to link household survey data from MICS with school-level administrative data from EMIS, providing a more complete picture of the factors that affect education participation, equity, and learning outcomes.

The link is made through the school identifier: school data from EMIS are connected to the children in MICS. Individual children in MICS are not matched to individual student records in EMIS, and no MICS data are added to EMIS.

Connecting school data to the children in this way enables integrated analysis that combines information on home environments (such as socio-economic status, parental engagement, and living conditions) with information on school environments (such as school management type, teacher availability, and infrastructure). This allows more comprehensive and advanced analysis of education environments than either dataset can provide on its own, empowering governments to analyse their education systems in a more complete and policy-relevant way.

The analysis looks at groups of children rather than at individual children or individual schools: school characteristics are compared across groups defined by, for example, sex, area, region, and wealth quintile, provided that the MICS sample is large enough to produce statistically sound estimates. This combined perspective helps identify whether education systems reduce inequalities or reinforce them.

MICS-EMIS Analysis follows the principles of reproducibility. All data preparation, linkage and analysis are carried out in open-source software (R) and shared through collaborative environments (GitHub), so every step from raw data to final indicators is well documented. These scripts are an output in their own right: they record the full workflow and are transferred to the MoE and NSO, so the knowledge stays with national counterparts rather than being locked in a single project or source, and the analysis can be repeated when new MICS or EMIS data become available.

MICS-EMIS Analysis aims to:

- Strengthen evidence for decision-making by combining household and school data
- Show which children are facing gaps in access and learning
- Identify how home and school environments interact to shape outcomes
- Support MoEs and education stakeholders in using data for targeted policies and planning, and equip them with relevant knowledge to maintain such integrated data analysis

2.5 Where is MICS-EMIS Analysis being implemented?

With support from GPE KIX, MICS-EMIS Analysis is being rolled out across a growing number of countries. Pilot implementations were completed in Eswatini and Fiji, demonstrating the feasibility and value of linking household and school data. Implementation is now under way in Belize, Guatemala, Madagascar, Nepal, Samoa and Ukraine, where linkage questions have been integrated into ongoing or recently finalized MICS surveys. Analysis in these countries begins once MICS data are released.

Country outputs are published on the [MICS-EMIS Analysis webpage](#) as they become available.

2.6 How will MICS-EMIS Analysis be implemented?

MICS-EMIS Analysis builds on the implementation of MICS-Link, which enables children in the MICS survey to be linked to the schools they attend. Once MICS data are released, MICS and EMIS data are prepared, linked, and analysed to generate policy-relevant insights. The detailed implementation process is described in Section 3.



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3. Overview of MICS-EMIS Analysis implementation

This section provides a high-level overview of the implementation process, before subsequent sections describe each step in detail.

3.1 Inception: how a country joins

MICS-EMIS Analysis can be implemented in countries whose MICS survey included MICS-Link, that is, the school identification questions needed for the link. Whether MICS-Link is included is decided when the survey is designed. As with every part of MICS, the NSO and the relevant committees overseeing MICS for example the Steering Committee and the technical committee decide together which modules will be implemented. If a country is interested, then they are required to complete a feasibility assessment of whether the MoE's EMIS data can be used for the link. If the link is feasible and the country wishes to proceed, the questions are added to the survey.

The countries in the current initiative joined on this basis: a MICS survey was being implemented, and the NSO and the MoE were interested in MICS-Link. This manual focuses on MICS-EMIS Analysis and does not describe the MICS-Link phase in detail. Further information is available on the [MICS-Link webpage](#) and in the blog post [Linking data for better education insights: Introducing MICS-Link in education](#).

3.2 Implementation approach

Implementation begins after MICS-Link has been implemented and MICS data have been collected and released. During implementation, MICS and EMIS data are prepared, cleaned, and linked to create an integrated dataset for analysis. The linked dataset is then analysed collaboratively through the TWG (see Section 4.1 for more detail on how to establish the TWG), guided by policy questions and an agreed analytical framework.



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3.3 Implementation flow

Implementation follows a stepwise process that moves from preparation and institutional setup, through EMIS cleaning and quality checks, to linkage, analysis and dissemination. In practice this translates into the following sequence of activities, which begins once each child in the MICS survey can be matched to the school they attend through the linkage established by MICS-Link:

1. Establishing a TWG for co-design and joint analysis;
2. Preparing a clean, analysis-ready school-level EMIS dataset;
3. Linking MICS and EMIS datasets;
4. Analysing linked MICS-EMIS data to answer the research questions set out by the TWG;
5. Conducting geo-coded analysis, where GPS data are available;
6. Applying advanced analytics to estimate patterns for specific areas and groups (for example, regression models and small area estimation);
7. Producing reports, dashboards, and other dissemination outputs.

Steps 1 and 2 can begin before MICS data are released, and should do so wherever possible, since EMIS preparation is usually the longest step in the process.

3.4 Main actors and collaboration

Implementation is led jointly by MoEs, NSOs, and UNICEF COs.

A TWG is established to support the implementation process, and is described in more detail in Section 4. The TWG brings together technical and policy stakeholders to guide data preparation, analysis, and interpretation, ensuring that results are aligned with national priorities and used for decision-making.

UNICEF Headquarters works closely with the TWG in each country to guide and support implementation, ensuring that deliverables are met and providing technical assistance as needed.

3.5 Resources

A set of tools and templates supports implementation:

- Concept note;
- Presentations;
- Terms of reference for the TWG (see Annex 1);
- Draft EMIS data request template;
- Policy questions framework (see Annex 2);
- MICS-EMIS Analysis Data Analysis Manual.

These resources support countries throughout implementation, from preparation to analysis and dissemination.

3.6 Key deliverables

The MICS-EMIS Analysis process produces:

- Clean and harmonized EMIS data, with related documentation and workflow;
- A linked MICS-EMIS dataset for integrated analysis;
- Analytical outputs, including reports or policy briefs;

- Interactive dashboards to support exploration and communication of findings;
- Technical documentation on methods and data linkage;
- Capacity building through collaborative analysis and training.

These deliverables are described in full in Section 6.

3.7 Key questions

Once a country has decided to implement MICS-EMIS Analysis, the next step is to plan how the process will be carried out in practice. Countries should consider the following:

- **Timing:** How does implementation align with the MICS timeline and data release? Are there upcoming policy or planning processes where results could be used?
- **Data availability and readiness:** Are EMIS data available, accessible, and of sufficient quality for linkage? Can children in MICS be reliably linked to schools?
- **Available resources:** What human resources, technical capacity, and financial resources are available to support data preparation, linkage, and analysis?
- **Objectives:** What are the main goals of the analysis? Is the focus on generating descriptive insights, informing specific policy questions, or strengthening data use?
- **Policy relevance:** Which policy questions are most important for the education sector, and how can the analysis be aligned with national priorities?
- **Need for capacity building:** To what extent do stakeholders want to strengthen their capacity for data linkage, analysis, and interpretation?



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4. Institutional setup

4.1 Establishing the TWG

A TWG is established to guide the implementation of MICS-EMIS Analysis. The TWG typically includes representatives from:

- MoE;
- NSO;
- UNICEF;
- Other relevant stakeholders, such as sector specialists or data experts.

To support coordination and clarify roles and responsibilities, countries are encouraged to establish terms of reference (ToR) for the TWG. A template ToR is provided in Annex 1 and should be adapted to the national context.

4.2 Data access and coordination

Access to both MICS and EMIS data is required for implementation. MICS data are managed by NSOs and within UNICEF and become available after the survey is completed and released on the [MICS website](#). In parallel, EMIS data must be requested from the MoE.

The process of requesting and preparing EMIS data should begin before MICS data are released, to avoid delays. This requires close coordination between the UNICEF CO, the MoE, and the NSO. The TWG plays an important role in facilitating this coordination, ensuring that data access is secured, datasets are aligned, and preparations for linkage can proceed within the agreed timeline.

4.3 Planning and timeline

Implementation should be carefully planned to align the different stages of MICS-EMIS Analysis. While MICS data collection is being carried out, the process of requesting and preparing EMIS data should be started.

As soon as MICS data are released on the MICS website, the MICS-EMIS work begins with data preparation, linkage, and analysis. Timely coordination across institutions is critical to ensure that analysis can start without delay and that results are available when they are most relevant for policy and planning.

Where the analysis is not tied to a specific policy process or event, such as the formulation of a national strategy, the TWG should still agree an indicative timeline at the outset. As a guide, a first draft of the analysis should be ready for TWG review within about six months of the release of MICS data. This is indicative only: progress depends not just on the analysis team but also on when EMIS data are shared and on the availability of TWG members, so the timeline should be agreed jointly and revisited if needed.

5. Data analysis

This section summarizes the analytical process. The full technical methodology, including variable construction, linkage rules, survey design and interpretation, is set out in the **MICS-EMIS Analysis Data Analysis Manual**.

5.1 Preparing MICS data

Once [MICS data are released](#), the dataset is prepared for linkage and analysis. This includes identifying the variables required for linking children to schools, and constructing the key variables for analysis, such as age, grade, household characteristics, and learning outcomes. Data are checked for completeness and consistency, with particular attention to school identification information.

The released MICS data are not ready-made indicators. They contain the responses recorded during the interviews, stored as coded questionnaire variables. Education indicators, such as out-of-school status, completion, repetition and dropout, and foundational learning skills, are constructed from these variables in line with the national education structure, for example the official entry ages, the grade structure, and the boundaries between education levels. Established standards exist for computing these indicators: MICS education data are analysed in line with the methodology specified in the [MICS-EAGLE data analysis manual](#). This step is not new data collection; it is a further unpacking of the education insights already contained in the MICS data.



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5.2 Preparing EMIS data

EMIS data are prepared in parallel to ensure compatibility with MICS data. This involves cleaning and standardizing school identifiers, and selecting relevant variables such as school location, infrastructure, resources, staffing, and enrolment.

Because EMIS systems differ across countries in quality, coverage, and structure (see Section 2.3), the available data may vary. Some countries may have only school-level records, while others may also include student-level, teacher-level, finance, or geospatial data. The scope of analysis is therefore adapted to the available data and the country context.

Any codebook or data dictionary that the MoE holds for its EMIS should be requested and shared together with the data. Where one is available, it makes variables and codes much easier to interpret and speeds up cleaning. Where none is available, the meaning of variables should be confirmed with the MoE's EMIS team and recorded in the documentation.

5.3 Linking MICS and EMIS

MICS and EMIS datasets are linked at the school level using the school identification information collected in MICS. Children in MICS are matched to the schools they attend in EMIS. This does not involve matching children to individual student records, and children remain anonymous throughout the process. The link runs in one direction only: school information from EMIS is added to the MICS data, and no MICS data are added to EMIS.

Unmatched cases are reviewed, and linkage rates are assessed. The result is a combined dataset for joint analysis of household and school characteristics. Because only a limited number of sampled children may attend the same school, the linked data are mainly used for child-level analysis, combining children's outcomes and the socio-economic characteristics of the household they live in with the characteristics of the schools they attend.

5.4 What the linked data can and cannot show

The linked dataset joins sample survey data with administrative data, and it remains the MICS sample. It builds on the sampling and representativeness of MICS and adds, for almost all school-going children in the survey (the match rate is not 100 per cent), the characteristics of the school they attend. Results therefore remain representative of children attending school, at the levels for which MICS is representative, provided that linkage is not selective, meaning that unmatched children do not differ systematically from matched children. This is why linkage coverage is always assessed first (see Annex 2).

The linked data can show:

- How school conditions differ between groups of children, for example the share of children from the poorest wealth quintile who attend schools with a given characteristic;
- How children's outcomes, such as attendance or foundational learning, relate to the characteristics of the schools they attend, alongside their household circumstances.

The linked data cannot show:

- The socio-economic background of the children studying at a specific school. Many schools have no sampled children at all, and others only one or a few, who cannot represent all of the school's students;
- Household information that is representative of schools. The linked schools are those attended by sampled children, not a representative sample of schools, and system-wide school statistics continue to come from the full EMIS dataset;
- Anything about individual students in EMIS. Children are linked to schools, never to student records, and EMIS itself is not changed.

Results from the linked data should therefore be read as statements about children, not about schools. The Data Analysis Manual explains the sampling, weighting, and interpretation in more detail.

5.5 Policy questions and analytical framework

The analysis is guided by a set of policy questions that the TWG must define as a key priority following its establishment. The policy questions must reflect national priorities and be aimed at addressing data needs related to equity, while remaining cognizant of possible constraints related to the quality and scope of available EMIS data. A generic framework is provided in Annex 2 and can be tailored to country needs.

The analytical framework combines MICS analysis on household-level outcomes and equity, EMIS analysis on schools and system performance, and linked MICS-EMIS analysis on how household circumstances and school conditions interact. The linked MICS-EMIS framework typically covers the five areas below. The detailed breakdown of each area, with its policy questions, is available in Annex 2.

1. **Linkage coverage and representativeness:** assessing the linkage between MICS children and EMIS schools;
2. **Household-school allocation and equity:** examining which groups of children attend which types of schools;
3. **Distance to school and physical access:** analysing distance to school and physical access barriers;
4. **Learning outcomes and combined learning environments:** studying learning outcomes through combined home and school environments;
5. **Indicator validation and system consistency:** validating and comparing education indicators using both systems.

Not all themes will be relevant in every country. This structured approach ensures that the analysis is relevant, coherent, and directly linked to policy needs.

6. MICS-EMIS Analysis outputs

6.1 Three core datasets

The process produces three complementary datasets, which are the three core data products described in the Data Analysis Manual:

- **Clean MICS dataset:** a child-level dataset with constructed education indicators, child and household characteristics, and the school identification information collected through MICS-Link;
- **Clean EMIS dataset:** a school-level dataset with one record per school and harmonized school characteristics;
- **Linked MICS-EMIS dataset:** the MICS child records with the characteristics of the school each child attends added from EMIS.

The clean EMIS dataset and the linked dataset are among the key deliverables listed in Section 3.6. The clean MICS dataset is the prepared version of the released MICS data and serves as the child-level base for the linkage.

A key output of the linking process is the linked dataset, which combines household-level information from MICS with available school-level information from EMIS. It enables integrated analysis of children's characteristics, typically defined in terms of age, sex, and grade; their home environments, typically defined in terms of area (urban/rural), geographic administrative units such as regions, wealth quintile, home language, availability of child-oriented books, and access to digital tools; and the conditions of their schools, defined by the variables available in EMIS, which may vary from one country to another.

Once the datasets are merged on the school ID as the common identifier, the linked dataset first of all gives a detailed overview of the education environment around children. This overview makes it possible to pose sharp policy questions and to see whether existing equity policies are working. In Eswatini, for example, the linked data confirmed that school meals reach children from the poorest wealth quintile, showing how the linkage can verify that a policy measure is reaching its intended recipients. In this way, the dataset provides a foundation for answering policy-relevant questions.

The linked dataset should be read with its nature in mind. It builds on the sampling and representativeness of MICS and adds school details for almost all school-going children in the survey, so its results describe children rather than schools (see Section 5.4). The Data Analysis Manual goes into more detail on sampling and weighting.

The insights from these datasets can be laid out in different products, including analytical reports, policy briefs, and interactive dashboards. Which of them to create depends on the purpose, as set out below.

6.2 Analytical reports and policy briefs

Findings from the analysis can be used to produce analytical reports, country briefs, or policy briefs. These are recommended when one particular issue is scrutinized and key policy recommendations need to be spelled out for decision makers. They present key results in a clear and structured way, linking evidence to policy questions and highlighting implications for education planning and decision-making. Within the MICS-EMIS Analysis initiative, the TWG

always ensures that findings are documented in one of these forms and decides which output is relevant for the country's needs.

6.3 Interactive dashboards

Interactive dashboards are recommended for both overall and detailed exploration of findings. They allow users to visualize patterns, compare groups, and explore key indicators in a user-friendly way. A dashboard is also a platform to bring together education insights from two data sources that are not routinely presented together, making these data more accessible to policymakers in education.

Within the MICS-EMIS Analysis initiative, a dashboard is one of the standard deliverables and is developed with support from UNICEF Headquarters, working with the TWG. To keep it useful beyond the life of the initiative, the TWG should agree early on which institution will host and update it.

6.4 Technical documentation

Technical documentation is developed to describe the data preparation, linkage methodology, analytical framework, and implementation process. This documentation supports transparency, reproducibility, and future implementation in other contexts.

6.5 Capacity building through collaborative analysis

Collaborative work is a core part of the MICS-EMIS Analysis process. Through the TWG, stakeholders work together on data preparation, linkage, analysis, and interpretation. This learning-by-doing co-creation approach strengthens technical capacity and supports long-term use of linked data for decision-making.

6.6 EMIS system strengthening

The MICS-EMIS Analysis process can strengthen EMIS by promoting greater use of administrative data for analysis and decision-making. During feasibility assessment, data preparation, and linkage, gaps in EMIS data quality or structure may be identified and documented, helping improve data completeness, consistency, and usability over time.

6.7 Country-specific outputs

In addition to standard outputs, countries may develop further analyses or tools tailored to their specific priorities. These outputs may focus on particular policy areas, geographic regions, or population groups, depending on national needs and interests.

Annex 1. Terms of reference for the TWG

The following is a template Terms of Reference (ToR) for the TWG. Country teams should adapt the placeholders (indicated by COUNTRY, XX, and dates) to reflect their national context, institutions, and timeline.

Context

COUNTRY's Multiple Indicator Cluster Survey collected school identification details that enable the link between data from MICS and the COUNTRY Education Management Information System (EMIS). This is part of MICS-Link, an initiative to integrate household survey data and administrative records.

EMIS was introduced by the Ministry of Education (MoE) in XX. EMIS is a web-based application that integrates information on schools, students, and staff into one platform and provides a unified interface to the major databases. MICS and EMIS collect complementary information on the factors affecting children's education. While EMIS covers multiple dimensions of the education system, from student enrolment to teachers' qualifications, school management, expenditures, and infrastructure, MICS captures socio-economic information about children and adolescents, their learning environment at home, and their parents' involvement in education.

During the COUNTRY MICS, survey respondents were asked for the location (province and district) and name of the schools attended by all children in pre-primary, primary, or secondary school in the interviewed households. In addition, EMIS information on school name and location for XX educational institutions in the country (XX for ECE programmes, XX for primary schools, and XX for secondary schools) was integrated into the CAPI entry application of the MICS Household Questionnaire. This makes it possible to connect the two data sources.

UNICEF Headquarters, together with the UNICEF CO and RO, has mobilized resources to co-create research with the MoE and NSO. As part of this work, UNICEF Headquarters will support:

- Harmonizing MICS and EMIS data to enable analysis (and, where possible, exploring how to bring together data from learning assessments)
- Undertaking geo-coded analysis using school and cluster locations
- Analysing the characteristics of linked versus non-linked schools to understand coverage
- Deploying complex models (small area estimation, network analysis) to answer key research questions of interest, leveraging diverse data sources and the linked schools

To co-create this work, a working group will guide and review the analysis to ensure the outputs respond to the needs of the country. All code will be shared with the working group and any external partners deemed relevant by the ministry. All analysis of the EMIS data will take place together with the ministry within the country.

Objectives

- To provide guidance and support to the research team on research questions and priorities for analysis

- To participate in technical discussions and review the planning for the technical workshop
- To promote understanding and utilization of the analysis

Suggested composition

- MoE
- NSO / implementing agency
- UNICEF CO
- UNICEF RO
- Other line ministries as appropriate for the research
- Academic institutions
- Non-governmental organizations
- Relevant UN Country Team members
- Other partners with technical expertise as appropriate

Timeline of tasks

Date	Task
XXXX, 2026	Formation of the working group and initial meeting to discuss objectives, data access, and research questions
XXXX, 2026	Finalize the analysis plan and dates of the workshop / HQ mission to support the TWG in the analysis
XXXX, 2026	Analysis and workshop
XXXX, 2026	Review of analysis, comments, and finalization

Annex 2. Policy questions framework

This framework sets out thematic areas and associated policy questions (PQ) that can guide MICS-EMIS Analysis. It is generic and should be tailored by the TWG to reflect national priorities and the quality and scope of available EMIS data. Not all themes will be relevant in every country.

Flow of the framework

The analysis follows a stepwise logic, moving from assessing the linkage itself to progressively richer combined analysis:

- **Linkage coverage and representativeness:** assess the linkage between MICS children and EMIS schools;
- **Household–school allocation and equity:** examine which groups of children attend which types of schools;
- **Distance to school and physical access:** analyse distance to school and physical access barriers;
- **Learning outcomes and combined learning environments:** study learning outcomes through combined home and school environments;
- **Indicator validation and system consistency:** validate and extend education indicators using both systems.

1. Linkage coverage and representativeness

Purpose: Understand which children and which schools are represented in the linked dataset.

PQ1.1 What proportion of MICS children can be matched to an EMIS school?

PQ1.2 Does linkage success vary by geography, household wealth, or urban/rural location?

PQ1.3 Which EMIS schools are represented among matched MICS children, and which schools remain unmatched?

2. Household–school allocation and equity

Purpose: Examine whether children from different backgrounds attend different types of schools.

PQ2.1 Do poorer households send children to systematically different schools than wealthier households?

PQ2.2 Are household deprivations (water, sanitation, electricity, food security) mirrored in school conditions?

PQ2.3 Are education programmes, such as school feeding, health, or inclusion programmes, reaching children and schools with higher levels of vulnerability?

3. Distance to school and physical access

Purpose: Understand how physical access to schools shapes participation in education.

PQ3.1 How far do children travel to school, and how does this vary across regions and population groups?

PQ3.2 Is distance associated with attendance, dropout, or out-of-school status?

PQ3.3 Which children face the greatest physical access barriers?

4. Learning outcomes and combined learning environments

Purpose: Analyse learning outcomes as the result of both home and school environments.

PQ4.1 How are foundational learning outcomes associated with household characteristics?

PQ4.2 How are foundational learning outcomes associated with school characteristics?

PQ4.3 Which combinations of home and school environments are linked to learning gaps, and do school resources mitigate or amplify household disadvantage in learning outcomes?

5. Indicator validation and system consistency

Purpose: Use MICS and EMIS together to validate indicators and derive system-level estimates.

PQ5.1 How consistent are key indicators (enrolment, attendance, age-for-grade) between MICS and EMIS?

PQ5.2 Can combined data be used to estimate district-level indicators, such as numbers of out-of-school children?

PQ5.3 Where do discrepancies between sources suggest measurement gaps or under-reporting?