

TERMS OF REFERENCE FOR SERVICE CONTRACTING

Assignment	Digitalizing Education Management Information System (EMIS) in Nigeria
Estimated budget	US\$ 1.00
Budget Source	N/A
Location	8 states (Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, and Zamfara)
Duration	15 months
Estimate no. of working days	225 days
Start date	TBD
End date	TBD
Reporting to	Education Specialist
Closing date for proposals	13 th November 2023; submitted online to ngrsupply@unicef.org

1. Background

Education in Nigeria

Nigeria is the most populous country in Africa with approximately 213 million people, a half of which is below 18 years of age in 2021.¹ The country's population is growing at 2.5% per year on average, one of the fastest rates globally, and its population is projected to reach 263 million in 2030.² The rapid population growth places significant pressure on the delivery of social services, while it creates a potential to reap dividend from the impending youth bulge if the country successfully invests in children's education.³

Nigeria has strived to provide inclusive quality education to the increasing number of children under the Sustainable Development Goal 4 (SDG4) but falls short of the goal. Although basic education is free and compulsory in Nigeria, there are 10.2 million children at primary school age and 8.1 million children at junior secondary school age who are out of school.⁴ This implies that approximately 1 in 3 children of basic education ages are excluded from schooling⁵, and Nigeria alone accounts for 15% of the total number of out-of-school children (OOSC) globally. Importantly, the challenge in education access is not equally distributed across the country. 66% of all OOSC are in the North-East and North-West, 86% are in rural areas, and 65% are from households in the poorest socioeconomic quintile⁶, indicating a need for addressing educational inequality.

Equally concerning is that children do not learn enough even if they attend school due to poor quality of education and learning. According to the Multiple Indicator Cluster Survey (MICS) implemented in Nigeria in 2021, about 75% of children aged 7–14 years do not have foundational literacy and numeracy (FLN) skills that serve as critical foundations for further learning and skills development.⁷ Even if children attend school and reach Grade 6, the last

¹ United Nations. (2022). The World Population Prospects 2022.

² World Bank. (2021). Population growth – Nigeria.

³ UNICEF. (2017). Generation 2030 Africa 2.0. Prioritizing investments in children to reap the demographic dividend.

⁴ UBEC (2019). Personnel Audit and Digest of Basic Education Statistics in Nigeria 2018.

⁵ *Ibid.*

⁶ Cambridge Education. (2021). Investment Case for Out-of-School Children in Nigeria.

⁷ National Bureau of Statistics & UNICEF. (2022). Nigeria 2021 multiple indicator cluster survey (MICS) & national immunization coverage survey (NICS): Survey findings report.

grade of primary education, about 60% of them do not develop the basic skills.⁸ The likelihood of developing FLN significantly varies by location, urban/rural, and socioeconomic status.⁹

The lack of access to quality education and learning has a significant impact on the future of children and the country. Children who do not complete basic education and fail to develop skills in demand are less likely to find a job, which partly contributes to the low employment rate at 37% in Nigeria¹⁰. These children are also less likely to increase their wellbeing, to be actively engaged citizens, and to nurture healthy and prosperous families. This in turn limits the potential of the country to drive the economy, reduce poverty, and build more inclusive, democratic societies. Increasing the investment in education is thus critical for the nation's long-term development.

Education Management Information System in Nigeria

Education Management Information System (EMIS) is the production, management and dissemination of educational data and information, usually within a national and/or state ministry of education. It includes collection, storing, integrating, processing, organizing, and use of educational data and statistics in a timely and reliable manner. The purpose of an EMIS is to efficiently provide timely and reliable data for education planning, monitoring, and management, and to support evidence-based decision-making (UNICEF, 2018).

EMIS data is generated through Annual School Census (ASC), which contains school enrolment, teachers, and facilities data for all basic and post-basic schools in every state. All states use the same questionnaires developed jointly for data collection from pre-primary, primary, junior, and senior secondary schools in Nigeria. However, each state has a separate platform through which the collected data is processed. At present, majority of the states have standalone UIS EMIS Stat_Edu database for data processing and storage. See sample of ASC forms below.



Pre-Primary and
Primary School.doc



Junior Secondary
School.doc



Senior Secondary
School.doc



Science and
Vocational Education.doc

In 2022, the Nigeria Federal Ministry of Education (FME) attempted to develop a digitized EMIS data collection application. According to the FME, pilot testing was conducted, but feedback on the apps and process remain minimal and the work has not yet progressed well to allow uptake of the digital EMIS platform at the state level. Also, there is no platform to house data from non-formal and Quranic education in Nigeria. The purpose of this consultancy is to facilitate UNICEF's support to Nigeria's education sector to develop a functional digital EMIS application to improve quality of data collection, disaggregation, and analysis, monitoring and assessing progress, as well as the use of data to inform decision-making, including policy and sector planning and financing at basic and post-basic education.

2. Objectives

Main objective

The main objective of this consultancy is to support the government to digitalize EMIS in eight states in Nigeria by 1) developing an electronic system that can be used for collection and processing of education data real-time, 2) enabling visualization of summary data, 3) promoting use of education data for planning and decisions by all education stakeholders, including government and non-government actors and 4) developing the capacity of education staff at all levels, especially at state and Local Government Areas (LGAs) on the use and management of digital EMIS system.

Target education levels and states

This consultancy is aimed at improving quality of education data generation and use at basic and post-basic levels: pre-primary, primary, junior and senior secondary education, and science/vocational schools. The digital system will contain aggregate-level data from the ASC form for formal and non-formal education. Every education level (pre-primary, primary, junior secondary, senior secondary, and science/vocational schools) has a separate ASC questionnaire. Also, the consultancy will focus majorly on eight states: Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi,

Sokoto, and Zamfara. However, the digital system will be developed in such a way that other states can use the system seamlessly.

3. Scope of the work

Under the supervision of the Education Specialist, the institution will be responsible for the following:

Development of Digitalized EMIS for Formal and Non-Formal Education

- Produce a technical inception report with a detailed workplan and timeline based on discussions with states and UNICEF.
- Develop a functional digital EMIS (web-based and mobile applications, online and offline versions). This will include the development, testing and validation, revision, and finalization of data entry tools/forms with rigorous data validation measures in place. The applications should be designed in such a way that it can be used for any type of data collection, especially data from Annual School Census (ASC) for formal/non-formal education and surveys.
- Develop templates for state actors to identify a selection of indicators to be easily extracted from digital EMIS for analysis and visualization, administer these to state officials, and provide support for the state-level customization of the indicator selection via workshops or technical meetings.
- Develop EMIS tool to enable data analysis (including disaggregation by multiple factors such as gender, age, disability, location, socioeconomic status, etc.) and data visualization, for instance a dashboard.
- Conduct pilot testing and validation workshops in each of the selected pilot states
- Refine the platform based on feedback from the users.

Capacity building of education actors

- Train states and federal education actors on the use and management of digital EMIS, including a complete knowledge transfer to government officials and UNICEF to manage and sustain the use of the applications.
- Prepare a final package of knowledge management products, demonstration videos and user guides for states and federal level education actors.
- Participate in and provide technical inputs for a meeting with state education authorities and FME to present the final product(s).
- Provide technical support and guidance to states actors, UNICEF NCO and the field office colleagues, when needed.

Hosting of the Digitalized EMIS

- UNICEF requires web hosting of the digital EMIS applications with Cloud service providers within the country to promote data protection and privacy. The service provider will support to host the digital EMIS applications during the development and capacity building phases and later transfer the hosting right to the states and FME at contract expiry and after assurance/confirmation of a functional digital EMIS system for each of the eight pilot states.

4. Duration

The total duration for the contract is 15 months from 1 December 2023 to 28 February 2025.

5. Deliverables and payment schedules

Outputs/Activities:	Deliverables	Timeline	Payment
Activity 1.1: Produce a technical inception report with a detailed workplan and timelines based on discussions with states and UNICEF.	<ul style="list-style-type: none"> • Inception report with detailed workplan and timelines 	December 2023	50%
Activity 1.2: Development of digitalized EMIS applications (web-based and mobile application, online and offline versions), including home-based testing, and validation	<ul style="list-style-type: none"> • Skeletal framework, plan, and timelines • Pre-alpha, alpha, beta, and the stable release versions • Report of the digital EMIS development. 	December 2023 – April 2024	

Activity 1.3: Field visits - pilot testing of the digitalized EMIS at states, LGAs and schools (web-based and mobile applications, online and offline versions)	<ul style="list-style-type: none"> • Report of field visits • Use findings from the field visits to improve the digital EMIS applications 	May - June 2024	
Activity 1.4: Development of dashboard for automatic graphical analysis from the data in the system with multiple graphical options, including home-based testing and linkage of the manual reporting template to the system	<ul style="list-style-type: none"> • Functional dashboard with multiple graphical options available for use in the digital EMIS applications, especially the web-based version • Report of the dashboard development. 	July – August 2024	
Activity 2.1: Training of states and federal staff on the use and management of digitalized EMIS (web-based and mobile apps, online and offline versions) and the dashboard (Training modality: physical and online)	<ul style="list-style-type: none"> • States and federal education staff received training on the use and management of digitalized EMIS and the dashboard • Training report 	September – October 2024	30%
Activity 2.2: Development of knowledge management products, demonstration videos and user guides on use and management of digitalized EMIS (web-based and mobile apps) and the dashboard	<ul style="list-style-type: none"> • Training content/materials/tools on digitalized EMIS and dashboard • User guides and demonstration videos on digitalized EMIS and dashboard are produced • Other knowledge management/transfer products are produced • Training report 	October 2024	
Activity 3.1: Support data uploading from 2023/2024 Annual School Census (ASC) in the focus states using digitalized EMIS applications (web-based and mobile application, online and offline versions)	<ul style="list-style-type: none"> • 2023/2024 ASC data is available in the digitalized EMIS system • Report is generated using manual excel reporting template • Key education indicators are available in the dashboard 	November – December 2024	20%
Activity 3.2: Technical support and coaching to education actors in the focus states on the use and management of digitalized EMIS (web-based and mobile apps, online and office versions) and the dashboard	<ul style="list-style-type: none"> • At least three education staff per focus state can use and manage digitalized EMIS (web-based and mobile apps) and the dashboard 	January - February 2025	

Above timelines are tentative – subject to changes upon completion of bidding process and award

6. Official travel involved

This assignment is home based with occasional travels to Abuja and the target states for pilot testing and capacity building. Bidders are requested to propose the number and duration of field visits required to complete the assignments.

7. Desired qualifications, specialized knowledge, or experiences

The contractor shall be an institution with expertise and experience in supporting education system strengthening, particularly in digitalization of EMIS, development of dashboard and capacity building. Qualification requirements are presented in the next section in detail.

8. Contract supervision

The education section of UNICEF Nigeria Country Office (CO) is responsible for the overall management of the contract. The task team consisting of UNICEF education specialists at NCO and Field Offices (FOs) will provide advisory guidance throughout the assignments. Key government partners include, but not limited to:

- FME, and UBEC
- State Ministry of Education, and State Universal Basic Education Board
- Local Government Education Authorities

- Schools and School-Based Management Committee (SBMC)

9. Performance indicators for evaluation of results

The consultancy work is evaluated based on 1) planning and implementation of activities on time, 2) submission of deliverables on time, and 3) quality of services and deliverables.

10. Frequency of performance reviews

Monthly performance/progress monitoring and reviews will be conducted.

11. UNICEF recourse in case of unsatisfactory performance

The deliverables and progress will be evaluated monthly by UNICEF. Revisions due to poor quality of work will be done at the contractor's cost. The reported unsatisfactory work will lead to stoppage of payment for the deliverables.

12. Application and evaluation process

Each proposal will be assessed first on its technical merits and subsequently on its price. In making the final decision, UNICEF considers both technical and financial aspects. The Evaluation Team first reviews the technical aspects of the offer, followed by review of the financial offers of the technically compliant vendors. The proposal obtaining the highest overall score after adding the scores for the technical and financial proposals, which offers the best value for money, will be recommended for award of the contract. Proposals with all supporting documents and any inquiries should be addressed to: UNICEF Nigeria Country office Bids ngrsupply@unicef.org.

1) Technical proposal (Score weight: 70%)

Technical proposal should include:

- Institution's legal status
- Institution's profile with a list of projects relevant to this project
- Team's structure
- CV of a team leader
- CV of other members
- Proposed methodologies
 - o Methodology corresponding to the activities
 - o Specifications/functions of EMIS with visual presentation
 - o Quality assurance measures
 - o Workplan with timeline

Technical proposal will be graded according to the following criteria.

Criteria	Max. score
Company profile	20
- Experience and expertise in developing, maintaining, and strengthening education data management systems using digital solutions (e.g., technological use in education, digitalized EMIS, dashboard, and capacity building).	10
- Experience of working for UNICEF, UN agencies or other international organizations in the field of education.	5
- Experience of working in Nigeria or other Africa countries for education data management.	5
Team profile	15
Organization of the team and their roles and responsibilities to undertake the assignments.	5
Team leader:	5
- Advanced university degree in education, data science, data analytics and management or other related fields.	
- Experiences and expertise in managing a large-scale international development project.	
- Experiences and expertise in digitalized EMIS, dashboard, and capacity building.	
Team members:	5
- Experiences and expertise in their assigned role in the proposal.	
- At least one member with experiences and skills to develop digitalized EMIS, dashboard, and capacity building.	
Responses and methodology	35

- Understanding of the assignments, and completeness of responses.	5
- Technical specifications/functions of proposed digital EMIS	15
- Relevance, quality, and feasibility of proposed methodology for completing the assignments, including capacity development.	15
- Presence of at least one or two team members in Nigeria or partnership with local institution(s) for physical technical support and capacity building of state partners.	
Total (Technical)	70

2) Financial proposal (Score weight: 30%)

Bidders are expected to submit a lump sum financial proposal to complete the entire assignment based on the terms of reference. The lump sum should be broken down into resource costs and any other costs (if any).

- Professional fee
- Travel fees
- Admin fee Any other costs (if any): indicate nature and breakdown

13. Conditions

- The contractor will work on its own computer(s) and use its own office resources and materials in the execution of this assignment. The contractor's fee shall be inclusive of all office administrative costs
- Local travel and airport transfers (where applicable) will be covered in accordance with UNICEF's rules and tariffs.
- Flight costs will be calculated at economy class rate as per UNICEF policies.
- Please also see UNICEF's Standard Terms and Conditions attached.
- For the capacity building component of the assignments, cost for renting a venue and trainees' travel, daily allowance and accommodations are covered by UNICEF or the counterpart governments.
- Data collected, process documents, and deliverables belong to UNICEF. A prior written consent is required for the contractor to use, disseminate, and publish any of the project work outside of the contract.
- Digital EMIS system, including codes, tools, data, evidence, databases, and other documents belong to UNICEF and cannot be used or published without express written permission from UNICEF.

14. Enquiries

Proposals with all supporting documents and any inquiries should be addressed to:
UNICEF Nigeria Country office Bids ngrsupply@unicef.org

Instructions to bidders:

1. Proposals should be made separately: Technical and Financial. Technical should not have financial information as such technical proposal will be disqualified.
2. All completed proposals should be submitted to this email address: ngrsupply@unicef.org with the RFP reference number: 9186384. Your proposals will not be considered nor opened on failure to quote the RFP number on your forwarding email.
3. Deadline for submission is 13th November 2023; 12.30 pm
4. Financial proposal that includes a brief cover letter with summary of cost on letter-headed paper with contact details of the company and duly signed with a detailed breakdown of cost as an attachment is mandatory.
5. Financial proposal should be made along these cost lines: personnel cost; logistics (local/international, DSA, seminar venue rental), Admin cost (if applicable) and other cost - clearly indicated and broken down
6. Please see attached Annexes 1- 4