

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS

Title of Assignment	National or International Consultancy: Giga School Connectivity Landscape Analysis Consultancy: An International or National Consultancy to conduct a school connectivity landscape analysis, including collecting, analyzing, and visualizing school connectivity information, as part of the Giga initiative.	
Requesting Section	Innovation and Education Adolescent Development and Participation (EADP).	
Location	Place of assignment: <ul style="list-style-type: none"> The consultancy will not be based in the office; however, he/she will be expected to visit all 34 education districts for school connectivity assessment, as well as attend relevant meetings with the Ministry of Education, Ministry of Information and Digitalization, and UNICEF Malawi Country Office in Lilongwe, Malawi. 	
Contract Duration	9 Months	
Estimated number of working days	196	
Planned Start and End Date	From: 9 th September 2024	To: 13 th June 2025

BACKGROUND AND JUSTIFICATION

About Giga:

UNICEF and the International Telecommunication Union (ITU) launched Giga in 2019, an initiative to connect every school to the internet. Giga is anchored in the Secretary-General's High-level Panel on Digital Cooperation's finding 1A which states that by "2030 every adult should have affordable access to digital networks". According to the ITU, nearly 3.6 billion people worldwide remain unconnected from the internet, and by extension, unconnected to digital products and services that could dramatically improve their lives. Approximately 29% of 18–24-year-olds globally, do not have digital access (~360m people) and thereby lack access to the same information, opportunity, and choice as their more-connected peers. Unless things change, a big part of this rapidly growing group of young people is in danger of being left behind, excluded from the modern digital world.

Giga enables universal school connectivity and provides support in three broad areas: (1) High level engagement and governance around school connectivity; (2) Technical assistance to map schools' location and connectivity status, as well as open-source technology tools in support of connectivity; and connectivity infrastructure; (3) Procurement and market access interventions.

Giga has been engaged in discussions with the Malawi Government on universal school connectivity since 2020. The Ministry of Education has signed the letter of interest and expressed its willingness to move forward with implementation. Giga has completed school location mapping and is helping the government gather school connectivity information. Further, Giga recently completed a market assessment study that focuses on the market structure, market actors, market dynamics and conditions, as well as understanding of all the available technologies and connectivity solutions for schools in Malawi.

For more information about Giga, please visit the website: <https://giga.global/>

About Connectivity Challenges in Malawi:

Equitable access to quality learning opportunities is critical to achieving the goals of Malawi Vision 2063 and Sustainable Development Goal (SDG) 4. However, less than a quarter of the learners in Malawi can read, write, and do math at the levels expected of their age. In addition, about one-fifth of children and adolescents in Malawi are out of school, and only 16.6 per cent are enrolled in secondary school. When the COVID-19 pandemic hit the country, schools were closed for six months, further increasing inequalities in Malawi. Digital learning is an opportunity to educate children and address the learning crisis, but only 30 per cent of children from the highest income quintile are capable of accessing continuity through digital learning solutions.

To address the learning crisis in Malawi, UNICEF introduced the reimagining education initiative to ensure access to digital learning solutions that help children and youth leapfrog to a brighter future. In the context of the education system, this means investing in last-mile technologies and enabling digital accessibility tools, particularly for children and youth who may be left behind, such as those with disabilities. As such, reimagining education underscores the need to scale up digital learning solutions to improve learning outcomes by empowering teachers and other educators in formal, non-formal, informal, and home learning settings. The reimagine education initiative includes children and youth in designing fit-for-purpose digital learning solutions and is complemented by connectivity initiatives including Giga. Expanding nationwide school connectivity is a crucial next step towards achieving digital education for all.

JUSTIFICATION

In Malawi, data on internet coverage and school locations are readily accessible. However, there is currently a lack of the specific methods or technologies employed for connectivity, and the quality of connectivity (e.g., whether the internet speed is high enough to facilitate digital education). Furthermore, various connectivity initiatives have been led by different donors, some of which did not fully involve the Ministry of Education resulting in challenges in clarifying the connectivity landscape. This lack of clarity makes it challenging for the Ministry of Education and UNICEF to formulate effective strategies and a roadmap for expanding school connectivity nationwide.

It is, therefore, important to understand the current nationwide school connectivity landscape, including comprehensive school connectivity data, as well as engage broad connectivity stakeholders, including different donors and internet service providers, to enhance further collaboration in collectively scaling up school connectivity across Malawi.

PURPOSE OF THE ASSIGNMENT

Under the overall guidance of the UNICEF Malawi Innovation Specialist and with a matrix reporting structure to the Education Specialist, the Giga Data Coordinator will be responsible for : (1) leading the collection, analysis, and visualization of school connectivity status data (2) deploying and leveraging the Giga school connectivity monitoring application to understand the internet speeds received by connected schools; (3) complete a comprehensive school connectivity landscape review across Malawi. The tasks will entail developing a data collection strategy, timeline, and budget in collaboration with key national stakeholders,

the global Giga HQ, and UNICEF Malawi Country Office teams. Additionally, the Giga Data Coordinator will oversee the data collection process, review, and clean the resulting dataset.

The Giga Data Coordinator is also expected to facilitate stakeholder engagement with various school connectivity stakeholders, such as the Ministry of Education, Ministry of Information and Digitalization, Malawi Communication Regulatory Authority, Universal Service Fund, different donors, and internet service providers. This engagement aims to foster collaboration and enhance synergies between different connectivity initiatives.

SCOPE OF WORK/OBJECTIVES

Objectives

- 1) Stakeholder engagement and coordination to facilitate school connectivity assessment and to prepare for scaling up school connectivity nationwide through the organization of meetings, consultations, and workshops.
- 2) Development and implementation of a school connectivity assessment strategy including school connectivity data collection, analysis, visualization and creating the mechanisms to enable real-time connectivity mapping sustainably, using Giga real-time monitoring application.
- 3) Creation of Malawi school connectivity landscape analysis and presentation of key findings to the key stakeholders, including the Ministry of Education, Internet Service Providers (ISPs), UNICEF staff, and other relevant stakeholders.

Scope of Work

1. Stakeholder Coordination:

- a) Liaise with government stakeholders, Giga, UNICEF Malawi CO and ITU Area Office for Southern Africa to ensure coordination of Giga activities focused on school connectivity assessment, including setting up meetings, taking notes, developing a Giga workplan, etc.
- b) Facilitate meetings and communication channels to exchange information and updates.
- c) In consultations with all relevant stakeholders, establish the Giga technical committee that includes drafting the committee's Terms of Reference (ToR),
- d) Complete a connectivity stakeholder mapping that clearly lays out the different public and private sector actors involved in school connectivity in Malawi.
- e) Identify and create an excel dashboard of school connectivity initiatives in Malawi to ensure better coordination and alignment of those initiatives with Giga; and
- f) Organize a connectivity stakeholder workshop, that would bring together key national public and private stakeholders to discuss and agree on a connectivity agenda.

2. Survey Development:

- a) Identify the gaps in school connectivity data and outline the various sources available to gather this information.
- b) Develop a concise survey questionnaire to capture missing school connectivity information while considering inputs from all relevant stakeholders that include government, Giga HQ and UNICEF Malawi CO.
- c) Ensure the survey instrument is clear, concise, and aligned with Giga objectives.
- d) Work with Ministry of Education team that will be responsible for conducting interviews with relevant stakeholders and documenting responses and performing any other tasks assigned to them.

3. Finalize data collection strategy:

- a) Work with relevant stakeholders to finalize a comprehensive strategy for gathering connectivity information. The following options may be considered for collecting data. The list below is just indicative and not exhaustive:
 - i. Gathering school connectivity related data from stakeholders (including network operators and government agencies) involved in connecting schools and validating the information provided over phone with schools.
 - ii. Conducting Interviews: Conduct phone interviews (manual or automated) with school representatives to gather information about connectivity. This approach may be particularly useful in areas where internet access is limited or where respondents are more comfortable with verbal communication.
 - iii. Integrating school connectivity questionnaire with the annual school census: If the Ministry is planning a school census soon, then the Giga team can help review the questionnaire and add connectivity data points to the survey; and
 - iv. In-person data collection: Collecting information by visiting schools.
- b) Incorporate feedback and recommendations into the strategy to ensure its effectiveness.

4. Data Collection:

- a) Coordinate the collection of connectivity information from all public primary and secondary schools across Malawi, and
- b) Train and supervise government data collection teams to ensure data quality, uniformity, and consistency.

5. Data Review and Cleaning:

- a) Review collected data for accuracy, completeness, and consistency.
- b) Clean and standardize data to prepare it for analysis and uploading on to Project Connect in closer collaboration with Ministry of Education EMIS staff to ensure ownership and sustainability as well as capacity building.
- c) Support relevant government counterparts to incorporate cleaned and validated data back into the respective government registries; and
- d) Create a report that summarizes the Malawi's school connectivity landscape.

6. Giga Real-Time Monitoring app deployment:

- a) Liaise with government stakeholders, Giga and UNICEF Malawi CO colleagues and identify schools where the Giga Real-Time Monitoring app may be deployed.
- b) Support deployment of the app in connected schools to monitor connectivity status and troubleshoot issues in coordination with Giga as needed.
- c) Develop sustainable mechanisms that enable the Ministry of Education to continuously monitor real-time school connectivity status; and
- d) Sustainability of the initiative: Develop a sustainable mechanism for real-time mapping of school connectivity data in the long term in collaboration with the Ministry of Education and the Giga technical committee, independent of UNICEF support.

REPORTING REQUIREMENTS

To whom will the consultant report (supervisory and any other reporting/communication lines):

UNICEF Malawi Innovation Specialist (primary supervisor) and the UNICEF Malawi Education Specialist (secondary supervisor).

What type of reporting will be expected from the consultant and in what format/style will the submissions of reports/outputs be done:

- All reports will be submitted electronically.
- The required reports include 1) Inception report (that will include the workplan), 2) Monthly progress report, 3) School data collection strategy, 4) Technical documentation for the deployment and implementation of Giga monitoring app, 5) School connectivity landscape analysis report.
- Regular discussions will be held face-to-face and virtually and the consultant is expected to stay in touch via telephone, emails, and other online platforms.

How will consultant consult and deliver work and when will reporting be done:

The reporting will entail both virtual to report progress and update throughout the assignment and written documents that will be submitted by the consultants according to the agreed timeline.

EXPECTED DELIVERABLES

In alignment with the scope of work described above, the consultant will be expected to perform the following activities and deliverables per the proposed schedule and estimated dates below.

Task/Milestone	Deliverable/Outcome (e.g. Inception, progress, final reports, training material, workshop, etc.)	Estimated # of days	Planned Completion date	Estimated cost-percentage payable
Create a workplan that outlines the key tasks, action plans, timeline, potential risks, and mitigation plans.	- Workplan	15 days	27th September 2024	6%
Conduct stakeholder engagement activities	<ul style="list-style-type: none"> - ToR for Steering Committee and technical working groups. - Steering Committee is established. - Report summarizing the outcomes of the stakeholder engagement workshops. - Completed connectivity stakeholder mapping for Malawi. 	15 days	18th October 2024	7%

<p>Plan and implement the school connectivity assessment. The activity require capacity building of the data collection teams, deployment and implementation of Giga real time monitoring app, as well as traveling to different districts.</p>	<ul style="list-style-type: none"> - Data collection strategy/methodology note. - Capacity building/learning materials for data collection team. - Clean school connectivity data set suitable for analysis and uploading onto Giga Maps. - Technical documentation on deployment of the Giga real time monitoring app. - A short sustainability strategy outlines how we ensure real-time data monitoring continues actively. - Conduct training of data collectors and supervision of the data collection. - Trip reports. 	<p>117 days</p>	<p>28th March 2025</p>	<p>55%</p>
<p>Finalize the school connectivity landscape report.</p>	<ul style="list-style-type: none"> - Finalize the national school connectivity landscape report and presentation it to Giga Steering committees and the relevant stakeholders. - An excel dashboard of school connectivity initiatives in Malawi. 	<p>33 days</p>	<p>9th May 2025</p>	<p>25%</p>
<p>Ensure sustainable use of the Giga real time monitoring app as well as real time school connectivity monitoring</p>	<ul style="list-style-type: none"> - Capacity building sessions conducted for Ministry of Education and relevant stakeholders so that they can keep measuring real time school connectivity. 	<p>15 days</p>	<p>30th May 2025</p>	<p>7%</p>

However, as the actual starting date may impact the dates estimated in the TOR, a detailed workplan with exact timeframes and actual delivery dates will be jointly agreed upon between the consultant and the supervisor upon contract signature and which will be updated on a regular basis as needed.

PERFORMANCE INDICATORS FOR EVALUATION OF RESULTS

The performance of work will be evaluated based on the following indicators:

- Completion of tasks specified in Term of Reference.
- Compliance with the established deadlines for submission of deliverables
- Quality of work
- Demonstrating high standards in cooperation and communication with UNICEF and counterparts

- Adherence to UNICEF's child safeguarding policy

PAYMENT SCHEDULE

All payments, without exception, will be made upon certification from the supervisor of the contract of the satisfactory and quality completion and submission of deliverables and upon receipt of the respective and approved invoice. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant.

The consultancy cost will be based on an all-inclusive fee basis which will include all cost related to this assignment including, professional fee, travel and living cost, transportation cost (fuel, car hire, etc.), stationary, communications etc. No other costs are payable under this consultancy.

DESIRED COMPETENCIES, TECHNICAL BACKGROUND AND EXPERIENCE

Academic qualification:

- An advanced University degree in a relevant field such as Information Technology, Geographical Information Systems, data science, technology for development, economics, statistics, Computer Science and Management Information Systems.

Work experience:

- Ten years of progressively responsible professional work experience in information communication technology (ICT) industry, Telecommunications industry, tech startups, business, management consulting or a relevant field, some of which should be in an international setting.
- Experience in working with both quantitative and qualitative data, as well as geospatial data, and familiarity with government data sources (e.g., censuses, EMIS) is required.
- Familiarity with education sector and connectivity infrastructure preferred.

Technical skills and knowledge:

- Knowledge and experience in survey design, data collection, and analysis using statistical software (e.g., SPSS, STATA, R, GIS, ArcGIS, QGIS) and data collection platforms (e.g., InForm, KoboToolbox, ODK) is desired.
- Excellent interpersonal skills; culturally and socially sensitive; ability to work inclusively and collaboratively with a range of partners.
- Ability to work and adapt professionally and effectively in a challenging environment; ability to work effectively in a multicultural team of international and national personnel.
- Self-motivated, ability to work with minimum supervision; ability to work with tight deadlines.
- Affinity with or interest in internet connectivity, technology for development, and the UN System preferred.

Languages:

- Fluency in spoken and written English is required, understanding of Chichewa desired.

ADMINISTRATIVE ISSUES

UNICEF will regularly communicate with the consultant and provide feedback and guidance and necessary support so to achieve objectives of the work, as well as remain aware of any upcoming issues related to the performance and quality of work.

As per policy on consultants, the individual will be expected to complete a list of mandatory training, including policies on Prohibiting and Combatting Fraud and Corruption, Prohibition of discrimination, harassment, sexual harassment and abuse of authority and other relevant policies for their information and acknowledgement upon acceptance of the offer.

Before the issuance of the official contract, the individual consultant is requested to:

- complete the applicable mandatory trainings.
- ensure that the visa (where applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. The consultant is solely responsible for both the visa and own health insurance.
- the selected consultant is subject to confirmation of fully vaccinated status against SARS-CoV-2 (Covid-19) with a World Health Organization (WHO)-endorsed vaccine, which must be met prior to taking up the assignment. The vaccine mandate, does not apply to consultants who will work remotely and are not expected to work on or visit UNICEF premises, programme delivery locations, or directly interact with communities UNICEF works with, nor to travel to perform functions for UNICEF for the duration of their consultancy contracts.

UNICEF offers reasonable accommodation for consultants with disabilities. This may include, for example, accessible software, travel assistance for missions or personal attendants. We encourage candidates to disclose their disability during their application in case they need reasonable accommodation during the selection process and afterwards in their assignment.

Consultants must have their own equipment, tools and materials needed to perform their services. They will use their own laptops/computers, any application or system needed to complete the assignment.

The access to UNICEF email and system is restricted to UNICEF staff therefore consultants should not be granted access unless it is imperative to complete assignment. The need for email access will be determined in consultation with the contract supervisor and will require approval from management.

CONDITIONS

- The consultancy will be for a period of 9 months.
- The candidate selected will be governed by and subject to UNICEF's General Terms and Conditions for individual contracts.
- No contract may commence unless the contract is signed by both UNICEF and the consultant.
- The consultant will be based in Lilongwe and with frequent travels to the districts.
- The consultant will be paid an all-inclusive fee (professional fee, stationary, communication and other miscellaneous expenses) as per the stipulated deliverable and payment schedule.
- Under the consultancy agreements, a month is defined as 21.75 working days, and fees are prorated accordingly for actual days worked.
- The consultant is not entitled to payment for overtime, weekends, or public holidays.
- Transport will be provided to the consultant during in-country field travel, if planned and approved.
- No travel should take place without an email travel authorization from section prior to the commencement of the journey from the duty station.
- Standard UNICEF procedures will apply for invoicing and all other financial management requirements set out in the contract.
- Standard penalty clauses will also apply for late and poor-quality deliverables. The supervisor of the contract will provide the consultant with the criteria for the evaluation of the quality of each deliverable.

- Additional details of UNICEF rules, regulations and conditions will be attached to the contract.
- The consultant will not have supervisory responsibilities or authority on UNICEF budget.
- Individuals engaged under a consultancy will not be considered “staff members” under the Staff Regulations and Rules of the United Nations and UNICEF’s policies and procedures and will not be entitled to benefits provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants. Consultants are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.

HOW TO APPLY

Interested consultants should provide the following:

1. Curriculum Vitae
2. Brief technical proposal (no longer than five pages) demonstrating the consultant’s understanding of the assignment and approach/methodology to the assignment.
3. Financial proposal including a breakdown of their all-inclusive fees (including professional fees, travel, living cost, visa and other costs). Complete the attached form.



Financial
Proposal.xlsx

4. References details from at least 3 supervisors, including the current supervisor.