**TERMS OF REFERENCE FOR INDIVIDUAL CONTRACTORS/ CONSULTANTS**

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| **PART I** | | |
| Title of Assignment | Technical Support for the development of a mobile and web based remote monitoring system for the Regional Open WASH Program for Refugees and IDPs (R-WASH) in East Africa | |
| Section | ESARO WASH | |
| Location | Eastern and Southern Africa region | |
| Duration | 240 working days over a 11.5 months | |
| Start/End date | **From:14-Feb-22** | **To: 13-Jan-23** |

**Background and Justification**

The East and Horn of Africa and Great Lakes region currently hosts 4.82 million refugees and asylum seekers, the majority (over 4 million) from South Sudan, Somalia, Sudan, and Burundi. A further 10,6 million people are internally displaced in the region, as a result of conflict and natural disasters, the majority (over 10,4 million) of internally displaced persons being in Somalia, Ethiopia, South Sudan, and Sudan. These humanitarian situations has led to increased pressure on WASH infrastructure in the hosting communities. In most cases, the water supply for both the host community and the refugees/IDPs is not adequate or reliable as the sources are not well developed, the infrastructure is not well maintained, the utility companies are not well equipped, staff not well trained and there is high operational costs due to expensive and unreliable power supply.

UNICEF East and Southern Africa Regional Office (ESARO) and the UNHCR regional office in Nairobi have secured funding from KfW for the Regional WASH Program for Refugees, IDPs and Host Communities in East Africa (R-WASH), which program is designed to be implemented and expanded in phases as funds are secured. Phase 1 of the R-WASH commenced in 2021 and the programme covers 4 major refugee/IDP camps and host community locations in Kabasa and Qansaxley in Dolow Somalia, Kabribeya, Sheder and Aw-Barre in Ethiopia, Rwamwanja in Uganda and Kasalla in Sudan. Phase 2 of the R-WASH program is under consideration, and will commence in 2022, the specific locations will be selected during the inception phase of Phase 2 of the R-WASH Program.

The programme involves in CAPEX and OPEX investments to establish new reticulated urban water supply systems for the host community and refugee communities as well as City Wide Inclusive Sanitation (CWiS) interventions. The programme will also include immediate covid-19 response interventions which will be largely implemented through UNHCR.

To ensure the quality and consistency of data provided by implementing partners/vendors to the R-WASH Governance Structures which include BMZ, KfW, UNHCR, UNICEF and Host Governments, and to also ensure alignment with already developed instruments such as the Results Framework, dedicated technical support for monitoring is required to be provided within the R-WASH Programme Implementation Structure.

Additionally, due to COVID-19 travel restrictions it is proposed to develop a remote monitoring system for the results of the R-WASH program implementation, thus there will need for facilitation, co-ordination, and support to the technical working groups working on the development of the remote monitoring system.

The above programme requirements which are critical to the quality implementation of the programme are to be addressed through the engagement of an individual consultant who will be working in coordination and in support to the other members of the R-WASH Program Management Unit.

***Explain why a consultancy is required and address this question****.*

The unique skill set (Strong ICT skills, knowledge/experience in deployment of remote mobile based monitoring solutions, WASH M & E exposure) required for this assignment, are not common in regular UNICEF staff functions. In addition, this programme requires rapid deployment of the resource in order to meet the intended objectives within the allocated time frame, hence the need for a consultant.

**Scope of Work**

1. ***Goal and Objective*:** Under the supervision of the Program Manager (R-WASH), with guidance and oversight of the Regional Advisor - WASH, the consultant will provide technical support to, (i) Development of an online/remote monitoring system for the R-WASH Programme using an open source software and/or program compatible to UNICEF ICT Systems and Procedures, (ii) collecting, recording, validating, and documenting project results using the remote monitoring system, (iii) Capacitation of field teams on the use of the system and on-demand backup support.

The objectives of the assignment are to:

* To oversee the development of an online/remote monitoring system for the R-WASH Program, which should have capacity to be deployed for smart phone-based surveys for data collection and data entry, engineering work progress monitoring and with a web-based dashboard for data visualisation and analysis.

1. ***Provide details/reference to AWP areas covered:*** *Explain briefly how this assignment links to the AWP/IR number.*

UNICEF WASH programme focusses on the water supply and sanitation sector under the ROMP and the UNICEF Strategic Plan Goal Area 4.

1. ***Activities and Tasks:***

**Task 1: Development of the Remote Monitoring System for the R-WASH Program Results**

* Development and testing of an online/remote monitoring system with the capacity for mobile phone-based data collection and entry focused on the R-WASH Results Framework.
* The development of the remote system, with technical support of the R-WASH engineering consultants should also provide capacity for oversight and quality control of engineering constructions works.
* Development and testing of a web-based console which provides a clear and actionable overview of the data with capacity for visualization of the data i.e., maps, infographics, customized dashboards, etc.
* Development of procedures for collection, validation, approval, processing, presentation and use of data, with clear roles and responsibilities for specific user groups.

**Task 2: Remote Monitoring, Data Collection and Management**

* Oversee the management, and implementation of the use of the online/remote monitoring tools for data collection,
* Provide technical support to partners i.e. country level R-WASH Program Implementation Teams which include Government Ministries, and other key stakeholders on collection of data/results with reference to the R-WASH Results Framework.
* Quality assurance: validation of the data entries and facilitate for data cleaning.

**Task 3 : Facilitation for Capacitation /On -Demand Backup Support:**

* Development of training materials and user guidelines for the remote monitoring system.
* Technical support for capacitation of field teams on the use of the remote monitoring system.
* Facilitate for any technical modifications, to incorporate feedback from the field, and undertake additional trainings where needed.

**Task 4: Reporting**

* Provide technical support for reporting of R-WASH program results, through development of infographics, maps, PowerPoint presentations, etc. to illustrate the R-WASH Program Results.
* Provide technical support for the development of a website/public portal/social media pages to disseminate the R-WASH Program results.

1. ***Work relationships:***

The Consultant will be supervised by the Program Manager (R-WASH), with the guidance and oversight of the Regional Advisor - WASH.

1. ***Outputs/Deliverables:***

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| **Deliverables** | **Duration**  **(Estimated # of days or months)** | **Timeline/Deadline** | **Schedule of payment** |
| Technical Support for development of Remote Monitoring System for the R-WASH Programme | 95 days | Monthly reports, final consultancy report at completion of assignment | 40% for the deliverable, specific time inputs to be paid monthly upon receipt and approval of a monthly report |
| Monitoring, Reporting and Quality Assurance of Data Collated | 95 days | Monthly reports, final consultancy report at completion of assignment | 40% for the deliverable, specific time inputs to be paid monthly upon receipt and approval of a monthly report |
| Training/Capacitation of R-WASH Stakeholders on remote data collection | 25 days | Monthly reports, final consultancy report at completion of assignment | 10% for the deliverable, specific time inputs to be paid monthly upon receipt and approval of a monthly report |
| On demand backstopping support / including facilitation of any technical modifications to the remote monitoring system. | 25 days | Monthly reports, final consultancy report at completion of assignment | 10% for the deliverable, specific time inputs to be paid monthly upon receipt and approval of a monthly report |

**Payment Schedule**

*As per output and deliverable table above.*

*All deliverables will have to meet expected quality and standards as assessed by the supervisor of the assignment. Should the consultant fail to deliver as per expected quality and standards, UNICEF reserves the right to amend the payouts accordingly, or to delay them until satisfactory submission has been received.*

**Desired competencies, technical background, and experience**

1. **Education:** Advanced university degree (Master's or above) in Computer Sciences, Software Engineering, Information Systems Management, Monitoring and Evaluation, or a related field with specialised training in information systems.
2. A first University Degree (Bachelor's) in a relevant field combined with 3 additional years professional experience may be accepted in lieu of an Advanced University Degree.
3. **Work Experience:** A minimum of five (5) years of progressive professional work experience at the national and international levels in conceptualizing, developing remote monitoring systems in developing countries, as well as experience in programme monitoring and evaluation.
4. Exposure to and awareness to, remote monitoring mobile/web-based tools / solutions, system utilities and development tools, application software packages, information management systems and PC-based packages used in development or support of remote monitoring and evaluation.
5. Excellent analytical skills and fluency in English is required.
6. Proven ability to: (i) handle multiple tasks under pressure with short deadlines; (ii) ability to work independently, seeking guidance on complex issues; and (iii) excellent interpersonal skills, proven team orientation and the ability to work across unit boundaries
7. Developing country work experience and/or familiarity with emergency is considered an asset
8. **Languages Needed:** Full proficiency both oral and written English. Knowledge of another official UN language (Arabic, Chinese, French, Russian or Spanish) or a local language is an asset
9. Must exhibit the **UNICEF Core Values** of:
   1. Care
   2. Respect
   3. Integrity
   4. Trust
   5. Accountability
10. **Core Competencies:**
    1. Demonstrates Self Awareness and Ethical Awareness
    2. Works Collaboratively with others
    3. Builds and Maintains Partnerships
    4. Innovates and Embraces Change
    5. Thinks and Acts Strategically
    6. Drives to achieve impactful results
    7. Manages ambiguity and complexity

**Administrative issues**

The contract will be issued by UNICEF Eastern and Southern Africa regional Office (ESARO). The Focal Person for all communications is the Program Manager R-WASH. The Consultant will liaise with UNICEF for any matters regarding the contract management. The consultation will be fulltime and therefore availability during the working hours of UNICEF East and Southern African Regional Office in Nairobi (0800 – 1700 EAT) is required. The consultant will seek inputs from and regularly liaises with the Program Manager – R-WASH for all important matters related to the assignment throughout the period of its implementation, with the guidance and oversight of the Regional Advisor - WASH.

**Conditions**

* All travel (in case of any) will be by most economical fare and reimbursement will be as per UNICEF policy,
* “As per UNICEF DFAM policy, payment is made against approved deliverables. No advance payment is allowed unless in exceptional circumstances against bank guarantee, subject to a maximum of 30 per cent of the total contract value in cases where advance purchases, for example for supplies or travel, may be necessary”.
* Individuals engaged under a consultancy or individual contract 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 and Individual Contractors. Consultants and individual contractors 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.

**Risks**

No risks are foreseen for this assignment as it will be largely desktop analysis and remote working.

**How to Apply**

Qualified candidates are requested to submit a cover letter, CV, P11 form and their technical proposals to the online recruitment portal (Talent Management System) or email provided.

Interested candidates to indicate ability, availability, and rate (daily? monthly?) expressed in US$ for international or KES for national consultancy or individual contractor contract to undertake the terms of reference.

**Applications submitted without a fee/ rate will not be considered.**