

Requesting Section: WASH, UNICEF EAPRO

Title: Development of Climate Smart WASH Technology Catalogue with Modeling

1. Introduction

UNICEF regional office has recently concluded a WASH regional evaluation. The evaluation recommended a series of actions to strengthen WASH programme in the region and address WASH humanitarian challenges in the context of SDGs. Among those recommendations is the capacity to make available the existing innovative technologies and approaches to improve the WASH sector efficiencies.

Over the years, there has been many incredible innovations made in the WASH sector, some are already adopted and applied in different contexts, while others need to be tested at a larger scale to collect robust evidence. As such, COVID-19 pandemic has also resulted in a massive increase in the provision of WASH facilities with a new and an innovative way to mitigate the impact of the outbreak on the health system and affected communities.

In order to support well designed WASH response in the region, a research work needs to be conducted to provide appropriate and effective WASH solutions and define innovative WASH technical options that are reliable, easy to operate, affordable to use, and climate smart. This will also guide us on what works and push for adoption at scale.

The aim of this consultancy is to conduct existing WASH technology survey in order to identify best Climate Smart WASH technologies for Online and offline catalogue. The catalogue will be comprehensive technical review with specifications that associated gas emission data, energy efficiency for household and community choice and use. The consultancy includes components of developing appropriate classification criteria and categories on the choice of each technology, depending on weather, geographical location and the size of the population using the technology. This will lead in developing a technological modeling for WASH system of technology to be used for a specific community, township and locality.

The selected **Consultants** will be reviewing the latest WASH innovations during the past 5 years as well as during the COVID-19 pandemic in the region in the light of a rapidly changing programming landscape for delivering WASH services for urban and rural marginalized communities. For that different competencies and skills will be needed due to the complexity of the work.

2. Background

Knowledge Management (KM) is fundamental to EAPRO's operations as fulfilling the 2030 Agenda depends on our ability to provide governments and other WASH actors with knowledge and expert advice to help ensure their decisions and actions are based on the best information available and deliver the best possible outcomes for children and the poor, as efficiently as possible.

As stated in the EAPRO WASH Knowledge Management Strategy, the regional office aims to "expand its existing set of knowledge products" which capture UNICEF's organizational WASH knowledge to improve the quality, equity and sustainability of WASH services. These knowledge products will be produced on a range of priority themes for the region including equity, enabling environment, ODF, urban, and climate.

This climate Smart WASH catalogues will be among the WASH section’s flagship knowledge products to be produced for the EAP region and an important component of its knowledge management strategy. It is also demanded during the Sanitation Learning Event organized in Shanghai in December 2019 and recommended during the 2020 WASH evaluation.

Many countries in the region are in situation to have in hand key technologies options for the appropriate choices for their WASH programming.

3. Objectives, Purpose & Expected results

The main purpose of this assignment is to conduct technology survey in order to publish a Climate Smart WASH catalogue of comprehensive technical specifications with the following details:

- A. Collect innovative WASH solutions during the COVID-19 Pandemic
- B. Conduct existing WASH technology survey in order to publish a Climate Smart WASH catalogue of comprehensive technical specifications, with associated WASH climate resilient and analyze and develop appropriate classification criteria and categories on the choice of each technology.
- C. Develop technological modeling for WASH system of technology to be used for a specific community
- D. Develop user friendly online and offline platform to be used on any devises

This Climate Smart WASH catalogue will offer a unique overview of the recent new solutions in WASH sector to help people and communities to identify appropriate technologies choices for their respective countries, while highlighting challenges/gaps

4. Description of the assignment

A summary of the tasks and deliverables is provided below:

Main Tasks	Task Details	Deliverables
Collect innovative WASH solutions during the COVID-19 pandemic	<ul style="list-style-type: none"> • Desk review to collect all WASH innovation during the COVID-19 Pandemic, this will include Water, sanitation, hygiene systems and approaches 	Rapport of WASH technologies during COVID 19 based on the methodology and format agreed with UNICEF
Conduct existing WASH technology survey in order to publish a Climate Smart WASH catalogue of comprehensive technical specifications, with associated gas emission data for community choice.	<ul style="list-style-type: none"> • Desk review existing reports and other relevant materials, including online research of the WASH innovations that has been undertaken in the region for the past 5 years as well as during the COVID-19 pandemic period. • Develop appropriate classification criteria and categories them on the choice of each technology. See methodology attached • Review the existing catalogue template and adjust them to reflect each technology specification on climate related mitigation and adaptation and 	<ul style="list-style-type: none"> • Inception report including: <ul style="list-style-type: none"> - Methodology of the consultancy - Classification criteria and categories with various topics covering but not limited to handwashing, safe drinking water and safe sanitation. - Refined catalogue template. - Assessment format. - Draft modelisation methodology. - Template of the catalogue.

	<p>their use in different weather conditions.</p> <ul style="list-style-type: none"> • Conduct formal and informal consultations and meetings with a range of stakeholders, including NGOs, institutions, and private sectors. • Liaise with UNICEF country office via Skype and organize discussion on deepening cases from those COs that have implemented/piloted new technologies in various WASH innovations. 	
	<ul style="list-style-type: none"> • Analyze information gathered from the prior studies and stocktaking of the secondary sources obtained, including those from meetings, a literature review of ongoing and completed interventions and their achievements on WASH innovations. • Prepare and present PowerPoint slides summarizing the analysis. • Develop Climate smart WASH catalogue • Incorporate comments into the catalogue and PowerPoint. • Provide final version. 	<ul style="list-style-type: none"> • Draft and final Climate Smart WASH catalogue and presentation for review; it should include but not limited to different WASH technologies, sketch drawings of engineering or concept design, cost estimation, short instructions and guideline for operation and maintenance, advantages and disadvantages, potential areas of intervention in each technology. • Summary version for printing and wider dissemination.
Develop technological modeling for WASH system of technology to be used for a specific community	<ul style="list-style-type: none"> • Based on the identified technologies, develop a model that can response to Households and communities needs with appropriate gas emission effects and define mitigation measures 	<ul style="list-style-type: none"> • Modeling on Excel format
Develop user friendly online and offline platform to be used on any devises	<ul style="list-style-type: none"> • Based on the data from the catalogue, develop an online platform user friendly with good interface and easy to use 	<ul style="list-style-type: none"> • Online and Offline catalogue

The regional office is looking for a contractor to undertake these tasks. This arrangement is proposed given the multi-country scope of the assignment, the complexity of the assignments and the multiple tasks to be performed with different skills to achieve the deliverables. The scope of technology data collections includes all the countries in East Asia and Pacific.

5. Deliverables

Deliverables
<ul style="list-style-type: none"> • Inception report including: <ul style="list-style-type: none"> - Classification criteria and categories - Refined catalogue template, including table of contents, detailed
<ul style="list-style-type: none"> • WASH Climate smart catalogue and presentation; it should include but not limited to different WASH technologies, sketch drawings of engineering or concept design, cost estimation, short instructions and guideline for operation and maintenance, advantages and disadvantages, potential areas of intervention in each technology, gas emission data for each technology, and use on whether condition and Humanitarian labels • Summary version for printing and wider dissemination
<ul style="list-style-type: none"> • Excel sheet on technology modeling for community gas reduction
<ul style="list-style-type: none"> • Online and offline version

6. Work Schedule

Main Tasks	Deliverables	Timeline
Collect innovative WASH solutions during the COVID-19 pandemic	Rapport of WASH technologies during COVID- 19 outreach based of format agreed with UNICEF	31 August 2021
Conduct existing WASH technology survey in order to publish a Climate smart WASH catalogue of comprehensive technical specifications, with associated gas emission data for community choice.	<ul style="list-style-type: none"> • Inception report including: <ul style="list-style-type: none"> - Methodology of the consultancy - Classification criteria and categories with various topics covering but not limited to handwashing, safe drinking water, faecal sludge management, and water treatment. - Refined catalogue template. - Assessment format - Draft modelisation methodology - Template of the catalogue 	31 September 2021
	<ul style="list-style-type: none"> • Draft and final Climate smart WASH catalogue and presentation for review; it should include but not limited to different WASH technologies, sketch drawings of engineering or concept design, cost estimation, short instructions and guideline for operation and maintenance, advantages and disadvantages, potential areas of intervention in each technology. • Summary version for printing and wider dissemination. 	November 2021
Develop technological modeling for WASH system of technology to be used for a specific community	<ul style="list-style-type: none"> • Modeling on Excel format 	15 November 2021

Develop user friendly online and offline platform to be used on any devices	<ul style="list-style-type: none"> • Online and Offline catalogue 	30 November 2021
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7. Reporting requirements

All necessary details on specific tasks, expected deliverables and the timeframe for completion of deliverables during the contract period are provided in Section 5 & 6 above. Anticipate 120 days working days over 1 August to 31 December 2021.

8. Location and Duration

- Starting period: **1 August 2021**
- Foreseen finishing period: **30 November 2021**
- Indicative schedule of the assignment: idem as per the deliverables table above
- Timeframes are negotiable subject to discussion and agreement with the contract supervisor
- The contractor will complete the assignment in their own premises and will work closely with UNICEF team.
- No international travel is expected under this assignment.

9. Qualification requirements or Specialized skills/Experience Required:

Development of the Climate Smart WASH catalogue requires a team with a track record of substantial expertise and in depth-knowledge of the region's water and sanitation sector, therefore the team should possess following qualifications:

- Team lead should have advanced University degree in Water Engineering, Environmental Sciences, Public Health, Social Sciences or related disciplines
- Team lead should have at least 15 years of experience in the WASH sector with a proven ability of extensive and independent research work, specially of recent development and technologies in water supply, sanitation engineering and wastewater treatment technology
- Excellent analytical thinking, communication and interpersonal skills
- Proficiency in English and proven excellent writing skills in English
- The consultant must be very familiar with current developments, research, best practices in the sector

10. Evaluation process and methods

The evaluation panel will first review each response for compliance with the mandatory requirements of this RFPS. Failure to comply with any of the terms and conditions contained in this RFPS, including provision of all required information, may result in a response or proposal being disqualified from further consideration. Kindly also refer to the detailed instructions in the main LRPS document.

Each valid proposal will be assessed by an evaluation panel first on its technical merits and subsequently on its price. For this RFPS, the weight allocated to the technical proposal is 70 % (i.e. 70 out of 100 points). To be further considered for the financial evaluation a minimum score of 49 points is required. Only proposals

with a score of 49 or more points in the technical evaluation will be financially evaluated (i.e. the financial proposal will be opened). For further details and the distribution of points kindly refer to **table 1** below.

The weight allocated to the financial proposal is 30 % as per the following: the maximum number of 30 points will be allotted to the lowest technically compliant proposal. All other price proposals will receive points in inverse proportion to the lowest price. Commercial proposals should be submitted on an all-inclusive basis for providing the contracted deliverables as described in the TOR. The proposal(s) obtaining the overall highest score after adding the scores for the technical and financial proposals is the proposal that offers best value for money and will be recommended for award of the contract.

Table 1: Evaluation Criteria and distribution of points

CATEGORY	Max. points
1. Overall response <ul style="list-style-type: none"> The proposal includes a well-developed plan that demonstrates a firm understanding and experience as indicated in the TOR (10) 	10
2. Proposed team and Key Personnel <ul style="list-style-type: none"> Team members – relevant experience, skills and competencies (10) Professional expertise, knowledge and experience with similar projects, contracts, clients and consulting assignments (15) 	25
3. Proposed Methodology and Approach <ul style="list-style-type: none"> Proposed work plan and approach of implementation of the tasks as per the TOR (10) Implementation strategies, monitoring and evaluation, quality control mechanism (10) Technologies used - compatibility with UNICEF (10) Innovative approach (5) 	35
TOTAL POINTS FOR TECHNICAL PROPOSAL (min. passing score = 49 points)	70
4. FINANCIAL PROPOSAL – as per Annex C <ul style="list-style-type: none"> Full marks are allocated to the lowest priced proposal. The financial scores of the other proposals will be in inverse proportion to the lowest price. 	30
TOTAL POINTS	100

11. Administrative issues

- Bidders are requested to provide a detailed technical proposal in **Annex C** – Technical response form.
- Bidders are requested to provide a detailed cost proposal in **Annex D** – Financial response form.
- The bidder is requested to provide an all-inclusive cost in the financial proposal. The bidder is reminded to factor in all cost implications for the required service/assignment.

12. Payment Schedule

Deliverables	Payment (estimated number of days)	Dates
Inception report	20	Upon satisfactory delivery
Final Climate Smart WASH catalogue and presentation	70	Upon satisfactory delivery
Excel sheet on technology modeling for community	15	Upon satisfactory delivery
Online and offline version	15	Upon satisfactory delivery

- The payment schedule must be based on completed deliverables.
 - If the bidder wishes to propose an alternative payment schedule, it must be included in the financial proposal. The final payment schedule is to be reviewed and agreed with UNICEF.
 - Payment terms 30 days net upon receipt of approved invoice.
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