



## Terms of Reference

on

### Establishment and/or renovation of five medium/small-scale wastewater treatment plants in Kampot and Koh Kong Provinces

#### I. Position Information

Position	Wastewater Treatment Engineer
Post Level	Individual National Consultant
Report to	National Project Manager/National Team Leader
Contract Type	Individual Contractor (IC)
Duty Station	Phnom Penh, Cambodia
Expected Place of Travel	Kampot and Koh Kong Provinces, Cambodia
Assignment Duration	Output-based payment - 160 working days (expected to start in May 2025 and end the assignment in February 2028) as of fund availability

#### II. Project Description

The National Council for Sustainable Development (NCS D), Ministry of Environment (MoE), Cambodia and the United Nations Human Settlements Programme (UN-Habitat) have been successful in securing funding from the Adaptation Fund to implementing a four-year climate change adaptation project titled **“Increasing climate resilience through small-scale infrastructure investments and enhancing adaptive capacity of vulnerable communities in Kampot and Koh Kong Provinces in Cambodia.”**

The overall objective of the project is to support climate resilient and adaptive development and increase the capacity for climate variability/change adaptation of target communities living in Kampot and Koh Kong Provinces. This objective will be achieved through the following specific objectives:

- To implement concrete adaptation actions that support climate resilient infrastructure in Kampot and Koh Kong Provinces to adapt to current impacts of climate change, in particular, extreme hydro-meteorological events.
- To reduce the impacts of coastal climate hazards by recovering coastal ecosystems (Ecosystem-Based Adaptation) and minimizing related socioeconomic impacts on communities.
- To enhance institutional capacity at the provincial and local level, relevant Government entities, and communities for decision-making and management of the implementation of adaptation measures/actions to address climate change and variability in Kampot and Koh Kong Provinces.

#### **The project is structured around the following three components:**

Component 1: Increasing coping capacity by promoting climate-resilient small-scale infrastructure.

Component 2: Adapting to current impacts of climate change through recovery of coastal ecosystems, and livelihood improvement and diversification, and

Component 3: Building capacity and knowledge sharing to reduce vulnerability to climate change.

### III. Scope of Work

The **Wastewater Treatment Engineer** will work closely with the National Team Leader and under the management of the National Project Manager at NCSD to implement the project activities on time and reach the target objectives effectively under technical advice of the UN-Habitat in close coordination and communication with other stakeholders and consultants involved in the project.

Specially, the main tasks of the **Wastewater Treatment Engineer** contribute to Component 1 (Output 1.2) of the project as described below:

#### **Output 1.2. Establishment and/or renovation of five medium/small-scale wastewater treatment plants (with two in Kampot and three in Koh Kong Provinces)**

Designing the wastewater treatment plants based on the site investigation/ inspections and stakeholder consultations is essential to constructing environmentally and socially friendly wastewater treatment plants. Continuous monitoring and guidance to construction workers are also required to ensure quality assurance is aligned with the agreed designs and to implement mitigation measures to avoid or minimize possible environmental and social risks and adverse impacts through the construction works.

#### **Duties**

- Submit the inception report to outline the consultancy's scope, methodology, timeline, and deliverables as a roadmap.
- Conduct site investigations and inspections including field assessment and stakeholder consultations to identify the target construction sites, potential environmental and social risks and adverse impacts, and possible mitigation measures in Kampot and Koh Kon Provinces.
- Prepare a site investigation and inspection report, while providing feedback to include the identified knowledge/practical gaps in the capacity-building activities under Output 3.3.
- Prepare design and Bill of Quantity (BoQ) for five medium/small-scale wastewater treatment plants (floating wetlands and subsurface flow constructed wetland and household treatment system in Kampot, and single household treatment system and natural catchment improvements in Koh Kong) based on the site investigations and inspections.
- Support the project team to ensure the smooth implementation of bidding by providing technical inputs in both provinces
- Prepare the technical monitoring manual.
- Monitor the works that are executed by the construction contractors on a regular and timely basis and ensure that all the works are executed as per the technical specifications and in consonance with the project schedule.
- Monitor and check the quality control and quantity measurements of the works, while ensuring the construction with the Adaptation Fund's environmental and social safeguards principles.
- Prepare regular monitoring reports including construction problems, delays, and grievances, and recommend expediting progress if the works fall behind schedule.
- Develop a case study, lessons learned on wastewater treatment plant establishment and/or renovation.
- Prepare the whole output completion report including the "as-built drawing".

### IV. Expected Deliverables

Specific deliverables in sequence, corresponding to the work and their corresponding target delivery dates are presented in the table below.

Deliverable	Man-days	Target Due Dates	Review and Approve Required
<i>May – December 2025</i>			

<b>Deliverable 1:</b> Inception report outlining the consultancy's scope, methodology, and timeline for deliverables;	05 days	15 <sup>th</sup> May 2025	Project Manager and National Team Leader
<b>Deliverable 2:</b> Report that summarizes the result of the site investigation and inspections;	10 days	30 <sup>th</sup> June 2025	Project Manager and National Team Leader
<b>Deliverable 3:</b> Submit designs and BoQ for five medium-small-scale wastewater treatment plants	10 days	30 <sup>th</sup> October 2025	Project Manager and National Team Leader
<b>Deliverable 4:</b> Submit the necessary documents for bidding.	10 days	30 <sup>th</sup> November 2025	Project Manager and National Team Leader
<b>January – December 2026</b>			
<b>Deliverable 5:</b> Submit regular monitoring reports and provide technical guidance until the completion of floating wetlands instalment in Kampot City.	30 days	31 <sup>st</sup> May 2026	Project Manager and National Team Leader
<b>January – December 2027</b>			
<b>Deliverable 6:</b> Submit monitoring reports and provide regular technical guidance to construction contractors related to four remaining wastewater treatment plants.	85 days	31 <sup>st</sup> May 2027	Project Manager and National Team Leader
<b>January – December 2028</b>			
<b>Deliverable 7:</b> Submit an output completion report including a case study, and lessons learnt on wastewater treatment plant establishment and/or renovation.	10 days	28 <sup>th</sup> February 2028	Project Manager and National Team Leader
<b>Total Number of Days</b>	<b>160 Days</b>		

## V. Duration of Work

Working closely with the National Team Leader and under the management of the National Project Manager at NCSD, and the technical advice of UN-Habitat team, the **Wastewater Treatment Engineer** will have 160 working-days over the project period from May 2025 to December 2026.

## V. Duty Station

The **Wastewater Treatment Engineer** will be home-based, subject to go to or participate in relevant meetings in Phnom Penh or at NCSD/MoE as requested by the project team and expect to travel to target provinces. The project will cover transportation costs and DSA for related assignments in the field based on government regulations.

## VI. Minimum Qualifications

The **Wastewater Treatment Engineer** shall have the following qualifications:

Education:	High-level degree (Master's or equivalent) in engineering, climate change; environmental sciences; or related fields;
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Experience and skills:	<ul style="list-style-type: none"> <li>- A minimum of five years of professional practical experience in the field of waste management and wastewater management-related engineering, or a related field;</li> <li>- Experience working in technical assessment, designing, and monitoring of wastewater treatment plants;</li> <li>- Similar experiences with wastewater treatment plant design and technical monitoring with NCSD/MoE on any climate change projects is preferable.</li> <li>- Good communication and writing skills in Khmer and English;</li> <li>- Good experience in multi-stakeholder coordination;</li> </ul>	
Language Requirements:	Excellent command of Khmer and English (both spoken and written)	