



Terms of Reference

on

Clear drainage systems, large canals, renovate waterways and establish filter nets on the outlet of canals for saltwater intrusion prevention and to capture waste from discharging to the sea in Krong Khemara Phoumin.

I. Position Information

Position	Waterways Renovation 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 - 88 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 **Waterways Renovation Engineer** will work closely with the National Team Leader and under the management of the National Project Manager at NCSA 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 **Waterways Renovation Engineer** contribute to Component 1 (Output 1.2) of the project as described below:

Output 1.3. Clear drainage systems, large canals, renovate waterways and establish filter nets on the outlet of canals for saltwater intrusion prevention and to capture waste from discharging to the sea in Krong Khemara Phoumin.

To clean the watercourses and capture solid waste to reduce the amount of it that goes into the sea without any environmental and social adverse impacts, appropriate clearing processes of watercourses and the establishment of eco-friendly and sustainable trash filter nets should be identified based on the pre-investigation and research on the ground. Continuous monitoring and guidance to interventions 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 pre-investigation and research 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 Krong Khemara Phoumin.
- Prepare a report by summarizing the pre-investigation and research results, while providing feedback to include the identified knowledge/practical gaps in the capacity-building activities under Output 3.3.
- Prepare a Bill of Quantity (BoQ) for clearing watercourses including location maps based on the site investigations and inspections.
- Identify suitable eco-friendly and resilient trash filter nets and prepare a Bill of Quantity (BoQ) including location maps based on the site investigations and inspections.
- Support the project team to ensure the smooth implementation of bidding by providing technical inputs
- Prepare the technical monitoring manual.
- Identify the suitable location to accumulate the excavated waste by ensuring compliance with the Adaptation Fund's Environmental and Social Principles.
- 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 problems, delays, and grievances, and recommend expediting progress if the works fall behind schedule.
- Develop a case study, lessons learned on waterway clearing and trash filter net establishment.
- Prepare the whole output completion report including location maps.

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
May – December 2025			
Deliverable 1: Inception report outlining the consultancy's scope, methodology, and timeline for deliverables;	05 days	15 th May 2025	Project Manager and National Team Leader
Deliverable 2: Report that summarizes the result of the pre-investigation and research;	10 days	30 th June 2025	Project Manager and National Team Leader
Deliverable 4: Submit the necessary documents for bidding.	10 days	30 th November 2025	Project Manager and National Team Leader
January – December 2026			
Deliverable 5: Identify the suitable location to accumulate the excavated waste by ensuring compliance with the Adaptation Fund's Environmental and Social Principles.	13 days	31 st January 2026	Project Manager and National Team Leader
January – December 2027			
Deliverable 6: Submit monitoring reports and provide regular guidance to the contractor on the watercourse clearing and trash nets establishment.	40 days	31 st May 2027	Project Manager and National Team Leader
January – February 2028			
Deliverable 7: Submit an output completion report including a case study, and lessons learnt on watercourse clearing and trash filter nets establishment.	10 days	28 th February 2028	Project Manager and National Team Leader
Total Number of Days	88 Days		

V. Duration of Work

Working closely with the National Team Leader and under the management of the National Project Manager at NCS D, and the technical advice of UN-Habitat team, the **Waterways Renovation Engineer** will have 88 working days over the project period from May 2025 to December 2026.

V. Duty Station

The **Waterways Renovation Engineer** will be home-based, subject to go to or participate in relevant meetings in Phnom Penh or at NCS D/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 **Waterways Renovation Engineer** shall have the following qualifications:

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