

Terms of Reference [National consultant Environmental Health]

Contract modality: Consultant contract or Individual Contractor

Section: Health and Nutrition

Duty station: [Phnom Penh, Cambodia] , home-based , or hybrid

Duration: [8 months, from July 11, 2022 to March 10, 2023]

1. Background

Clean air, water, plants and food are important for health and wellbeing. However, globalization and climate change has increased environmental health risks and hazards related to air pollution, build environments (housing, workplace, and roads), agricultural methods and ecosystem changes. UNICEF's 2021 'The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index' report ranked Cambodia as the 46th country in the world where children are most at risk to the impacts of climate change through exposure to factors such as water scarcity, riverine and coastal flood risks, tropical cyclone, heatwaves and vector-borne diseases. There are also vulnerabilities in areas such as child health and nutrition, education, water, sanitation and poverty. Recent estimates and global reports have highlighted concerning environmental health risks to children in Cambodia, particularly with regards to lead exposure and household air pollution.

The Toxic Truth report by UNICEF and Pure Earth noted that lead is a potent neurotoxin that causes irreversible damage to the brains of infants and young children. The neurological damage from lead can cause learning problems, poor academic achievements and diminished lifetime earning potential. Childhood lead exposure has also been linked to mental health and behavioural problems and is also associated with non-communicable diseases in adulthood. Such environmental health impacts undermine the progress that countries have made to reduce child mortality, morbidity and malnutrition. It is clear from evidence compiled that lead poisoning is a much greater threat to the health of children than previously understood. Although much more research needs to be conducted, enough data has recently emerged for decisive action to begin.

Cambodia has made notable achievements in reducing mortality in children under 5. Between 1990 to 2019, under 5 mortality rate decreased from 120 per 1,000 live births to 31 per 1,000 live birth, and infant mortality from 88 per 1,000 live births to 27 per 1,000 live births. The social and economic transition in Cambodia over the past decade has brought with it a shift in the profile of the burden of disease experienced across the population. Targeted disease programmes addressing malaria, HIV and tuberculosis have reduced deaths dramatically, together with the common infectious diseases that underpin neonatal deaths. Those downward trends in communicable diseases continue. However, non-communicable diseases now represent six of the 10 most common causes of death given increasing risks related to factors including, lifestyle changes and the environment.

Cambodia is among the countries in Southeast Asia that ranked the highest on three environmental risk factors—ambient pollution, indoor pollution and lead exposure. In Cambodia, the number of children with elevated blood lead levels (BLLs) above 5 ug/dL is 3,171,259 children (more than 50% of children under 18 in Cambodia). Regarding the impact on the population, Cambodia's estimated Disability-Adjusted Life Years (DALYs) of lead exposure is 40.89 per 100,000, which is the highest in the Southeast Asia region. For household air pollution, Cambodia's DALYs is 2422 per 100,000, which is the third highest in the region. Past studies, 2018 and earlier, showed concerning levels of mineral and metal contamination, such as arsenic in groundwater and rice. Cambodia's high environmental burden of disease, coupled with the socioeconomic impact of the ongoing pandemic, threatens to undermine child health development gains of the past decade, including impacting learning outcomes and urgent action is needed.

To date, there has been no recent country level assessment or study conducted on environmental health risks in Cambodia, beyond those mainly related to water, sanitation, and hygiene. A UNICEF report on

Cambodia's country profile on children's health and environment in 2018 had shown that increased pesticides use could be linked to some childhood cancer (e.g., acute lymphoid leukemia) and past studies from several years ago by different institutions, have documented concerning levels of toxic minerals and metals in water and food.

There is interest by the Government of Cambodia, including Ministries of Health and Environment to have any updated country situation analysis to ensure adequate policy action to assess most current environmental health issues and burden of disease, following the recent concerning global estimates. A country assessment is urgently needed to better understand context-specific issues, underlying causes and populations most impacted, in order to determine appropriate policy actions.

2. Purpose

The purpose of this consultancy is to support the Government in identifying environmental health policy priorities, through strengthened evidence generation and partner coordination. The scope of the consultancy would include supporting the Government to carry out an in-depth country assessment on a range of environmental hazards and risk factors, and their impact on children in Cambodia, including local research and studies as needed and facilitating stakeholder consultations. The consultant will work in the UNICEF Health team.

3. Work Assignment

The scope of the consultancy includes:

- 1) Work closely with relevant departments of the Ministry of Health (e.g Department of Preventative Medicine, National Maternal and Child Health Centre), Ministry of Environment, and relevant national institutions and research bodies, in designing and carrying out an in-depth country assessment on a range of environmental hazards and risk factors to child health, including air pollution, toxic metals and chemical, e-waste, pesticides, and other key pollutants. This includes desk review of existing data, conducting stakeholder consultations and a landscaping exercise, managing service contracts (such as companies to conduct research) where needed, supporting data collection, analysis and report writing.
- 2) Support Government in partner and stakeholder coordination on environmental health issues, including technical support to the organisation and documentation of meetings and workshops. This includes supporting evidence-based advocacy and facilitating national and sub-national stakeholder meetings and seminars with experts, program focal persons from various organisations and Ministries as required.
- 3) Support Government to conduct a training assessment and develop a plan to provide health workers and managers on training related to environmental health. This includes identifying training priorities, entry points to integrate into current health worker training curriculums, etc. The consultant will also help develop training materials and tools for health service providers, adapting from global tools available as relevant.
- 4) Support communications and awareness on environmental health issues affecting children, in collaboration with UNICEF Communications and WASH/climate change teams, including technical support to the integration of messages and materials into national planned campaigns, building upon HEHC materials that UNICEF have developed globally.

4. Child Safeguarding

Is this project/assignment considered as "[Elevated Risk Role](#)" from a child safeguarding perspective?

YES NO

If YES, check all that apply:

- **Direct contact role** YES NO

If yes, please indicate the number of hours/months of direct interpersonal contact with children, or work in their immediately physical proximity, with limited supervision by a more senior member of personnel:

The Consultant is not expected to have a direct contact with children alone.

- **Child data role** YES NO

If yes, please indicate the number of hours/months of manipulating or transmitting personal-identifiable information of children (name, national ID, location data, photos):

Depending on the nature of studies required, the consultant may need to handle demographic and biochemical data on children. This may include two months of data analysis and management.

5. Qualifications or Specialized Knowledge/Experience Required

Qualifications and Experience

- PhD, Masters or post-graduate degree in Environmental Health, Public Health, Medical Sciences, Epidemiology, Health research or any other related disciplines
- Minimum 5 years work experience in the areas of public health, environmental health
- Demonstrated experience in design of studies and assessments, and conducting research related to the environment, environmental health, child's health, pollutants and/or toxic metals.
- Experience in capacity building, training and/or facilitation an asset

Knowledge and Skills

- Knowledge of research, monitoring, and evaluation methods, both quantitative and qualitative, and statistical methods and software
- Understanding of public health systems and policies related to environment and health in Cambodia
- Excellent Communication and Presentation skills

Competencies

- Driving results for impact
- Working collaboratively with others
- Managing ambiguity and complexity
- Building and maintaining partnerships

Languages

- Fluent in Khmer and English (both oral and written), fluency in an ethnic minority language is an asset.

6. Location

The individual consultant or contractor is expected to be based in Phnom Penh, Cambodia, working in the UNICEF office and/or at home, as per the workplan with the UNICEF health team and availability of access and space in the office. In-country travel to the field is expected to be at least about 15 days. The specific provinces/location for travel will be determined at a later time in consultation with Government.

7. Duration

This consultancy comprises an expected 120 days of work between 11 July 2022 and 10 March 2023.

8. Deliverables

| <i>Deliverables and descriptions</i> | <i>Estimated number of working days</i> | <i>Due date</i> |
|--|---|-----------------|
| 1. Country assessment plan, including the local studies and research developed, and relevant service contracts issued. | 30 days | 31-Aug-2022 |
| 2. At least one national advocacy workshop conducted and at least four stakeholder coordination meetings held | 15 days | 30-Sep-2022 |
| 3. Training assessment completed with training materials and tools adapted and developed | 25 days | 31-Oct-2022 |
| 4. Desk review and landscaping exercise completed with report and annexes | 40 days | 31-Dec-2022 |
| 5. HEHC communication content and materials integrated into national climate change campaign | 10 days | 10-Mar-2023 |
| TOTAL | 120 days | |

9. Reporting Requirements

Below is the list of reports to be prepared during the assignment, the reports can be submitted electronically through email. Language requirements in English and Khmer are specified below:

- Monthly Progress Reports (submitted at the end of each month to supervisor, not more than 5 pages). Monthly reports should summarise key activities completed, identify any challenges and possible solutions, and include field visit mission reports where relevant. In English.
- Minutes of Meetings and Workshops within two days following the event (submitted at the end of each month to supervisor). In English. No more than 5 pages.
- Presentation materials as relevant for workshops and meetings, based on discussion with UNICEF and Government focal persons – In English and Khmer.
- Technical Reports related to the Country Assessment plan, desk review and landscaping exercise. Design, format and methods to be decided in discussion with UNICEF, Government and key stakeholders. In English and Khmer. Expected to be 10-30 pages depending on analysis and findings.
- Training assessment report and package of training materials and tools – In English and Khmer.
- Adapted communication content and materials on environmental health – In English and Khmer.

10. Payment Schedule linked to deliverables

- 30% upon satisfactory completion of deliverable 1
- 10% upon satisfactory completion of deliverable 2
- 20% upon satisfactory completion of deliverable 3
- 30% upon satisfactory completion of deliverable 4
- 10% upon satisfactory completion of deliverable 5

** The fees shall be calculated based on the days estimated to complete the assignment in the Terms of Reference and shall be considered the maximum compensation as part of a lump sum contract and agreed on a work plan for submission of deliverables. No additional fees shall be paid to complete the assignment.*

Payment will be made upon delivery of all final products and full and satisfactory completion of the assignment.

11. Administrative Issues

The consultant must have their own laptop for use. UNICEF will not provide a laptop to the consultant to conduct the work assignment. However, consultant will have access to a table at the office, stationaries and printer. Consultant can work from the UNICEF office and/or home, based on agreed workplan with the UNICEF team.

The consultant is expected to travel in the country for a total of 15 days, exact location to be determined. Consultant should budget for 15 days field travel. Costs for accommodation, meals and incidentals shall not exceed applicable daily subsistence allowance (DSA) rates, as promulgated by the International Civil Service Commission (ICSC). In-country travel to complete the assignment must be clearly identified and budgeted. Consultants shall be required to include the cost of in-country travel in the financial proposal.

12. Contract supervisor

This consultancy reports to the NOC Health Specialist in the UNICEF Cambodia office in Phnom Penh

13. Nature of 'Penalty Clause' to be Stipulated in Contract

Unsatisfactory performance: In case of unsatisfactory performance the contract will be terminated by notification letter sent five (5) business days prior to the termination date in the case of contracts for a total period of less than two (2) months, and ten (10) business days prior to the termination date in the case of contracts for a longer period.

Performance indicators: Consultants' performance will be evaluated against the following criteria: timeliness, quality, and relevance/feasibility of recommendations for UNICEF Cambodia.

14. Submission of applications

Interested candidates are kindly requested to apply in [\[link\]](#) and upload the following documents:

- Letter of Interest (cover letter)
- CV or Resume
- Performance evaluation reports or references of similar consultancy assignments (if available)
- Financial proposal: All-inclusive lump-sum cost including:
 - Consultancy daily/monthly fee
 - In-country travel for 15 days, per-diem to cover lodging, meals and any other cost associated to take over the full assignment
 - Medical insurance (health and accidental death, medical evacuation) for the entire duration of the contract.

15. Assessment Criteria

A two-stage procedure shall be utilised in evaluating proposals, where the evaluation of the technical proposal will be completed prior to any price proposal being reviewed and compared. The Cumulative Analysis Method (weight combined score method) will be used for evaluation and selection in this process.

The Contract shall be awarded to candidate obtaining the highest combined technical and financial scores, subject to the satisfactory result of the verification interview and reference checks.

a) Technical Qualification (max. 100 points): weight 70 %

- PhD, Masters or post-graduate degree in Environmental Health, Public Health, Medical Sciences, Epidemiology, Health research or any other related disciplines (25 points)
- Knowledge of research, monitoring, and evaluation methods, both quantitative and qualitative, and statistical methods and software (20 points)
- Demonstrated past experience in design of studies and assessments, and conducting research related to the environment, environmental health, child's health, pollutants and/or toxic metals. (35 points)
- Quality of past work (e.g past studies, assessments, study design and reports on research topics relevant to environmental health) (20 points)

b) Financial Proposal (max. 100 points): weight 30 %. The maximum number of points shall be allotted to the lowest Financial Proposal that is opened /evaluated and compared among those technical qualified candidates who have attained a minimum 70 points score in the technical evaluation. Other Financial Proposals will receive points in inverse proportion to the lowest price.