

TERMS OF REFERENCE Individual Contractor

1. Assignment Information

Assignment Title:	National Consultant for Regional Research on COVID-19 Medical Waste Management
Cluster/Project:	Learning from China's Experience to Improve the Ability of Response to COVID-19 in Asia and the Pacific Region (Medical Waste Management)
Post Level:	Specialist
Contract Type:	Individual Contractor (IC)
Duty Station:	Cambodia
Expected Place of Travel:	Phnom Penh
Contract Duration:	25 days (7 th February – 31 st May 2022)

2. Project Description

COVID-19, with its highly contagious and transmissible nature, has led to the exponential increase of healthcare waste generated in healthcare and quarantine facilities, medical laboratories and biomedical research facilities. Additionally, the increase in the amount of personal protective equipment (PPE) used during the COVID-19 pandemic, compared to normal circumstances, has further contributed towards the increase in healthcare solid waste. For example, recent research estimated that every minute 3 million facial masks are thrown away globally¹ and in some cities in the Asia and the Pacific the volume of medical waste has been increased by 500% on average compared with before COVID-19 figures.²

If not properly treated and managed, such large amount of waste will pose serious risks of disease transmission to waste pickers, waste workers, health workers, patients, and the community in general through exposure to infectious agents. In addition, unmanaged or poor-managed waste will also cause pollution and create new environmental risks.

COVID-19 has put significant additional burden on all phases of medical waste management systems, from segregation, collection, storage, transportation, treatment to final disposal. In light of the serious issue, international organizations such as WHO have developed a series of guidelines to support the countries manage healthcare waste resulting from the current pandemic. Many countries have also formulated policies, plans and SOPs on COVID-19 medical waste management at national and local levels. However, institutional and capacity gaps continue to persist, such as shortage of waste treatment equipment and facilities, lack of technologies for safe transportation and disposal, lack of professional workers and expertise for safe operations and the need for awareness-raising and behavioral changes towards better management of COVID medical waste etc.

UNDP, in partnership with the Government of China, is undertaking a regional project to support COVID-19 medical waste management capacity building in 5 countries: Cambodia, Laos, Myanmar, Nepal and Philippines. Under the project, the Disaster Risk Reduction and Resilience Building Team at UNDP Bangkok Regional Hub (BRH), in collaboration with Country Offices in the project countries, aims to

¹ Elvis Genbo Xu, Zhiyong Jason Ren. *Preventing masks from becoming the next plastic problem*. *Frontiers of Environmental Science & Engineering*, 2021, 15(6): 125

² ADB. [Managing Infectious Medical Waste during the COVID-19 Pandemic](#), 2020.

conduct a series of research to better understand the most pressing issues of medical waste management in 5 project countries through the systems approach, fostering changes in mindset, perceptions, behaviors and actions, towards more systematic and risk-informed medical waste management practices.

The research will take a phased approach, with baseline and benchmarking assessment as the initial step to map out the pinpoints that call for most attention and efforts of interventions, accompanied by a systems thinking workshop (either virtual or virtual/physical hybrid) for each country to facilitate systems thinking and design among stakeholders supervising or working on multiple medical waste management stages. Based on the findings of baseline and benchmarking assessment, a research and experimentation will be conducted by applying behavioral insights (BI) to nudge for better changes in COVID medical waste management.

UNDP BRH DRT is hiring a Cambodian national consultant to support 1) an international consultant working on Health Care Waste (HCW) baseline and benchmarking assessment, and 2) an international consultant working on HCW behavioral insights, in terms of in-country data collection, stakeholder coordination and other research-related activities in close coordination with UNDP Cambodia.

3. Detail Scope of Work

UNDP BRH DRT and in close coordination with UNDP Cambodia is looking for a Cambodian Expert/Specialist, National Consultant, to work alongside with an International Consultants to jointly deliver the below roles and responsibilities:

- Supporting the international consultant on baseline and benchmarking assessment to collect relevant data and statistics of Cambodia, including coordinating and organizing focus group discussions, stakeholder interviews, questionnaires and consultations etc.;
- Supporting the international consultant on baseline and benchmarking assessment to organize 1 systems thinking workshop with key stakeholders in Cambodia, such as government officials, professionals and practitioners of multiple HCW management stages to communicate the research results and facilitate system thinking on the causal dynamics and feedback loops within and between medical waste management stages for more coordinated, coherent and systematic future design and action;
- Supporting the international consultant on HCW behavioral insights to design and implement the behavioral experiment, including collecting relevant data and coordinating stakeholder meetings, experiment activities etc.;
- Supporting the communications of the research in the country, including preparing communications material and products (photos, videos, newsletters, tweets, blogs etc.)
- Any other tasks as assigned by UNDP BRH DRT and International Consultants.

4. Expected Outputs and Deliverables

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

Deliverables/Outputs	Estimated Duration to Complete	Target Due Dates	Review and Approve Required
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1. Output 1: Support provided to the development of 1 baseline and benchmarking assessment report in terms of in-country data collection, stakeholders coordination, organizing consultation meetings and other necessary research activities;	10 days	25 March 2022	UNDP BRH DRT
2. Output 2: Support provided to the organization of 1 systems thinking workshop in Cambodia;	2 days	20 April 2022	
3. Output 3: Support provided to the design, implementation and results documentation of 1 behavioral insights experiment in Cambodia in terms of in-country data collection, stakeholders coordination, organizing briefings and consultation meetings and other related activities;	10 days	15 May 2022	
4. Output 4: Relevant communications materials and products.	3 days	15 May 2022	
Total # of Days:	25 days		

5. Institutional Arrangement

The Consultant will work under direct supervision of Team Leader, UNDP BRH DRT. He/She will also work closely with other two international consultants being recruited by UNDP BRH DRT and UNDP Cambodia. The deliverables will be reviewed and approved by UNDP BRH DRT and UNDP Cambodia will proceed the payment upon satisfactory confirmation of outputs by UNDP BRH DRT.

6. Duration of the Work

This assignment will start on 07 February 2022 and complete on 31 May 2022, for 25 working days. A more detailed work plan of the assignment will be further elaborated by the selected consultant and in collaboration with UNDP BRH DRT and UNDP Cambodia.

7. Duty Station

The duty station of the work is in Cambodia. The consultant may be expected to travel to cities/provinces as deemed necessary to perform the assigned tasks and relevant travel expenses will be reimbursed separately by UNDP BRH DRT in accordance with UNDP policies.

8. Minimum Qualifications of the Individual Contractor

Education:	Bachelor's Degree or above in public administration, international relations, political science, development studies, medical science, environmental science, public health, medical waste management, or relevant.
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Experience:	<ul style="list-style-type: none"> • Minimum five years of experience working with relevant public sectors, research institutions, medical waste management agencies or development partners; • Proven experience and knowledge of medical waste management in the COVID-19 context; • Proven experience and knowledge of existing medical waste management system and challenges in Cambodia.
Competencies:	<ul style="list-style-type: none"> • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability; • Displays integrity and fairness - embodies UN values and promotes the well-being of all individuals regardless of gender, religion, race, nationality, or age; • Results-driven, initiative-taking, ability to work under pressure and to meet deadlines; • Ability to work under minimum supervision; • Highly motivated with a positive attitude and problem-solving approach; • Good interpersonal and networking skills, supports and encourages open communication.
Language Requirement:	Fluency in English and Khmer language (spoken and written)

9. Criteria for Evaluation of Level of Technical Compliance of Individual Contractor

Technical Evaluation Criteria	Obtainable Score
Bachelor's degree (or equivalent) in environment, public health, environmental health, waste management, or other relevant fields, healthcare system, or environment;	20
Demonstrate strong knowledge of solid waste/water waste management system; knowledge of waste management in healthcare facilities is a plus;	30
Proven records of experience working in minimum 1 project on medical waste management in the COVID-19 context	20
Proven records of experience working in minimum 1 project related to existing medical waste management system and challenges in Cambodia	20
Experience in working with government institutions particularly with health facilities is an asset;	10
Total Obtainable Score:	100

10. Payment Milestones

The method of payment is output-based scheme. The payments shall be released upon satisfactory submission of the required deliverables by or before the due dates, or as otherwise agreed with UNDP Cambodia.

The required review time is between two to four weeks after submission of the deliverables.

In the event of unforeseeable travel not anticipated in this ToR, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and the Individual Consultant, prior to travel and will be reimbursed at actual documented cost.

N	Outputs/Deliveries	Payment Schedule	Payment Amount
1	Upon satisfactory completion of output #1	25 th March 2022	30%
2	Upon satisfactory completion of output #2 and #3	15 th May 2022	30%
3	Upon satisfactory completion of output #4	31 st May 2022	40%