

TERMS OF REFERENCE

1. Assignment Information

Assignment Title:	International Consultant – Economic Impacts of Climate Information and Early Warning System in Cambodia
Cluster/Project:	Programme Unit, Early Warning System
Post Level:	International Specialist
Contract Type:	Individual Contractor (IC)
Duty Station:	Home-based with mission to Phnom Penh, Cambodia
Contract Duration:	30 days from 15 August to 30 September 2019
Start date	15 August 2019

2. Background

Cambodia is facing mounting development challenges due to climate change. The observed longer dry seasons and shorter, more intense rainy seasons have become a common observation in Cambodia. In addition, climate change exacerbates the frequency and severity of natural hazards (such as floods and droughts), as well as impacts the agricultural production which is dependent on seasonal rainfall. Recovery from such events puts strain on the least developed country's limited resources and forces shifts in development priorities - hindering Cambodia's ability to progress and to achieve its development goals.

The Early Warning System (EWS) is one of the priorities of the Royal Government of Cambodia's (RGC). The purpose of an EWS is to monitor climate and environmental data on a real-time basis, detect adverse trends and conduct reliable predictions of possible impacts in the form of early warning information. An early warning therefore refers not only to advisories in emergency situations, but also to information related to the changing climatic trends revealed after tracking and analysing climate and weather data over time. An effective EWS would thus enable timely response to natural hazards and extreme weather events, to support the implementation of the risk-informed development.

The project "Strengthening climate information and early warning systems in Cambodia to support climate resilient development and adaptation to climate change" (henceforth "the EWS project") is being implemented to assist the Government in achieving the early warning system gaps and challenges in the country. The project seeks to address the current barriers through three complementary outcomes:

1. Increased institutional capacity to assimilate and forecast weather, hydrological, climate and environmental information.
2. Climate and weather information available and utilized for national, sectoral and sub-national planning as well as for transboundary communication in the region.
3. Strengthened institutional capacity to operate and maintain EWS and climate information infrastructure, both software and hardware, to monitor weather and climate change.

To meet the above three outcomes, the project ensures and increases the availability of hydrological and meteorological data through installation of automatic weather and hydro stations in Cambodia for climate analysis. Various application of climate analysis is also implemented, including implementation of climate change adaptation through local-level drought mitigation.

The operationalization and maintenance of the installed automatic weather and hydro stations in Cambodia is ensuring the long-term functionality and availability of climate data. The sustainability of climate data would require an assurance of regular budget allocation after the project implementation period. Various ways will be thus be explored on this undertaking, including exploring the engagement of private sectors in utilizing the climate data provided by EWS project.

3. Scope of Work

The main purpose of this assignment is to assess the economic impacts of Climate Information and Early Warning

System in Cambodia, building an evidence on the costs and benefits of climate information and early warning system. While there is no doubt that effective and reliable early warning system have significantly reduced mortality and be a pathway for sustainable development, a case on its economic impact in Cambodia is needed to be assessed.

The results of the review will be used as an evidence for proposing regular budget for maintenance and operationalization of the existing climate infrastructures in the country (automatic weather stations and automatic hydrological stations), to help the project's government counterpart (mainly Ministry of Water Resources and Meteorology).

The expected output of this assignment is a document detailing the economic impact assessment from the climate information / early warning system in Cambodia, through:

1. Carrying out a desktop study on productive sectors in Cambodia that potentially have association with climate information / climate data and/or early warning.
2. Carrying out a study on the relevance of climate information / climate data / early warning system to key sectors in Cambodia.
3. Carrying out interviews with key / related government institutions (to be identified by the consultant and list to be reflected in the methodology).
4. Incorporating the comments from the relevant / identified stakeholders as well as UNDP Cambodia of the deliverables and updating the draft based on the comments.
5. Presentation of findings to the stakeholders (to be organized by UNDP Cambodia)

4. Expected Outputs and Deliverables

Deliverables/Outputs	Estimated Duration to Complete	Target Due Dates
Deliverable 1: Submission of workplan / methodology	1 day	15 August 2019
Deliverable 2: Submission of a report on productive sectors in Cambodia that potentially have association with climate information / climate data and/or early warning.	9 day	28 August 2019
Deliverable 3: Submission of a report on the relevance of climate information / climate data / early warning system to key sectors in Cambodia.	10 days	13 September 2019
Deliverable 4: Submission of a report on economic impact assessment of climate information / climate data / early warning system in Cambodia.	10 days	30 September 2019
Total working days	30 days	

5. Institutional Arrangement

UNDP will review each output and shall provide quality assurance on all outputs produced by the consultant. This consultancy will be performed under the direct supervision of the Project Manager, Early Warning System, UNDP Cambodia, with an oversight of UNDP's Programme Analyst and ACD/Programme Team Leader.

Role of the consultant

- The consultant is responsible to provide his/her technical expertise to produce the expected outputs;
- The consultant shall identify the key stakeholders to be interviewed (including ministries), linked to the objective of assessing economic impact study;
- The consultant shall arrange transportation for his/her mobility in Phnom Penh. For this assignment, field visits outside Phnom Penh are not foreseen.
- The consultant shall report on and submit the above deliverables under this assignment to the assigned person, acting as the focal point of UNDP Cambodia;
- The consultant needs to maintain daily communication with the UNDP project focal person as and when problems emerge during the consultancy period, especially if they affect the scope of the job.

Role of UNDP focal person/team

- The UNDP programme unit will link the consultant to related Ministries for this assignment;
- The UNDP programme unit will provide overall quality assurance for this consultancy;
- The UNDP programme unit will review deliverables for payment release;
- UNDP focal person will act as the focal person to interact with the consultant to facilitate the assignment, to facilitate the field mission, to facilitate the review of each outputs and ensure the timely generation of the comments from stakeholders on each output.

6. Duration of the Work and Duty Station

The consultant will work for 30 working days over the period of 15 August to 30 September 2019.

7. Duty Station

This position is home based with mission to Phnom Penh / Cambodia for 10 days.

8. Minimum Qualifications of the Individual Contractor

Education:	Advanced university degree (Master's degree or equivalent) in development, international commerce, business social responsibility, business development, economics, finance or related area.
Experience:	<ul style="list-style-type: none">▪ Five years of experience in working with the private as well as public sector in Asian region, or demonstrated experience in conducting similar economic impact assessment;▪ Knowledge in economic impact assessment of climate information / early warning / disaster risk reduction and the work of United Nations, particularly of UNDP;▪ Experiences in undertaking consultation processes, liaison with different stakeholder groups such as national government as well as international and regional organizations;▪ Good understanding of developing countries context, particularly Cambodia. Some prior work experience in Cambodia is an asset
Competencies:	<ul style="list-style-type: none">▪ Strong analytical skills and exceptional ability in communication and writing, transforming technical reports into ones that are aimed at publics;▪ Proven ability to prepare reports;▪ Proficiencies in Microsoft Excel, Word, and design software;▪ Strong ability to prioritize tasks, meet deadlines, produce high-quality work in a timely fashion
Language Requirement:	<ul style="list-style-type: none">▪ Fluency in English mandatory, with exceptional writing skills;▪ Fluency in Khmer is an asset.

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

Technical Evaluation Criteria	Obtainable Score
Advanced university degree (Master's degree or equivalent) in development, international commerce, business social responsibility, business development, economics, finance or related area.	20
Five years of experience in working with the private as well as public sector in Asian region or demonstrated experience in conducting similar economic impact assessment.	20
Demonstrated knowledge and experience in conducting economic impact assessment in development sector especially with the United Nations.	30
Good understanding of developing countries context, particularly Cambodia. Some prior work experience in Cambodia is an asset	10
Demonstrated previous similar output to this assignment	20
Total Obtainable Score	100

10. Payment Milestone

The consultant will be paid on a lump sum basis (all-inclusive of expense relate to the above assignment including travels outside and inside the duty station and any tax obligation) under the following installments:

No	Outputs/Deliveries	Payment Schedule	Payment Amount
1	Upon satisfactory completion of deliverable 1-2	28 August 2019	50%
2	Upon satisfactory completion of deliverable 3-4, including presentation of result, to be organized by UNDP Cambodia	1 October 2019	50%