

Terms of Reference – Individual Contract for an Expert to carry out Statistical Analysis and Guideline Preparation for Project on Improvement of Indoor Air Quality in Sri Lanka

Title	- Preparation of guideline for Improvement of Indoor Air Quality in Sri Lanka
Report to	- Director General / Central Environmental Authority
Duty Station	- Central Environmental Authority (Where Necessary)

• Background & Justification

According to the data of the World Health Organization, 7 million people have been died in 2012 due to the poor indoor air quality. To avoid the respiratory diseases due to poor indoor air quality, the annual health investment has been increased in Sri Lanka. According to the National Emission Inventory 2010 in Sri Lanka (prepared by the Central Environmental Authority) emissions emerged from house hold activities is the third contributor for country's total annual emission load. That means the exposure of general public to bad indoor environments at their residences and workplaces is a considerable factor in terms of health effects as well as to the contribution of outdoor air pollution. Exposure of residents to this kind of bad air emissions reveals that it poses a great health threat to the residents but still they are unaware of the situation. Based on the identified priority sectors in National Emission Inventory, a national project is required for the proper management for improving indoor air quality in Sri Lanka.

This project is primarily focused on conducting air quality experiments to identify indoor air pollution profiles and concentration levels in diversified indoor environments. These experiments will establish Maximum Permissible concentration Levels for airborne pollutants of indoor environments. Results and findings will be used in the procedure of formulation of the national indoor air quality guidelines, indoor air pollution mitigation strategies and protocols. These guidelines will be developed for diversified indoor environment in various districts in Sri Lanka.

Data collection for this project has been covered in several districts in Sri Lanka by the Central Engineering Consultancy Bureau (CECB); an outsourced party & the officers of ARM & M (Air Resource Management and Monitoring) Unit of CEA. Evaluation of collected data to in order to obtain maximum permissible concentration levels for airborne pollutants in order to setup National Level Indoor Air Quality Guidelines, ARM & M Unit is in need of expert guidance and supervision

who have scientific knowledge, research background and exposure related to indoor Air Quality in order to complete the project on due time.

- **Objectives**

- Statistically analyze the obtained data in order to determine Maximum Permissible level of airborne indoor pollutants in Sri Lanka
- Preparation of Indoor Air Quality Guidelines for Sri Lanka
- Conduct Awareness for CEA officers and Stake holders regarding Indoor Air Quality guidelines for Sri Lanka

- **Scope of Work**

The expert shall be responsible

- Evaluation and Interpretation of gathered data for the project
- Establishment of Maximum Permissible Concentration Levels (MPCL) for identified indoor air pollutants in indoor environments (Offices, Schools and Residences etc.) by statistically analyzing the gathered data for the project
- Formulation of National Indoor Air Quality Guidelines for Sri Lanka
- Developing Awareness and Communication Strategy for the stakeholders including CEA officers, relevant parties and the general public.
- Conducting stakeholder consultations (at least 03)
- Completion of the assigned tasks within the period of 04 months

- **Transfer of Knowledge**

The Consultant should be prepared with knowledge transfer to the stakeholders.

• **Expected Deliverables**

Deliverable	Detail	Duration	Payment Schedule
1.0	Data analysis and compilation of draft report with Maximum Permissible Levels (MPLC) and acceptable occupational exposure limits for Indoor Air pollutants	Within 4 weeks from signing the Agreement	30%
2.0	Preparation & Submission of final report with conducting a technical meeting for Indoor Air Quality Guidelines for Sri Lanka	Within 8 weeks after analysis of data	40%
3.0	Conduct an Awareness program (Workshop) for Stakeholders and CEA Officials	Within 4 weeks after preparation of the Guidelines	30%

• **Required Experience**

Academic qualifications	At least a Master Degree in a the field related to Air Quality (Indoor Air Quality/ Atmospheric Science/ Indoor Air Pollution/ Air Quality Management/ Statistics & Human Health)
Area of specialty	Indoor Air Pollution exposure assessment and monitoring, Air Quality Management
Professional Qualifications	<ul style="list-style-type: none"> • Expertise on providing consultations / Expert opinions regarding Indoor Air Quality related aspects for National Institutes/ Relevant Ministries and Organizations • A personal contributing for number of researches support evaluation and assessments related to Indoor Air Quality
Experience	More than 10 years' experience in contributing to the research field of Indoor Air Quality with considerable number of publications related to Indoor Air Quality

• **Method of Hiring**

The suitable expert will be hired on an Individual Contract Basis