

Training on
**Air Quality Monitoring and Vehicular Emission
Testing Operation**

Chittagong Divisional Office, Department of Environment

(18th – 21th June, 2013)



**Clean Air and Sustainable
Environment Project**

**Report on Training Programme on
“Air Quality Monitoring and Vehicular Emission Testing Operation”**
Department of Environment, Chittagong Divisional Office, Chittagong
(18th – 21th June, 2013)

1.0 Introduction

One of the major activities under the Clean Air and Sustainable Environment (CASE) Project is to develop human resources to within the Department of Environment (DoE) for sustainability. In view of this, a number of training programme (both home and abroad) have been organized towards capacity building among the DoE technical personnel. As a continuation of the process, a 4-days training program on “Air Quality Monitoring and Vehicular Emission Testing Operation” was organized at the Chittagong Divisional Office, Chittagong from 18 – 21 June 2013. A total of 20 participants have attended the training program. Training Schedule and the list of participants are given in annexure A and B respectively. Mr. Jafor Alam, Director, Chittagong Divisional Office inaugurated the program. He appreciated the effort of the CASE project in respect of holding such a Training programme and hope that it will be a great help towards capacity building in the DoE setup under Chittagong Divisional Office. Mr. Rezwan Hayat, Deputy Director (Program & planning), CASE Project give welcome address and presented brief overview of the training programme. Mr. Hayat wished that the DoE Officials will learn about the operation of CAMS instrument, particulate matter samplers and Vehicular Emission testing instrument and thereby enhance their overall performance in operation and maintenance of those equipments.



Inauguration Ceremony

The programme covered both theoretical and practical demonstration on the principle of operation of Air Quality Monitoring and Vehicular Emission Testing equipment. Relevant DoE Officials were present in both Inauguration and Closing Ceremony.

2.0 Objectives

The training objectives were to deliver theoretical lectures and provide hands on training on:

- Fundamentals of Air Pollution
- Overview of Principle, Operation & Maintenance of the Continuous Air Monitoring Station (CAMS)
- Current scenario of Vehicular Emissions in Bangladesh and Integrated Motor Vehicle Emissions Control strategy
- Overview of Methods, Principles, Operation & Maintenance of PM Monitors & Gas Analyzers
- Demonstrations on operation, Calibration, troubleshooting of different Analyzers at CAMS
- Demonstrations on PM Sampling Techniques
- Hands-on Training on Vehicular Emission Testing Equipment

3. Venue

Theoretical lectures were delivered at the Conference Room of Chittagong Divisional Office. The Demonstrations and Hand on training were provided at the CAMS site, Road side Agrabad, Chittagong and also at the Chittagong Divisional Office.

4. Methodology Used

The methodology used in the training includes class room lectures, presentation, discussion, and field trip.

5. Resource Persons

The Training Programme Coordinator was Shah Rezwan Hayat, Deputy Secretary and Deputy Director, CASE Project. The training sessions were conducted by Dr. S.K. Biswas, Technical Consultant (AQM), CASE Project, R. K. Saha, Technical Consultant-Enforcement (Junior), Mr. Md. Masud Rana, Sr. Coordinator, CASE Project, Ashraf Mahmood, Coordinator, CASE Project and Md. Mizanur Rahman, Sr. Technician, CASE Project.



Lecture Session

6. Certificate Distribution

Certificates were distributed among the trainees after successful completion of the training programme. General impression of the participants was that this training will of great help in the operation and preventive maintenance of the CAMS recently taken over as well as the particulate matter samplers from the CASE project. Regular participation in such training programme would refresh their knowledge in operation and maintenance of different monitoring and sampling equipment. Participants also showed interest to carry out road side vehicular emission testing program for controlling vehicular emission as well as create awareness against smoky vehicles.

Annexure A- Program Schedule

Day	Time	Activity	Resource Person
Day-1			
	10.00-11.00	Address and Inauguration of the program by the Director General, DoE Welcome address	Mr. Jafor Alam, Director, Chittagong Divisional office Mr. Shah Rezwon Hayat, Deputy Director, CASE Project
	11.00-11.30	Tea Break	
	11.30-13.00	Fundamentals of Air Pollution	Dr. S.K. Biswas, Consultant (Monitoring), CASE Project, DoE
	13.00-14.00	Lunch	
	14.00-15.30	Overview with Principle, Operation & Maintenance of the Continuous Air Monitoring Station (CAMS)	Dr. S.K. Biswas, Consultant (Monitoring), CASE Project, DoE
	15.30-17.00	Vehicle Emission Control and Enforcement Policies in context of Bangladesh	R. K Saha, Jr. Consultant (Enforcement), CASE Project, DoE
Day-2			
	10.00-13.00	Demonstrations of Sampling, Calibration, troubleshooting of Analyzers at CAMS,	Dr. S.K. Biswas, Consultant (Monitoring), and Mr. Mizanur Rahman, Sr. Technician, CASE Project, DoE
	13.00-14.00	Lunch Break	
	14.00-16.30	Demonstrations of Sampling, Calibration, troubleshooting of Analyzers at CAMS,	Dr. S.K. Biswas, Consultant (Monitoring), and Mr. Mizanur Rahman, Sr. Technician, CASE Project, DoE
Day-3			
	10.00-13:00	Methods, Principles, Operation & Maintenance of PM Monitors & Gas Analyzers	Dr. S.K. Biswas, Consultant (Monitoring), CASE Project, DoE
	13.00-14.00	Lunch Break	
	14.00-15.00	Standard Operating Procedure of Vehicular Testing Equipment	Mr. Ashraf Mahmood, Coordinator, CASE Project, DoE
	15.00-16.30	Hands-on Training on Vehicular Testing Equipment	Mr. R K Saha, Mr. Md. Masud Rana Mr. Ashraf Mahmood,
Day-4			
	10.00-11.00	QA/QC for CAMS Operation	Dr. S.K. Biswas, Consultant (Monitoring), CASE Project, DoE
	11.00-11.30	Tea Break	
	11.30-13.00	Use of Microbalance and Air Filter Weighing	Dr. S.K. Biswas, Consultant (Monitoring), CASE Project, DoE
	13.00-14.00	Lunch	
	14.00-16.00	Demonstrations, Principles of Operations and Maintenance of Air Metrics and Dichotomous Samplers	Dr. S.K. Biswas, Consultant (Monitoring), and Mr. Mizanur Rahman, Sr. Technician, CASE Project, DoE
	16.00-17.00	Tea Break & Closing Ceremony	

Annexure B: List of Participants

SL. No	NAME & DESIGNATION	ADDRESS
01.	Jamir Uddin, Senior Chemist	Department of Environment Chittagong Division
02.	Abdullah Al Mamun, Assistant Director(Tech)	Department of Environment Chittagong Zilla Office, Chittagong
03.	Md. Saiful Islam, Senior Chemist	Department of Environment Feni Zilla Office, Feni
04.	Md. Tazul Islam, Assistant Director (Admin)	Department of Environment Chittagong Metropolitan Office, Chittagong
05.	Salena Akter, Assistant Director(Tech)	Department of Environment Chittagong Division Office, Chittagong
06.	Md. Abdur Razzaque, Inspector/Investgator	Department of Environment Chittagong Division Office, Chittagong
07.	Harun -Or- Rashid Pathan	Department of Environment Chittagong Division Office, Chittagong
08.	Jahanara Yasmin, Inspector/Investgator	Department of Environment Chittagong Metro Office, Chittagong
09.	Najnin Sultana Nipa, Inspector/Investgator	Department of Environment Chittagong Zilla Office, Chittagong
10.	Jannatul Ferdush, Junior Chemist	Department of Environment Chittagong Division Office, Chittagong
11.	Md. Abdus Salam, Laboratory Assistant	Department of Environment Chittagong Division Office, Chittagong
12.	Mohammed Rashed Chowdhury, Laboratory Assistant	Department of Environment Chittagong Division Office, Chittagong
13.	Md.Nazrul Islam, Sample Collector	Department of Environment Chittagong Division Office, Chittagong
14.	Chandan Biswas, Sample Collector	Department of Environment Chittagong Division Office, Chittagong
15.	Mohammed Mueen Uddin Faysal, Sample Collector	Department of Environment Chittagong Division Office, Chittagong
16.	Sree Haripada Chandra Das, Sample Collector	Department of Environment Brahmanbaria Zilla Office, Brahmanbaria
17.	Mohammad Kausar, Sample Collector	Department of Environment Cox's Bazar Zilla Office, Cox's Bazar
18.	Ripon Chandra Sutra Dhar, Senior Technician	CASE Project, Department of Environment Agrabad CAMS, Chittagong
19.	Md. Habibur Rahman, Computer Oparetor (Project)	Department of Environment Chittagong Division Office, Chittagong
20.	Abdur Rashid, Account Officer	Department of Environment Chittagong Division Office, Chittagong