

REPORT

TRAINING PROGRAMME ON WET DEPOSITION MONITORING

4 – 9 August 2003, CPCB, Delhi, India

C O N T E N T S

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LIST OF ACRONYMS

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| AIT | Asian Institute of Technology |
| CPCB | Central Pollution Control Board |
| IVL | IVL Swedish Environmental Research Institute |
| MoC | Monitoring Committee |
| NIA | National Implementing Agency |
| QA/AC | Quality Assurance / Quality Control |
| SACEP | South Asia Co-operative Environment Programme |
| SEI | Stockholm Environment Institute |
| Sida | Swedish International Cooperative Development Agency |
| UNEP/RRC.AP | United Nations Environment Programme / Regional Resource Center for Asia and the Pacific |

REPORT

The regional training on monitoring transboundary air pollution was held at Central Pollution Control Board (CPCB), New Delhi, India during 4 – 9 August 2003. The major objective of the training is to provide hands-on experience on analysis of transboundary pollutants in the rainwater (wet deposition). This centralized training program was to build the national capacity and to discuss the issues encountered in operating the monitoring sites in each country. This is the second regional training program under the Malé Declaration on the Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia.

The training program was attended by laboratory technicians who are in charge of Malé Monitoring Station in participating countries as well as the members of Monitoring Committee (MoC), SACEP, IVL, UNEP, and AIT. A list of the participants is enclosed in Attachment 1.

The training was organised by UNEP RRC.AP, in collaboration with SACEP, IVL, SEI and CBCP, Ministry of Environment & Forests, India. The training was funded by Sida as a part of the Programme on Atmospheric Environment Issues in Developing Countries.

1. Opening Session

The training program started with the welcome and opening address by Dr. S.D. Makhijani, Additional Director, CPCB, Mylvakanam Iyngararasan (UNEP RRC.AP), Pradyumna Kumar Kotta (SACEP), Dr. Nalini Bhatt, Director, MoEF and follow by Dr. B. Sengupta, Member Secretary, CPCB. Opening remarks were followed by the self-introduction of participants. The opening session was ended by vote of thanks by Mr. J. S. Kamyotra, CPCB.

2. Introduction of Phase II

This training was the centralized training program after the first training program, which was held at UNEP RRC.AP, Bangkok during 29 – 31 may 2002. Mr. J. S. Kamyotra, CPCB presented the overview of Phase II implementation (attachment 2). After that Mylvakanam Iyngararasan of UNEP-RRC.AP presented a brief on the project objectives; the activities during the Phase II implementation of Male' Declaration; and the objective of the training program (Attachment 3)

3. AIRPET - Regional Air Pollution Research Program

Kim Oanh N. T., Associate Professor from AIT presented regional air pollution research program, which is also funded by Sida. Presentation is provided in attachment 4. For more information on the project, please visit following website: <http://www.serd.ait.ac.th/airpet/>

4. Objectives, Rationale for, and the Design of the Malé Network

Sagar Dhara, MoC member provide information on objectives of Male' Network and the tasks required to fulfill these objectives. Detail of the presentation is given in the attachment 5.

5. Technical Session

Technical session was conducted in five modules on analysing rainwater and each module included lectures explaining the theory and practical session in the laboratory. Module 1 covered methods of analysis for pH, EC, acidity and alkalinity. Methods of analysis and significance of sodium and potassium was covered under the module 2. Analysis of calcium and magnesium was included in module 3 while module 4 covered chloride and sulphate. Methods of analysis and significant of Nitrate and Ammonium were covered in the module 5.



QA/QC program also introduced to the participants. It included the followings:

- Ambient air quality monitoring techniques and quality assurance. (see Attachment 8a)
- Basic Statistical Methods for Quality Assurance (QA) and Quality Control (QC) schemes in water laboratories (see Attachment 8b).
- Good laboratory practice and safety (see Attachment 8c)

During the last two days participants were divided into three groups. Each group analyzed 2 blind samples for each of the parameters covered in module 1 to module 5.



Results from each of the group were presented at the end of the program and each of the data points were discussed for possible errors and improvements. The results were also interpreted and each of the groups was evaluated for their performance.

A technical manual prepared for this training program is

available as a separate volume.

On the 6th day of the training program participants visited the transboundary air quality monitoring station setup by CPCB at Agra. The Agra station is monitoring the pollution level at the Taj mahal.

6. Closing Session

During the closing session, Surendra Shrestha, Regional Director and Representative for UNEP RRC.AP/ROAP presented the certificates to all the participants. J. S. Kamyotra, organizer from CPCB delivered the closing remark and thanked all the resource persons and the participants.

