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MEMORANDUM OF UNDERSTANDING

BACKGROUND

The Finland – India Joint Working Group on Environment (JWGE) held its second meeting on Tuesday 31st of January 2006 in New Delhi.

The Finnish delegation consisted of seven members, four from Finnish Ministry of Environment, one from Finnish Ministry of Trade and Industry and two from VTT Technical Research Centre of Finland.

The themes of this third meeting were e.g implementation of Johannesburg Plan, climate cooperation, forest management, waste management, clean technology and air pollution control.

On Thursday 2nd of March, a visit to Central Pollution Control Board (CPCB) was organised. The meeting was chaired by Member Secretary Dr. Sengupta. Mr. Jukka Uosukainen, from the Finnish Ministry of Environment as well as Mr. Jukka Lehtomäki and Ms. Tuula Vahlman from VTT took part in this meeting.

During this visit, a thorough presentation of "Status of air pollution control in India" was given by Mr. Sengupta. Mr. Makhijani presented the laboratory activities at Central Pollution Control Board. Finnish delegates, Mr. Jukka Lehtomäki presented VTT's activities, especially on environmental issues, and Ms. Tuula Vahlman the activities of Finnish Meteorological Institute (FMI). After the presentations and discussions, the laboratory activities of CPCB were visited by representatives of VTT. Special attention was paid to the air laboratory and the air quality monitoring station with manual and automated measuring systems which was shown to participants by Mr. Jakhwal.

Based on discussions between Finnish and Indian delegates it was agreed upon a *joint statement* between ministries. This joint statement would focus on a concrete program on Clean Development Mechanisms, Air Quality and Sustainable Consumption and Production. It was agreed that VTT Technical Research Centre of Finland, Finnish Meteorological Institute (FMI) and Central Pollution Control Board (CPCB) will prepare a Memorandum of Understanding, MoU related to Air Quality co-operation.

FUTURE CO-OPERATION

Based on the discussions, following items were identified as possible items for future co-operation in the form of *capacity building project* between Central Pollution Control Board (CPCB), VTT Technical Research Centre of Finland and Finnish Meteorological Institute (FMI):

> Emissions

- emission measurement techniques for waste incinerators
- continuous emission measurement techniques for variety of pollutants (NO_x, TOC, PM...)
- set- up of Quality Assurance program for emission measurement laboratories (for state pollution control boards, SPCB)

Odours

- methods for odour nuisance determination
- odour control technologies



- Ambient air
 - developing air quality monitoring and assessment systems
 - development of calibration facilities for air quality analyzers
- dispersion modelling: validation of air quality models, using modelling for air quality assessment and scenario making

The co-operation will be carried out in different forms, such as:

- study tours to Finland
- courses in India (including site visits, audits for measurement campaigns, hands on training etc.)

This co-operation provides also an excellent opportunity to present the innovative measurement technologies of Finnish high-tech companies for environmental monitoring.

The future co-operation will be organised in the form of capacity building projects.

The major aim of future projects is to combine both emission measurements, air quality measurements and dispersion modelling. Only then it will be possible to identify the sources for air pollution and their effect to ambient air. Thus, when the knowledge for a relation of emissions to air quality will be improved, the environmental legislation and measures can be directed more efficiently.

The work will be reported periodically to JWGE. Both sides will look for financing preferably from international sources, and/or national sources, especially from India.

As a consequence of the discussions, this Memorandum of Understanding between VTT Technical Research Centre of Finland, Finnish Meteorological Institute (FMI) and Central Pollution Control Board (CPCB), India, in the field of air pollution control is established.

24. /. 200 7 New Delhi day.month.2006

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Espoo 17.2.2006

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