

9th Session of Intergovernment Meeting: 2007

Malé Declaration of on Control and Prevention of Air Pollution And Its Likely Transboundary Effects for South Asia

Presentation on Implementation of Male' Declaration in Bangladesh

Presented By

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Department of Environment

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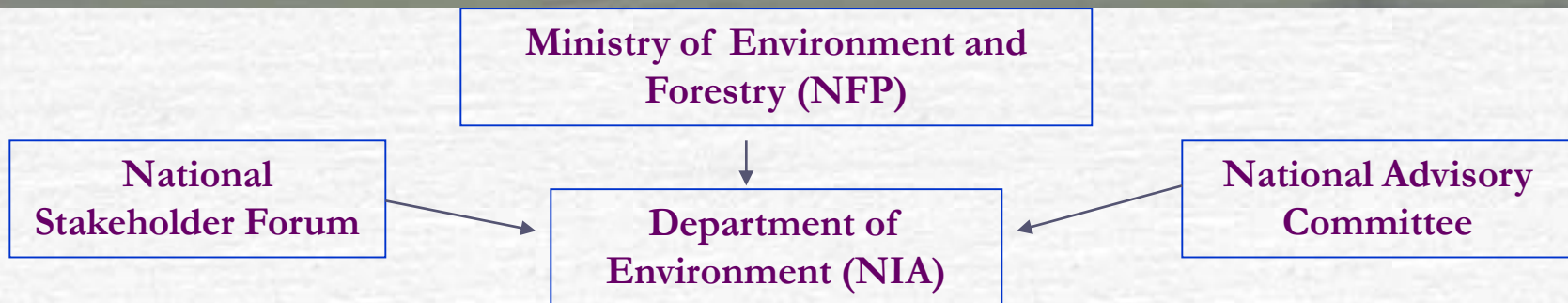
**Project Director, Implementation of
Male' Declaration Project in Bangladesh**

Presentation will focus:

Progress of Implementation

- ✧ Institutional Arrangement
- ✧ Monitoring Activities
- ✧ Impact Assessment Activities
- ✧ Recent Measures to control emissions of air pollution in the country
- ✧ Plan for the next 3 years

Institutional Arrangement : Bangladesh



• **Monitoring**

Monitoring Station at Shatkhira, back-up laboratory support from Khunla Divisional Lab.

• **Health Impact Assessment**

Department of Occupational & Environmental Health under National Institution of Preventive and Social Medicine (DOEH-NIPSOM)

• **Crop Impact Assessment**

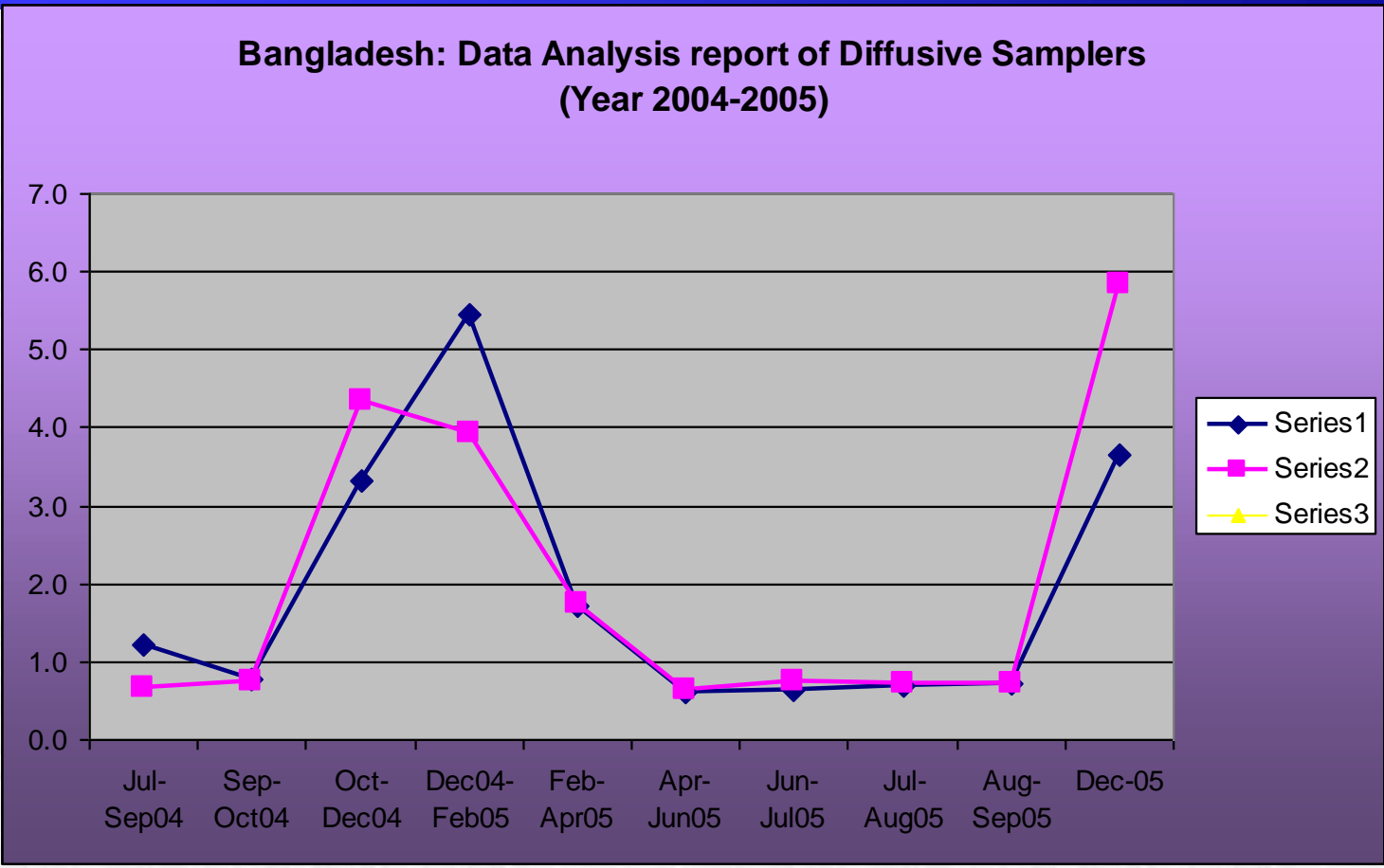
Environment Science Department of Bangladesh Agricultural University, Mymensingh



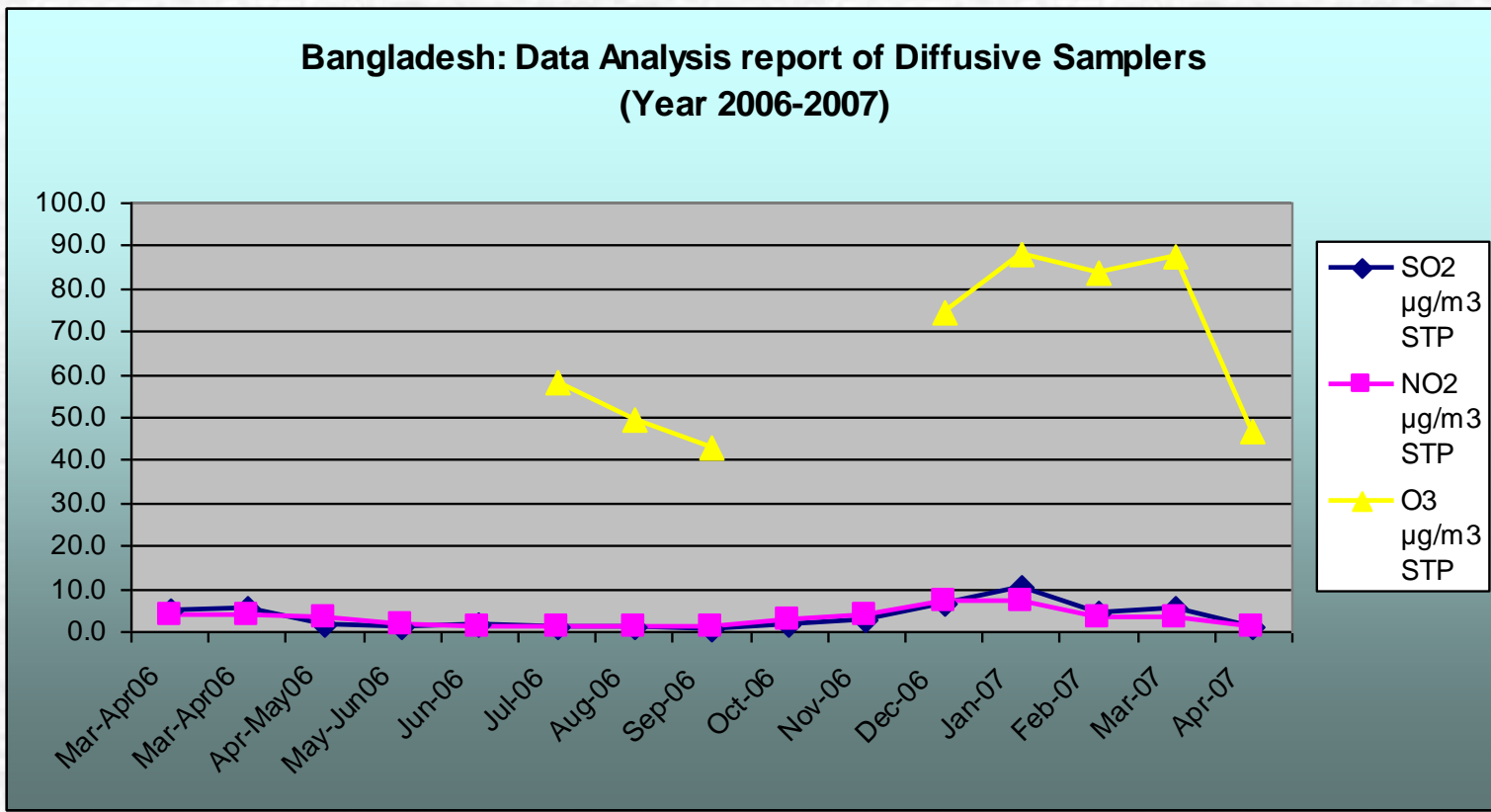
Monitoring activities

- ✧ Air concentration analysis by Diffusive Samplers
- ✧ Rain water analysis by AAS
- ✧ Metrological Parameter

Bangladesh: Results of Air Concentration Analysis



Bangladesh: Results of Air Concentration Analysis



Last 3 Years of Implementation

National Advisory Committee

Joint Secretary, MOEF, Convener.

Representative from BMD

Representative from DoF

Representative from BAEC

Representative from Department of Science, KU

Representative from Department of Chemistry, DU

Representative from Department of Microbiology, DU

Representative from IMED

Representative from FF&L wing of Planning Commission

Representative from CEN

Representative from FBCCI

Representative from BARC

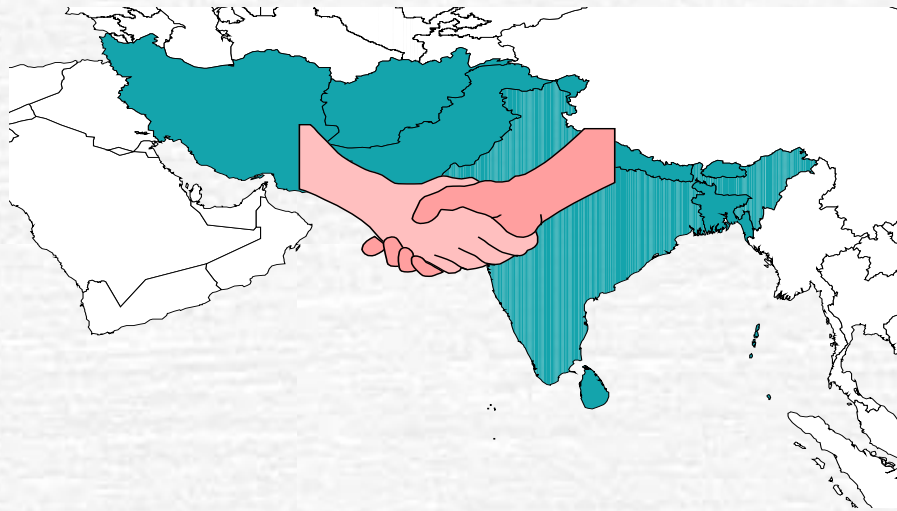
Representative from SRDI

Project Director, Member Secretary

First National Advisory Committee Meeting on

Phase-II Implementation of Malé Declaration on
Control and Prevention of Air Pollution and Its
Likely Transboundary effects for South Asia

Date : 02-07-2006



Major Decisions of the Advisory Committee

- ✧ Monitoring Results may be uploaded in the DOE's Website,
- ✧ Following Institute/departments were nominated as Expert Institute for Impact Assessment:
 - ⇒ **Environment Science Department of Bangladesh Agriculture University** was nominates as Expert institute for Crop Impact Assess,
 - ⇒ **National Institute for Preventive& Social Medicine (NIPSOM)** for Health Impact Assessment,

Major Decisions of the Advisory Committee

- ⇒ Chemical Engineering Department of Bangladesh University of Engineering And Technology (BUET) nominated for Corrosion Impact Assessment,
- ⇒ Bangladesh Soil Resource Development Institute (SRDI) nominated for impact study on soil acidification,
- ⇒ Environment Science Discipline was nominated as Expert Institute for training on emission inventory, modeling and scenario development.

Major Decisions of the Advisory Committee

- ✧ UNEP RRC AP may be requested to provide Low Volume Sampler (Air Matrix) instead of High Volume Sampler to do active monitoring.

Impact Assessment Activity



⇨ **Assess of Air
pollution Impact on
Health**



⇨ **Assess of Air
Pollution Impact
on Crops**

Assessment of Impact of Air Pollution among School Children of selected school of Dhaka City

- 3 schools of Dhaka City Selected
- 1680 Students (Class V-IX) were surveyed in 7 days
- Duration of main study was 35 days
- 180 Students (120 Asthma=60 Non-Asthma)



Pick Flow Meter used during survey



Questionnaires were filled up during survey



Measures to Control Emissions of Air Pollution

- ✧ New Vehicular Emission Standards for both in-use and new imported vehicles were fixed
- ✧ A number of CNG filling stations were established in Dhaka

Measures to Control Emissions of Air Pollutions

- ✧ Control of slow moving vehicles in the road
- ✧ Improvement of Mass Transport



Assess of Air Pollution Impact on Crops

Crop (Biomonitoring indicator): *White Clover* (Ozone Resistant & Ozone Sensitive)

Tiny tag: For recording temperature and relative humidity

Ozone Passive Sampler: To measure the tropospheric ozone

Visible Ozone injury



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Plan for Next 3 Years

Institutional Arrangement

It may be changed as per demand

Plan for Next 3 Years

Monitoring Activities

- Existing Monitoring station at Shamnagar will be made fully operational, if electric supply or alternative measuring equipment (Air Martrix) is made available.



Plan for Next 3 Years

Monitoring Activities

Following parameters will be monitored if electric supply or alternative measuring equipment (Air Matrix) is made available:

- PM_{10}
- Total Suspended Particulate Matter (TSPM)
- Sulphur Dioxide (SO_2)
- Nitrogen Dioxide (NO_2)



Plan for Next 3 Years

Monitoring Activities

- ✧ Site selection of 2nd Monitoring Station will be completed soon.
- ✧ Expert Committee is working on it.

Plan for Next 3 Years

Plan for Impact Assessment Activities

- ⊙ **Health Impact Study**
- ⊙ **Crop Impact Study**
- ⊙ **Corrosion Impact Study**
- ⊙ **Rapid urban Assessment**



Plan for Next 3 Years

Plan For Awareness Programme

- ✧ Development of public awareness Materials for Electronic Media
- ✧ Development of Poster and Sticker
- ✧ Translation of Male' Declaration brochure to local language
- ✧ Disseminate awareness material through electronic and print media



Regional Training Programme of Impacts on Crops, 15-16 August 07





Thank You



**Department of
Environment**