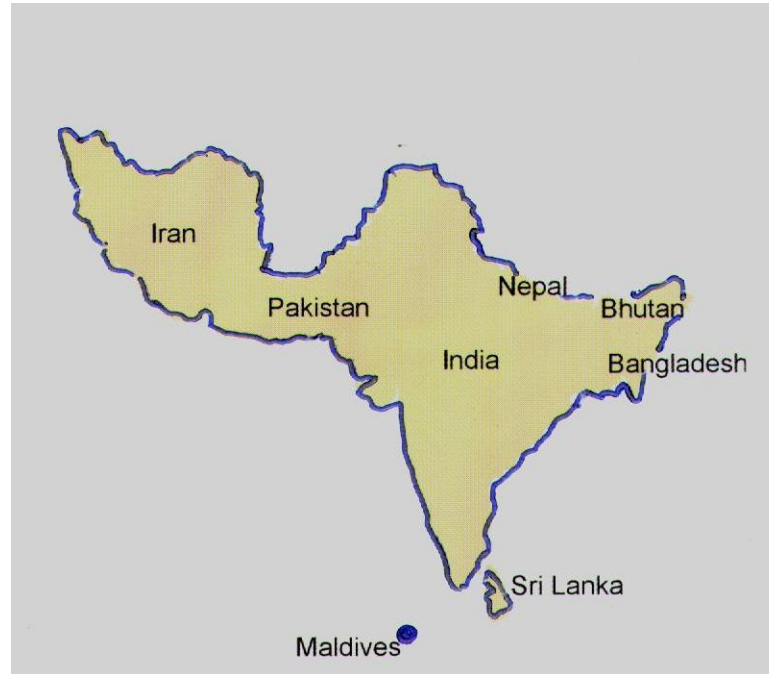


**MALÈ DECLARATION ON CONTROL AND PREVENTION OF AIR
POLLUTION AND ITS LIKELY TRANSBOUNDARY EFFECTS FOR
SOUTH ASIA
ANNUAL NETWORK MEETING-2005
NEW DELHI**



**BY
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ANURA JAYATILAKE
Sri Lanka**

PHASE 1 IMPLEMENTATION

- PHASE 1 WAS INITIATED WITH THE ADOPTION OF THE IMPLEMENTATION PLAN BY THE FIRST NETWORK MEETING HELD IN FEBRUARY 1999.
- PHASE 1 SAW THE ESTABLISHMENT OF A NETWORK ORGANIZATIONS TO IMPLEMENT THE DECLARATION AND COMPILATION OF BASELINE INFORMATION ON AIR QUALITY MONITORING AND MANAGEMENT IN THE PARTICIPATING COUNTRIES.

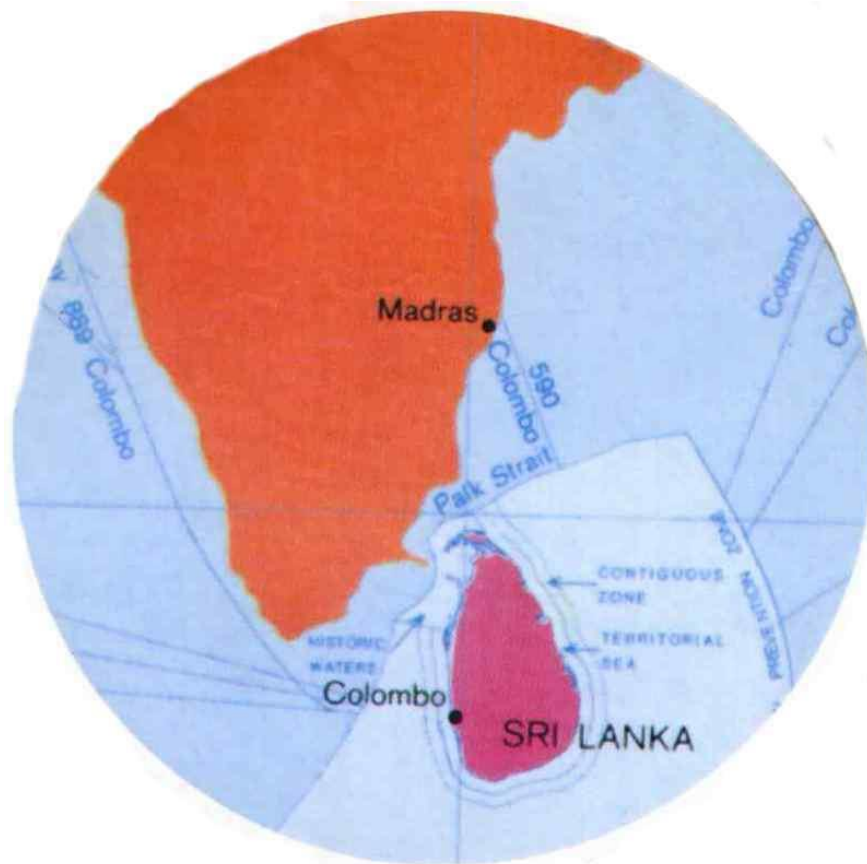
PHASE 1 IMPLEMENTATION Contd....

- BASELINE STUDIES PROVIDED VALUABLE INFORMATION ON TACKLING THE TRANSBOUNDARY AIR POLLUTION IN THE PARTICIPATING COUNTRIES AND **CLEARLY IDENTIFIED THE GAPS IN THE EXISTING MONITORING SYSTEM.**
- ALSO THE ACTION PLANS PREPARED BY THE PARTICIPATING COUNTRIES PROVIDED THE NATIONAL PRIORITIES IN IMPLEMENTING THE MALE DECLARATION.

PHASE 1 IMPLIMENTATION Contd....

- PHASE 1 OUTPUTS WERE REVIEWED AND ADOPTED AT THE SECOND MEETING OF NETWORK HELD IN MARCH 2000, KATHMANDU, NEPAL

PHASE II IMPLEMENTATION OF MALÈ DECLARATION IN SRI LANKA





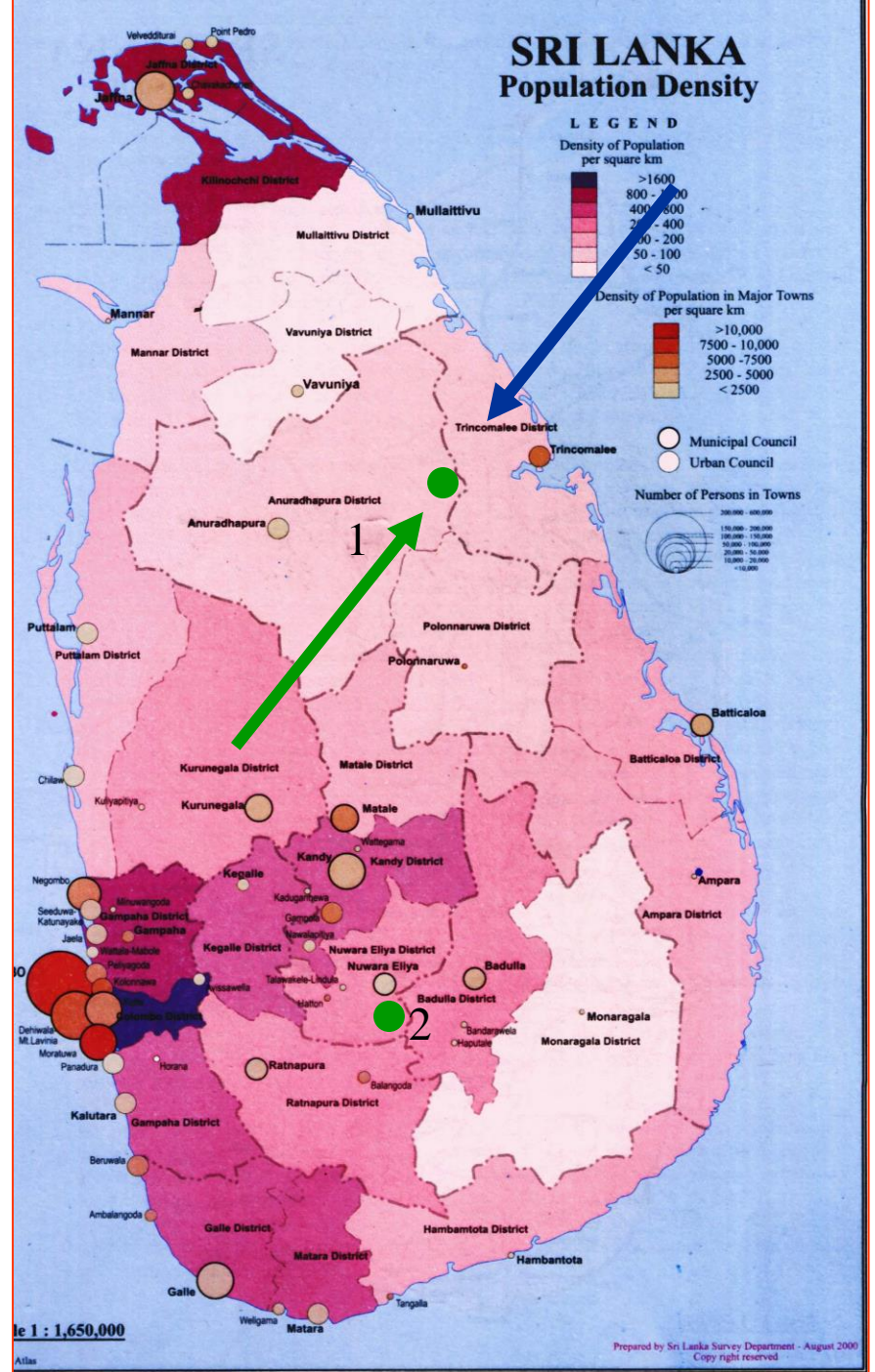
SOUTH- WEST (MAY-SEP)



NORTH-EAST (DEC- FEB)

SITE 1- GALENBINDUNUWEWA

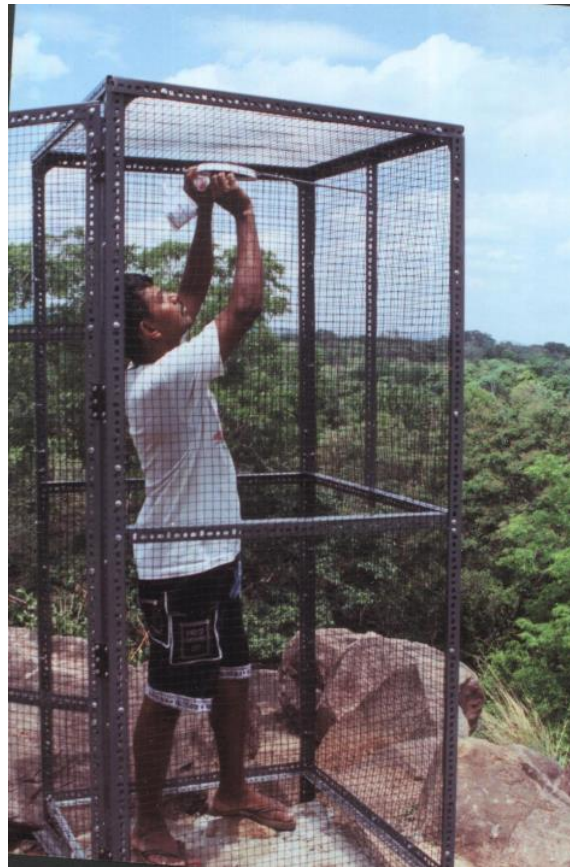
SITE 2- HORTAN PLAINS



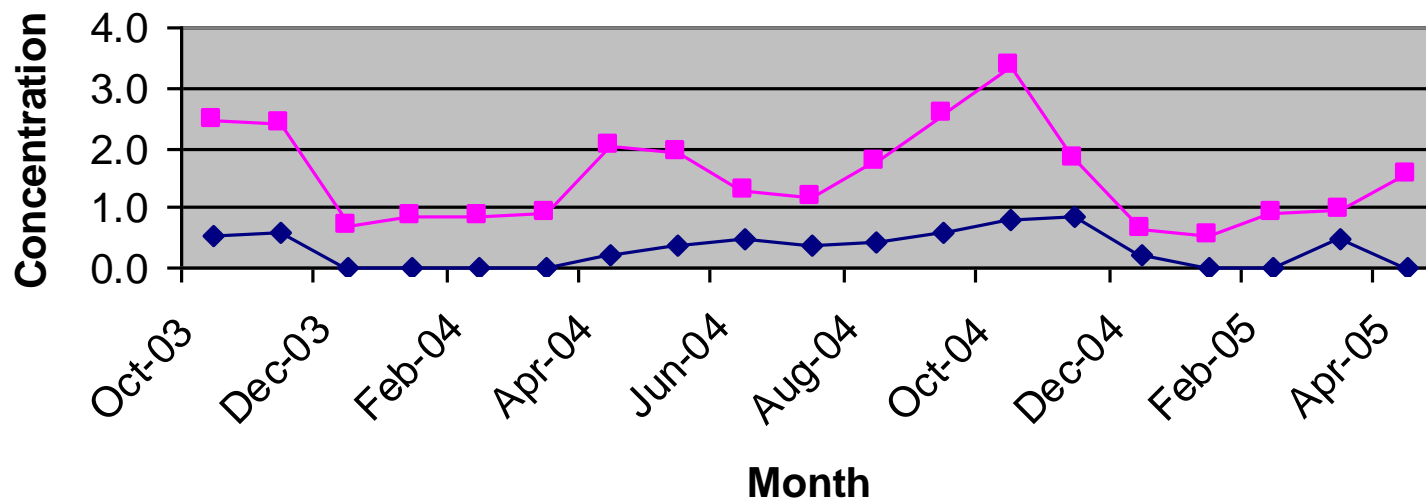
Monitoring Activities Under Malé Declaration Phase II

- CEA started monitoring of Sulphure Dioxide, Nitrogen Dioxide at the selected monitoring site at Dutuwewa, Galenbindunuwewa in August 2003 and Wet Deposition monitoring started in the latter part of November 2003. Sulphure Dioxide and Nitrogen Dioxide monitoring using passive samplers is carried out monthly and wet deposition monitoring is carried out weekly.

Monitoring of SO₂ & NO₂ using Passive Sampling



Diffusive Sampler Results



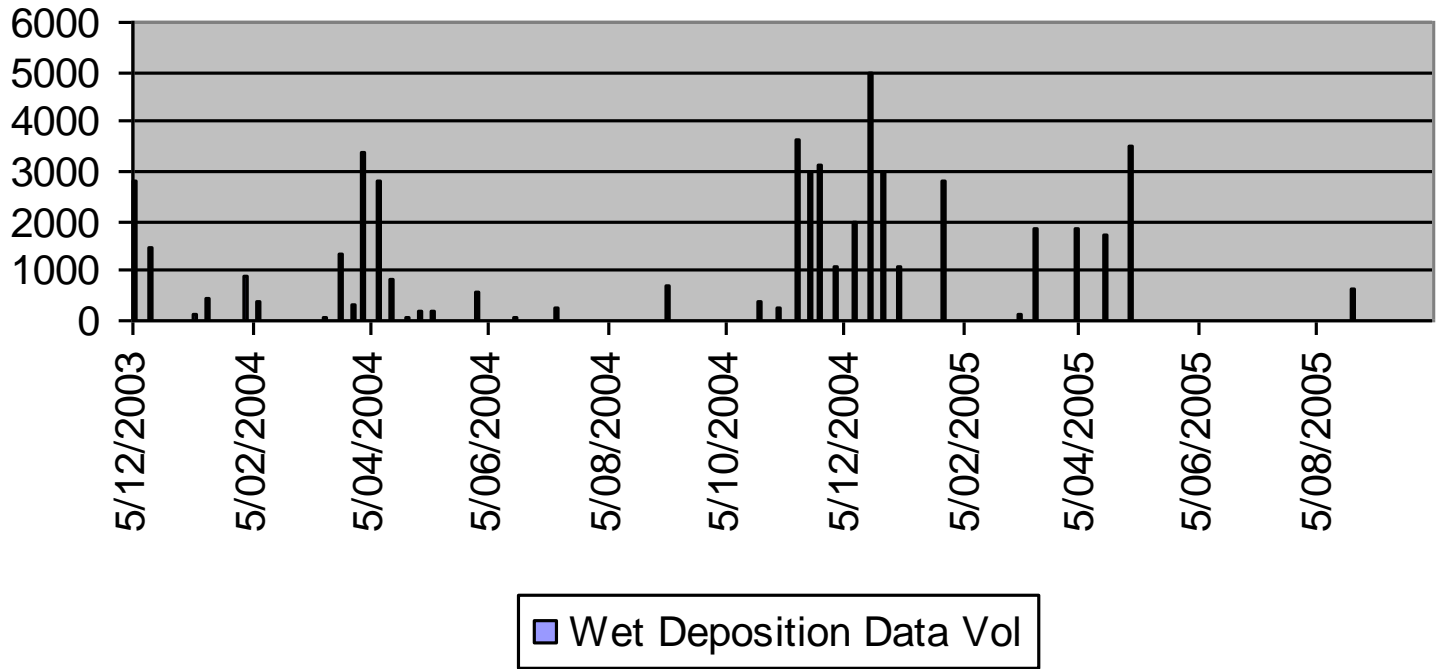
—◆— SO2
 $\mu\text{g}/\text{m}^3$

—■— NO2
 $\mu\text{g}/\text{m}^3$

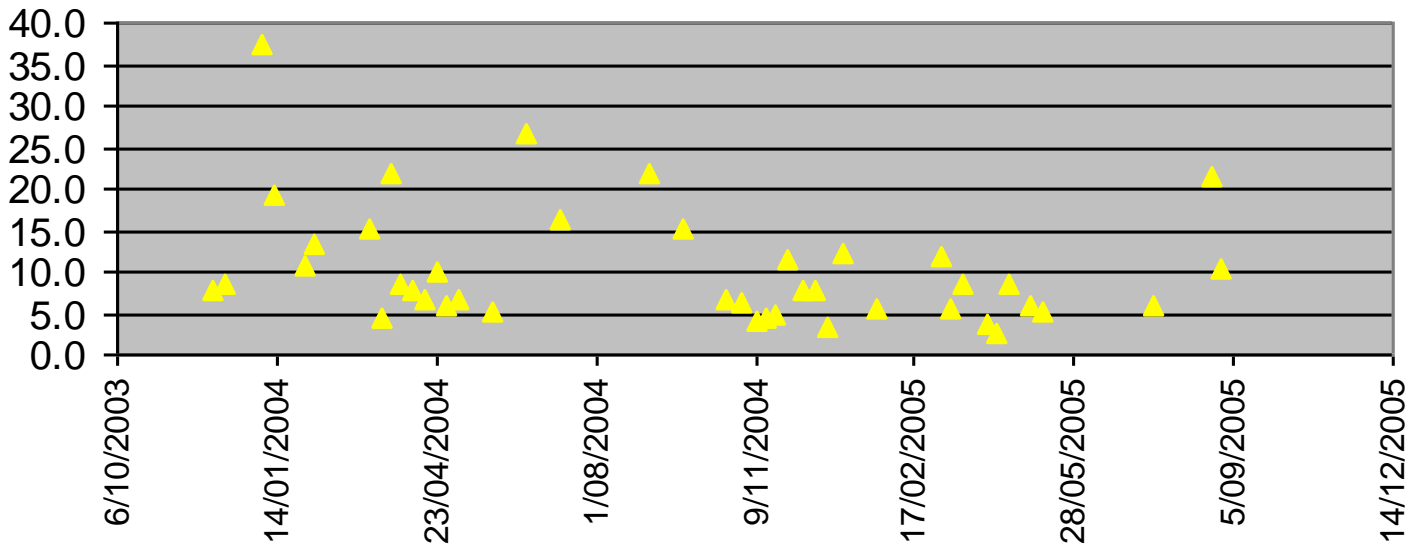
Wet Deposition Monitoring at Dutuwewa



Wet Deposition Data Vol

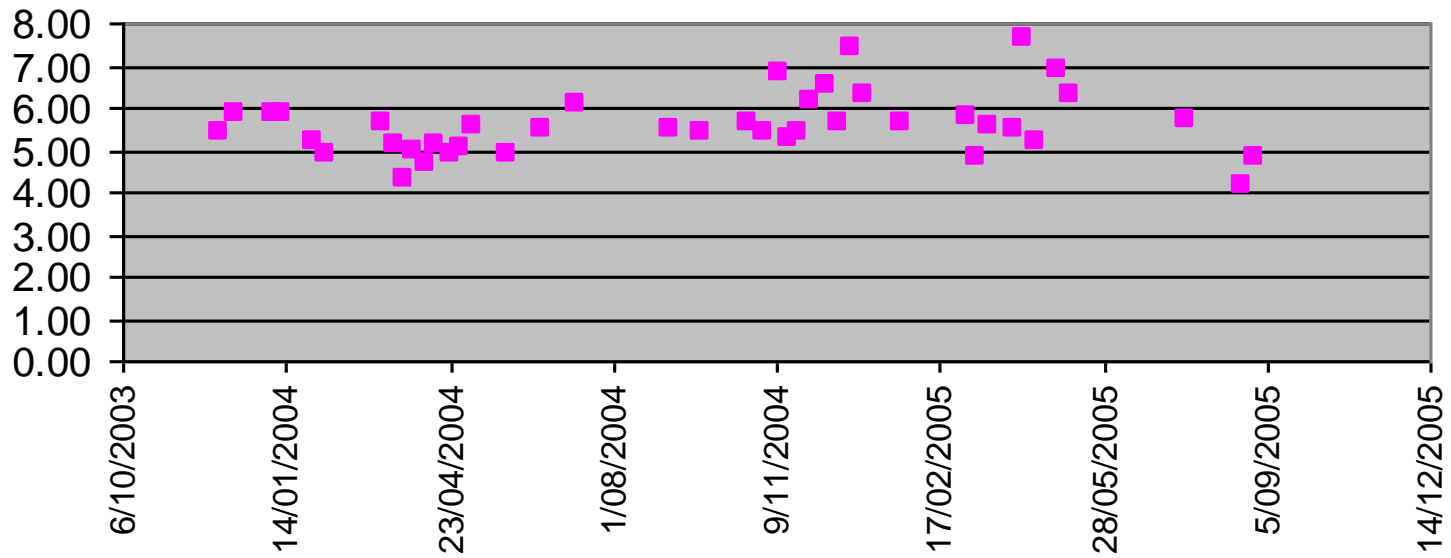


Wet Deposition Data E. Cond.



▲ Wet Deposition Data E. Cond.

Wet Deposition Data pH



■ Wet Deposition Data pH

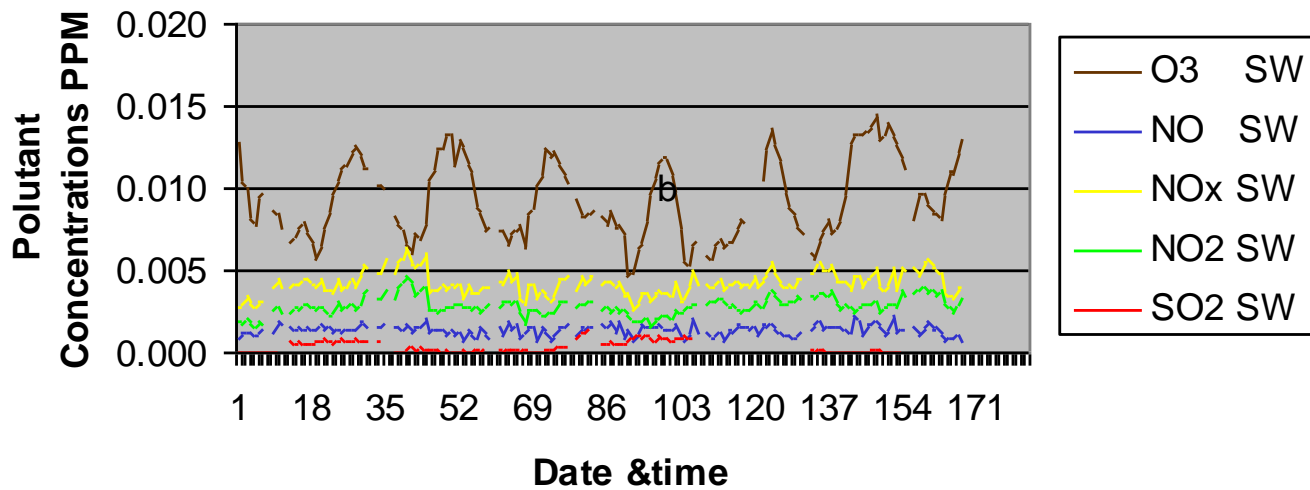
Ambient Air Quality

- Ambient Air Quality at Dutuwewa was monitored using Automated Monitoring Equipment also from 22nd July 2004 to 29th July 2004 (During the South West Monsoon) and from 23rd Jan. 2005 to 30th Jan. 2005 (During the North East Monsoon).
- Selected monitoring site for Automated Monitoring is situated 1-1.5 km East from the Malé Monitoring Site at Dutuwewa..

Automated Air Quality Monitoring at Dutuwewa

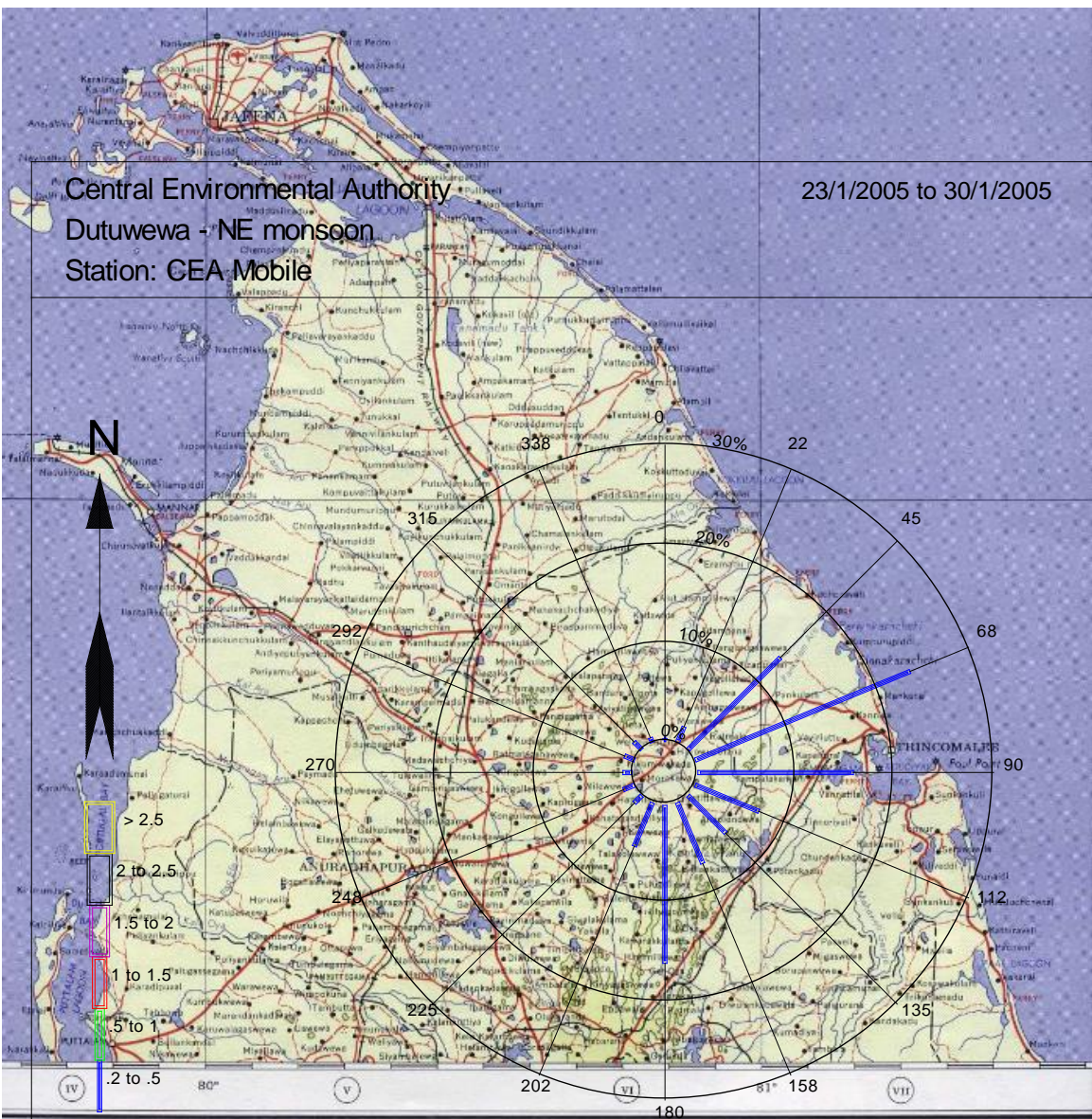


Air Quality at Dutuwewa During South-West Monsoons



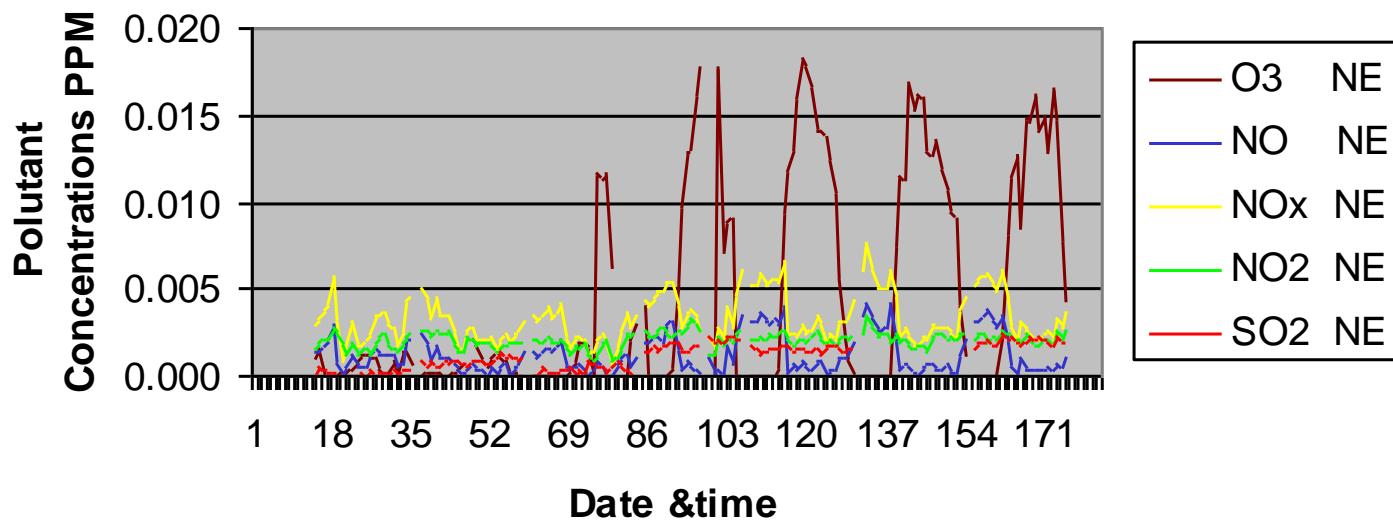
Central Environmental Authority
 Dutuwewa - NE monsoon
 Station: CEA Mobile

23/1/2005 to 30/1/2005

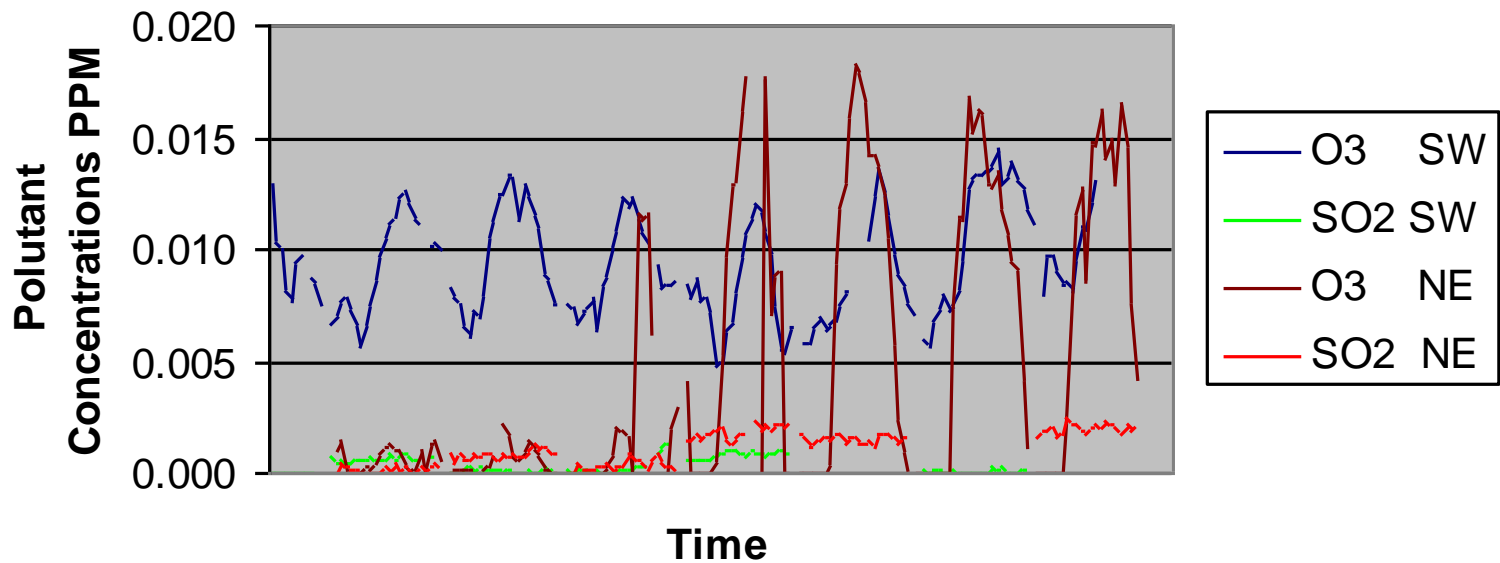


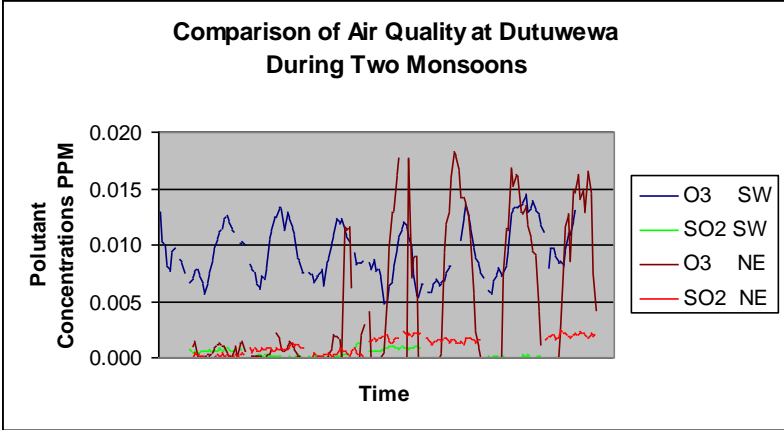
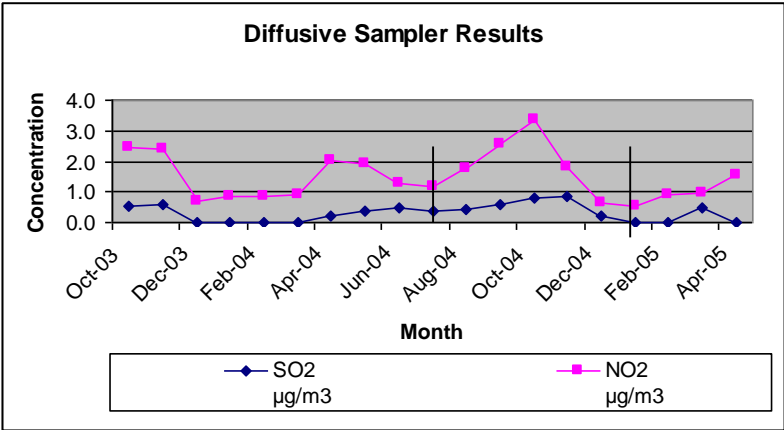
Magnitude(m/s)
 0.0% calm
 89.1% Valid Data present.

Air Quality at Dutuwewa During North-East Monsoons



Comparison of Air Quality at Dutuwewa During Two Monsoons





Challenges & Difficulties

- Unsteady power supply at the selected site
- Involvement of monkeys in sampling
- Long distance to travel (High transport cost)

Proposed activities for next 3 years

- Ozone passive sampling
- Passive sampling at the selected second site (Horton plains)
- Start of dry deposition monitoring (PM10)
- Any other activity as agreed in this meeting depending on the availability of funding