

**Implementation of
Male Declaration on Control and
Prevention of Air pollution and Its Likely
Transboundary Effects**





The Male' Declaration

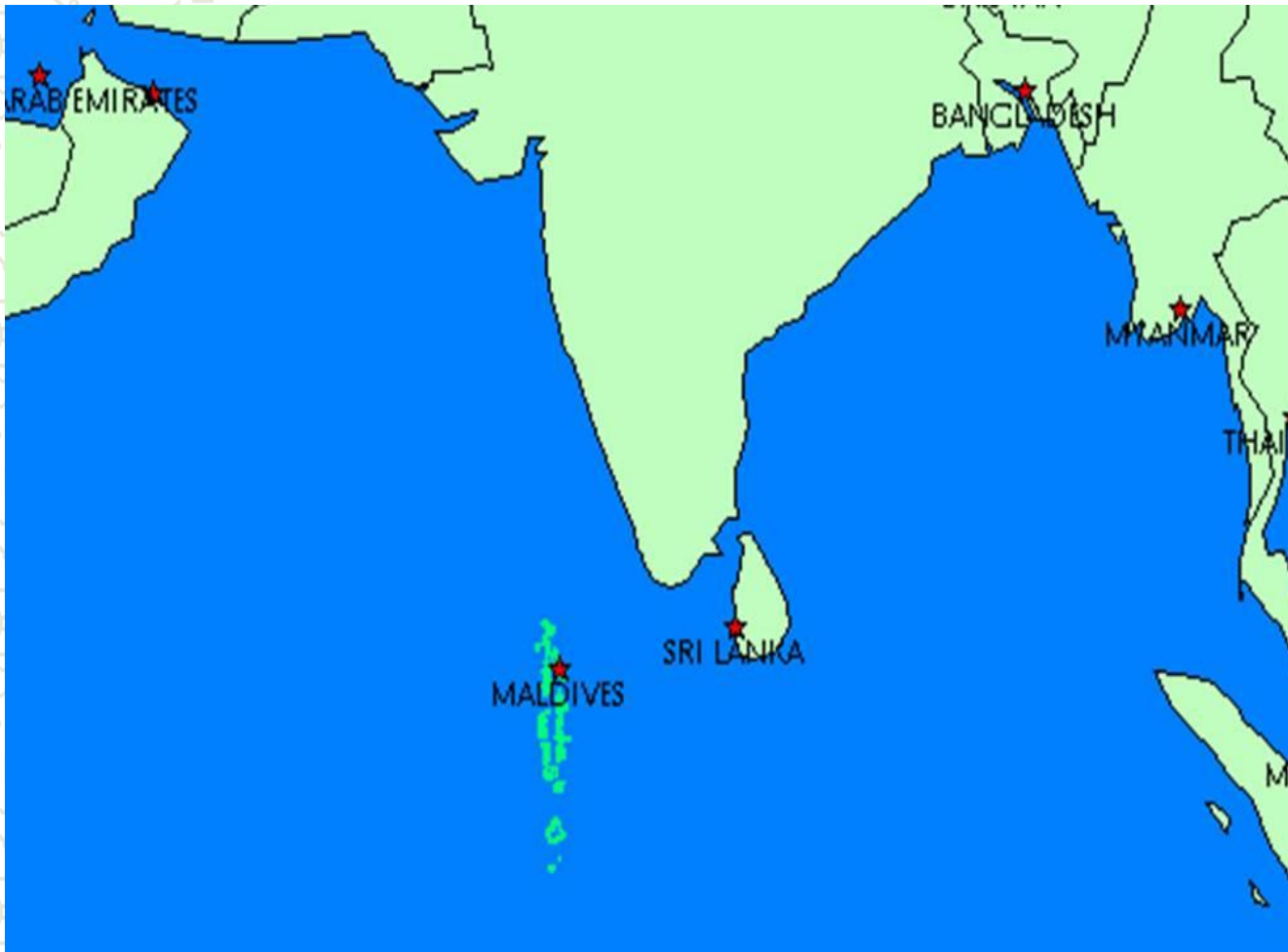
- ✦ **Introduction**

- ✦ **First phase Experience**

- ✦ **Second phase Experience**

- ✦ **Activities carried out in air pollution monitoring**

Introduction



► Longitude
 $\approx 73\text{E}$

► Latitude
 $\approx 7\text{N} - 2\text{S}$

► Altitude
 $\approx 1.5\text{m}$

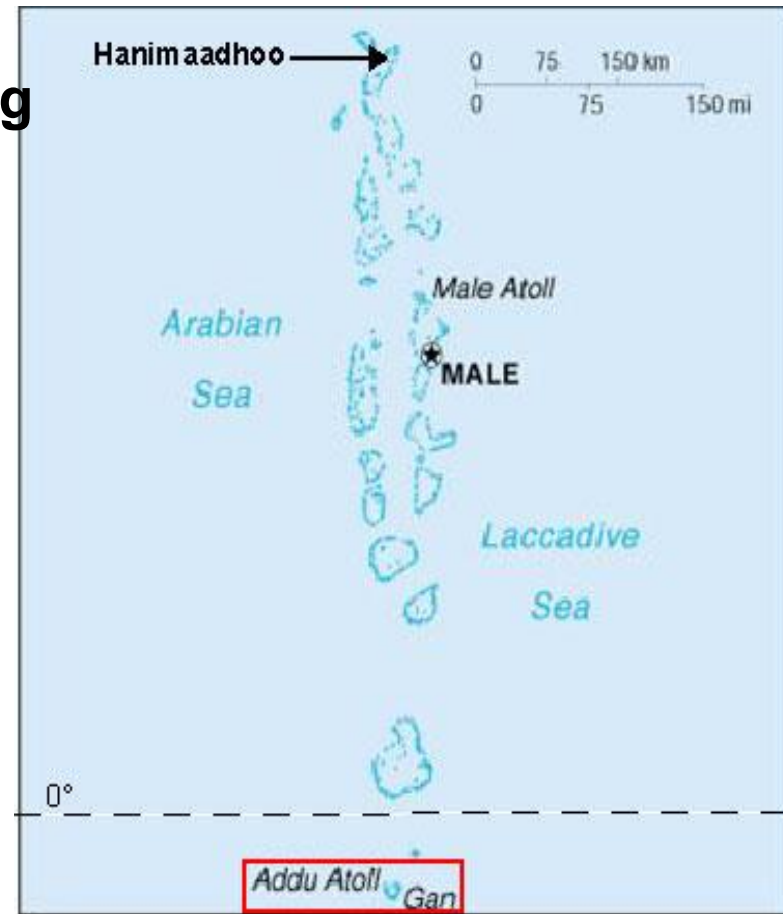
Geography

- ✦ A chain of coral atolls 260 km long
50- 120 km wide

Total land area:

Approx 300 sq.qm

- ✦ 25 geographical atolls
- ✦ Over 5,000 separate reefs
- ✦ 1,192 Islands
- ✦ Size from 0.5 to 2 sq.km,
- ✦ 199 inhabited islands,5 airports



Experience of first phase

✿ It was found

- Lack of adequate scientific knowledge of air pollution
- Lack of clear understanding of air pollution
- Air pollution is not clearly incorporated into the mandates of the government



Difficulties encountered

- ✱ **Lack of baseline data**
- ✱ **Insufficient**
 - **Technical Training**
 - **Human resource capacity**
 - **Managerial experience**
 - **In depth awareness on air pollution and transboundary air pollution**
- ✱ **Lack of institution for air pollution monitoring and regulation**



Outcomes of the First Phase

- ✚ **Created awareness on air pollution in the Government**
- ✚ **Development of an air Pollution action plan**



Air Pollution Action Plan

 **Monitoring**

 **Capacity Building**

 **Prevention**

 **Management**



The Second Phase

- ✦ **Establishment of Transboundary Air Pollution Monitoring Station (HCO)**
- ✦ **Initiation of monitoring of Transboundary air Pollution**
- ✦ **Capacity Building on air Pollution monitoring and Assessment**

● Monitoring and Capacity Building

● Air pollution monitoring capacity is being developed at the Department of Meteorology

Department of Meteorology is currently carrying out the monitoring of the transboundary air pollution through the passive samples





Existing policy measures

- ✿ **Second National Environment Action Plan**

- ✿ **Sixth National Development Plan**

- ✿ **National Air pollution Action Plan**

Hanimaadhoo Climate Observatory





Aerosol Instrumentation

- ▶ **Light Absorption** –Aethalometer, 7-wavelength
- ▶ **Light Scattering** –Nephelometer, 3-wavelength
- ▶ **Total Particle Concentration** CPC
- ▶ **Black Carbon** Aethalometer
- ▶ **Aerosol Optical Depth** –Sun Photometer
- ▶ **Size Distribution** SMPS



Radiation Instrumentation

- ▶ **Global and Diffuse Radiation**

Pyranometers

- ▶ **Direct Radiation** Pyrhemliometer (quartz & calcium florid window)

- ▶ **Global & diffuse (400-700 nm) –**

- ▶ **Spectral Radiation (325-1075 nm) - ASD**
FieldSpec Handheld; Grating Spectrometer

- ▶ **Meteorological Parameters**



Plan for next 3 years

- ✦ **A new Air pollution Monitoring Station in southern Island (Gan)**
- ✦ **Vehicle emission monitoring station in Male' and in Densely populated islands**



Thank You