

An aerial photograph of the Maldives archipelago, showing the intricate pattern of islands and reefs. A semi-transparent map of the Maldives is overlaid on the image, highlighting the geographical context of the text.

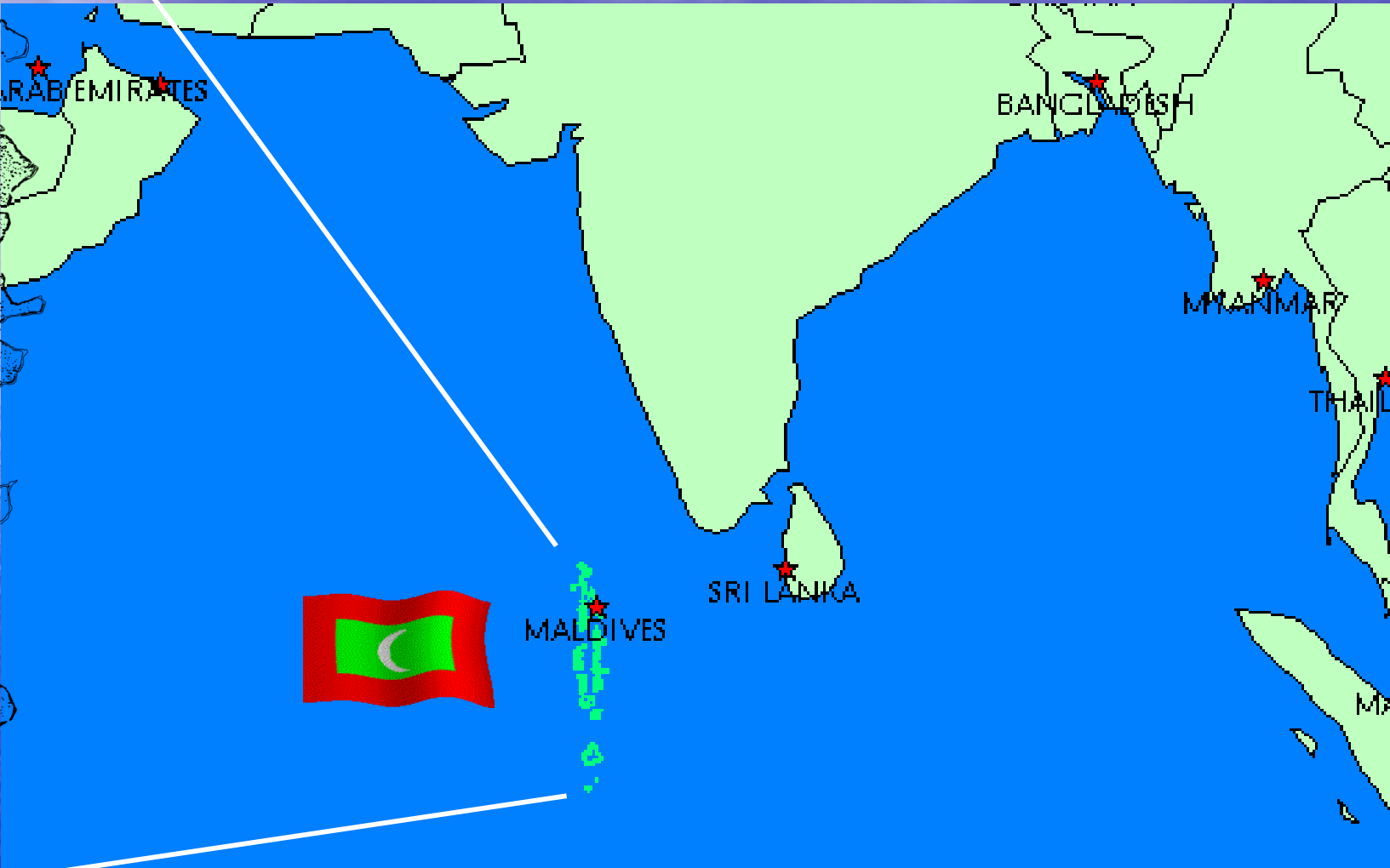
**Implementation of Male' Declaration on
Control and Prevention of Air Pollution
and its Likely Transboundary
Effects for South Asia**

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12 – 13 September 2006

Eighth Network Meeting - Bhutan

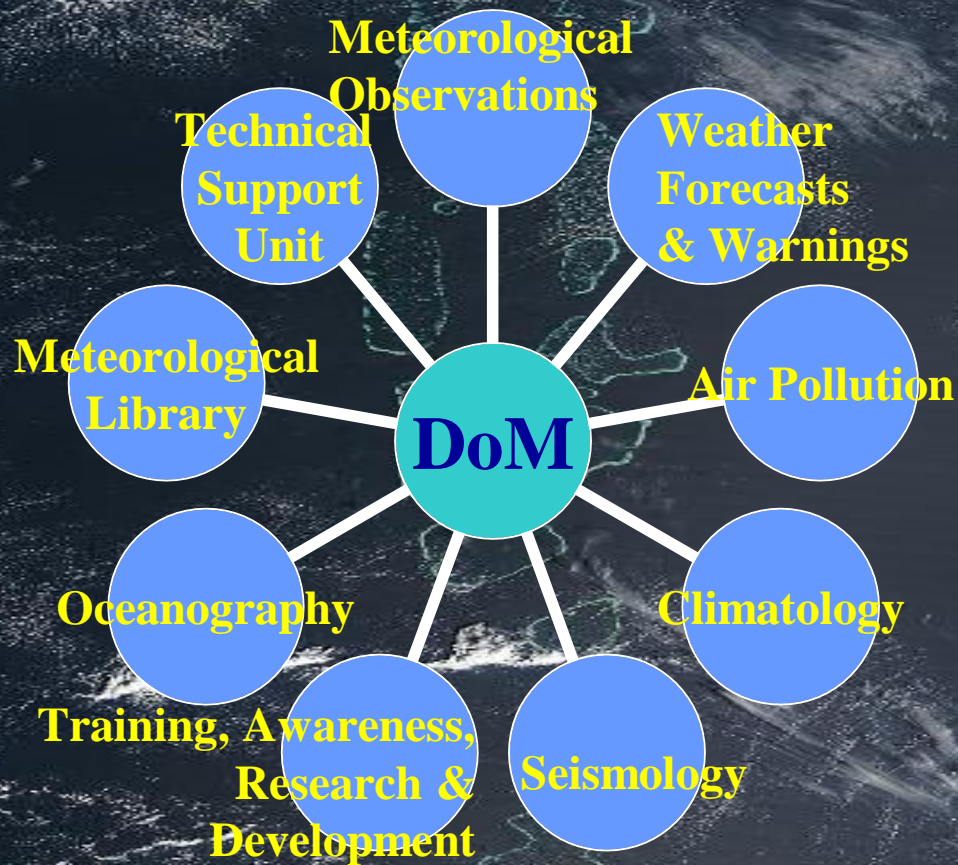
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- Department of Meteorology is under Ministry of Environment, Energy and Water
- Department of Meteorology (DoM) has been assigned the mandate to monitor the Air Pollution in the Maldives since 1 June 2005
- DoM is the National Implementing Agency (NIA) and National Focal Point for Atmospheric Brown Cloud (ABC) Project & Male' Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia

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Function of the Department of Meteorology





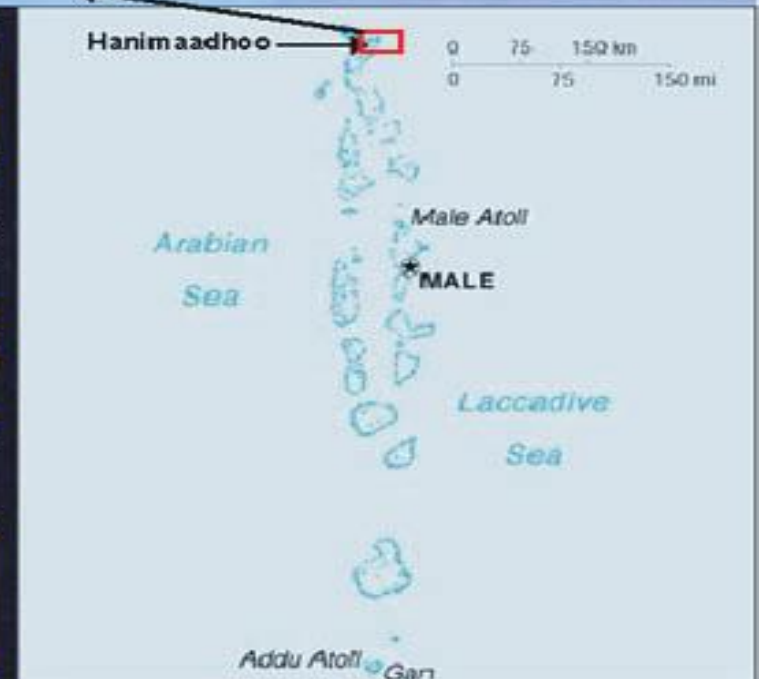
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Air Pollution Monitoring in the Maldives

- **Air Pollution Monitoring in Maldives is established under Atmospheric Brown Cloud (ABC) Project & Male' Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia**
- **Air Pollution Monitoring instruments of the ABC and Male' Declaration are installed at Maldives Climate Observatory – Hanimaadhoo (MCO-H)**
- **Passive Sampler installed at Hanimaadhoo Meteorological Office in 2004 under Male' Declaration is operational without any break**

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Maldives Climate Observartory – Hanimaadhoo (MCO-H)



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Instruments at MCO-H

Aerosol Instrumentation

**Light Absorption – Magee AE-31 Aethalometer,
7-wavelength**

**Light Scattering – TSI 3563 Nephelometer,
3-wavelength**

Total Particle Concentration – TSI 3022A CPC

Black Carbon – Filters, Aethalometer

Aerosol Optical Depth – CIMEL Sun Photometer

Size Distribution (< 500 nm)* – TSI SMPS

Size Distribution (> 500 nm)* – TSI APS



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Instruments at MCO-H

Radiation Instrumentation

Global and Diffuse Radiation (0.2-3.6 μ m) - Kipp & Zonen CM21, CM22 type Pyranometers

Direct Radiation (0.2-4.0 μ m) - Kipp & Zonen CH1 Pyrhelimeter

Broadband IR (4.5-42 μ m) - Kipp & Zonen CG4 Pyrgeometer

Solar tracking - Kipp & Zonen 2AP-GD PAR (400-700 nm) - BSI / GUV-2511 (*Global & diffuse*)

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

Aerosol Vertical Profile - *MPL NIES Lidar*

Meteorological Parameters – Wind Direction & Speed, Temperature, Relative Humidity, Pressure, and Rain gauge



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Male' Declaration Instruments

- Passive Sampler – Meteorological Office, Hanimaadhoo
- Wet only collector – MCO-H
- Additional Passive Sampler installed at MCO-H in July 2006



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Constraints

- Lack of Human resources in the field of Atmospheric Chemistry
- No arrangement for in-house repair and maintenance of Equipments used for Air Pollution Monitoring is made due to lack specialized training in the field
- Technical Assistants' inadequate knowledge, about operation of equipment used for monitoring of Air Pollution
- Availability of technical and financial support to conduct local studies on air pollution

- Include awareness on air pollution in the programme conducted by DoM for school children and general public
- Construct Air Pollution Monitoring instrumentation Tower and a new building at Gan in the next two years to establish a fully functional ABC station in the Island, if funds could be procured
- Three staff of DoM to be trained on Atmospheric Chemistry, one post graduate level and two graduate level in the next 5 years if financial support could be raised

A tropical beach scene with a sailboat on the water and a resort building in the distance. The sky is blue with scattered white clouds. The water is a clear, light turquoise color. The beach is white sand. A small island with green trees and a building is visible in the background.

Thank You