

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



# THE MALÉ DECLARATION ON AIR POLLUTION AND CLIMATE CHANGE IN SOUTH ASIA

Air pollution has become a priority issue in South Asia for various reasons.

Pollutants emitted to the air such as oxides of nitrogen ( $\text{NO}_x$ ) and sulphur ( $\text{SO}_x$ ) and particulate matter (like dust and ash) render it unclean. Such polluted air has adverse effects on human and animal health. It can acidify rainwater affecting soil and water quality, with knock on effects for crops and productivity in agriculture and allied activities. Pollutants can also have corrosive effects on materials and objects of cultural heritage.

The problem has increased with the use of fossil fuels in the sectors of transport, energy production and industry. Most of the technologies in use are not 'clean technologies' and so still pollute the air. Indoor air pollution due to biomass burning and outdoor pollution caused by man-made fires in forests and grasslands aggravate the problem. South Asian countries have been taking some preventive and regulatory steps to tackle air pollution problems. The progress in finding remedies has been slow as there is recognition of the problem only when the pollution is 'visible' and the creeping increase of 'invisible' pollutants, such as small particulate matter, goes almost unnoticed.

If local air pollution persists, it can be transported long distances due to winds and other weather phenomena. Europe had diagnosed the problem in the years after industrialization as air emissions caused human, fish and forest losses. This has compelled European countries to engage in scientific studies and monitoring while developing regional initiatives to reduce emissions.

Even though South Asia is in the first few rungs of the economic growth ladder which may result in increased air pollution in the absence of preventive and control measures,

## D ITS EFFECTS FOR

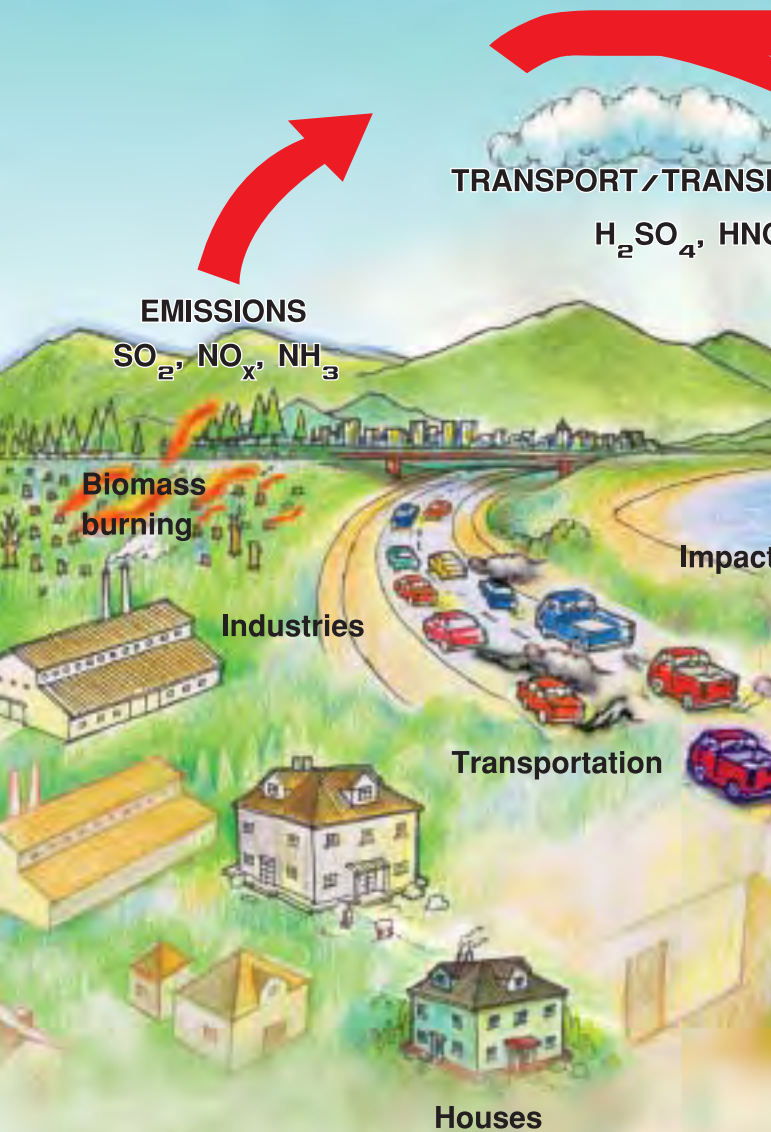


the Environment Ministers of the region recognized the need for vigilance and action. They felt scientific studies on transboundary air pollution phenomena should be stepped up. While each country will take its own measures to check air pollution, it is also necessary to monitor air pollutants to determine transboundary movements, if any. Hence they adopted the Malé Declaration in 1998 in Maldives. Salient parts of the Malé Declaration are reproduced in this brochure.

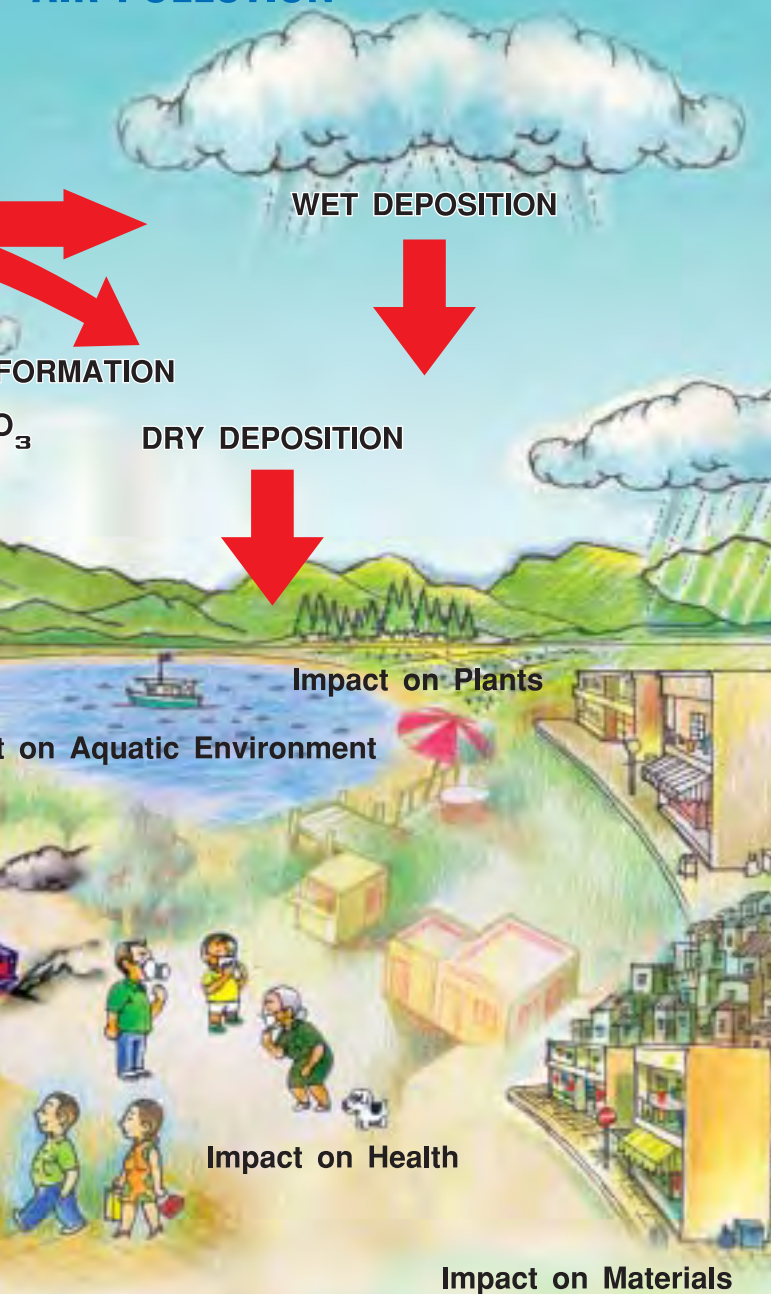
Since then the countries have identified National Focal Points (NFPs) and National Implementing Agencies (NIAs). With the help of UNEP RRC.AP at AIT, Bangkok, its partner the South Asia Cooperative Environment Programme (SACEP) in Colombo, Sida (Swedish donor) and Stockholm Environment Institute (SEI), baseline studies have been completed in all the Malé Declaration countries. Monitoring stations have been set up and capacity for monitoring and analysis is also being built. As concerted efforts in partnership not only with Governments but also with stakeholders, NGOs, experts, etc., is required, regional and national consultations are being held with representatives of all such interests. The countries participating are seven countries of South Asia, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, and also Iran.

It is realized after eight years of the Malé Declaration's implementation that all people of the region, whether producers, consumers or victims of air pollution should be brought on board, as their awareness will induce even more policy action to solve the problems. While sustaining their simple life styles with dignity, despite suffering poverty and underdevelopment, the people of this populous region can demonstrate through such understanding as displayed in the Malé Declaration and dissemination of its objectives and implementation that they may have much to suffer but have even more to offer!

# MECHANISM OF TRANSBOUNDARY



# AIR POLLUTION





# MONITORING NETWORK OF MALÉ DECLARATION



Gelephu, Bhutan



Shatkhira District, Khulna Division, Bangladesh

Canning, West Bengal, India



Chamsari, Ilam province, Iran

Dutuwewa, Sri Lanka



Rampur, Nepal



Hanimaadhu, Maldives

Bahawalnagar, Pakistan



What are they monitoring?

- Respirable suspended particulate matter
- Sulphur dioxide
- Nitrogen dioxide
- Acidity of rainwater
- Electrical conductivity of rainwater

## Salient part of Malé Declaration

*"We declare that countries of this region will initiate and/or carry forward programmes in each country to:*

- 1. Assess and analyse the origin and causes, nature, extent and effects of local and regional air pollution, using the in-house expertise in identified institutions, universities, colleges etc., building up or enhancing capacities in them where required;*
- 2. Develop and/or adopt strategies to prevent and minimize air pollution;*
- 3. Work in co-operation with each other to set up monitoring arrangements beginning with the study of sulphur and nitrogen and volatile organic compound emissions, concentrations and deposition;*
- 4. Co-operate in building up standardized methodologies to monitor phenomena like acid depositions and analyse their impacts without prejudice to the national activities in such fields;*
- 5. Take up the aforesaid programmes and training programmes which involves the transfer of financial resources and technology and work towards securing incremental assistance from bilateral and multilateral sources;*
- 6. Encourage economic analysis that will help at arriving at optimal results;*
- 7. Engage other key stakeholders, for example, industry, academic institutions, NGO's, communities and media etc., in the effort and activities*

*We also declare that we shall constantly endeavor to improve national reporting systems and strengthen scientific and academic effort in the understanding and tackling of air pollution issues.*

*We further declare that we shall continue this process in stages with mutual consultation to draw up and implement national and regional action plans and protocols based on a fuller understanding of transboundary air pollution issues.*

*We declare that in pursuit of the above, we shall evolve, as appropriate, institutional structures at the national level, including networking, both for the purposes of policy and the technical requirements, and we shall use the good offices of regional, international, bilateral and multilateral agencies in this, as appropriate."*

## National Focal Points (NFP) and National Implementing Agencies (NIA)

### Bangladesh

NFP: Ministry of Environment & Forest

NIA: Department of Environment  
Dhaka

### Bhutan

NFP & NIA: National Environment Commission  
Thimpu

### India

NFP: Ministry of Environment and Forests

NIA: Central Pollution Control Board  
New Delhi

### Iran

NFP & NIA: Department of Environment  
Tehran

### Maldives

NFP & NIA: Ministry of Environment, Energy and Water, Male

### Nepal

NFP: Ministry of Environment, Science and Technology

NIA: International Center for Integrated Mountain Development (TCIMOD)  
Kathmandu

### Pakistan

NFP: Ministry of Environment, Local Govt. & Rural Development

NIA: Pakistan Environment Protection Agency, Islamabad

### Sri Lanka

NFP: Ministry of Environment & Natural Resources

NIA: Central Environment Authority, Colombo

## Coordinating Agencies

UNEP Regional Resource Center for Asia and the Pacific (UNEP RRC.AP)  
Bangkok, Thailand



South Asia Co-operative Environment Programme (SACEP)  
Colombo, Sri Lanka



Stockholm Environment Institute (SEI)  
Stockholm, Sweden



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For more information  
[www.rrcap.unep.org/ew/air/male/](http://www.rrcap.unep.org/ew/air/male/)