

The Tenth Session of the Intergovernmental Network Meeting of the Malé Declaration on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia; 21 August 2008, Colombo, Sri Lanka

### **Work Programme in 2009 for Malé Declaration**

#### **I. INTRODUCTION**

1. The Malé Declaration Phase III implementation which was started in October 2005, continued the capacity building for monitoring initiated during Phase II. In addition, capacity building for impact assessment and prevention of air pollution were also initiated during the Phase III implementation which will be finalized by the end of September 2008.

2. In view of this, the Eighth Session of the Intergovernmental meeting of the Malé Declaration held in Bhutan in September 2006 decided that a plan should be developed for the Phase IV implementation of the Malé Declaration.

In March 2007, National Project Managers of the Malé Declaration met during an Exchange Programme at the Malé Declaration Secretariat in Bangkok. At this meeting the countries developed reports of their progress and also listed the activities required in their countries in the next phase. This, along with the needs of the countries articulated in technical training programmes on human health impact, emission inventory preparation, corrosion of materials, crop impact and acidification impacts, has formed the basis of the preparation of the proposal for Phase IV of the implementation programme of the Malé Declaration. This draft proposal was presented to the Ninth Session of the Intergovernmental (IG9) meeting held in Maldives in October 2007. IG9 adopted the proposal. During 2009, implementation of the Phase IV will be initiated based on the proposal adopted by IG9. This report describes the work programme of Malé Declaration in 2009 including the remaining activities for the calendar year 2008.

#### **II. OBJECTIVES**

3. Building on the capacity developed thus far, phase IV will focus on assisting the member countries of the Malé Declaration in the reduction of air pollutants. Phase IV will continue to assist the member countries to enhance their regional cooperation, monitoring, impact assessment, strengthen the initiatives started in the first three phases and to initiate new ones. The objectives are:

- Strengthen Regional Cooperation and move towards developing a regional agreement;
- Strengthen the air pollution monitoring network and conduct regular monitoring of high quality;
- Enhance the impact assessment capacity of the national institutions and assess the impacts of air pollution in the participating countries;
- Enhance the capacity of NIAs regarding emission inventory development, atmospheric transfer of pollutants and Integrated Assessment Modeling;

- Assist the member countries of the Malé Declaration with the development of air pollution reduction policies;
- Raise awareness for action on air pollution issues through targeted dissemination.

4. Towards achievement of Phase IV objectives, the Malé Declaration activities will aim at implementing each of the above objectives depending on the availability of resources. An implementation plan will be developed for the consideration of the IG11.

## II. STRENGTHEN REGIONAL COOPERATION AND MOVE TOWARDS DEVELOPING A REGIONAL AGREEMENT

### II-1 Intergovernmental meeting, regional stakeholders cum coordination meeting

5. The Eleventh Session of the Intergovernmental Meeting (IG11) will be held in September 2009. Countries willing to host the IG11 are invited to express their intention to the Secretariat. The Secretariat will discuss the date and venue of IG11 with the host country.

6. IG11 may wish to consider the following agenda items, which will be elaborated later by the Secretariat in communication with the participating countries:

- review of the progress of Malé Declaration activities in 2009;
- review of the data report on transboundary air pollution monitoring in 2008/09;
- consideration Terms of Reference for the Task Force on Future Development of the Malé Declaration;
- discussion on feasibility report on the establishment of specialist regional centres;
- consideration of the work programme of Malé Declaration in 2010; and
- any other issues raised by the participating countries.

7. The Sixth Session of the Regional Stakeholders cum Coordination (RSC6) meeting will be held before the IG11 in September 2009. RSC6 may wish to consider the following agenda items, which will be elaborated later by the Secretariat in communication with the participating countries, stakeholders, and representatives of regional initiatives:

- review of the progress of Malé Declaration activities in 2009;
- updates from air pollution related activities in the member countries of Malé Declaration;
- updates from initiatives focusing on air pollution at regional and sub-regional level; and
- updates from initiatives focusing on air pollution at global level.

### II-2 National Stakeholders meeting

8. The Malé Declaration needs to reach out to, and involve in its activities, various important stakeholders at the regional and national levels. Most of the participating countries have organized national stakeholder meeting in their countries during recent years. A second

National Stakeholders meeting in Bangladesh will be held during October 2008. NIAs, in principle, should cover part of the expenses for conducting the national stakeholders meeting. The major aims of the national stakeholders forums include:

- increase awareness on transboundary air pollution;
- share and receive stakeholders views and ideas on implementation of the Malé Declaration; and
- improve the information exchange between information generators and users.

### III. STRENGTHEN THE AIR POLLUTION MONITORING NETWORK AND CONDUCT REGULAR MONITORING OF HIGH QUALITY

#### III-1 Regional training programme on monitoring

9. The seventh regional training on monitoring transboundary air pollution will be organized in March 2009. Major objectives of the training will include:

- review the implementation of Quality Control and Quality Assurance (QA/QC) programme, specially on the data sampling and analysis;
- Introduction to data analysis
- review the data report 2008/09; and
- discuss the issues encountered in operating the monitoring sites in each country.

#### III-2 Implementation of inter-laboratory comparison

10. In order to improve the quality of the participating laboratories of Malé Declaration, the inter-laboratory comparison that was initiated during 2007/08, will be continued annually during Phase IV for ensuring data quality. The first attempt was completed during the first quarter of 2008. The second attempt was initiated during the third quarter of 2008. Blind samples were distributed to the participating laboratories of Malé Declaration. The countries have been analyzing the samples and will submit the results to central laboratory. The central laboratory will prepare reports on the second inter-laboratory comparison for review and comments from the monitoring committee by September 2008.

#### III-3 Passive sampler inter comparison

11. Available passive samplers in the region are being compared with the IVL sampler for their data quality and analytical procedure, in order to check their performance and to enable recommendations to be made for the possible use of suitable alternative methods within the Malé Monitoring Programme. Preliminary results will be presented to the RSC5. A final report on the passive sampler inter-comparison programme will be completed by October 2008.

#### III-4 Establishment of new monitoring sites

12. Installation of equipments at the new monitoring site in Bhutan, Iran and Sri Lanka are in the process and plan to complete the installation before end of 2008. National Implementing Agency in India will add three new monitoring stations to the Malé Declaration monitoring network. Therefore with these six new monitoring stations, the monitoring network will have 14 monitoring stations.

#### III-5 Central compilation, evaluation, and storage of data

13. NIAs will continue to operate the existing observatories. The participating countries will submit the data and related information obtained through the regular monitoring activities to the Secretariat. The Monitoring Committee will conduct a data verification to ensure the quality of the data. After the quality check by the Monitoring Committee, the data will be added to the regional data base. Based on this, a data report for 2008/2009 will be compiled by the Secretariat. After the verifications, the data will be available for the participating countries at [www.rrcap.unep.org/male/](http://www.rrcap.unep.org/male/).

#### III-6 Site and laboratory audits

14. Monitoring Committee members performed site/laboratory audits in most of the countries and audit protocols have been elaborated. Site audits in India and Pakistan are in the process and will be conducted before the end of October 2008.

15. Revised monitoring manuals, data reporting format and Standard Operating Procedures (SOP) will be submitted for review in RSC5 and IG10. These manual will be disseminated to the countries (NIAs and technical personal in charge of Male monitoring site) for the improvement of monitoring activities at the national level.

### IV. ENHANCE THE CAPACITY OF NIAs REGARDING EMISSION INVENTORY DEVELOPMENT, ATMOSPHERIC TRANSFER OF POLLUTANTS AND INTEGRATED ASSESSMENT MODELING

#### IV-1 Emission inventory

16. National Implementing Agencies are in the process of compiling their national level emission inventories for the year 2000. NIAs will continue to compile the emission inventories.

#### IV-2 Modeling

17. Integrated assessment and atmospheric transport modeling are specialized areas of activity requiring capacity building. There will be an on-going improvement to the Integrated Information and Assessment Model (IIAS), incorporating new data and improving the policy assessment and scenario assessments.

## V. ENHANCE THE IMPACT ASSESSMENT CAPACITY OF THE NATIONAL INSTITUTIONS AND ASSESS THE IMPACTS OF AIR POLLUTION IN THE PARTICIPATING COUNTRIES

### V-1 Rapid urban assessment

18. A regional level training programme on rapid urban assessment has been conducted in Nepal with the case study in Kathmandu valley for the development of capacity within the participating countries for the quantification of emissions and pollutant concentrations using relatively rapid techniques. Currently the study is expanded to Lalitpur district which is the second important urban part of the valley. This extension is to quantify the emission and pollutants from various source sectors in grid and to represent them in concentration maps for selected pollutants (SO<sub>2</sub>, NO<sub>x</sub>, CO, NMVOC, NH<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>) in Lalitpur sub metropolitan. The final pollutant concentration maps combine with RUA-KMC maps will be more comprehensive of the ambient air pollution status of the urban Kathmandu valley. This study will be completed before December 2008 and the results can be used to assess population exposure to air pollution and inform the development of policies to tackle the problem.

### V-2 Health impact

19. The aim of this activity is to develop capacity within the participating countries to assess the impacts of air pollutants such as particulate matter on human health. A draft report on case study in Dhaka, Bangladesh will be submitted to IG10 for discussions and review. After which the report will be finalized in September 2008. Implementation plan for the health impact assessment during the Phase IV will be developed.

### V-3 Crop impact

20. The aim of this activity is to strengthen knowledge on impacts of air pollution on crops. A draft report on bio-monitoring studies undertaken in Bangladesh, Bhutan, India, Pakistan, and Sri Lanka will be submitted to IG10 for discussion and review. After which the report will be finalized in September 2008. Implementation plan for the crop impact assessment during the Phase IV will be developed.

### V-4 Corrosion impact

21. The aim of this activity is to develop capacity within the participating countries to assess the impact of air pollution on materials and objects of cultural heritage. A draft report on case studies that have been initiated in India, Iran, Maldives, Nepal and Sri Lanka will be submitted to IG10 for discussions and review. After which the report will be finalized in

October 2008. Implementation plan for the corrosion impact assessment during the Phase IV will be developed.

## VI. ASSIST THE MEMBER COUNTRIES OF THE MALÉ DECLARATION WITH THE AIR POLLUTION REDUCTION POLICIES

### VI-1 Good practices

22. A compendium of best practice in preventing and controlling air pollution in South Asia will be launched during opening section of RSC5 and IG10. A draft report on strategies to implement and upscale the identified best practices in South Asia would be submitted to IG10 for discussion. After which the report will be finalized in October 2008. The compendium on good practices will be widely disseminated.

### VI-2 Training and Workshop

23. A training workshop on decision support information will be held in early 2009. This workshop will focus on review of the Clean Fuels and Vehicles Status in Asia.

### VI-3 Implementation Plan

An implementation plan for the activities on air pollution reduction policies will be developed for the consideration by the IG11.

## VII. RAISE AWARENESS FOR ACTION THROUGH TARGETED DISSEMINATION

### VII-1 Newsletter

24. The Malé Declaration network newsletter was launched in 2002 to disseminate the Malé Declaration related information to the public and stakeholders. The content of the newsletter has largely been reports on the network's activities. Two issues of the newsletter will be published during 2008/09 period. National Implementing Agencies are encouraged to submit articles and news items for the newsletter.

### VII-2 Awareness materials

25. National level public awareness campaigns on the impacts of air pollution have been conducted in Bangladesh and Sri Lanka. Outcomes of these activities will be compiled by October 2008.

26. A publication on air pollution targeting youth, will be launched as part of the 10<sup>th</sup> year anniversary during RSC5 and IG10 meeting. A multimedia presentation, which is being developed based on the publication, will be completed by September 2008. The multimedia presentation and the publication will be disseminated to young people in South Asia.

#### VII-4 Information sharing

27. The Secretariat will update the Malé Declaration website by presenting relevant information on Malé Declaration activities, such as training programmes, meeting documents, and newsletter. Malé Declaration website provides link to national air quality data from three countries (i) Central Pollution Control Board, India; (ii) Ministry of Environment, Science and Technology, Nepal; and (iii) Air Resource Management Center, Sri Lanka. Other participating countries are encouraged to provide appropriate URLs to the Secretariat.