

NATIONAL STAKEHOLDERS FORUM
Under
Malé Declaration on control and Prevention of Air Pollution
and
Its Likely Tranboundary Effects for South Asia.
on
12th June 2007
Auditorium, Central Environmental Authority Sri Lanka

CONTENTS

List of abbreviations	2
Introduction.....	3
Main Objectives of the stakeholders Forum	3
Proceedings	3
Attachment I : Speech of the chief guest	6
Attachment II : List of participants	8
Attachment III : Technical Pares Presentations	11

Implementation of Male Declaration

United Nations environmental programme (UNEP)

Implementation of Male Declaration , Situation in Sri Lanka *Central Environmental Authority (CEA) Sri Lanka*

European Experience in Air Pollution and the Intergovernmental policy Response

Stockholm Environment Institute (SEI)

Urban Air Pollution and possible health effects

Colombo Municipal Council(CMC), Sri Lanka

Variations of Environmental Concentrations in PM-10 and PM-2.5

Atomic Energy Authority, Sri Lanka

Air Quality Trends in the city of Colombo

Central Environmental Authority (CEA) Sri Lanka

List of Abbreviations

CEA	Central Environmental Authority
MoC	Monitoring Committee
NIA	National Implementing Agency
SACEP	South Asia Co-Operative Environment Programme
SEI	Stockholm Environment Institute
Sida	Swedish International Cooperative Development Agency
UNEP	United Nations Environmental Programme
UNEP RRC AP	United Nations Environmental Programme Regional Resource Center for Asia and the Pacific

1.Introduction

Air pollution is an emerging environmental issue in Asia as in the other parts of the world. To cope with the issue of Transboundary air pollution in South Asia the male declaration on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia was discussed and adopted by the Ministers of the Environment at the seventh meeting of the governing council of South Asia Cooperative Environment Programme (SACEP) in Male, Republic of Maldives.

The declaration is an agreement which aims to achieve intergovernmental cooperation to address the increasing threat of transboundary air pollution and consequent impacts. The Malé Declaration also makes provisions for cooperation among the key stakeholders in tackling transboundary air pollution in South Asia.

2.Main objectives of the Stakeholders Forum

1. To enhance the awareness on the transboundary air pollution
2. To share stakeholders views and ideas on the implementation of male Declaration
3. To improve the information exchange between information generators and users

3.Proceedings

3.1 Proceedings of Inaugural Session

The National Stakeholders Forum on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia was inaugurated by Honorable Patale Champika Ranawaka, Minister of Environment and Natural Resources as chief guest. Mr.Udaya Gammanpila, Chairman, Central Environmental Authority (CEA); Dr A.S..Boaz, Director General South Asia Cooperative Environmental Programme (SACEP); Dr. Johan Kuylenstierna ,Director, Stockholm Environmental Institute (SEI) at York; and Mr. M .Iyngararasan, Senior programme Specialist, United Nations Environmental Programme Regional Resource Center for Asia and the Pacific (UNEPRRC) also spoke on this occasion.

The inaugural session was started with welcome address of Mr.Udaya Gammanpila, Chairman. Central Environmental Authority after lighting the traditional oil lamp by distinguished Guests. He warmly welcomed all the delegates of the forum with thank. Explaining the objectives of this forum he stated that science and outcomes of researches must be used to clean our air in order to improve our health and leave our planet a better place for our children and their children.

The representative of the United Nation Environmental Programme Mr. M Iyngararasan, Senior Programme Specialist of UNEP RRC AP explained the historical background of Malé Declaration and the purpose of National Stakeholders Forum. He thanked for successful organizing of the meeting and concluded that the meeting will put a millstone in the implementation of Malè Declaration.

Dr. Arvind Boaz, the Director General of SACEP explained the role of SACEP in the process of implementation of malè declaration. He also stressed more active role will be played by SACEP with SEI and UNEP under the phase three activities of the Malè

Declaration. He concluded his speech with the hope of coming out good suggestions and recommendations with thanking NIA and various institutions including Sida, SEI, MoC, and UNEP.

Mr.Patali Champika Ranawaka, Honorable Minister of Environment and Natural Resources addressed the gathering as the chief guest, briefing the importance of learning to manage the environment and usage of it in a sustainable manner. He also briefly explained the importance of control and prevention of air pollution for healthy environment. Honorable minister assured to give his fullest support and commitment in making this programme successful in every way on behalf of the government of Sri Lanka.

3.2 Proceedings of Technical session

The technical session of National Stakeholders Forum was started with the presentation of Mr.Iymgararasan, UNEP RRC AP. He briefly mentioned about the Phase I, Phase II, and the activities that are being carried out in Phase III. He also explained the importance and necessity of intergovernmental cooperation on transboundary air pollution in South Asia.

Mr R.N.R.Jayaratne, Project Coordinator of Malé Declaration, (Senior Environmental Officer of the Central Environmental Authority) described the implementation status in Sri Lanka with problems encountered and suggested solutions.

Presenting the European Experience with Air pollution, Dr Johan Kuylenstierna, Director, SEI explained the problems of air pollution during the last few centuries especially starting from industrial revolution. During his presentation he expressed the current state of air pollution in Europe and their benefits gained by controlling the transboundary air pollution ultimately affected all the neighboring countries as a result of collective measures and actions taken by all neighboring countries. He also stated that studies conformed that air pollutants could travel several thousands of kilometers before deposition and damage occurred. He emphasized the necessity of intergovernmental cooperation to solve problems such as acidification and reiterated the role of international and regional cooperation among neighboring countries.

Presenting the Urban Air Pollution in Sri Lanka and its Likely Health Effects by Dr. Ruwan Wijayamuni, Deputy Chief Medical Officer of Colombo Municipal Council of Sri Lanka stated that respiratory disease became rank 1 during the period 1992 to 1994 and it became rank 2 during the period from 1995 to 2000. He emphasized the importance of epidemiological studies to identify the correlations of indoor and outdoor air pollution with respiratory diseases.

Mrs. Shirani Seneviratne, Head, Nuclear Analytical Services Section of Atomic Energy Authority Sri Lanka presenting her presentation on Variations of Elemental Concentration PM 10 and PM 2.5 stated that the dominant elements in the fine particles were black carbon and sulphates in the Colombo city. While potassium and zinc were significant, lead became not significant level as a result of unleaded gasoline was introduced in 2001.

Mr R.N.R.Jayaratne, Project Coordinator of Malé Declaration, (Senior Environmental Officer of the Central Environmental Authority) presented his paper on Air Quality Trends in the City of Colombo. He described trends in Colombo with seasonal variation patterns.

He also stated that high concentrations of air pollutants observed during the dry period and low concentrations observed during the wet period. Pollutants concentrations are higher in the North – East monsoon period than in the other periods. He also explained the diurnal pattern of concentrations of air pollutants indicates that mobile sources are the major contributor for air pollution in the Colombo city. In general the concentration of air pollutants are higher during the weekdays than weekends.

3.3 Open Discussion and Recommendation

- After the technical session, the floor was open for the discussion. The following conclusions were drawn from the discussion made.
- It has been highlighted that the importance of the contribution of the government of Sri Lanka in order to continue the Malè Declaration project.
- Sectoral and or provincial emission inventory is more important and valuable than single inventory for whole country.
- No studies have been done in Sri Lanka in order to ascertain health impacts on zinc which comes from smoke from vehicles.
- Carrying out of in depth epidemiological studies are very important to find out what are the links or correlation between health effects and air pollution.
- The transboundary effects in Europe and Asia depends upon the climate conditions. However it is a cross boundary problem.
- Malè Declaration project is not only to cover transboundary air pollution but to cover all other pollutants as well.
- It has been highlighted that the CEA is going to shift the existing monitoring site from Dutuwewa to Mihinhale. However, since the monitoring has been conducting at Dutuwewa site for the last 3 years, it is important to continue the monitoring at Dutuwewa site at least three times per year.
- It was decided make use of provincial universities to make of emission inventory as the emission inventory depends on the requirement of the province and the central government as well. Emission Inventory will be very useful in making policy decisions by provincial levels and the central government as well.
- Damage by the acidification in Asia is not severer than in Europe as the most of the Asian Soil is basic
- A Center for Environmental Studies in Sri Lanka is preparing a tool guide for controlling air pollution for youth.

Key Note Address by Hon Minister

Mr Mylvakanam Iyngararasan United Nations Environmental Programme (UNEP)

Dr. A.A.Boaz, Director Genaral, South Asia Cooperative Environmental Programme (SACEP)

Director, Stockholm Environmental Institute (SEI),

Secretary, Ministry of Environment and Natural Resources

Chairman, Director General Central Environmental Authority

Distinguished Representatives of Mass Media

Experts, Invitees ladies and gentlemen

I am please to be hear among you today in the inaugural Session of National Stakeholders Forum in Sri Lanka as the part of fulfilment towards realizing the goal of the male declaration on Control and Prevention of Air Pollution and Its likely Transboundary effects in South Asia jointly organized by United Nations Environmental Programme (UNEP), South Asia Cooperative Environmental Programme (SACEP), Stockholm Environmental Institute (SEI), Ministry of Environment and Natural Resources (MOE&NR) and Central Environmental Authority (CEA)

Clean air is an essential basic need for all living beings. Purity of air we breathe is an important factor for human health. People in the past did not pay much attention for air as a resource like land and water because air is abundantly available in the atmosphere. Atmospheric pollution was often not considered critical since nature and extent of atmospheric pollution cannot be easily seen or felt. However, in the past few decades' air pollution has been identified as a critical and a growing problem all over the world after the disasters attributed to air pollution occurred in cities such as London, Donora and Japan.

As we all know, human society has created the present environmental crisis. This same society has now seeking the solutions to the problems in order to ensure that mankind will continue to live on planet. In order to do this we all should learn to manage the environment and use it in a sustainable manner.

Air pollution as an emerging environmental issue in Asia is becoming a matter of great concern for us. In Particular Emissions of Sulfure Dioxide and Nitrogen Dioxide have been rising steadily over the past few decades. It is observed that rapid growth of cities associated with growth of industry and transport Systems has made region increasingly vulnerable to these emissions.

The present Government of Sri Lanka has taken a number of steps towards control and prevention of air pollution in Sri Lanka particularly due to vehicular exhaust emissions.

Following measures taken by the Government to have a better air quality in our cities
Enforcement of Vehicle Emission Standards

1. Vehicle Emission Standards, Fuel Standards, and Emission Standards for Importation of vehicles has been gazetted in 2003 (GE. No 1295/11 dated 30/06/2003)
2. Improvement of Fuel quality
 - Use of unleaded gasoline from 2003 - done
 - Reduction of Sulfur content in diesel from 15000 PPM to 5000 PPM by 2003 -done
 - Reduction of Sulfur content in diesel from 5000 PPM to 3000 PPM by 2004 - done
 - Reduction of Sulfur content in diesel from 3000 PPM to 500 PPM by 2007 –
to be done by 2008
3. Implementation of Vehicle Emission Standards through the Vehicle Emission Testing (VET) Programme.
 - This is scheduled to be implemented by the Commissioner of Motor Traffic and vehicle emission testing centres will be established soon in Sri Lanka.

On going activities

- Steps are being taken to legalize source emission standards
- Steps are being taken to review existing ambient air quality standards incorporating PM-10, and PM-2.5

Also the government has imposed ban on the import of two strokes three wheelers in the country with the effect from 2008. These actions will have resulted in significant improvement in the air quality of Colombo City and will still be causing further improvement in future.

As Minister of environment and natural resources, it is a great pleasure to be among this distinguished gathering today in this stakeholders meeting. I hope this stakeholders meeting will focus on awareness on the transboundary air pollution, share and receive the stakeholders' views and ideas on implementation of Male Declaration, improve the information exchange between information generators and users, and formation of a regional network of stakeholders. I also hope this meeting will help to bring all stakeholders of the region together in a same platform to control and prevent transboundary air pollution in a well coordinated manner and we express our fullest support and commitment in making this programme successful in every way on behalf of government of Sri Lanka

I believe that this meeting would deliberate not only upon transboundary air pollution but also upon transboundary pollution of other components of the overall environment and come out with concrete proposals in the form of recommendations. Let our unified and concerted efforts and initiatives make the environment of the region free of all sorts of local as well as transboundary pollution and help realize the goal and objectives of the male declaration.

Annexure II

List of Participants for Stakeholders Meeting under Male Declaration

- | | | | |
|----|---|----|---|
| 01 | K.R.Abesinghe
Director
Meteorological Department
Bouddhaloka Mawatha
Colombo 07
Tel: +94 11 286499
e-mail: krabey@yahoo.com | 02 | Mr M. P. L..R. Gunawardana
Environmental Officer
Ceylon Electricity Board
P. O. Box 540
Colombo 02
Tel: +94 11 2320012
e-mail: envofficer@ceb.lk |
| 03 | Mr. Saman Senanayake
Director, Provincial Environmental
Authority
North Western Province
Maligawa, Kurunegala
Tel : +94 37 2221531
e-mail: pentanwp@sltnet.lk | 04 | Mr Clarence Perera
Head, Environmental Division
National Building Research Organization
Jawattha Road, Colombo 05
Tel: +94 11 2588946
e-mail: nbro@sltnet.lk |
| 05 | Mr.S.R.B.Disanayaka
Deputy Director
Department of Wildlife Conserveation
Kaduwela Road
Malabe
Tel: +94 60 2188601
e-mail: srbdissa@yahoo.com | 06 | Dr. Anoma Perera
Senior Lecturer
Department of Botany
University of Peradeniya
Peradeniya
Tel: +94 81 2394525
e-mail: anomap@pdn.ac.lk |
| 07 | Dr. Anura Widanagamage
Director(Technical)
Industrial Service Burro (ISB)
141,Kandy Road.Kurunegala
Tel: +94 372223721
e-mail: anurav@isb.lk | 08 | Dr Mahesh Jayaweera
Snr. Lecturer,Department of Civil
Engineering
University of Moratuwa
Tel: +94 11 2650567
e.mail: Mahesh@civil.mrt.ac.lk |
| 09 | Mr.S.M.I.B.Dedunupitiya
Assistant Director
Provincial Environmental Authority
North Western Province
Maligawa, Kurunegala
Tel : +94 37 2225236
e-mail: pentanwp@sltnet.lk | 10 | Mr R.P.Samarakkody
Senior Scientist
National Building Research Organization
Jawattha Road, Colombo 05
Tel: +94 11 2588946
e-mail: rohan_nbro@yahoo.com |
| 11 | Mr. R. M. U. Senarath
Senior Manager
Board of Investment Sri Lanka
World Trade Centre,Colombo 01
Tel: +94 11 2465221
E_mail: upalis@boi.lk | 12 | Mrs.G.B.S.Perera
Coordinating Officer
Clean air SL
Tel: +94 11 5658889
e-mail: cleanairsrilanka@yahoo.com |

- 13 Dr. Ruwan Wijayamuni
Deputy Chief Medical Officer of Health
Colombo Municipal Council
Town Hall
Colombo – 07
Tel: +94 11 2687747
e-mail:
- 14 Mr M. A. R. D. Jayathilaka
Secretary, Ministry of Environment
Sampathpaya
No. 82, Rajamalwatta Road
Battaramulla
Tel:
e.mail:
- 15 Mr.S..K.Lenaduwa
Deputy Director
Provincial Environmental Authority
North Western Province
Maligawa, Kurunegala
Tel : +94 37 2225236
e-mail: pentanwp@sltnet.lk
- 16 Mr. W. R. M. S Wikramasinghe
Additional Secretary,
Ministry of Environment
Sampathpaya, No. 82,
Rajamalwatta Road
Battaramulla
Tel:
e.mail:
- 17 Mr N. R.. Wikramasinghe
Deputy Manager(Environment)
Ceylon Petroleum Corporation
Galle Road
Colombo 03
Tel:+94 11 5668513
e-mail: wanrw@sltnet.lk
- 18 Mr N. R. Amarasinghe
Manager(Technical Services)
Ceylon Petroleum Corporation
Galle Road
Colombo 03
Tel:+94 11 2401375
e-mail: nra@ceypetco.gov.lk
- 19 Mrs.Priyankari Alexaner
Programme Officer
SACEP
No.10, Anderson Road,
Colombo 05
Tel: +94 11 2552761
e-mail: po2_sacep@ed.lk
- 20 Mrs. M. A. S. Perera
Director Environment Management
Board of Investment Sri Lanka
World Trade Centre, Colombo 01
Tel: +94 11 2451273
e-mail: sherinep@boi.lk
- 21 Mr. A. W Dissanayake
Assistant Commissioner (Technical)
Department of Motor Traffic
No. 341, Elvitigala Mawatha
Colombo -05
Tel:+94 11 2692275
e-mail:
- 22 Mr. K.H.Muthukudaarachchi
Deputy Director General,
Environmental Pollution Control Division
Central Environmental Authority
Battaramulla
Tel:+94 11 2692275
e-mail:
- 23 Mr R.M.U.K.Gunaratne
Research Assistant
University of Peradeniya
Peradeniya
Tel:
e-mail: udeykumara@yahoo.com
- 24 Mr R.M.Kulasena
Deputy Director
Air/Noise &Vibration Monitoring and
Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail

- 25 Dr.Banduni Premathunga
Assistant Director
Industrial Service Burro (ISB)
141,Kandy Road.Kurunegala
Tel: +94 372223723
e-mail: bandunip@isb.lk
- 26 Mr C.K.Amaratunga
Director Laboratory Services
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel: +94 11 2872606
e-mail: ck@cea.lk
- 27 Mrs.Shirani Seneviratne
Head, Nuclear Analytical Division
Atomic Energy Authority
Orugodawattha, Wellampitiya
- 28 Mr.R.M.S.K.Ratnayake
Director,
Environmental Pollution Control Division
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 29 Mrs.T.W.A.W.Wijesinghe
Deputy Director
Laboratory Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 30 Mrs R.A.W.Ranawakaarachchi
Senior Environmental Officer
Air/Noise &Vibration Monitoring and
Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 31 Mr.R.N.R.Jayaratne
Senior Environmental Officer
Air/Noise &Vibration Monitoring
and Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 32 Mr.D.S.Bandara
Senior Environmental Officer
Air/Noise &Vibration Monitoring and
Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 33 Mr.K.T.C.Ariyawansa
Senior Environmental Officer
Air/Noise &Vibration Monitoring
and Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail
- 34 Mr.L.D.Jayasooriya
Senior Environmental Officer
Air/Noise &Vibration Monitoring and
Male Declaration Unit
Central Environmental Authority
104, Denzil Kobbekaduwa Mawatha
Battaramulla
Tel:
e-mail