The Ninth 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; 3 October 2007

Report on the Progress of Malé Declaration after the Eighth Session of the Intergovernmental Meeting (IG8)

I. INTRODUCTION

1. This report reviews the progress of Malé Declaration activities after the Eighth Session of the Intergovernmental Meeting (IG8) held in Bhutan on 13th September 2006.

2. The review is based on the 6 objectives of the Phase III implementation of the Malé Declaration:

1. Strengthen regional cooperation and stakeholders participation under the Malé Declaration;
2. Strengthen capacity building programmes initiated during Phase II on monitoring;
3. Enhance the capacity of NIAs on emission inventory development and Integrated Assessment Modeling
4. To enhance the analytical and impact assessment capability at the national level through integration of findings from local pollution studies and conducting assessment studies;
5. Provide decision support information for policy formulation and air pollution prevention ;and
6. Raise awareness for action through targeted dissemination

II. STRENGTHEN REGIONAL COOPERATION AND STAKEHOLDER'S PARTICIPATION UNDER THE MALÉ DECLARATION

II-1 Intergovernmental meeting

3. The annual intergovernmental and stakeholders meetings are an opportunity for the participating countries to share their experience and to plan for the future. The eighth session of the intergovernmental (IG8) meeting was held in Thimpu, Bhutan on 13th September 2006. His Excellency, Mr. Dasho Nado Rinchhen, Deputy Minister, National Environment Commission (NEC) of Bhutan chaired the session.

4. The Session discussed and adopted the document "Review of Implementation of Malé Declaration on Control and Prevention of Air Pollution and Its Likely Transboundary effects for South Asia 1998-2006." Based on this review, IG considered it advisable to recast the overall institutional arrangement, to bring in other key players as well as those who may have to be inducted for the next phases of the Malé process. Based on the recommendations, IG8 has adopted an extended institutional structure for the Malé Declaration. This is a major step towards strengthening the institutional structure. The session also reviewed the progress in 2006 and adopted the work plan for 2007.

5. The Secretariat compiled the proceedings of the meetings and distributed them through the internet. (www.rrcap.unep.org/md/Malereport/)

II-2 Regional stakeholders meeting cum coordination meeting

6. Malé Declaration is one of the few intergovernmental networks to have a formal network for stakeholder consultation, facilitated through annual meetings. The Third Regional Stakeholders cum Coordination meeting was held back to back with IG8 in Thimpu, Bhutan during 12 – 13 September 2006. The meeting was attended by the National Focal Points (NFP) and National Implementing Agencies (NIA) of Malé Declaration as well as representatives from various stakeholders groups and ongoing initiatives on air pollution at national, sub-regional, regional, and global levels. Progress in the implementation of the Malé Declaration during 2006 and the proposed work plan for 2007 were presented and reviewed by the stakeholders. In addition to the review of activities under the Malé Declaration, the stakeholders' forum has also provided a forum for the air quality related initiatives in South Asia to share their experiences. As requested by the previous stakeholders' forum, additional stakeholder groups are being added to the forum. For example, the meeting was attended by the South Asia Youth Environment Network (SAYEN) for the first time. The forum also attracted relevant intergovernmental networks such as EANET, and urban air quality networks such as CAI-Asia.

7. The Secretariat compiled the proceedings of the meetings and distributed them through the internet. (www.rrcap.unep.org/md/Malereport/)

II-3 Network expansion

8. During the reporting period, National Focal Points have identified expert institutions to participate in the impact assessment studies. This has resulted in the expansion of the Malé Declaration network into the impact assessment area.

II-4 National stakeholders forum

9. National stakeholders forums are being organized as part of the implementation of the Malé Declaration. The main aims of the stakeholders forum are to:

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

10. A National Stakeholders forum was held in Colombo, Sri Lanka on June 12, 2007. The forum, organized by the National Focal and National Implementing Agency in Sri Lanka, was inaugurated by Hon. Champika Ranawaka, Minister, Ministry of Environment and Natural Resources. Hon. Minister, during his inauguration address, praised the Malé Declaration for providing the forum for regional cooperation on addressing the air pollution issue, which requires collaboration among the countries. The national stakeholders forum, attended by major stakeholders in Sri Lanka, reviewed the implementation of the Malé Declaration in Sri Lanka and provided recommendations for the further implementation of the Malé Declaration.

II-5 National Advisory Committee

11. National Advisory Committee's have been established in all the participating countries. During IG8, the NIAs presented the membership and activities of the National Advisory Committee's. They meet regularly to review the national implementation process, especially the improvement of data quality. For example, a meeting of the National Advisory Committee for Bangladesh was held on 2nd July 2006 under the Chairmanship of Mr. Tariq-ul-Islam, Joint Secretary, Ministry of Environment and Forests (MOEF) at the MOEF, Dhaka, Bangladesh. The meeting reviewed the existing monitoring activities and discussed the implementation of impact assessment studies during Phase III. National Advisory Committee's were expected to meet monthly, but IG8 decided that it may not be feasible for them to meet monthly for data verification. IG recommended that a small group of technically competent personnel from the National Advisory Committee should be established to verify the data before submitting to the Secretariat.

II-6 Exchange programme

12. Secretariat implemented 2 two-week exchange programmes during the third and fourth weeks of May 2007 with the aim of exchanging experience between project managers of Malé Declaration at national level and the Secretariat at UNEP. Project managers of Malé Declaration participated in the exchange programme. Outcomes of the exchange programme include:

- national brochure on the progress within the last decade for each of the participating countries;
- national and regional priorities for Phase IV implementation of Malé Declaration; and
- better understanding between the project managers of Malé Declaration on the regional level implementation of Malé Declaration.

III. STRENGTHEN CAPACITY BUILDING PROGRAMMES INITIATED DURING PHASE III ON MONITORING

III-1 Continue operation of the monitoring stations

13. NIAs continued the operation of the monitoring sites during 2007. The Pakistan NIA has now established a remote Malé Declaration monitoring station at Bahawalnagar, which is situated on the Indo-Pakistani border. The monitoring site is placed in the premises of Pakistan Meteorological Department (PMD), Bahawalnajar. The current status of the monitoring activities in the Malé Declaration sites is summarized in Table 1. details of the Malé Declaration monitoring sites are provided in the Annex 1.

14. MoC conducted site audits for Bangladesh, Bhutan, Nepal and Sri Lanka and provided site specific recommendations for further improvement of the data quality.

Table 1: Monitoring Status of the Malé Declaration Sites, October 2007

Parameter	Bangladesh	Bhutan	India	Iran	Maldives	Nepal	Pakistan	Sri Lanka
TSP	No	yes	Yes	Yes	No	Yes	No	No
PM_{10}	no	No	Yes	Yes	No	Yes	No	No
SO_2, NO_2, O_3 with passive sampler	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SO_2, NO_2 with active method	no	Yes	Yes	Yes	No	Yes	No	No
pH (rain water)	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
pH (Surface water)			Yes					
EC	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Rain Chemistry (Mg^{2+}, Na^{+}, K^{+}, Ca^{2+}, NH^{4+}, SO_4^{2-}, NO_3-, Cl-)	Yes	no	Yes	yes	no	Yes	no	Yes

III-2 Establishment of new monitoring sites

15. IG8 decided to install two new sites as part of the work plan for 2007, in Sri Lanka and Bhutan. This was included as one of the activities in the MoU with the respective NIA's. The location of the new monitoring site in Sri Lanka has been identified. Site selection process is on going in Bhutan. These new sites will rely on passive samplers and rainwater collection only.

III-3 Implementation of inter-laboratory comparison

16. In order to improve the quality of the participating laboratories of Malé Declaration, an inter-laboratory comparison will be conducted under the framework of the Malé Declaration. In order to facilitate the inter-laboratory comparison, an inter-laboratory comparison protocol has been developed. The draft protocol was reviewed by the refresher training held in March 2007.

III-4 Passive sampler inter-comparison

17. A passive sampler inter-comparison study has been initiated to compare the available passive samplers in the region with the IVL sampler for their data quality and analytical procedure. The study has two main components: to implement a Passive Sampler inter-comparison and to compare Passive Samplers with active samplers.

18. Pak-EPA, Pakistan, the University of Peradeniya, Sri Lanka and the National Building Research Organisation (NBRO), Sri Lanka are participating in a Passive Sampler inter-comparison study. The details of the proposed study and guidelines were by the regional training and refresher course held in March 2007.

III-5 National Training programme

19. In February 2006, an Atomic Absorption Spectrophotometer (AAS) was installed at the Department of Environment, Khulna divisional laboratory in Khulna, Bangladesh together with a training programme. A follow-up training programme was conducted in May 2007. The training programme focused on the improvement of analytical capability of Khulna divisional laboratory staff on rainwater chemistry.

III-6 Regional training programme

20. The fifth regional training and refresher course on monitoring transboundary air pollution was held at UNEP RRC.AP, during 27 - 30 March 2007. General objective of centralized training program are to strengthen the monitoring network based on the common methodologies and standards at the national level and to exchange the experience on developing national monitoring stations. Specific objectives of the fifth regional training included:

- Discuss the data quality and provide recommendation for the data report for 2006/2007;
- Review the inter-laboratory comparison protocol for the Malé Declaration;
- Review the guidelines for passive sampler inter comparison study;
- Improve the capability of NIAs on rainwater chemistry analysis;
- Discuss the Phase IV implementation of the Malé Declaration from a technical view point.

21. The training programme was attended by laboratory technicians and project managers in charge of each Malé Monitoring Station in participating countries as well as the members of Monitoring Committee (MoC), SEI, IVL, UNEP RRC.AP and AIT as a reference laboratory. Laboratory sessions were conducted at AIT Environmental Engineering laboratory. The report of the training is available at http://www.rrcap.unep.org/md/malereport/.

III-7 Central compilation, evaluation, and storage of data

22. The participating countries have submitted their data and related information obtained through the monitoring activities in 2006/07 to the Secretariat. After quality check by the MoC, the data were added to the regional data base. The Secretariat prepared a preliminary draft "Data report" for discussions at the refresher training programme held in March 2007. The preliminary draft data report was revised based on the comments at the refresher training, ready for the submission to the ninth Session of the Intergovernmental Network Meetings (IG9). Additional data from the participating countries were added to the database after the refresher training. The regional database is available online for the NIAs at: http://www.rrcap.unep.org/airIndicator/index.cfm.

III-8 Study movement of air pollution

23. An introductory lecture on trajectory analysis and some hands-on exercises were given to representatives from all Malé countries during the Emission inventory preparation / scenarios / atmospheric transport modeling workshops at UNEP RRC.AP, Thailand during

February 2007. Further information on conducting trajectory analysis was also presented at the regional training and refresher course, in March 2007.

IV. ENHANCE THE CAPACITY OF NIAs ON EMISSION INVENTORY, SCENARIO DEVELOPMENT AND INTEGRATED ASSESSMENT MODELING

IV-1 Training workshop

24. The first regional level workshop on emission inventory preparation / scenarios / atmospheric transport modelling was conducted in July 2006. A follow-up workshop was organised at UNEP RRCAP during 26-28 February 2007. Fourteen participants from seven countries attended the training workshop. Eleven of the participants had attended the first workshop and three were new. The participants presented the major findings of the emission inventory they had carried out since the first workshop. The data collated from a variety of sources, were summarized in terms of absolute values/percentage shares of the pollutants and their sources. The participants highlighted the challenges faced by them in getting data and information, especially in the form required to be input into the emission inventory worksheet. The training workshop then focused on quality assurance / quality control issues and compilation of Large Point Source emissions.

25. The Secretariat compiled the proceedings of the workshop and distributed through internet. (www.rrcap.unep.org/md/Maléreport/)

IV-2 Emission inventory manual

26. The Malé emission inventory manual was updated to include carbon monoxide (CO), non-methane volatile organic compounds (NMVOCs) (required for ozone modeling) and $PM_{2.5}$, which has a more serious impact on human health than PM_{10}. The emission inventory manual and workbook has been distributed and NIAs are currently compiling the national level emission inventories using the workbook and the manual.

IV-3 Scenarios Development

27. A working draft document entitled '*Development of Emission Scenario background and procedure manual*: *Manual for the Development of Emission Scenarios for Air Pollution Prevention and Control in South Asia'* was presented for the workshop in July 2006. A more advanced draft was then issued for a second round of review - and as a support for training - at the February 2007 workshop.

IV-4 Integrated Assessment Modelling

28. The first version of the Malé Declaration Integrated Information and Analysis System (or IIAS) along with the user manual was distributed to NIAs. With the current version of the IIAS, for the first time NIAs can link the modelled deposition and concentrations with the Malé monitoring data. Again, for the first time the NIAs can alter the emissions from the regions and interpolate the changes in deposition, concentration and estimates of the risks of acidification

and SO_2 damage to lichens, crops and natural vegetation. It also now provides a new platform where all the results of the Malé Declaration activities can be collected in one place. The MATCH model has been used to produce source-receptor relationships for SO_2, nitrate and sulphate concentrations in rainwater and total deposition. The MATCH model has been installed at UNEP RRC.AP during November-December 2006. Training of dispersion modelling in general was given to the NIAs at the workshop in July 2006 and a description of MATCH, in particular, with a demonstration of its usage, was given to the NIAs at the workshop in February 2007.

V. ENHANCE THE ANALYTICAL AND IMPACT ASSESSMENT CAPABILITY AT THE NATIONAL LEVEL

V-1.Develop capacity for urban integrated assessments

29. An MoU had been signed with ICIMOD, Nepal (NIA) for developing urban integrated assessments through a Rapid Urban Assessment (RUA) case study. A manual for emission inventory preparation was sent to the NIA, and the initial survey is on-going. A training on RUA took place at ICIMOD in November 2006. Staff from IVL led the five-day long training, in which 13 local experts participated. Most of the data required for applying RUA in Kathmandu had been collected by local staff before the training and during the week additional local emission data as well as geographical data were collected. Some data collection (e.g. traffic counts) was planned to take place after the week of training. The RUA method was demonstrated and adapted to local conditions. A revised manual was delivered to ICIMOD after the training on RUA in November 2006.

V-2 . Strengthen knowledge on impacts on human health

30. A MoU has been signed with the Bangladesh NIA to work on a health impact study among school children in selected schools in Dhaka and the implementation period will be 18 months. Three schools had been selected in the central part of Dhaka city, which is subjected to high level of air particulate and all student of class VI, VII & VIII (around 2000) are included in the study. National Institute of Preventive and Social Medicine (NIPSOM) is conducting the study. Expert visits has been organised during January 2007 for a survey and in August 2007, to give further guidance on data analysis.

31. The methodology, which is being followed in the health impact study in Dhaka, is being disseminated through regional level trainings. The first training workshop on Health Impacts was held at UNEP RRC.AP during 19 - 22 February 2007. Eleven participants attended the training workshop. They were drawn from the Government agencies dealing with environment and with health issues.

32. The Secretariat compiled the proceedings of the workshop and distributed through internet. (www.rrcap.unep.org/md/Malereport/).

V-3. Strengthen knowledge on impacts on crops

33. A key achievement for the crop impact study has been to establish a network to assess the impact of air pollution on crops in South Asia under the Malé Declaration, comprising 5 countries: Bangladesh, India, Nepal, Pakistan and Sri Lanka. Due to the experience of these network members it was deemed appropriate for them to carry out two experiments (biomonitoring and chemical protectant study) without prior training. Technical support has been provided throughout the entire duration of the first year of the bio-monitoring campaign, including site visits by SEI. There were difficulties in the establishment of clover cuttings at all sites, except for Bangladesh, and as a consequence the following change in approach has been proposed. Chemical protectant studies, using indigenous crop plants will be established in the five countries of the network and it is planned to establish clover plant production in India and Pakistan, as well as in Bangladesh, to hopefully expand the clover biomonitoring experiment in the next phase.

34. The methodology, which is being followed in the crop impact study, is being disseminated through regional level trainings. The first regional training workshop on "Impact of air pollution on crops" was held in Dhaka and Mymensingh, Bangladesh during 15-16 August 2007. The objective was to share the experience of experts from the Malé Declaration countries and to finalize the protocol for conducting crop impact assessment. Twenty seven participants from seven countries attended the training workshop. The participants also visited the Bangladesh Agricultural University, Mymensingh, where the bio-monitoring experiment is being conducted under the project.

V-4. Strengthen knowledge on corrosion

35. Corrosion impact sites were established in Kathmandu, Nepal; Agra, India; Battaramulla, Sri Lanka; Teheran, Iran. Exposure started in the fall of 2006 with planned withdrawal of specimens within 2007. The evaluation of results are on-going and partly completed.

36. The methodology, which is being followed in the corrosion impact study, is being disseminated through regional level trainings. A regional level training workshop on evaluation of corrosion attack on material was organized during 9-10 October 2006 at UNEP RRCAP, Bangkok, Thailand. There were 30 participants from the Malé Declaration countries, CORNET countries (Hong Kong, Vietnam, China, Malaysia, Thailand), APINA network (Mozambique, Tanzania, Zimbabwe, Zambia) and from collaborating institutions. The workshop aimed at capacity building for studying corrosion due to acid deposition by providing basic theoretical concepts and a hands-on training to the participants on simulation as well as evaluation of corrosion on a wide range of materials, including zinc, carbon steel and stone that is used in making sculptures and monuments.

37. The Secretariat compiled the proceedings of the workshop and distributed through internet. (www.rrcap.unep.org/md/Malereport/)

VI. PROVIDE DECISION SUPPORT INFORMATION FOR POLICY FORMULATION AND AIR POLLUTION PREVENTION

38. Decision support information focuses on two major areas:

- Promote case studies in practical options to reduce air pollution;
- Study good practices for local, national and regional level legal and financial measures and provide options tailored for each country.

VI-1 Case studies

39. UNEP had established a network of experts on eco-housing and has been promoting eco-housing in South Asia through networking, demonstration projects, capacity building and building a knowledgebase. This network is assisting the Malé Declaration countries in disseminating the concept of eco-housing.

40. *Consultation for the eco-housing project in Maldives***:** Two members of the Maldives design team, drawn from the Ministry of Energy, Environment and Water and from the Ministry of Construction and Public Infrastructure, visited the Regional Expert Group members in Bangkok during 10-12 September 2006. The aim was to get guidance regarding the preliminary design of the eco-building in Hanimaadhoo island. The members of the Regional Expert Group on eco-housing suggested changes to the orientation and layout, landscaping, ventilation, day lighting, the design of the roof, building materials, type of masonry, space utilization, and on roof space cooling.

41. *Workshop on the eco-housing project in Bhutan***:** A design review workshop was held in Thimphu, Bhutan, on 14th September 2006, regarding the eco-building being designed in Thimphu. The workshop was inaugurated by the Honorable Minister of Works and Human Settlement, Government of Bhutan. Mr. Surendra Shrestha, Regional Director of UNEP, gave the opening remarks. Presentations were then made on the design of the eco-building. Regional and national level perspectives were presented by experts from UNEP's Regional Expert Group on eco-housing, followed by discussions. The workshop concluded by recommending further development of the proposed design.

42. *Workshop on the experience of implementing the eco-village in Sri Lanka***:** In April 2007, a dissemination workshop was organized at the Damniyamgama eco-village, Lagoswatta, Kaluthara, Sri Lanka, which was inaugurated in 2006, to rehabilitate around 55 Tsunami affected families. The aim was to share the experience in implementing with other stakeholders and to plan how to further improve upon it. Participants were able to see that concepts like waste management, composting, rain water harvesting, solar PV based power and some aspects of passive solar design and landscaping have been implemented, apart from community facilities like a computer centre, library and sports facilities. The community had taken part in the planning process and is now actively involved in managing these facilities.

VI-2 Compendium of best practices and strategies for implementing air pollution prevention and control measures in South Asia

43. The following steps are considered for implementation of this activity: (i) identify the areas for pollution control and abatement in each of the participating countries; (ii) collate success stories (for pollution control and abetment); (iii) dissemination of success stories in the participating countries.

44. A compendium of best practices in preventing and controlling air pollution in South Asia has been completed and it will be submitted for the consideration by the IG9. A report on strategies to implement and upscale the identified best practices in South Asia is currently being developed. The concept of the report will be discussed at the IG9.

VII. RAISE AWARENESS FOR ACTION THROUGH TARGETED DISSEMINATION

VII-1 Newsletter and Brochure

45. A brochure on the Malé Declaration was published before IG8 meeting in Bhutan in September 2006 and some of the countries plan to translate it into their language for awareness purposes. The Malé Declaration network newsletter was launched in 2002 to disseminate Malé Declaration related information to the public and stakeholders. The content of the newsletter has largely been reports on the network's activities. The Secretariat published the Malé Declaration newsletter, Vol 4 Number 2 in November 2006 and Vol 5 Number 1 in March 2007. It is expected that the newsletter will serve as a medium for information sharing both within and beyond the Malé Declaration network. The digital file could be downloaded from http://www.rrcap.unep.org/ew/air/male/newsletter.cfm. The newsletter and brochure are distributed to all the members of UNEP Collaborative Assessment Network (CAN), which includes generators and users of environmental data in Asia. The newsletter is also distributed through relevant meetings such as the meetings of the EANET, CAI-Asia, and Saltsjobaden III.

VII-2 Information sharing

46. The Secretariat updated the Malé Declaration website by posting relevant information on Malé Declaration activities, such as training programmes, meeting documents, and the newsletter. Relevant scientific and technical information was disseminated among the participating countries, as well as other countries, relevant organizations, and individuals.

VII-3 Dissemination through the youth network

47. Contact has been established with the SAYEN Secretariat to develop awareness materials and multimedia packages targeting young people. The main activity is to develop a sub-regional Youth Action document on "Youth for Clean Air". This document will be the Malé Declaration: Youth Version and include but not limited to the major sources of air pollution, impacts of air pollution, mitigation and prevention measures and Malé Declaration and its contribution to the prevention of air pollution in South Asia. Based on the publication, SAYEN will develop an animated CD to be used by youth in the sub-region as resource and awareness materials on Clean Air. The draft document will be submitted to IG9 for consideration.

VII-4 National level public awareness campaigns

48. NIAs during the exchange programme have developed national brochures on Malé Declaration. The national brochures will be published and disseminated during the last quarter of 2007.

49. Detailed awareness campaigns have been developed for Bangladesh. The activities in Bangladesh will include:

- Development of public awareness material through drama, folk song and documentation on air pollution;
- Translation of Malé Declaration booklets to Bengali language;
- Development of posters and stickers on the Malé Declaration for publicity.

50. The impact assessment studies on health and crops being conducted in Bangladesh have been widely disseminated through the media and through the participants of these studies.

Annex 1: Details of Malé Declaration monitoring sites

Country: Bhutan **Station:** Gelephu **Latitude and longitude:** 27° 0' N; 90° 30' E **Altitude:** ~ 350m **Site type:** Remote site close to Jigme Singye Wangchuk National Park and Manas National park **Met. Station:** Automatic and manual equipment at site. **Accessibility of Site:** Poor **-** 300Km SE of capital Thimpu	**Country: Bangladesh** **Station:** Nurnagar, approx. 10 km North of Sundarbans Forest, close to Indian border in SW-Bangladesh **Latitude and longitude:** N22º 18'; E89º 3' **Site type:** Semi-(rural/remote), i.e. small roads and small houses nearby, but no major pollutant sources **Met. Station:** Shatkira, ca. 30 km North of Sundarbans Forest **Accessibility of Site:** Poor
Country: Iran **Station:** Chamsari **Latitude and longitude:** N 32º 24` E 47º 31` **Site type:** Rural site, is 40 km south of the town Dehlaran and about 200 km south of Ilam, the headquarter of the province. **Met. Station: from nearby met station** **Accessibility of Site:** Poor	**Country: India** **Station:** Port Canning **Latitude and longitude:** N 32º 24` E 47º 31` **Average annual rainfall:** 1750 – 1800 mm **Dominant wind direction:** N to NE during winter and S to SW in summer **Site type:** Rural site, close to Sunderbans. **Met. Station: from nearby met station** **Accessibility of Site:** Possibility of reducing the monitoring frequency due to increase in the cost of transportation.
Country: Maldives **Station:** Hanimaadhu **Latitude and longitude:** **Altitude**: ~2 m **Site type:** Remote site, in the northern most atoll of Maldives located about 400 km north of the country's capital, Malé. **Met. Station:** from nearby met station **Accessibility of Site:** Fair	**Country: Nepal** **Station:** Rampur **Latitude and longitude:** N 27º 38'; E 84º 20' **Altitude**: 164.95 m **Site type:** Rural site, located about 15 km south of the Royal Chitawan national park. **Met. Station:** on site **Accessibility of Site:** Poor. Delayed communication between NIA and the staff at the site on issues like chemicals running out. Plus, there is restriction in travelling to the site, due to political disturbances.
Country: Pakistan **Station:** Bahawalnagar, on the Indo-Pakistan border **Latitude and longitude:** N º'; Eº ' **Site type:** Rural site, in the north-eastern part of Pakistan **Monitoring parameters and status:** **Met. Station: on site** **Accessibility of Site:** There may be difficulty in moving samples from the border to Islamabad	**Country: Sri Lanka** **Station:** Dutuwewa **Latitude and longitude:** N 8º 20'; E 80º 45' **Altitude**: ~ 100m **Site type:** Remote site, in a forest in the north-central part of Sri Lanka **Monitoring parameters and status:** **Met. Station: from the nearby met station** **Accessibility of Site:** Poor – new more accessible station being selected.