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**Feasibility Study on an Appropriate Instrument
to Provide a Sound Basis for Financial Contribution to
EANET Activities**

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EXECUTIVE SUMMARY

This report has been prepared in compliance of the decisions taken by the Intergovernmental Meetings for conducting a feasibility study on an appropriate instrument to provide a sound basis for financial contribution to EANET activities.

The study provides a review of financing arrangements in various international/ regional programmes with specific reference to activities relating to atmospheric environment. The study looks into the mandates and provisions made in the relevant international/regional programmes and compares with those of the EANET. It is also intended to provide an insight of the framework needed for further development of EANET including financial contribution. While presenting a comparative analysis of relevant instruments, the possible options and issues are discussed in the report for consideration and decision on further action. The specific objective of the study is to encourage the participating countries to deepen the dialogue on possible instrument for further development of EANET.

The relevant instruments for financing the international/regional programmes are reviewed. The genesis and salient features of regional initiatives such as the ASEAN Agreement of the Transboundary Haze Pollution, Convention on Long-range Transboundary Air Pollution (CLRTAP) comprising countries of Europe, Canada and USA, and the Malé Declaration for South Asian countries are explained. The global initiatives through the UN Framework Convention on Climate Change (UNFCCC) and the Vienna Convention for Protection of the Ozone Layer are discussed. In addition, the regional initiatives which have similar framework such as the Mekong River Agreement and the Northwest Pacific Action Plan (NOWPAP) are examined.

The study examines the types of pollution and pollutants within the purview of different programmes on atmospheric environment so as to provide an insight of the scope for further development of EANET. The various components in the EANET and in other programmes are compared in respect of the preamble, general provisions, specific obligations and activities, organization and financial arrangement, and procedures.

The types of instruments for financial contribution as existing in various conventions/treaties/protocols etc are studied. Based on the study, the patterns of financial contribution are grouped in the following 4 categories:

1. (a) Obligation of financial contribution on member countries+ (b)scale of assessment among member countries.
2. (a) Obligation of financial contribution on member countries+ (c) procedures on deciding

scale of assessment among member countries.

3. (d) procedures on deciding financial rules only.

4. No rules laid down for fund raising although financial contributions are made.

The important findings of the study are as follows:

- International Agreements can be categorized as “agreements approved by legislative bodies” and “administrative agreements”;
- To ensure financial contribution from the participating parties, “agreement approved by legislative bodies” is the surest type of agreement. However, if that is not possible, financial contribution can be ensured through other means, depending on the circumstances; and,
- Not all “agreements approved by legislative bodies” have provisions for obligatory financial contribution.

The study enlists the possible options for financial contribution to EANET and the issues related to each option. The options are:

- Agreement adopted by Administrative Bodies based on Tentative Design;
- Agreement adopted by Administrative Bodies in respect of a framework to allow further development in EANET scope;
- Agreement approved by Legislative Bodies based on Tentative Design; and,
- Agreement approved by Legislative Bodies in respect of a framework to allow further development in EANET scope.

Among the possible options, it is observed that establishment of a framework including legal instruments provides opportunities for a flexible approach to deal with various aspects of air quality management in addition to acid deposition. Also, it opens the opportunities for mobilization of funds from the international funding sources particularly for developing countries in the region.

The Chapter 6 presents the conclusions and recommendations arising out of the study. Based on the study, it is recommended that the participating countries should make efforts to decide a “Mandate” for developing a legal instrument within a certain time limit. The mandate needs to contain some clarification of rationale, purpose of the instrument and procedural parameters, relating, inter alia, to: the negotiating process, roles of EANET bodies, participation of countries and other entities, and organizational issues.

As a possible way forward, it is recommended that the IG7 may consider to work out the “Mandate” which could include the following elements:

(1) Process

-setting an intergovernmental discussion process by entrusting the work to WGFD or

establishing a new working group

- target year for finalizing the discussion within three to five years

- dates and venues of first and subsequent sessions

(2)Participation

- membership of the discussion

(3)Secretariat

- authorize the Secretariat to conduct the discussion process

(4) Funding for the discussion process

1. BACKGROUND AND OBJECTIVES OF THE STUDY

Background

In June 1992, the “United Nations Conference on Environment and Development” held in Rio de Janeiro, adopted “Agenda 21” to realize sustainable development in the 21st century. The Chapter 9 titled “Transboundary Air Pollution” of Agenda 21 states that “These programmes need to be continued and enhanced, and their experience (in Europe and North America) needs to be shared with other regions of the world.” It also suggests that countries should “Establish and/or strengthen regional agreements for transboundary air pollution control”.

In October of the same year, the First Session of the Northeast Asian Conference on Environmental Cooperation (NEAC) was held in Niigata, Japan. In the conference, some experts suggested the implementation of collaborative research and monitoring activities on acid deposition to be conducted in East Asian region. The suggestion was repeated at the Second Session held in 1993. Responding to these requests, four “Expert Meetings”, with experts from 10 countries, have been held since 1993, starting from the first one in Toyama, Japan, which had designed the Acid Deposition Monitoring Network in East Asia (EANET). “The Guidelines for Acid Deposition Monitoring in East Asia” was adopted at the Second Session of the Expert Meeting, and the need for the establishment of a network centre was agreed upon. “The Design of the Acid Deposition Monitoring Network in East Asia” was also adopted at the fourth Expert Meeting.

The First Intergovernmental Meeting on the Acid Deposition Monitoring Network in East Asia held in March 1998 developed the tentative “Design of the Acid Deposition Monitoring Network in East Asia (EANET)”, which had been formulated through Working Group discussion held twice in advance of the First Intergovernmental Meeting (IG1). In April 1998, the Acid Deposition and Oxidant Research Center (ADORC) was established in Niigata, Japan, as the Interim Network Center for EANET and EANET started the preparatory phase

with the participation of nine countries. Following the outcome achieved for the two and a half year of the preparatory phase activities, the Second Intergovernmental Meeting (IG2) held in 2000 adopted the "Joint Announcement" and the "Tentative Design" and decided to start the EANET activities on a regular basis since January 2001. In 2001 and 2002, Cambodia and Lao P.D.R. have joined EANET respectively. Myanmar plans to join in 2005, resulting in 13 participating countries in EANET.

The Joint Announcement calls for discussion on future EANET activities to enhance regional cooperation in preventing or reducing adverse environmental impacts of acid deposition. As for financial arrangement, the "Working Group on Further Financial Arrangement for EANET" was held three times from 2002 to 2003 to consider ways to secure financial resources required for EANET activities.

In 2003, the Fifth Session of the Intergovernmental Meeting (IG5) decided that the participating countries would make effort on a voluntary basis to contribute to the budget to be directly spent by the Secretariat using fully, the latest UN assessment scale-based burden sharing as the first step. The IG5 also decided to undertake a feasibility study on regional agreement to provide a sound basis for financial contribution. The Sixth Session of the Intergovernmental Meeting (IG6) held in 2004 decided the work plan for the "Working Group on Future Development of EANET (WGFD)". As one of the tasks mentioned in the work plan, WGFD is supposed to conduct a feasibility study on an appropriate instrument on acid deposition to provide a sound basis for financial contribution by studying the existing relevant instruments. According to the work plan, the report, after discussion at the Second Session of WGFD, will be submitted to the Seventh Session of the Intergovernmental Meeting (IG7) in autumn 2005 for consideration and adoption.

Objectives of the Study

The present study was undertaken in compliance of the above stated background and decisions taken by the Intergovernmental Meeting (IG.) The study provides a review of financing arrangements in various international/ regional programmes with specific reference to activities relating to atmospheric environment. The study looks into the mandates and provisions made in the relevant international/regional programmes and compares with those of the EANET. The study is also intended to provide an insight of the framework needed for further development of EANET. While presenting a comparative analysis of relevant instruments, the possible options and issues are discussed in the report for consideration and decision on further action. The specific objective of the study is to encourage the participating countries to deepen the dialogue on possible instrument for further development of EANET.

2. REVIEW OF RELEVANT INSTRUMENTS FOR FINANCING INTERNATIONAL / REGIONAL PROGRAMMES

The focus of this study is on the programmes at the regional level and particularly those pertaining to air pollution. The programmes include the ASEAN Agreement on Transboundary Haze Pollution, the Convention on Long-Range Transboundary Air Pollution (CLRTAP) and the Malé Declaration.

The study also examines the United Nations Framework Convention on Climate Change (UNFCCC) and the Vienna Convention for the Protection of the Ozone Layer. In addition, the regional initiatives on water pollution that have similar framework as air pollution, namely, the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin and the Northwest Pacific Action Plan (NOWPAP) are also examined.

The purpose of the review as presented in this chapter is to look into the genesis and the salient features in various programmes including financial arrangements, which could be considered as ‘relevant instruments’. In this context, it is worthwhile to point out that the international/regional programmes having different nomenclatures such as Agreement, Treaty, Convention and Declaration etc. specify the agreed objectives, terms of reference and modus operandi which are applicable to the participating countries for implementation of the relevant instruments.

ASEAN Agreement of Transboundary Haze Pollution (Haze Agreement)

In 1985, the ASEAN agreement on the conservation of Nature and Natural Resources was adopted. This was the first agreement on regional environment, which included transboundary air pollution and environmental issues. In 1990, the Kuala Lumpur Accord on Environment and Development focused on initiatives to harmonize transboundary air pollution prevention and abatement practices. Following the forest fire in Indonesia, the ASEAN Cooperation Plan on Transboundary Pollution was adopted in 1995. In 1997, the Regional Haze Action Plan was developed. In 1998, the United Nations Environment Programme (UNEP) was approached to coordinate the involvement of UN system in the regional efforts. With the UN assistance, a project was implemented (1998-1999) to prevent the forest fire and haze pollution in the Southeast Asian countries. In 2002, the Haze Agreement was adopted and six countries have signed the agreement which came into force from 2003. The salient features of the Agreement including financial instruments are given in the Table 2-1:

Table 2-1 Salient features of ASEAN Agreement on Transboundary Haze Pollution

Date of Adoption	June 10 2002
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Entry into force	November 25 2003
Number of Parties	6 countries (as of September 2004)
Objective	The objective of this Agreement is to prevent and monitor transboundary haze pollution as a result of land and/or forest fires which should be mitigated, through concerted national efforts and intensified regional and international co-operation. This should be pursued in the overall context of sustainable development and in accordance with the provisions of this Agreement.
Monitoring	Each party shall take appropriate measures to monitor: all fire prone areas; all land and/or forest fires; the environmental conditions conducive to such land and/or forest fires; haze pollution arising from such land and/or forest fires
Reporting of emissions of air pollutants	National Monitoring Centre shall report data obtained at agreed regular intervals, communicate to the ASEAN Centre, directly or through its Focal Point.
Emission Reduction	The Parties, in the event that there are fires, shall initiate immediate action to control or to put out the fires. Each Party shall undertake measures to prevent and control activities related to land and/or forest fires that may lead to transboundary haze pollution.
Reporting policies, measures, and socio-economic situation	The Parties shall transmit to the Secretariat reports on the measures taken for the implementation of this Agreement in such form and at such intervals as determined by the Conference of the Parties.
Financial Agreements	The first Conference of the Parties shall by consensus adopt rules of procedure for itself and financial rules for the ASEAN Transboundary Haze Pollution Control Fund to determine in particular the financial participation of the Parties to this Agreement. This Fund was established for the activities required for the implementation of the Agreement at the national and regional level. Parties make voluntary contributions to the Fund, and where necessary, Parties may mobilize additional resources from relevant international organizations, in particular regional financial institutions and the international donor community.
Cooperation of Research	The Parties shall promote and, whenever possible, support scientific and technical research programmes related to the root causes and consequences of transboundary haze pollution and the means, methods, techniques and equipment for land and/or forest fire management, including fire fighting.

Information Exchange	Parties shall develop or establish techniques on controlled burning particularly for shifting cultivators and small farmers, and to exchange and share experiences on controlled-burning practices.
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Convention on Long-Range Transboundary Air Pollution (CLRTAP)

In sixties, acid deposition and its adverse affects were reported in countries of Northern Europe and the OECD recognized for regional cooperation to control acid rain. In 1972, following a report of the Swedish government in the UN Conference on Human Environment, the OECD initiated the “Cooperative Technical Programme to Measure the Long-Range Transport of Air Pollutants (LRTAP)”. The results of the LRTAP studies formed the scientific basis for further initiatives on transboundary air pollution. In 1977, the LRTAP was expanded through the establishment of the Cooperative Programme for Monitoring and Evaluation of the Long-Range Transmissions of Air Pollutants (EMEP) under the aegis of the UN Economic Commission for Europe (UN/ECE). In 1979, a Convention on Long-Range Transboundary Air Pollution (CLRTAP) was adopted by 34 countries including USA and Canada. The CLRTAP came into force in March 1983 with its ratification by 34 countries and as of September 2004, 49 countries have ratified the convention. The salient features of Convention including the financial arrangements are given in the Table 2-2:

Table 2-2 Salient features of Convention on Long-Range Transboundary Air Pollution (CLRTAP)

Date of Adoption	November 13 1979
Entry into force	March 16 1983
Number of Parties	49 countries (as of September 2004)
Objective	To prevent air pollution including long-range transboundary air pollution.
Monitoring	There are no obligations on monitoring, but it emphasizes the need for implementation of the existing “Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air-Pollutants in Europe. (EMEP)”
Reporting of emissions of air pollutants	Exchange data on emissions at periods of time to be agreed upon, of agreed air pollutants, starting with sulphur dioxide, coming from grid-units of agreed size; or on the fluxes of agreed air pollutants, starting with sulphur dioxide, across national borders, at distances and at periods of time to be agreed upon. Exchange meteorological and physico-chemical data relating to the processes during transmission.
Emission Reduction	It states that the Parties “shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including

	long-range transboundary air pollution” in the CLRTAP. The concrete emission reduction is specified in the extended protocols adopted afterward.
Reporting policies, measures and socio-economic situation	Parties shall exchange information on national, sub-regional and regional policies and strategies for the control of sulphur compounds and other major air pollutants. Parties shall exchange information on major changes in national policies and in general industrial development, and their potential impact, which would be likely to cause significant changes in long-range transboundary air pollution.
Financial Agreements	None
Cooperation of Research	Parties, as appropriate to their needs, shall initiate and co-operate in the conduct of research into and/or development of: Existing and proposed technologies for reducing emissions of sulphur compounds and other major air pollutants, including technical and economic feasibility, and environmental consequences; Instrumentation and other techniques for monitoring and measuring emission rates and ambient concentrations of air pollutants; Improved models for a better understanding of the transmission of long-range transboundary air pollutants; The effects of sulphur compounds and other major air pollutants on human health and the environment, including agriculture, forestry, materials, aquatic and other natural ecosystems and visibility, with a view to establishing a scientific basis for dose/effect relationships designed to protect the environment; The economic, social and environmental assessment of alternative measures for attaining environmental objectives including the reduction of long-range transboundary air pollution; Education and training programmes related to the environmental aspects of pollution by sulphur compounds and other major air pollutants
Information Exchange	Control technologies for reducing air pollution relevant to long-range transboundary air pollution. The projected cost of the emission control of sulphur compounds and other major air pollutants on a national scale. Physico-chemical and biological data relating to the effects of long-range transboundary air pollution and the extent of the damage which these data indicate can be attributed to long-range transboundary air pollution.

Malé Declaration

In 1998, a round table policy dialogue on increasing problem of regional air pollution in South Asia was organized and the countries recognized the need for regional action to tackle transboundary air pollution. Subsequently, under the aegis of the South Asia Cooperative Environment Programme (SACEP), the Malé Declaration was adopted by the participating countries. The activities envisaged in the regional initiative include awareness building, capacity building and use of information and knowledge relating to transboundary air pollution problems to provide inputs for policy interventions. The salient features of the declaration including financial arrangements are given in Table 2.3.

Table 2-3 Salient features of the Malé Declaration on control and prevention of air pollution and its likely transboundary effects for South Asia

Date of Adoption	April 22 1998
Number of Parties	8 countries (as of September 2004)
Objective	The primary objective is to initiate a dialogue on air pollution in South Asia, and to promote to address measures for transboundary air pollution issues in South Asia. In addition, an objective is to draw up national action plans for international activities.
Monitoring	Work in co-operation with arrangements beginning with the study of sulphur, nitrogen and volatile organic compounds emissions, concentrations and deposition. Co-operate in building up standardized methodologies to monitor phenomena like acid depositions and analyze their impacts without prejudice to the national activities in such fields.
Reporting of emissions of air pollutants	None
Emission Reduction	Develop and/or adopt strategies to prevent and minimize air pollution.
Reporting policies, measures and socio-economic situation	Shall constantly endeavour to improve national reporting systems and strengthen scientific and academic effort in the understanding and tackling of air pollution issues.
Financial Agreements	Projects for the Malé Declaration are coordinated by Stockholm Environment Institute (SEI), and are supported by Swedish International Development Cooperation Agency (SIDA).

	Countries will transfer financial resources and technology to carry out programmes and work towards securing incremental assistance from bilateral and multilateral sources.
Cooperation of Research	Assess and analyze the origin and causes, nature, extent and effects of local and regional air pollution. Countries will work in cooperation to set up monitoring arrangements beginning with the study of sulphur, nitrogen and volatile organic compounds emissions, concentrations and deposition.
Information Exchange	None

United Nations Framework Convention on Climate Change (UNFCCC)

Climate change issue became recognized as a global problem in the late 1980s. Awareness of the climate change issue was heightened among scientists and policy makers as international conferences were held in Australia and Italy in 1985 and 1987, which suggested the need for international measures. The Toronto Conference on the Changing Atmosphere, held in October 1988, was the first major international meeting of governments and scientists to discuss action on climate change. It was warned that the world should reduce CO₂ emissions 20 percent below 1988 levels, and by 50 percent in the long run. As a result, the Intergovernmental Panel on Climate Change (IPCC) was established in October of the same year to conduct research on the issue.

A ministerial conference was held in Noordwijk (the Netherlands) in November 1989, in which the Netherlands and Sweden suggested the need for an emission target for CO₂ emissions. The U.S. was against any numerical targets, and Japan, which was ahead of other developed countries in energy conservation, was against a uniform reduction percentage.

Meanwhile, in August 1990, the IPCC released its "First Assessment Report," concluding, with some uncertainty, that atmospheric concentrations of greenhouse gases were increasing, largely owing to human activities, and that this would lead to rising temperatures. The IPCC's findings led to a general agreement among countries that an international treaty or convention would be adopted at the Rio Earth Summit in June 1992.

From 1992 to 1995, five Intergovernmental Negotiation Committee (INC) meetings were originally scheduled for the negotiations of the convention, but an extra round was scheduled at the end of the 4th INC, because the prospective of an agreement at the 5th INC was improbable. The United Nations Framework Convention on Climate Change was adopted on May 9 of 1992 and entered into force on March 21, 1994. As of December 2004, 194 Parties have ratified the Convention. The salient features of the Convention including financial arrangements are given in Table 2.4.

Table 2-4 Salient features of UNFCCC

Date of Adoption	May 9 1992
Entry into force	March 21 1994
Number of Parties	194 countries (as of December 2004)
Objective	To stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
Monitoring	Support and further develop, as appropriate, international and intergovernmental programs and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort.
Reporting of emissions of air pollutants	A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties.
Emission Reduction	Each Party shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. Take climate change considerations into account, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change.
Reporting policies, measures and socio-economic situation	Formulate, implement, publish and regularly update national and, where appropriate, regional programs containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of greenhouse gases, and measures to facilitate adequate adaptation to climate change. Report a description of the policies and measures that the Party has adopted to implement its commitments and an estimate of the effects that these policies and measures it will have on anthropogenic emissions.

Financial Agreements	The financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance. The developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels.
Information Exchange	Promote public access to information on climate change and its effects. Promote and cooperate in the open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies.

Vienna Convention for Protection of the Ozone Layer

Molina and Rowland (University of California) published the theory of CFC chlorine-induced ozone-depletion in 1974. Responding to their findings, the issue of Ozone depletion was discussed for the first time by the Governing Council of UNEP in 1976. In March of the following year, an expert meeting was held in Washington and the World Plan of Action on the Ozone Layer was adopted. This was a research plan that included monitoring and the assessment of the effect of ozone depletion, among other research topics.

Intergovernmental negotiations for an international agreement to phase out ozone depleting substances began in 1981. A major challenge to achieve an international agreement concerning regulations was balancing the interests of developed and developing countries. This was a difficult task because of concern by the developing countries that environmental regulation may hamper their economic development.

On March 22 1985, countries came to an agreement on a Convention on the protection of the ozone layer, and the negotiations concluded with the adoption of the Vienna Convention for the Protection of the Ozone Layer in March 22 1985.

Discussion and negotiation on the substances to be regulated, the regulation time line and other issues to be included in the Protocol continued after the adoption of the Convention. After numerous workshops and working groups, the Montreal Protocol on Substances that Deplete the Ozone Layer was adopted in September 1987. This Protocol laid out detailed targets concerning the reduction of production and use of ozone depleting substances. The salient features of the Convention including financial arrangements are given in Table 2.5.

Table 2-5 Salient features of Vienna Convention for the Protection of the Ozone Layer

Date of Adoption	March 22 1985
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Entry into force	September 22 1988
Number of Parties	189 (as of December 2004)
Objective	Promote international cooperation for the protection of the ozone layer.
Monitoring	Parties are to cooperate by means of systematic observations, research and information exchange to better understand and assess the effects of human activities on the ozone layer and the effects on human health and the environment from modification of the ozone layer.
Reporting of emissions of air pollutants	None
Emission Reduction	Included in the Montreal Protocol on Substances that Deplete the Ozone Layer
Reporting policies, measures and socio-economic situation	Parties shall transmit, through the secretariat, to the Conference of the Parties, information on the measures adopted by them in implementation of the Convention and of protocols to which they are party in such form and at such intervals as the meetings of the parties to the relevant instruments may determine.
Financial Agreements	No article on financial agreements. However, a Multilateral Fund was established in 1990 to help developing countries meet phase-out requirements for chemicals covered by the Montreal Protocol.
Cooperation of Research	Parties shall undertake directly or through competent international bodies, research and scientific assessments on: Physical/ chemical processes that may affect the ozone layer; Human health and other biological effects deriving from any modifications of the ozone layer; Climatic effects deriving from any modifications of the ozone layer; Effects deriving from any modifications of the ozone layer and any consequent change in UV-B radiation on natural and synthetic materials useful to mankind; Substances, practices, processes and activities that may affect the ozone layer, and their cumulative effects; Alternative substances and technologies; Related socio-economic matters; Parties shall undertake to promote or establish, directly or through competent international bodies, joint or complementary programs for systematic observation of the state of the ozone layer and other relevant parameters.

Information Exchange	The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial & legal information relevant to the Convention. Such information shall be supplied to bodies agreed upon by the Parties. Any such body receiving information regarded as confidential by the supplying Party shall ensure that such information is not disclosed and shall aggregate it to protect its confidentiality before it is made available to all Parties.
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Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (Mekong River Agreement)

In 1951, the Bureau of Flood Control of the United Nations Economic and Social Commission for Asia and the Pacific (formerly Economic Commission for Asia and Far East: ECAFE) conducted an investigation on the Mekong River from the viewpoint of flood control and water management in Lao P.D.R., Thailand, Cambodia, and Vietnam. In 1957, in accord with the research of the government of the U.S. and the ECAFE, the “Committee for the Coordination of Investigations of the Lower Mekong Basin” (alias Mekong Committee) was established among the four lower Mekong Basin countries for flood control, navigation, hydropower, irrigation, and fisheries. However, in 1975, the Committee was forced to halt its activities in the wake of three countries in Indochina becoming socialist countries one after another.

The Mekong Committee resumed its activities from 1978. Though Cambodia could not participate due to the civil war, the Committee resumed activities as an interim committee with three Parties (Thailand, Lao P.D.R., and Vietnam).

Under unstable state of international politics, implementation of actual projects was impossible and the Committee was unable to make much progress. In 1987, the Interim Mekong Committee Secretariat submitted “Perspectives for Mekong Development: Revised Indicative Basin Plan (1987) for the Lower Mekong Basin” but it was scrapped when discussions on the distribution of water from the Mekong River ended with the dissent of Thailand and Lao P.D.R. which were behind in developing water from the river and Vietnam, which was concerned of brine damage from the development of upstream countries.

In June 1991, the Supreme National Council of Cambodia gave approval for re-activation of Cambodia’s membership in July 1991. The following month, the Interim Mekong Committee passed a resolution to allow the country to rejoin the Committee.

The Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin” was signed by the four Parties under the presence of China, Myanmar, the U.N., and the major aiding agencies in April 1995. The Mekong River Commission (MRC) replaced the Mekong Committee.

The upper states of the Mekong River Basin, China and the Union of Myanmar are not

participating countries in this Agreement. The salient features of the Convention including financial arrangements are given in Table 2.6.

Table 2-6 Salient features of Mekong River Agreement

Date of Adoption	April 5 1995
Entry into force	April 5 1995
Member countries	Cambodia, Lao P.D.R., Thailand, and Vietnam
Objective	Achieve an optimum use and prevention of waste of the waters through a dynamic and practical consensus in conformity with the Rules for Water Utilization and Inter-Basin Diversions
Monitoring	The Joint Committee shall set up a mechanism to monitor inter-basin diversions from the main stream. The Joint Committee is obligated to implement monitoring.
Reporting policies, measures and socio-economic situation	Notify proposed use of water according to the format, content and procedures set forth in the Rules' for Water Utilization and Inter-Basin Diversions to the Joint Committee.
Financial Agreements	The budget of the Commission shall be drawn up by the Joint Committee and approved by the Council. The budget of the Commission shall consist of contributions from member countries on an equal basis.
Cooperation of Research	None
Information Exchange	To regularly obtain, update and exchange information and data necessary to implement this Agreement.

Northwest Pacific Action Plan (NOWPAP)

The Northwest Pacific Action Plan (NOWPAP) is one of the Regional Sea Programmes under the aegis of UNEP. In September 1994, with attendance of Japan, Republic of Korea, China, and Russia, the first Intergovernmental Conference was held in Seoul, where countries agreed to participate in NOWPAP. Until the Regional Coordinating Unit (RCU) was established, UNEP was the interim secretariat for the Action Plan.

The initiatives as decided in various Intergovernmental meetings of NOWPAP include: establishment of a database and information management system (NOWPAP1); review of countries' environmental laws, objectives, strategies, and policies (NOWPAP2);

establishment of regional monitoring programme (NOWPAP3); preparation for sea pollution (NOWPAP4); establishment of Regional Activity Centres (NOWPAP5); public awareness building on the marine, coastal and freshwater environment (NOWPAP6); and, assessment and management of land based activities (NOWPAP7).

In the eighth Intergovernmental meeting held in November 2003, there was an agreement to launch a contingency plan on marine pollution. In the ninth IG meeting, four countries signed the oil spill contingency plan. The salient features of NOWPAP including financial arrangement are given in the Table 2.7.

Table 2-7 Salient features of NOWPAP

Date of approval	September 1994
Participating countries	Japan, China, Republic of Korea, Democratic People's Republic of Korea, and Russia
Objective	To provide an operational mechanism for mutual assistance through which the member States will co-operate in order to co-ordinate and integrate their response to marine oil pollution incidents which affect or seem likely to affect the area of responsibility or the area of interest of one or more of the States and which exceeds the response capability of a national government and the resources available to it.
Geographical scope	From about 121°E to 143°E longitude, and from approximately 52°N to 33°N latitude
Financial agreements	The NOWPAP Trust Fund was established to provide financial support for the implementation of the Action Plan. NOWPAP Trust Fund shall be financed from contributions in accordance with the decisions on financial arrangements adopted by the Intergovernmental Meeting on the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region.

3. COMPARATIVE ANALYSIS OF RELEVANT INSTRUMENTS IN THE PROGRAMMES ON ATMOSPHERIC ENVIRONMENT

Among the existing relevant instruments referred in Chapter 2, this chapter provides an analysis of the programmes on atmospheric environment as compared to the Joint Announcement and Tentative Design of EANET.

Before examining the specific provisions in various programmes, this chapter firstly reviews the types of pollution and polluting substances targeted in the relevant instruments. This is necessary to determine the scope of a possible instrument for further development of

EANET.

Types of Pollution and Pollutants

The ASEAN Haze Agreement, UNFCCC and Vienna Convention are agreements intended to tackle haze pollution, climate change, and depletion of ozone layer, respectively. The CLRTAP and Malé Declaration address the prevention of the air pollution in a broad sense, including transboundary air pollution. The CLRTAP uses the phrase “air pollution including long-range transboundary air pollution” under Article 2. Also, as evident from the title: “the Malé Declaration on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia”, the main objective of Malé Declaration is prevention of the air pollution that causes transboundary effects.

On the other hand, the Joint Announcement of EANET states that its aim is “to provide useful inputs for decision-making at local, national and regional levels aimed at preventing or reducing adverse impacts on the environment caused by acid deposition”, implying that the scope of EANET is only in respect of acid deposition and other types of air pollution are outside the purview of EANET.

The CLRTAP was adopted in 1979, after serious impacts of acid deposition were observed in Northern Europe from the 1950s. However, the Convention is not limited to acid rain but also air pollution in general. The design of CLRTAP envisaged a framework for regional cooperation in respect of various pollutants including those subsequently covered under “the Protocol concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes”, “the Protocol on Heavy Metals”, and “the Protocol on Persistent Organic Pollutants”, adopted after 1990. It is important to note that CLRTAP recognized “air pollutants” including “sulfur dioxide and related substances” as mentioned in its Articles. Further, the definition of “air pollution” in article 1 includes the term energy as well as “substances”, related to air pollution.

The Malé Declaration also provides a framework for prevention of air pollution with focus on transboundary air pollution. The Preamble of the Declaration refers to, “transboundary air pollution as a corollary of air pollution”, without any distinction between “air pollution” and “transboundary air pollution.” In addition, Article 3 of the Declaration recognizes the need for addressing a range of air pollutants and it reads as follows: “Work in co-operation with each other to set up monitoring arrangements beginning with the study of sulfur and nitrogen and volatile organic compounds emissions, concentrations and deposition.”

Comparison of Components in EANET and in other Programmes

This section contains the comparison of the following components in EANET and in other programmes :

- Preamble
- General Provision
- Specific obligations and content of activities
- Provisions on the organization and financial arrangement
- Procedures

Preamble

The preamble in the beginning of the text of each programme describes the background, purpose, matters to be considered and so on. The following table enlists the contents and relevant clauses/articles in each of the regional programmes.

**Table 3-1 Contents of the preamble in EANET and in other programmes
(Numbers indicate the article number)**

	CLRTA P	Haze Agreement	UNFCC C	Vienna Conventi on	Malé Declaratio n	EANET Joint Announceme nt
Background	2,3	1,(3)	(14),15	4		3
Existing agreements, declarations etc.	4,5	(1),2,3,(4)	7,8,11,12 , 13,14	2	4	2
Issues on atmospheric pollution	6,7	5,6	1,2	1	1,2,3	1
Scientific research and issues related to scientific facts	8	7	4,5,16	(5),6	5	
Principles, consideration, recognition of facts	(5)	(1)	3,6,(8),9, 10, (11),(12) , 17, 18,19,20, 21,22	(2),3, (4),5	(4),6,7,8	(2)
Determinations, will, confirmation of intention, assurance	1	4,8,9, 10,11	23	7	1	

Note: None of the clauses in the Preamble are numbered, but for descriptive purposes,

numbers are given to each clause in the preamble in order. Those numbers in parenthesis show that they have less relevance compared to the numbers without parenthesis.

General Provisions

The contents of the general provisions can be broken down into the following four items:

- Definition
- Objective
- Principles
- General obligations (or commitments)

Table 3-2 Contents of the general provisions in EANET and in Other Programmes
(Numbers indicate the article number)

	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	Malé Declaration	EANET Joint Announcement
Definition	1	1	1	1		
Objective		2	2			JA1
Principles	2-5	3	3			
General Obligations (or Commitments)		4	4	2		JA3,4,5,6 TD3,11

Note: JA; Joint Announcement, TD; Tentative Design

There are no articles titled “Objective” or “General Obligations” in CLRTAP, but instead, there is an article titled “Fundamental Principles”. There are no articles titled “Objective” or “Principles” in Vienna Convention either.

Presumably, the reason for not having an article titled “Objective” in either the CLRTAP or Vienna Convention is because they refer to its objectives in “Fundamental Principles” and “General Obligations” in CLRTAP and Vienna Convention, respectively. In the Haze Agreement, the phrase “prevent and monitor transboundary haze pollution as a result of land and/or forest fires which should be mitigated” is used in the articles on “Objective” and “General Obligations”. The reason for separating “Objective”, “Principles”, and “Commitments” UNFCCC could be because the text on commitments is lengthy, and it was necessary to have a separate section specifically to describe the “Objective” of the Convention.

Definition

Choices of terms to be defined vary, depending on the instruments. Some of the agreements and conventions (such as, CLTRAP) define only scientific terms while others, (such as, Haze Agreement) also define terms such as “Assisting Party” and “Competent authorities”, so as to explain the related entities in the agreement.

Table 3-3 Terms defined in the regional programmes

Programme	Defined Terms
CLRTAP	Air Pollution, Long-range transboundary air pollution
Haze Agreement	Assisting Party, Competent authorities, Controlled burning, Fire prone areas, Focal point, Haze pollution, Land and/or forest fires, Member State, Open burning, Party, Receiving Party, Requesting Party, Transboundary haze pollution, Zero burning policy
UNFCCC	Adverse effects of climate change, Climate change, Climate system, Emissions, Greenhouse gases, Regional economic integration organization, Regional economic integration organization, Reservoir, Sink, Source
Vienna Convention	The ozone layer, Adverse effects, Alternative technologies or equipment, Alternative substances, Parties, Regional economic integration organization, Protocols
Malé Declaration	None

Objective

There are two programmes with a section titled “Objective”: the Haze Agreement and the UNFCCC. The beginning of the two articles starts with “The objective of this Agreement is to...” and “The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to...” respectively, and describes what is to be done, to what objects and with what measures.

For the CLRTAP and Vienna Convention, there are no articles titled “objectives”. However, the objectives are implied in the article on fundamental principles or general obligations.

The articles relating to objectives of various initiatives indicate the types of pollution and pollutants targeted in respective Convention/Agreement/Declaration as given in Table 3-4.

Table 3-4 Texts used in the articles on objectives

Programme	Expressions used
CLRTAP	Endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution
Haze Agreement	Prevent and monitor transboundary haze pollution.....
Malé Declaration	Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia (Title)

UNFCCC	Achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system
Vienna Convention	Take appropriate measures in accordance with the provisions of this Convention and of those protocols.....

As indicated in the Table 3.4 CLRTAP, the Haze Agreement, and Malé Declaration mention “preventing” pollution as their objective. For the Haze Agreement, monitoring is also included as an objective of the agreement.

The Joint Announcement of EANET sets out the following objectives:

- To create a common understanding of the state of the acid deposition problems in East Asia.
- To provide useful inputs for decision-making at local, national and regional levels aimed at preventing or reducing adverse impacts on the environment caused by acid deposition.
- To contribute to cooperation on the issues related to acid deposition among the participating countries.

The word “preventing” is also used in the second clause. However, this is only “to provide useful inputs for decision-making at local, national and regional levels”. It means that “preventing” is not used as a direct action required for participating countries.

Principles

The Haze Agreement and the UNFCCC have provisions for “Principles” for the implementation of the agreement in addition to “General obligations” and “Commitments.”

The Haze Agreement

- ◆ Accordance with the Charter of the United Nations and the principles of international law.
- ◆ The need for solidarity and partnership, and the need to work in accordance with countries’ respective needs, capabilities and situations.
- ◆ The need to take precautionary measures (even without full scientific certainty).
- ◆ The need to manage and use natural resources, in an ecologically sound and sustainable manner.
- ◆ The need to involve all stakeholders, including local communities, non-governmental organizations, farmers and private enterprise

The UNFCCC: Article3

- ◆ The need to consider the benefit of present and future generations of humankind, and common but differentiated responsibilities and respective capabilities.
- ◆ The need to consider special circumstances of developing country Parties.
- ◆ The need to take precautionary measures (scientific uncertainty and cost-effectiveness).
- ◆ The need to consider sustainable development, including economic development.

- ◆ Measures taken should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

The title of article 2 of the CLRTAP is “Fundamental principles”, and the articles 2 to 5 also pertain to fundamental principles. However, the contents of articles 2 to 4 are related to the obligation of contracting parties.

General Obligations

The obligations imposed on the Contracting Parties in various initiatives vis-à-vis EANET are explained as under:

The CLRTAP

- ◆ Article 2: Parties are determined to protect man and his environment against air pollution and shall endeavor to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution.
- ◆ Article 3: Develop policies and strategies by means of exchanges of information, consultation, research and monitoring.
- ◆ Article 4: Parties shall exchange information on and review their policies, scientific activities and technical measures aimed at combating the discharge of air pollutants.

The Haze Agreement: Article 4 General Obligations

- ◆ Co-operate in developing and implementing measures to prevent and monitor transboundary haze pollution as a result of land and/or forest fires which should be mitigated, and to control sources of fires.
- ◆ When the transboundary haze pollution originates from within their territories, respond promptly to a request for relevant information or consultations sought by a State or States.
- ◆ Take legislative, administrative and/or other measures to implement their obligations under this Agreement.

The UNFCCC: Article 4

1. Parties' commitments

- (a) Develop national inventories of anthropogenic emissions by sources and removals by sinks of greenhouse gases.
- (b) Formulate national and, where appropriate, regional programmes containing measures to mitigate climate change and to facilitate adequate adaptation.
- (c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases.
- (d) Promote sustainable management, and promote and cooperate in the conservation

and enhancement, as appropriate, of sinks and reservoirs of greenhouse gases.

- (e) Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources, agriculture and so on.
- (f) Take climate change considerations into account in their social, economic and environmental policies and actions.
- (g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives.
- (h) Promote and cooperate in the full open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information.
- (i) Promote and cooperate in education, training and public awareness and encourage the widest participation in this process, including that of non-governmental organizations.
- (j) Communicate to the Conference of the Parties information related to implementation.

2. Annex I Parties' commitments

- (a) Adopt national policies and take corresponding measures on the mitigation of climate change.
- (b) Communicate, detailed information on its policies and measures.
- (c) Identify and periodically review its own policies and practices which encourage activities that lead to greater levels of anthropogenic emissions of greenhouse gases.

Annex II Parties' commitments

- 3. Provide new and additional financial resources
- 4. Assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change.
- 5. Take steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know how to other Parties.

The Vienna Convention: Article 2

- 1. Take appropriate measures in accordance with the provisions of this Convention and of those protocols in force.
- 2.
 - (a) Co-operate by means of systematic observations, research and information exchange.
 - (b) Adopt appropriate legislative or administrative measures and co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human

activities.

- (c) Co-operate in the formulation of agreed measures, procedures and standards for the implementations of this Convention.
- (d) Co-operate with competent international bodies to implement effectively this Convention and protocols.

Joint Announcement and Tentative Design of EANET (the regional agreements use the term “shall” while the Joint Announcement and Tentative design use the term “will” implying non-mandatory requirement.)

JA 3: Implement and strengthen monitoring activities in line with the Tentative Design of EANET.

JA 4: Promote more active participation, and bilateral and multilateral cooperation for effective implementation of the network activities.

JA 5: Make continuous voluntary contributions to support the network activities.

JA 6: Discuss future EANET activities.

TD 3,1): Develop and implement a national monitoring plan. Report the monitoring data and other relevant information. Designate a national center.

TD 3,6) Promote studies of other scientific issues in order to improve understanding of the risks of acid deposition.

TD 11: The administrative and operational costs of the Network will be financed by voluntary contributions by the participating countries.

Specific Obligations and Content of Activities

The following table refers to specific obligations and the content of activities in the relevant regional instruments.

Table 3-5 Description of specific obligations and activities (Numbers indicate the article number)

	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	Malé Declaration	EANET Joint Announcement
Monitoring	9	<u>7</u>	5(a)	2(a)	3, 4	JA 3,4 TD3
Reporting of monitoring data		<u>8.1</u>				TD3.1
Assessment	7	8	9.2	2(a),3.1		TD3.4
Reporting on emissions of air pollutants	8(a)		<u>4.1(a),</u> <u>12.1(a)</u>			

Reporting on policy and measures and socio-economic situation	8(b)	<u>11, 25</u>	<u>4.1(b),</u> <u>4.2(b),</u> <u>12.2</u>	<u>5</u>	Para with no number	
Cooperation in research and development	7	17, 16(e)	4.1(c) (d)(e)(g), 5	3,4	1, 6, Para with no number	TD3.6
Control of emissions	<u>3, 6</u>	<u>7.3, 9,</u> <u>11.1,</u> <u>16.1(g)</u>	<u>4.1(f),</u> <u>4.2(a)</u>		<u>2</u>	
Education, training and public awareness	7(f)	<u>9(d) (e),</u> <u>16(d) (e)</u> <u>(f) (h) (i)</u>	4.1(h) (i), 6	4.2, Annex I	5, 7	
Information exchanges	8	16. 1 (c),(e),(f)	6(a)(ii), 4.1(h)	4.1 Annex II		(TD3.2, 3.5)

Preparations to fire, emergency response		<u>10</u>				
International emergency assistance		<u>12-15</u>				

Note: JA; Joint Announcement, TD: Tentative Design

The underlined articles in Table 3-5 use the term “shall” thereby implying that each country is obliged to implement the obligations. The articles which are highlighted in bold letters indicate the activities that each country is asked to implement without mandatory obligation and the term “shall” is not used in these articles. Examples of the latter groups of articles are the following:

- Request to cooperate
- Request to encourage and promote
- Use of the term “will”
- Conditional request even with the term “shall”

The Malé Declaration and the Joint Announcement and Tentative Design of EANET, by nature of the documents, do not include obligatory provisions.

Monitoring

Provisions on monitoring in the UNFCCC and Vienna Convention refer mainly to monitoring the concentration of greenhouse gases and the monitoring of the Ozone layer on a global basis, which is somewhat irrelevant to long-range transboundary pollution. The Haze Agreement also differs from general air pollution as the areas to be monitored under the agreement are fire prone areas, land and/or forest fires, environmental conditions conducive to such land and/or forest fires, and haze pollution arising from such land and/or forest fires.

For this reason, the provisions in the CLRTAP and Malé Declaration are good references for the study. The monitoring activities of EANET are similar to EMEP. Article 9 of CLRTAP mentions EMEP activities and emphasizes the needs for the implementation of its activities.

Excerpt from the EMEP website

Parties to the Convention on Long-Range Transboundary Air Pollution perform monitoring at regional monitoring sites across Europe. The data are subject to national quality assessment prior to submission to the EMEP Chemical Coordinating Centre at the Norwegian Institute for Air Research (NILU). The submitted data are further assessed by the EMEP-CCC in collaboration with the data originators before they are reported on an annual basis.

Reporting of monitoring data

Reporting of monitoring data in EMEP is through an informal arrangement and there is no formal provision in the text of the CLRTAP. The only agreement, namely the Haze Agreement, specifically stipulates reporting of monitoring data among the other four agreements. However, a noteworthy point is that here again, the Haze Agreement covers “fire prone areas”, “land and/or forest fires” and “the environmental conditions conducive to such land and/or forest fires” as well as “haze pollution arising from such land and/or forest fires”.

In the Tentative Design of EANET, all participating countries are requested to report monitoring data.

Assessment

Article 7 of the CLRTAP and articles 2 and 3 of the Vienna Convention refer to assessment issues and requires all contracting parties to cooperate.

Article 8.3 of the Haze Agreement calls for the ASEAN Center to provide an assessment of risk of land/forest fires and transboundary haze pollution caused by the fires to human health and the environment.

Article 9.2 of the UNFCCC refers, as one of the roles of the Subsidiary Body for Scientific and Technological Advise (SBSTA) to assessments of the state of scientific knowledge relating to climate change and its effects, and scientific assessments on the effects

of measures taken in the implementation of the Convention.

The word “assessment” is not used in the Tentative Design of EANET, while it stipulates that the Scientific Advisory Committee (SAC) will prepare periodic reports on the state of acid deposition for review of the Intergovernmental Meeting.

Reporting of emissions from air pollutions

Article 8.1 of the Haze Agreement contains provisions on reporting data relating to “fire prone areas,” “land/forest fires,” “environmental conditions conducive to such land/forest fires” and “haze pollution arising from land/forest fires.” However, nothing specific to emissions data is referred to.

The Article 1 of the Malé Declaration stresses the need to assess and analyze the origin and causes, nature, effects of air pollution and its extent, but does not mention reporting of emissions in any articles. Only the CLRTAP and UNFCCC state the need to estimate emissions.

The CLRTAP provides that the Contracting Parties shall exchange available data on emissions of agreed air pollutants, coming from grid-units at periods of time to be agreed upon, for the purpose of assessment by means of modeling.

The UNFCCC require all Parties to submit emission inventory to the Conference of the Parties so that it can follow the reduction of emissions in each Party.

Article 4 of the Vienna Convention states that the Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic commercial and legal information. Annex II to the Convention gives examples of the types of information such as production, use and use patterns, and import/export information.

There are a few successful projects pertaining to emission inventories. For instance, China, Japan, and the Republic of Korea have conducted the Joint Research on Long-range Transboundary Air Pollutants (LTP Project) and have reported the emissions data in annual meetings.

For the North Eastern Asian Environmental Pollution Modeling Project, “Manual for Preparation of Emissions Inventories for Use in Modeling of Transboundary Air Pollution” has been prepared as a part of the UNDP/UN DESA sub-regional project: “Energy, Coal Combustion and Atmospheric Pollution in Northern Asia”. As for the LTP Project, the inventories are based on each country’s methodologies, but the inventory manual has referred to international guidelines such as the IPCC Guidelines and EMEP/CORINAIR. In addition, as a JICA project, the inventory of Thailand was developed in “The Study on the Acid deposition control strategy in the Kingdom of Thailand (2003).”

Reporting of socio-economic conditions relevant to air pollutant emissions, and the reporting of policies and measures

In order to seek the possible policy coordination among participating countries, the reporting

of policy and measures related to air pollutant emissions is important. A country's socio-economic status is also important to make an integrated assessment, because it has a close relation to the emissions of air pollutants and the projection of emissions.

All the conventions and agreements under consideration in this study provide for reporting systems except for the Malé Declaration which states that Parties "shall endeavor to improve reporting systems".

The contents to be reported and units to be addressed in different Conventions/Agreements are furnished in Table 3-6.

Table 3-6 Contents to be reported by Parties and units to be addressed

	Contents to be reported	Units to be addressed
CLRTAP	Major changes in national policies and in general industrial development, and their potential impact.	Within the framework of the Executive Body and bilaterally
Haze Agreement	Legislative, administrative and financial measures that are taken to mobilize equipment, materials, human and financial resources	Other Parties and the ASEAN Center
UNFCCC	National programmes containing measures to mitigate climate change and to facilitate adequate adaptation to climate change	Conference of the Parties
Vienna Convention	Information on the measures adopted in implementation of the Convention and of protocols	Conference of the Parties

Cooperation in research and development

All agreements call to enhance, support, and cooperate in scientific research. However, the expression "as appropriate" and/or "whenever possible" is also included in the related articles, implying the lack of stringent requirement. For instance, The Malé Declaration uses language, as "strengthen scientific and academic effort in the understanding and tackling of air pollution issues". The following table classifies more specific contents of research and development.

Table 3-7 Specific contents of the survey, research and development (Numbers indicate the article number)

	CLRTA P	Haze Agreement	UNFCC C	Vienna Convention	Malé Declaration	EANET Joint Announcement

						ent
Monitoring, measuring technique and systematic observation	7(b)		5(a),(b)	2.2(a),3, Annex I		TD3.1, 3.3
Modeling	7(c)					
Impact Assessment		17	4.1(g)		1	TD3.6
Health	7(d)			3.1(b)		
Environment	7(d)					
Socio-Economic			4.1(g)	3.1(g)		
Other						
Technologies for emissions-reduction	7(a)		4.1(c)	3.1(c),(d), 4.2		
Assessment of alternative measures	7(e)			3.1(f)	(6)	
Clarification of causes		17	4.1(g)	3.1(e)	1	
Research on physical and chemical processes				3.1(a)		
Fire management skills		17,16(e)				
Sink and reservoirs			4.1(d)			
Adaptation to impacts			4.1(e)			
Data management			5(a),(b)	3.3		TD3.2,3.5
Supply of equipment and facilities for research				4.2(c)		
Transfer of technologies			4.1(c)	4.2(a)(b)		
Co-operation with international programs		17	5(a),(b)	34.2		JA4

Note: JA; Joint Announcement, TD; Tentative Design Education, training and public awareness are not included in this table.

Emissions reduction

Besides the Haze Agreement that has the specific objective of preventing land/forest fires, the CLRTAP and UNFCCC explicitly state emission reduction objectives. The Vienna

Convention, under the Montreal Protocol and its amendments has set schedules regarding emission reductions. However, the Convention itself does not contain expressions implying any emission reduction though it does contain the expression “appropriate measures” in article 2 titled “General obligations”.

Declarations

(made at the time of adoption of the Final Act of the Conference of Plenipotentiaries on the Protection of the Ozone Layer)

The Vienna Convention encourages intergovernmental cooperation on scientific research, systematic observation of the ozone layer, monitoring of CFC production and the exchange of information. Although it contained no commitment to take any action to reduce CFC production or consumption, the Vienna Convention was nevertheless an important milestone: nations agreed in principle to tackle a global environmental problem before its effects were felt or its existence scientifically proven, probably the first example of the acceptance of the “precautionary principle” in a major international negotiation. Also, the important 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was negotiated under this Convention.

The CLRTAP, in article 2 titled “Fundamental Principles” contains the phrase “... endeavor to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution” and the numerical reduction targets of emissions are provided in its protocols.

The CLRTAP regime has no provision of penalties on non-compliance or financial mechanisms for supporting the compliance. When a Party’s non-compliance is identified, the implementing committees, after deliberation, can recommend the party to comply. In reality however, this recommendation is non-binding, leaving compliance up to the Parties. Regarding the reasons why the compliance rate is high in spite of such circumstances, former head of the UN/ECE Environment Agency cited as one of the reasons the fact that EU Member States implemented domestic policies for compliance with the EU directives that are legally *binding*.

The article 2 of the UNFCCC titled “objectives” contains the following expression implying qualitative reduction targets “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. The Kyoto Protocol, under the UNFCCC, has set reduction targets for developed countries.

Education, training, and public awareness

While the CLRTAP does not have specific provisions on the promotion of and cooperation in

education, training (including training of trainers), public awareness, access to the information, and participation, other instruments provide them. The relevant provisions in other initiatives are given in Table3-8.

**Table 3-8 Provisions on education, training, public awareness and participation
(Numbers indicate the number of the article)**

	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	Malé Declaration	EANET Joint Announcement
Education		9(e),16(d)	6,4.1(i)			TD9.6
Training		16(d),(h)	6,4.1(i)	4.2(d), Annex I	5	TD9.6
Public awareness		9(e),16(d)	6,4.1(i)			
Participation of local communities and NGOs		3.5,9(e)	6,4.1(i)		7	

Note: JA; Joint Announcement, TD; Tentative Design

Exchange of information

All instruments other than the Malé Declaration have provisions on exchange of information. The CLRTAP and the Vienna Convention provide a detailed description in article 8 and Annex II, respectively. (Table3-9).

Table 3-9 Contents of the information exchange (numbers indicate the article number)

	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	EANET Joint Announcement
General provisions	8	16(f)	4.1(h)	4	
Scientific data (physical, chemical, biological and meteorological data)	8(e),(f)		4.1(h)	4, Annex II	TD3.2),5)
Control Technology	8(c)		4.1(h)	4, Annex II	
Socio-economic and commercial information (including economic assessment of technologies)	8(b),(d)		4.1(h)	4, Annex II	

Legal information (including Measures and Strategies)	8(b),(g)		4.1(h)	4, Annex II	
Emissions	8(a)			Annex II3(b)	
Public access			6(a)(ii)		

Note: JA; Joint Announcement, TD; Tentative Design

The Malé Declaration does not include provisions on information exchange.

Provisions on the organization and financial arrangement

The provisions relating to organization and financial arrangement in different agreements are collated in the Table 3.10.

**Table 3-10 Institutional and financial arrangements in each of the regional agreements
(Numbers indicate the number of the article)**

	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	Malé Declaration	EANET Joint Announcement
Conference of the Parties	10	18	7	6		TD4
Secretariat	11	19	8	7	Para with no number	TD8

Contd...

Scientific Advisory Committee			9			TD6
Other bodies		5, 6	10			TD9,10
Financial Arrangement		20.1,24	4.3	6.3 ¹	5	JA5,TD11

Note: JA; Joint Announcement, TD; Tentative Design

Conference of the parties

The Haze Agreement and UNFCCC have established its Conference of the Parties in the agreement text. Article 10 of CLRTAP has called for representatives of the Parties to constitute the Executive Body of the present Convention, and also states that it will meet at least annually in that capacity. In addition, the Haze Agreement and UNFCCC have made provisions for extraordinary sessions including the requirements to hold such meetings.

Executive body of the CLRTAP

The CLRTAP provides for the Executive Body instead of the Conference of the Parties, and assigns the tasks below under Article 10:

- (a) Review the implementation of the present Convention
- (b) Establish, as appropriate, working groups to consider matters related to the implementation and development of the present Convention and to this end to prepare appropriate studies and other documentation and to submit recommendations to be considered by the Executive Body
- (c) Fulfill such other functions as may be appropriate under the provisions of the present Convention

In addition, the Steering Body and two Working Groups are established to provide technical support to the Executive Body.

Roles given to the Steering Body are to provide scientific support to the Convention on:

- Atmospheric monitoring and modeling
- Emission inventories and emission projections
- Integrated assessment modeling

Source: <http://www.unece.org/env/emep/welcome.html>. October 2004

Secretariat

The Secretariat has been specifically designated in the CLRTAP and Haze Agreement, but the

UNFCCC states that its Secretariat would be designated during the first Conference of the Parties. All three agreements describe the function of the Secretariat and these include the following:

- To convene and prepare sessions of the Conference of the Parties and other bodies established under the Convention or Agreement and provide them with services as required.
- To compile and transmit to the Parties reports and other information received in accordance with the Convention or the Agreement.
- To prepare reports on its activities and present them to the Conference of the Parties.
- To consider inquiries by, and information from, the Parties, and to consult with them.
- To ensure the necessary coordination with other relevant international bodies.
- To perform such other functions as may be determined by the Conference of the Parties.

Scientific advisory committee

The CLRTAP, the Haze Agreement, nor the Vienna Convention do not have any provision of a Scientific Advisory Committee under the Conference of the Parties. Such functions are apparently performed by several organizations in EMEP and the ASEAN centre in the CLRTAP and the Haze Agreement, respectively. Although the Vienna Convention has no provision spelling out an organization like a Scientific Advisory Committee, article 6 of the Montreal Protocol states that the Parties shall convene appropriate panels of experts. In 1990, three years after the adoption of the protocol, the Technology and Economic Assessment Panel (TEAP) was established to function as an advisory body on technology and economy to the Parties.

EANET has established a SAC and the UNFCCC has SBSTA. The function of SAC is in regard to scientific and technological matters related to the acid deposition monitoring, since EANET is the network aimed at conducting monitoring activities, while SBSTA performs similar functions relating to climate change.

Other organizations

The Subsidiary Body for Implementation (SBI) is provided in article 10 of the UNFCCC. Its role may be difficult to make out from the article. The website of the UNFCCC explains as follows:

"The SBI helps with the assessment and review of the implementation of the Convention. It plays a key role in examining the National Communications and Emission Inventories submitted by Parties and provides advice to the COP on the financial mechanism (operated by the Global Environment Facility), as well as on administrative and budgetary matters."

Article 5 of the Haze Agreement describes the establishment of the ASEAN Center. The Center's purpose is to facilitate co-operation and co-ordination among Parties. When

national authorities declare an emergency situation, it may make a request to the ASEAN Center to provide assistance.

The function of the Network Center of EANET is to oversee scientific and technological aspects of monitoring activities and differ from the functions of SBI and the ASEAN Center. The Network Center's function is similar to the Chemical Coordinating Centre (CCC) of EMEP, though there is no description on it in the CLRTAP.

The Haze Agreement states that each Party shall designate one or more Competent Authorities and a Focal Point. Among the five instruments, only the Haze Agreement mentions a Competent Authority and a Focal Point in its articles.

Financial arrangements

The CLRTAP contains no provision on financial arrangements for EMEP activities. In order to provide for that, "the Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP)" was adopted in 1984. According to article 3 of the Protocol, the financing of EMEP consists of mandatory contributions, supplemented by voluntary contributions and contributions may be made in convertible currency, non-convertible currency, or in kind. The annex to the Protocol shows the scale of mandatory contributions of each country. The funds are deposited in the General Trust Fund account, and distributed to the EMEP Centers through UN/ECE. The Secretariat's budget is allocated from the EMEP fund.

However, according to the report of the twentieth session of the Executive Body (ECE/EB.AIR/77/Add.1, 17 January 2003), it decided on the financing of core activities. Since CLRTAP and, with one exception (EMEP Protocol), its Protocols do not contain any provision for the long-term financing of core activities, the Executive Body decided, for the effective implementation of CLRTAP and its Protocols, that Parties contribute in cash and/ or in kind to the costs of the international coordination of health, materials and ecosystem effect-related activities and integrated assessment modeling at the designated international centers in accordance with the scale of contributions set out in its appendix. The Executive Body also decided that the twenty-third session will review the need for adopting a protocol on the financing of core activities.

Article 20 of the Haze Agreement provides for the establishment of "the ASEAN Transboundary Haze Pollution Control Fund", to be administered by the ASEAN Secretariat under the guidance of the Conference of the Parties. As for the financial resources, the article states that the Parties shall make voluntary contributions and may, where necessary, mobilize additional resources from relevant international organizations.

Article 11.1 of the UNFCCC provides that the operation of a financial mechanism shall be

entrusted to existing international entities (Global Environment Facility in which UNEP, UNDP and the World Bank are designated as Implementing Agencies) and that it shall function under the guidance of and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities, and eligibility criteria related to the Convention.

The Vienna Convention mentions in article 6.3 financial rules for the Conference of Parties and any subsidiary bodies as well as financial provisions governing the functioning of the secretariat. However, it does not mention the costs of measures to implement the Convention. "The Multilateral Fund for the Implementation of the Montreal Protocol" was established by a decision of the second Meeting of the Parties to the Montreal Protocol (London, June 1990) and began its operations in January 1991. The main objective of the Fund is to assist Article 5 countries whose annual per capita consumption and production of ozone depleting substances (ODS) is less than 0.3 kg to comply with the control measures of the Protocol.

Procedures

The relevant articles in various agreements concerning procedures are referred in the Table 3.11.

Table 3-11 Procedures in the related instruments (Numbers indicate the article number)						
	CLRTAP	Haze Agreement	UNFCCC	Vienna Convention	Malé Declaration	EANET
Amendments	12	22	15	9		
Annexes		23	16	10		
Protocols	(8, 9)	18.3(c), 21.1, 21.2, 21.3, 21.4, 27	1.6, 8.2(g), 17.1-5, 19, 25.3	8,16, 1.7		
Rules of procedure		24				
Resolution of questions regarding implementation			13			
Settlement of disputes	13	27	13, 14	11		
Signature	14		20	12		(TD1)
Interim			21			

arrangements						
Ratification, acceptance, approval or accession	15	28	22	13,14		
Entry into force	16	29	23	17		
Reservations		30	24	18		
Withdrawal	17		25	19		TD2
Right to vote			18	15		
Depositary	(15.3, 18)	31	19	20		
Authentic texts	18	32	26	21		

Amendments

The following contents are included under the article on amendments:

- Any Party may propose amendments to the Convention or Agreement.
- The text of any proposed amendment shall be communicated to the Parties before the Conference of the Parties at which it is proposed for adoption.
- The procedure of the adoption of amendments in the Conference of the Parties (e.g.: by consensus, or by a certain majority vote of the Parties)
- The circulation and entry into force of the adopted amendment.

Protocol

The following contents are included in the provisions regarding protocols:

- The Conference of the Parties adopts protocols.
- The text of any proposed protocol shall be communicated to the Parties before such a session.
- The requirements for the entry into force of any protocol.

The Haze Agreement and the UNFCCC state that the requirements for the entry into force of any protocol shall be established by that instrument. In the Vienna Convention, those requirements are provided under article 17 titled “Entry into force”.

Settlement of disputes

Possibly because of the difficulties to implement the conventions, the UNFCCC and the Vienna Convention go into detail about the settlement of disputes, mentioning the International Court of Justice, arbitration, notification, and conciliation.

The provision on settlement of disputes between Parties as to the interpretation or application of, or compliance with the CLRTAP and the Haze agreement are quite short

compared to that of the UNFCCC and the Vienna Convention. The CLRTAP states that the parties shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute. The Haze Agreement states that any dispute shall be settled amicably by consultation or negotiation.

Signature

The article on signature stipulates by which countries, where, and when the agreement can be signed.

Ratification, acceptance, approval, or accession

It is provided here that adopted instruments, after being signed, shall be subject to ratification, acceptance, approval or accession and that the instruments of ratification, acceptance, approval or accession shall be deposited with the Depository.

Entry into force

Provisions on the requirements for entry into force, and the date of entry into force are included in the article on entry into force as indicated in the following Table 3.12.

Table 3-12 Requirements for entry into force and the date of entry into force for the related instruments

	Requirement for entry into force	Date of entry into force	
		Agreement/Convention	Contracting party
CLRTAP	24 instruments	After 90 days	After 90 days
Haze Agreement	6 instruments	After 60 days	After 60 days
UNFCCC	50 instruments	After 90 days	After 90 days
Vienna Convention	20 instruments	After 90 days	After 90 days

Note: “Instrument” refers to that of ratification, acceptance, approval or accession.

Withdrawal

According to the Tentative Design of EANET, a participating country may withdraw from the Network at any time. The Haze Agreement has no provision on withdrawal.

In the CLRTAP, the UNFCCC, and the Vienna Convention, a Party may withdraw at any time after five, three, four years respectively from the date on which the convention has entered into force for that Party and any such withdrawal shall take effect on the ninetieth day from the date of receipt of the notification of withdrawal for the CLRTAP and one year from the date of receipt for the UNFCCC and the Vienna Convention. Furthermore, the UNFCCC and the Vienna Convention both provide that any Party that withdraws from the convention shall be considered as also having withdrawn from any protocol to which it is party.

Depositary

The depositary for the CLRTAP (article 15(3) and 18), the UNFCCC, and the Vienna Convention is the Secretary-General of the United Nations. The Haze Agreement designates the Secretary-General of ASEAN as the depositary. According to the “Vienna Convention on the Law of Treaties”, “the depositary may be one or more States, an international organization or the chief administrative officer of the organization”. Furthermore, the Convention describes eight functions of a depositary in article 77 (a) through (h).

Authentic texts

For the CLRTAP, the UNFCCC, the Vienna Convention, texts in several languages are considered authentic texts but for the Haze Agreement, where only the English version is regarded as authentic.

In the case of EANET, all documents have so far been drawn up in English. However, as Chinese and Russian are also official languages of the United Nations, it may be necessary to consider if they should be equally authentic. When interpreting a treaty that is authenticated in two or more languages, article 33 and article 79 (3) of the “Vienna Convention on the Law of Treaties” should be referred to.

4. TYPES OF INSTRUMENTS FOR FINANCIAL CONTRIBUTION

The decision at the IG5 to conduct a feasibility study stems from a common understanding among countries that a sound basis for financial contribution is necessary for the stable management of EANET. The purpose of this chapter is to consider how this can be ensured.

The first section (1) International Agreements will confirm the definition of national sovereignty and organize the types of international agreements that partially limit such sovereignty. Section (2) will then examine the effects of “administrative agreements”. Section (3) will consider what types of provisions are effective in securing financial contribution in “agreements approved by legislative bodies”.

(1) International Agreements

The countries have exclusive right to exercise supreme authority over their respective territories. Sovereignty is the right to exercise supreme authority over all people, things, and actions within its borders, to be held without governance or order from other external bodies. Therefore, the countries have the fundamental right to decide their annual national budget.

However, in the present international community, a large number of agreements have been concluded among the countries with the mandates for obligatory contribution to the agreements, which are, in a way, impinging on the sovereignty of nations concerned. Still, these have been accepted for the following reasons.

Firstly, the international agreements have a traditional role: “to secure good relationships among countries as well as people by restricting the extent to which the sovereignty power of each country reaches and controlling the way it is exercised”. Secondly, they also have another role, “to build legal systems to achieve common objectives and to solve global issues by maintaining peace, protecting the environment and human rights, assisting developing countries and so on”. It is by accepting such roles that the countries are willing to limit a part of their sovereignty and make an international agreement through international laws/treaties/conventions/ etc.

International agreements bind or restrict various kinds of authorities of contracting parties. At the country level, these agreements are realized in the form of national laws or fiscal measures. When a group of countries enters into an international agreement on a certain amount of financial contribution, participating countries become obligated to make financial contribution accordingly, losing their “total freedom” over the use of their national budgets. This is specifically the issue under consideration for the “sound basis” discussion for EANET.

“International Agreements” commonly include all agreements among countries such as those “agreements (conventions) approved by legislation” and “administrative agreements that do not require the approval by legislative bodies but can be concluded by administration (for example, the Cabinet).

“International agreements” are called with different names such as “Convention”, “Agreement”, “Code”, “Charter”, “Protocol”, “Declaration”, “Exchange of notes”, etc. Whatever they may be, there is no essential difference among them, except that they may be “Agreements approved by Legislative Bodies” or “Administrative Agreements.”

The difference between the two types of agreements is that “agreements approved by legislative bodies” legally bind the entire country including legislation, while “administrative agreements” legally bind the administration only. Therefore, as an “administrative agreement,” the only promise that the administration can make is limited to issues within the limits of domestic law or the actions within the national budget approved by the legislative body.

In other words, regarding the budget, the inclusion of a provision in an “administrative agreement” which would bind the subsequent year’s budget which has yet to pass legislature, is beyond the limits of the authority given to the administration. Even if an “administrative agreement,” is concluded and legislature passes a budget that does not meet the budgetary requirement of the agreement, the legislative decision is justified in terms of domestic law.

Although the “administrative agreements” cannot directly bind the national budgets, when considering the country’s position in international society, it may be possible to ensure commitment for financial contribution even for “administrative agreements.” To make this point clear, the next section will examine further “administrative agreements.”

The existing instruments in EANET

The present EANET is based on the “Joint Announcement on the Implementation of EANET” and the “Tentative Design of EANET” adopted at the EANET/IG2 in 2000. These documents are also one of the international agreements in a broad sense. However it seems that in many participating countries they have not gone through decision procedures of the highest administrative organs such as their Cabinets. In other words, the “Joint Announcement on the Implementation of EANET” and the “Tentative Design of EANET” are not agreements concluded among the governments but agreements among the ministries and agencies concerned with acid deposition monitoring, which leads, therefore, to the common recognition that they cannot bind the entire administrative body as “administrative agreements” could do.

(2) Administrative Agreements

An “Administrative Agreement” may be decided by the administration, and then go through the endorsement procedure with the partner country or the international organ, or vice versa. In either event, the decision of the highest administrative organ is a prerequisite for the conclusion.

Based on Japan’s case studies provided below, “administrative agreements” are formally concluded between countries or between a country and an international organization with an “Exchange of Notes (E/N)”, “Signature” in formal document, “Minutes of understandings,” or “Record of discussion”.

Most “administrative agreements” make clear issues pertaining to amendment of bilateral agreements or protocols, and issues regarding to financial burden sharing are clearly stated in the text of the agreements. However, there are “administrative agreements” for the purpose of establishing an international organization as well.

For consideration of the contents of “administrative agreements” which refer to establishment of an international organization, the examples of the Korean Energy Development Organisation (KEDO) and the South Pacific Economic Exchange Support Centre (SPEESC) may be referred to. The important provisions related to setting up of these organizations are given in the subsequent section of this report.

A case study in Japan as to how the decisions are taken in regard to “administrative agreements” is given in the following box.

Case study in Japan

In order to confirm the types and contents of “administrative agreements”, Table 4-1 presents the result of the survey conducted on the” administrative agreements” that the Cabinet of Japan decided in 2003. As for the contents, most of them concern sharing of responsibilities and economic cooperation. As for the types, most agreements are bilateral (with another country or an international organization).

Table 4-1 Breakdown of the administrative agreements approved by the Cabinet in Japan in 2003

- Bilateral(91)
 - ⊖ country-to country(53)
 - arrangements except assistance to developing nations(21)
science and technology cooperation(3), trade relation(2), flight operations(2), driver’s license examination(1), development of space technology(4), status of Japanese(1), support foreign countries’ force in the battle against terrorism(4), based on existing conventions or agreements(4 (one of them is related to financial assistance))
 - assistance to developing nations(32)
provision of yen loan(15), debt relief(9), technical cooperation(5), grant aid for the donation of equipment and devices(3)
 - ⊖ with international organizations(38)
 - arrangements except assistance to developing nations(1)
establishment of an international office(1)
 - assistance to developing nations(37)
fund donation(20), food aid(17)
- Multilateral(1)
 - ⊖ accession to international agreements(1)

There are “administrative agreements” that have been concluded to specifically provide the basis of establishment of an international organization.” However, there are no sources that cover all international organizations established by “administrative agreements”. Based on information on a web-based research, Japan is member of at least 25 organizations which are based on “administrative agreements”. Two examples of them are the Asia-African Legal Consultative Organization and the Asia Pacific Development Council.

Among these organizations, Japan has financially contributed to at least 10 organizations such as the Asia Pacific Development Council, The Korean Peninsula Energy Development Organization from 2000-2002.

Two examples are given in Table 4-2.

Table 4-2 Examples of “Administrative Agreements”

	The Korean Peninsula Energy Development Organization (KEDO)	South Pacific Economic Exchange Support Centre (SPEESC)
Name of Agreement	Agreement on the Establishment of the Korean Peninsula Energy Development Organization	Agreement to establish the South Pacific Economic Exchange Support Centre
Date signed	9 March 1995	5 September 1996
Participating Countries	Japan, the Republic of Korea, the U.S.	Japan, Pacific Islands Forum (16 countries and regions including Australia, New Zealand, Papua New Guinea, Fiji, and Samoa)
Objective	<ul style="list-style-type: none"> ○ Contribute financially to projects to implement two nuclear reactors in Democratic People’s Republic of Korea. ○ Supply temporary alternative energy sources until the first nuclear reactor goes online. 	<ul style="list-style-type: none"> ○ Enhance exports from Pacific island countries to Japan ○ Promote investment from Japan to Pacific island countries. ○ Support Pacific island countries import efficiently from Japan ○ Increase Japanese tourists to Island states.

The above-mentioned agreements indicate that “Administrative Agreements” may include provisions similar to agreements approved by legislative bodies. The structure of “Administrative Agreements” is fundamentally the same as conventions (in a narrow sense).

The KEDO agreement and the SPEESC Agreement both state that the implementation of the agreements shall be in accordance with laws and regulations, and therefore can see the unique characteristics of “Administrative Agreements.” The following provisions (see box) are examples of the unique provisions that can be observed in “Administrative Agreements.”

<p>KEDO Agreement KEDO / Article10 (b) Each Member <u>may make voluntary contributions to the Organization</u> by providing or making available such funds as it deems appropriate. (snip) Article13 (a)</p>

(snip) Members may accord the Organization such legal capacity in accordance with their respective laws and regulations where necessary for the Organization to carry out its purposes and functions.

Article13 (d)

Implementation of this Agreement in the Members' territories shall be in accordance with the laws and regulations, including budgetary appropriations, of such Members.

SPEESC Agreement

Article 6(1)

The Government of Japan, in accordance with its national laws and regulations, and the Forum Secretariat, in accordance with its organizational regulations, shall make contributions, in accordance with Article 6 paragraph 2, to the Centre, within the limits of their respective annual budgetary appropriations, by providing funds for the annual budget of the Centre as approved by the Governing Board in accordance with article 4 paragraph 3 (2).

To what level an international agreement can be accepted as “administrative agreements” and not “agreements approved by legislative bodies” is the important question. The following are some points relevant to this issue that have been discussed in the Japanese Diet (55th Ordinary Session).

The Diet's approval is not necessary if contents of an international agreement can be complied within the limits of the budget and laws.

Even if there is provision on share of expenses, if it is easy to withdraw from the international organization, approval from the Diet is (legally) not necessary. Whether this is appropriate or not, is a different issue.

If the agreement contains provisions on burden sharing and the withdrawal is not easy (for at least five to ten years), the Diet's approval is legally necessary.

If it is intended to put in serious efforts to maintain and strengthen the organization, the Diet's approval is necessary.

(3) Agreements Approved by Legislative Bodies

Types of provisions on financial rules in agreements

This section examines the provisions for financing “agreements approved by legislative bodies” such as Conventions/Treaties/Laws that go through the legislative procedures. The analysis of various instruments reveals that there are 4 patterns for financial contribution. They are as follow:

- 1 (a) Obligation on financial contribution for member countries + (b) scale of assessment among member countries
- 2 (a) Obligation on financial contribution for member countries + (c) procedures on deciding scale of assessment among member countries
- 3 (d) Procedures on deciding financial rules only
- 4 No rules are laid down for fund-raising although financial contributions are made by concerned parties.

The pattern 1 is the most rigorous specification followed by others in that order. The pattern 1 requires legislative approval on (a) financial contribution requirement and (b) % of contribution when applying for adhesion to the treaty. For instance, the Convention for Conservation of the Southern Bluefin Tuna, the Convention on Protection of the Rhine against Pollution by Chlorides, Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, and Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe, fall under pattern 1.

The pattern 2 also requires legislative approval and authorities delegated are clearly specified. The Ramsar Convention on Wetlands, Bonn Convention, International Tropical Timber Agreement, Convention on the Protection of the Rhein against Pollution by Chlorides, and Montreal Protocol fall under pattern 2.

The pattern 3 has no provision on (a), and only for (d) i.e. procedures on deciding financial rules, legislative approval is required. The analysis of various Conventions/Treaties indicates that the extent of the control by “Financial rules” is not specified. Instead, it is stated that “Financial rules are to be adopted at the Conference of Parties meeting”. The Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), International Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), Vienna Convention for the Protection of the Ozone Layer, UNFCCC, and Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal have adopted pattern 3.

The pattern 4 has no specific requirement for fund-raising. But, in reality, funds are raised by member countries. The Antarctic Treaty is an example of such pattern.

Among the four patterns described above, only pattern 1 and 2 can legally secure annual funds.

However it does not mean that for conventions/treaties adopting other patterns, it is not possible to have appropriate mechanism for financial contribution. There are many cases

where the treaties do not specify legally binding requirement of financial contribution from the countries. This study was unable to investigate the supporting mechanism for such cases, barring “voluntary fund-raising”.

The cases where funds are raised only through mandatory contribution of member countries are rather few. Generally, funds are raised through voluntary contribution. In several cases, voluntary funds are raised together with mandatory contributions. Also, it has been noted that even in cases of contributions on voluntary basis, the countries do not usually stop their contributions in view of their commitments for the cause and international relationship.

In the following section, we will examine specific provisions in financial rules of various conventions/treaties.

Articles in the Financial Rules

➤ Obligations on financial contribution by countries

The terms “shall” and/or “contribute / contribution” are typically used and the following 2 patterns are seen in most cases:

- The Parties shall contribute to the budget.
- The budget shall consist of contributions from the Parties

The Ramsar Convention on Wetlands

Article 6

6. Each Contracting Party shall contribute to the budget according to a scale of contributions adopted by unanimity of the Contracting Parties present and voting at a meeting of the ordinary Conference of the Contracting Parties.

Convention Concerning the Protection of the World Cultural and Natural Heritage

Article 16

1. Without prejudice to any supplementary voluntary contribution, the States Parties to this Convention undertake to pay regularly, every two years, to the World Heritage Fund, contributions, the amount of which, in the form of a uniform percentage applicable to all States, shall be determined by the General Assembly of States Parties to the Convention, meeting during the sessions of the General Conference of the United Nations Educational, Scientific and Cultural Organization. This decision of the General Assembly requires the majority of the States Parties present and voting, which have not made the declaration referred to in paragraph 2 of this Article. In no case shall the compulsory contribution of States Parties to the Convention exceed 1% of the contribution to the regular budget of the United Nations Educational, Scientific and Cultural Organization.

Scale of assessment of participating countries

On provisions on scale of assessments of participating countries, there are a few patterns. The following are five such patterns:

- 1 appropriations on an equal basis
- 2 appropriations set in agreement
- 3 appropriations based on the UN scale of assessments
- 4 contribution based on amount of activity under the agreement
- 5 appropriations in proportion with the number of votes to total votes

Examples of the above-mentioned patterns are given in the following boxes:

Mekong Agreement

Article 14: Budget of the Mekong River Commission

The budget of the Commission shall be drawn up by the Joint Committee and approved by the Council and shall consist of contributions from member countries on an equal basis unless otherwise decided by the Council, from the international community (donor countries), and from other sources.

Convention on the Protection of the Rhine against Pollution by Chlorides

Article 7

2. The Contracting Parties mentioned from below shall contribute to the total cost of 132 million French francs by means of a lump-sum payment apportioned as follows:

Federal Republic of Germany 30 per cent

Kingdom of the Netherlands 34 per cent

Swiss Confederation 6 per cent

The payments shall be made no later than three months after the entry into force of this Convention.

EMEP Protocol

Article 3: CONTRIBUTIONS

1. In accordance with the provisions of this article the financing of EMEP shall consist of mandatory contributions, supplemented by voluntary contributions. Contributions may be made in convertible currency, non-convertible currency, or in kind.

2. Mandatory contributions shall be made on an annual basis by all Contracting Parties to the present Protocol which are within the geographical scope of EMEP.

Article 4: SHARING OF COSTS

1. Mandatory contributions shall be made in accordance with the terms of the Annex to the present Protocol.

Annex

Mandatory contributions for sharing of costs for financing the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) shall, from 1995, be calculated according to the following scale (%)
Austria 1.59, Belarus 0.71, ..., United Kingdom 8.61, European Community 3.33
 [TOTAL 99.97]

Montreal Protocol

Article 10: Financial mechanism

6. The Multilateral Fund shall be financed by contributions from Parties not operating under paragraph 1 of Article 5 in convertible currency or, in certain circumstances, in kind and/or in national currency, on the basis of the United Nations scale of assessments. Contributions by other Parties shall be encouraged. Bilateral and, in particular cases agreed by a decision of the Parties, regional co-operation may, up to a percentage and consistent with any criteria to be specified by decision of the Parties, be considered as a contribution to the Multilateral Fund, provided that such co-operation, as a minimum:

- (a) Strictly relates to compliance with the provisions of this Protocol;
- (b) Provides additional resources; and
- (c) Meets agreed incremental costs.

Article 13: Financial provisions

1. The funds required for the operation of this Protocol, including those for the functioning of the Secretariat related to this Protocol, shall be charged exclusively against contributions from the Parties.

Interim Convention on Conservation of North Pacific Fur Seals

Article 5

7. The expenses of each member of the Commission shall be paid by his own Government. Such joint expenses as may be incurred by the Commission shall be defrayed by the Parties by equal contributions. Each Party shall also contribute to the Commission annually an amount equivalent to the value of the sealskins it confiscates under the provisions of Article VI, paragraph 5.

Convention for the Conservation of Southern Bluefin Tuna

Article 11

2. The contributions to the annual budget from each Party shall be calculated on the following basis:

- (a) 30% of the budget shall be divided equally among all the Parties; and
- (b) 70% of the budget shall be divided in proportion to the nominal catches of southern

bluefin tuna among all the Parties.

International Tropical Timber Agreement

Article 19: Administrative Account

1. The expenses necessary for the administration of this Agreement shall be brought into the Administrative Account and shall be met by annual contributions paid by members in accordance with their respective constitutional or institutional procedures and assessed in accordance with paragraphs 3, 4 and 5 of this article.

4. The contribution of each member to the administrative budget for each financial year shall be in the proportion which the number of its votes at the time the administrative budget for that financial year is approved bears to the total votes of all the members. In assessing contributions, the votes of each member shall be calculated without regard to the suspension of any member's voting rights or any redistribution of votes resulting therefrom.

Procedure for determining scale of assessment for participating countries

When the rules for scale of assessment are not described in the text of the agreement and discussed after the adoption of the agreement, the procedure for determining the scale of assessment is generally decided at the Conference of the Parties. The following are examples of such arrangement.

The Ramsar Convention on Wetlands

Article 6

6. Each Contracting Party shall contribute to the budget according to a scale of contributions adopted by unanimity of the Contracting Parties present and voting at a meeting of the ordinary Conference of the Contracting Parties.

Convention on Migratory Species

Article 7: The Conference of the Parties

4. The Conference of the Parties shall establish and keep under review the financial regulations of this Convention. The Conference of the Parties shall, at each of its ordinary meetings, adopt the budget for the next financial period. Each Party shall contribute to this budget according to a scale to be agreed upon by the Conference. Financial regulations, including the provisions on the budget and the scale of contributions as well as their modifications, shall be adopted by unanimous vote of the Parties present and voting.

Procedure to adopt financial rules

Like the procedure for determining scale of assessment, financial rules are also decided at the Conference of Parties. The following are examples of such procedure.

Montreal Protocol

Article 13: Financial provisions

2. The Parties, at their first meeting, shall adopt by consensus financial rules for the operation of this Protocol.

UNFCCC

Article 7: CONFERENCE OF THE PARTIES

2. The Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall:

(k) Agree upon and adopt, by consensus, rules of procedure and financial rules for itself and for any subsidiary bodies;

(4) Important Findings

- ◆ International agreements (Conventions/ Treaties/ Protocols etc) can be categorized as “agreements approved by legislative bodies” and “administrative agreements”;
- ◆ To ensure financial contribution from parties, an “agreement approved by legislative bodies” is the surest type of agreement. However, if that is not possible, financial contribution can be ensured by other means, depending on the circumstances; and,
- ◆ Not all “agreements approved by legislative bodies” have provisions for obligatory financial contribution.

5. POSSIBLE OPTIONS AND ISSUES

Scope of Instruments

The study reveals that the conclusion of a treaty approved by legislative bodies is the surest way to secure the financial contribution of participating countries, and that there is also another option to secure financial contribution by an agreement adopted by administrative bodies. Based on the findings, we need to examine the appropriate instrument that would be feasible for EANET. The possible options will necessarily centre around the following:

- Agreement Based on Tentative Design of EANET
- Agreement on a Framework for Further Development of EANET

The current activities of EANET based on Joint Announcement and Tentative Design are

limited to monitoring and other activities concerning acid deposition. The agreements for these activities are mostly adopted by the administrative bodies of the respective governments such as ministries and agencies responsible for monitoring acid deposition and not by other ministries such as ministry of finance. Thus, it is difficult for some countries to make their financial contribution to EANET without concurrence of the government as a whole. Therefore, an appropriate instrument to provide a sound basis for financial contribution will depend on nature and extent of commitments of the entire government machinery.

The need for a sound basis of financial contribution and further development of EANET was recognized by the Intergovernmental meetings. For instance, the IG2 documents (2000) point out the following:

- While the activities of EANET will be commenced based on the decisions made at this Second Intergovernmental Meeting, efforts will be continued in the future to strengthen the basis upon which EANET operates. (paragraph 2 of the Joint Announcement)
- The participating countries will discuss future EANET activities in order to contribute to development of international cooperative efforts for preventing or reducing adverse environmental impacts of acid deposition. (paragraph 6 of the Joint announcement)

As explained in the Chapter 1 of this report, the above-mentioned needs have been reiterated in subsequent IG meetings which resulted in setting up of the Working Group for Further Development (WGFD) and the Feasibility Study. During the past few years, EANET has reached a stage to pursue further development in its scope which may need a broader framework and approval by the competent authorities including legislative bodies.

Considering the scope of the on-going and further development of EANET to include relevant issues of air quality management, the possible options are given in Table 5-1.

Table 5-1 Possible options

	Agreement designed based on the Tentative Design	Agreement to secure the framework
Agreement adopted by administrative bodies	Option(1)	Option(2)
Agreement approved by legislative bodies (Regional agreement)	Option(3)	Option(4)

Types of Instruments

(1) Agreement Adopted by Administrative Bodies Based on the Tentative Design

This is the option designed based on the Joint Announcement and the Tentative Design agreed in the second Intergovernmental Meeting. It is also an agreement of the whole administrative body, including a provision on mandatory financial contribution.

Issues

It may be easy to get approval of each country because only a provision on financial contribution is to be added to the contents already agreed. However, it is difficult to give the reason why the whole government must agree, because the agreement by environment-related ministries or agencies may be seen as adequate enough if it is confined to the monitoring and other activities which are conducted under EANET.

In this option, mandatory financial contribution is mentioned. However, some countries may find it difficult to implement since the budget needs to be approved by the legislative body. Situations may arise when the legislative body may not approve it when the actual expenditure is necessary. Also, further development of EANET cannot be expected unless a new agreement is adopted.

(2) Agreement Adopted by Administrative Bodies to Secure the Framework

This is the option of a framework agreement adopted by the whole administrative body, in which an array of necessary activities for air quality management is included and monitoring parameters are not confined to acid deposition-related issues. The NOWPAP is an example of such framework agreement.

Issues

It allows in a flexible way addressing newly arising issues besides acid deposition.

However, the financial difficulties as indicated in the preceding option may be also faced in this option. There may be opinions that it is too early to expand the EANET activities and commit for a framework.

(3) Regional Agreement Based on the Tentative Design

This is the option of an agreement approved by legislative bodies and designed based on the Joint Announcement and the Tentative Design agreed at the second Intergovernmental Meeting and provided with provisions of mandatory financial contribution.

Issues

Since this option is referring to a treaty approved by legislative bodies, it will be easier to ensure financial contributions if the government as a whole can agree that its commitments to EANET announcement should be strengthened to the treaty level. Also, it may be easier to get external funding support (such as, ODA).

(4) Regional Agreement to Secure the Framework

This is the option of an agreement approved by the legislative body, in which besides monitoring, an array of activities for air quality management is proposed and monitoring parameters are not confined only to acid deposition-related issues. The CLRTAP is one such regional initiative.

Issues

It will provide a flexible platform to address the emerging issues like Ozone, Mercury and Volatile Organic Compounds (VOCs), if needed in addition to acid deposition. It will be an equivalent framework like that of the regional cooperation in Europe and it can constitute the East Asian forum to respond to global issues. Also, it may be easier to get funds from external financing agencies.

Among the possible options, it is observed that establishment of a framework including legal instruments provides opportunities for a flexible approach to deal with various aspects of air quality management in addition to acid deposition. Also, it opens the opportunities for mobilization of funds from the international funding sources particularly for developing countries in the region. For example, the ADB-GEF project on prevention and control dust and sand storms in North East Asia has provided a framework for four countries to share a common master plan of future arrangement for monitoring equipment in China and Mongolia. Based on the Master Plan, funding support has been mobilized through the technical cooperation scheme of JICA (Japanese bilateral aid agency).

6. CONCLUSIONS & RECOMMENDATIONS

The establishment of the Acid deposition Monitoring Network in East Asia (EANET) has been an important initiative for regional cooperation. Over the years, EANET has been able to create a pool of trained professionals and generate useful scientific data on issues relating to acid deposition which need to be sustained and enhanced. It has now reached a stage when a sound basis for financial contribution needs to be decided for sustenance and for further development of EANET activities. This is a felt need as expressed by several Intergovernmental Meetings (IG) starting with the Second Session in 2000.

At the fifth session of IG, following the outcome of the Working Group on Financial Arrangement through its deliberations since 2001, it was agreed that as a first step towards establishment of the financial basis, each country should make efforts to make voluntary contribution from 2005 according to UN assessment scale.

However, some participating countries expressed difficulties to share the costs without any legal basis. Therefore, it was decided to conduct a feasibility study on an appropriate instrument on acid deposition to provide a sound basis for financial contribution. As one of the tasks assigned to the Working Group on Future Development (WGFD), this study was undertaken to examine the relevant instruments, the details of which are given in the

preceding chapters of the report.

.At present, EANET is provided with two instruments: the “Joint Announcement” and the “Tentative Design” both agreed at the Second Session of the Intergovernmental Meeting held in 2000, by ministries and agencies in charge of acid deposition monitoring. There are two options in order to establish a legal basis responding to the request of participating countries: the Administrative Agreement that is binding to the whole body of administration or an Agreement in the form of a treaty that requires ratification, acceptance, approval or accession of the legislative body.

Meanwhile, there is an opinion that it is important to establish the platform for future development of EANET, providing a broader framework including activities necessary for the air quality management, such as the preparation of emission inventories, modeling and control measures, as well as monitoring, to address transboundary air pollution as implemented in CLRTAP in Europe and North America and activities in countries of South Asia (Male Declaration), Latin America and Southern region of Africa.

This study examined four options obtained through the combination of two choices: administrative agreement or an agreement approved by legislative bodies; and monitoring of acid deposition or broader framework including activities necessary for the air quality management to prepare for future development.

Among the possible options, it is observed that establishment of a framework including legal instruments provides opportunities for a flexible approach to deal with various aspects of air quality management in addition to acid deposition. Also, it opens the opportunities for mobilization of funds from the international funding sources particularly for developing countries in the region.

Based on the study, it is recommended that the participating countries should make efforts to decide a “Mandate” for developing a legal instrument within a certain time limit. The mandate needs to contain some clarification of rationale, purpose of the instrument and procedural parameters, relating, inter alia, to: the negotiating process, roles of EANET bodies, participation of countries and other entities, and organizational issues.

To work out the mandate and its elements, the IG7 may consider the possible way forward which could be as follows:

(1) Process

-setting an intergovernmental discussion process by entrusting the work to WGFD or

establishing a

new working group

-target year for finalizing the discussion e.g. within three to five years

-dates and venues of first and subsequent sessions

(2)Participation

-membership of the discussion

(3)Secretariat

-authorize the Secretariat to conduct the discussion process

(4) Funding for the discussion process

List of Abbreviations

ADB	Asian Development Bank	
ASEAN	Association of South East Asian Nations	
CCC	Chemical Coordination Centre	
CFC	Chlorofluorocarbons	
CIAM	Center for Integrated Assessment Modeling	
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	
CLRTAP	Convention on Long-Range Transboundary Air Pollution	
COP	Conference of Parties	
CORINAIR	Coordination of Environmental Air	
DESA	Department of Economic and Social Affairs	
EANET	Acid Deposition Monitoring Network in East Asia	
ECAFE	Economic Commission for Asia and the Far East	
ECE	Economic Commission for Europe	
ECE/EB	Economic Commission for Europe / Executive Body	
EMEP	Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutions in Europe	
EU	European Union	
GEF	Global Environment Facility	
IG	Intergovernmental Meeting	INC
	Intergovernmental Negotiation Committee	
IPCC	Intergovernmental Panel on Climate Change	
JA	Joint Announcement	
JICA	Japan International cooperation agency	
KEDO	Korean Peninsula Energy Development Organization	
LRTAP	Long-Range Transboundary Air Pollution	
LTP	Long-range Transboundary Air Pollutants project	
MRC	Mekong River Commission	
MSC-E	Meteorological Synthesizing Centre -East	
MSC-W	Meteorological Synthesizing Centre -West	
NEAC	Northeast Asian Conference on Environmental Cooperation	
NILU	Norwegian Institute for Air Research	
NOWPAP	Northwest Pacific Action Plan	
ODA	Official Development Assistance	
ODS	ozone depleting substances	
OECD	Organization for Economic Co-Operation and Development	
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic	

PM	Particulate Matter
POPs	Persistent Organic Pollutants
RAC	Regional Activity Centres
RAINS	Regional Air Pollution Information and Simulation
RAPIDC	Regional Air Pollution in Developing Countries
RCU	Regional Coordinating Unit
SAC	Scientific Advisory Committee
SACEP	South Asia Cooperative Environment Programme
SAEP	Senior Advisers to ECE Governments on the Environment
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SEI	Stockholm Environment Institute
SIDA	Swedish International Development Cooperation Agency
SPEESC	South Pacific Economic Exchange Support Centre
TD	Tentative Design
TEAP	Technology and Economic Assessment Panel
TFEIP	Task Force on Emission Inventories and Projections
TFIAM	Task Force on Integrated Assessment Modeling
TFMM	Task Force on Measurements and Modeling
TOR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Programme
UN/ECE	United Nations Economic Commission for Europe
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
VOCs	Volatile Organic Compounds
WGFD	Working Group on Future Development

References

Chapter 2

(1) ASEAN Agreement on Transboundary Haze Pollution

Chang, Li Lin, and Ramkishen S. Rajan, "Regional Versus Multilateral Solutions to Transboundary Environmental Problems: Insights from the Southeast Asian Haze" *The World Economy* Vol. 24 no.5 May 2001: 655-671.

Cotton, James, "The "haze" over Southeast Asia: Challenging the ASEAN Mode of Regional Engagement" *Pacific Affairs* 1999: 331-351.

Quah, Euston, "Transboundary Pollution in Southeast Asia: The Indonesian Fires" *World Development* Vol.30 No.3 2002: 429-441.

Tay, Simon S.C. "What Should be Done About the Haze". *The Indonesian quarterly*, May 31-June 4 1998: 99-117.

Tay, Simon S.C. "South East Asian Forest Fires: Haze over ASEAN and International Environmental Law" *South East Asian Fires* Vol.7 Issue 2 1998:202-208.

(2) Convention on Long-Range Transboundary Air Pollution

Institute for Global Environmental Strategies (2003) "Report on the application of environmental policy in Baltic Sea coastal area to East Asia 2002 (Japanese)"

"Convention on Long Range Transboundary Air Pollution" United Nations Economic Commission for Europe 10 September 2004 <http://www.unece.org/env/lrtap/welcome.html>

(3) Malé Declaration

"Malé Declaration" United Nations Environment Programme Regional Resource Centre for Asia and the Pacific. 15 September 2004 <http://www.rrcap.unep.org/issues/air/maledec/>

Shrestha, Surendra, and Mahoboob Elahi, "Tackling Transboundary Air Pollution in Asia with an Emphasis on the Malé Declaration" *Air Pollution in Asia and Africa: The Approach of the RAPICD Programme* 2003: 13-18.

(4) United Nations Framework Convention on Climate Change

Takamura, Yukari and Kameyama, Yasuko "International institutions to the Kyoto Protocol (Japanese)" *Shinzansha*, Japan 2002.

Earth Negotiations Bulletin Volume 12 *The United Nations Framework Convention on Climate Change* <http://www.iisd.ca/vol12/>

(5) Vienna Convention for the protection of the Ozone Layer

Kawahira, Koji and Makino, Yukio. "Ozone Depletion (Japanese)" *Yomiuri Shinbunsha*, Japan, 1989.

Environment Agency of Japan, Department of Global Environment, "Ozone Depletion (Japanese)" *Chuuou Houki*, Japan, 1995.

Environment Agency of Japan, Commission on Ozone layer Protection, "Protecting the Ozone Layer (Japanese)" *NHK Books*, Japan, 1989.

(6) Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin

The Water Page <http://www.thewaterpage.com/>

"The status and issues for cooperation in the Indo China area" *JICA Report* 2002. http://www.jica.go.jp/activities/report/kyakuin/pdf/200203_09.pdf

(7) Northwest Pacific Action Plan

“Proposed Regional Activity Centres and their Networks for the Northwest Pacific Action Plan” <http://www.unep.org/water/regseas/nwpac/racs34.doc>

Chapter 3

Institute for Global Environmental Strategies (2003) “Report on the application of environmental policy in Baltic Sea coastal area to East Asia 2002 (Japanese)”

Chapter 4

Yoshirou Matsui et al., International Laws, Yuhikaku, 1998

Document of Ministry of Foreign Affairs,

http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/sonota/k_kikan_15/15_5.html (Japanese)