

ANNEX

NORTH-EAST ASIAN
SUBREGIONAL PROGRAMME
FOR ENVIRONMENTAL
COOPERATION: CHALLENGES
AND OPPORTUNITIES

By

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LIST OF ABBREVIATIONS

ACAP	Asia Centre for Air Pollution Research
ACB	ASEAN Centre for Biodiversity
ACCI	ASEAN Climate Change Initiative
ACE	ASEAN Centre for Energy
ACTC	ASEAN Committees in Third Countries and International Organisations
ADB	ASEAN Development Bank
ADF	ASEAN Development Fund
AEBF	ASEAN Energy Business Forum
AEEAP	ASEAN Environmental Education Action Plan
AEEID	ASEAN Environmental Education Inventory Database
AEY	ASEAN Environment Year
AF	Adaptation Fund
AFD	Agence Française de Développement
AHP	ASEAN Heritage Parks
AIESC	ASEAN Initiative on Environmentally Sustainable Cities
AIT	Asian Institute of Technology
AMME	ASEAN Ministerial Meeting on Environment
APMS	ASEAN Peatland Management Strategy
APN	Asia Pacific Network
ARCBC	ASEAN Regional Centre for Biodiversity Conservation
ASCC	ASEAN Socio-Cultural Community
ASEAN	Association of South East Asian Nations
ASEAN-NEST	ASEAN Network on Environmentally Sound Technologies
ASOEN	ASEAN Senior Officials on the Environment
AusAID	Australian Agency for International Development
AWGCC	ASEAN Working Group on Climate Change
AWGCME	ASEAN Working Group on Coastal and Marine Environment
AWGEE	ASEAN Working Group on Environmental Education
AWGESC	ASEAN Working Group on Environmentally Sustainable Cities
AWGMEA	ASEAN Working Group on Multilateral Environmental Agreements
AWGNCB	ASEAN Working Group on Nature Conservation and Biodiversity
AWGWRM	ASEAN Working Group on Water Resources Management
CBD	Convention on Biological Diversity
CC	Consultative Committee
CDM	Clean Development Mechanism
CEA	Coastal Environmental Assessment
CEE	Centre for Environment Education
CEPA-NET	South East Asian Communication, Education Public Awareness and Media Network for Biodiversity
CER	Certified Emission Reductions
CLRTAP	Convention on Long-range Transboundary Air Pollution
CMS	Convention on Migratory Species
COP	Conference of the Parties
CORDIO	Coral Reef Degradation in the Indian Ocean
CPR	Committee of Permanent Representatives
CRAES	Chinese Research Academy of the Environmental Science Institute
CSO(s)	Civil Society Organization(s)
DIN	Data and Information Network
DPRK	Democratic People's Republic of Korea
DSGs	Deputy Secretaries-General
DSS	Dust and Sandstorms
EABRN	East Asian Biosphere Reserve Network

EANET	Acid Deposition Monitoring Network in East Asia
ECCJ	Energy Conservation Centre of Japan
ECM	Expert Consultation Meeting
ECO-Asia	Environmental Congress for Asia and the Pacific
EE&C-SSN	Energy Efficiency and Conservation Sub-sector Network
EGM	Expert Group Meeting
EIA	Environmental Impact Assessment
ERINA	Economic Research Institute for Northeast Asia
ESC	Environmentally Sustainable City
EST	Environmentally Sound Technology
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCO	British Foreign and Commonwealth Office
GBIF	Global Biodiversity Information Facility
GC	Governing Council
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIWA	Global International Waters Assessment
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPA	Global Programme of Action
GTI	Greater Tumen Initiative
IAI	Initiative for ASEAN Integration
IAMME	Informal ASEAN Ministerial Meeting on the Environment
ICRAN	International Coral Reef Action Network
ICRI	International Coral Reef Initiative
IDRC	International Development Research Centre
IEA	International Energy Agency
IEMP	International Ecosystem Management Partnership
IFAD	International Fund for Agricultural Development
IFAW	Secretariat, International Fund for Animal Welfare
IGM	Intergovernmental Meeting
IMO	International Maritime Organization
IPLA	International Partnership for Expanding Waste Management Services of Local Authorities
ISEAS	Institute of Southeast Asian Studies
IUCN	International Union for Conservation of Nature
JAL	Japan Airlines
JETA	Japan Environmental Technology Association
JICA	Japan International Cooperation Agency
JPOI	Johannesburg Plan of Implementation
KDI	Korea Development Institute
KEPRI	the Korean Electric Power Research Institute
KPIs	Key Performance Indicators (KPIs)
LTP	Joint Research Project on Long-Range Transboundary Air Pollutants
LUPAM	Land Use Planning and Management
MCPA	Marine Conservation and Protected Areas
MER	Marine Environmental Emergency Preparedness and Response
METI	Ministry of Economy, Trade and Industry
MIE	Multilateral Implementing Entity
MOE	Ministry of Energy
MPAs	Marine protected areas
MSC	Ministerial Steering Committee
NEA	North-East Asia
NEAC	North-East Asian Conference

NEACEDT	North-East Asian Centre for Environmental Data and Training
NEAECF	Northeast Asia Environmental Cooperation Fund
NEAFF	North-East Asian Forest Forum
NEAR	Association of North East Asia Regional Governments
NEASPEC	North-East Asia Subregional Programme of Environment Cooperation
NFP(s)	National Focal Point(s)
NGO(s)	Non-Governmental Organization(s)
NIE	National Implementing Entity
NIER	National Institute for Environment Research
NIES	National Institute for Environmental Studies
NORAD	Norwegian Agency for Development Cooperation
NOWPAP	North West Pacific Action Plan
OISCA	Organization for Industrial, Spiritual and Cultural Advancement
PAC	Project Appraisal Committee
PAS	Pacific Alliance for Sustainability
PCFV	Partnership for Clean Fuels and Vehicles
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
POM	Pollution Monitoring
RACs	Regional Activity Centres
RAF	Resource Allocation Framework
RESP	Renewable Energy Support Programme
RCU	Regional Coordinating Unit
ROK	Republic of Korea
RRC	Regional Resource Centre
SAARC	South Asia Association of Regional Cooperation
SACEP	South Asia Cooperative Environment Programme
SACRTF	South Asia Coral Reef Task Force
SCCF	Special Climate Change Fund
SEARCHA	Southeast Asian Regional Centre for Graduate Study and Research in Agriculture
SoER	State of the Environment Report
SOM	Senior Officials Meeting
SOME	Senior Officials Meeting on Energy
SPREP	Pacific Regional Environment Programme (SPREP) and the Secretariat for the Pacific Regional Environment Programme (also to be known as SPREP)
SRO-ENEA	Subregional Office for East and North-East Asia
STAR	System for a Transparent Allocation of Resources
SWG	Sub-Working Group
TEMM	Tripartite Environment Ministers' Meeting
TOR	Terms of Reference
TPM	Tripartite Presidents Meeting
TRADP	Tumen River Area Development Programme
TWG	TWG: Technical Working Group
UNCCD	United Nations Convention to Combat Desertification
UNCRD	United Nations Centre for Regional Development
UNDESA	United Nations Department for Economic and Social Affairs
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation
UNOPS	United Nations Office for Project Services

UNU	United Nation University
UNU-IAS	United Nation University - Institute of Advanced Studies
UNWTO	World Tourism Organization
USAID	United States Agency for International Development
VSP	Visiting Scientists Programme
WB	World Bank
WCMC	World Conservation Monitoring Centre
WSSD	World Summit on Sustainable Development

CONTENTS

	PAGE
LIST OF ABBREVIATIONS	2
ACKNOWLEDGEMENTS	8
EXECUTIVE SUMMARY	9
1 Introduction	12
2 Mandate and Objectives of this Report	12
3 Scope of the Report	13
4 Review of Subregional Cooperative Mechanisms in Asia and the Pacific	14
4.1 Association of South East Asian Nations (ASEAN)	14
4.1.1 History and mission	14
4.1.2 Political commitment	15
4.1.3 Governing body structures and institutional arrangement	15
4.1.4 ASEAN Secretariat	15
4.1.5 ASEAN Environmental Cooperation and priority areas	16
4.1.6 Funding arrangements	21
4.1.7 Partnerships	21
4.1.8 ASEAN Centre for Energy (ACE)	21
4.1.9 ASEAN Centre for Biodiversity (ACB)	22
4.1.10 ASEAN Foundation	23
4.2 South Asia Cooperative Environment Programme (SACEP)	25
4.2.1 History and mission	25
4.2.2 Political commitment	25
4.2.3 Governing body structures and institutional arrangement	25
4.2.4 SACEP Secretariat	26
4.2.5 Work programmes	26
4.2.6 Funding arrangements	26
4.2.7 Partnerships	26
4.3 Pacific Regional Environment Programme (SPREP)	27
4.3.1 History and mission	27
4.3.2 Political commitment	27
4.3.3 Governing body structures and institutional arrangement	27
4.3.4 Secretariat for the Pacific Regional Environment Programme (also known as SPREP)	28
4.3.5 Work programmes	28
4.3.6 Funding arrangements	28
4.3.7 Partnerships	29
5 Review of Subregional Multilateral Environmental Frameworks and Programmes in North-East Asia and East Asia	29
5.1 Greater Tumen Initiative (GTI)	29
5.2 North West Pacific Action Plan (NOWPAP)	30
5.3 North-East Asian Forest Forum (NEAFF)	33
5.4 East Asian Biosphere Reserve Network (EABRN)	34
5.5 Tripartite Environment Ministers' Meeting (TEMM)	34
5.6 Joint Research Project on Long-Range Transboundary Air Pollutants (LTP)	36
5.7 Acid Deposition Monitoring Network in East Asia (EANET)	37
6 Strengthening of NEASPEC: Options, Challenges and Opportunities	38
6.1 The role of regional frameworks after Rio+20	38
6.2 The role and uniqueness of NEASPEC	39
6.3 Governing body and coordination of NEASPEC	40
6.4 Strengthening of the NEASPEC Secretariat	40

6.4.1	Human resources and secretariat arrangement	41
6.4.2	Financial resources	42
6.4.3	Other possible sources of financing	43
6.4.3.1	Global Environment Facility (GEF) Trust Fund	43
6.4.3.2	Special Climate Change Fund (SCCF)	44
6.4.3.3	Adaptation Fund	44
6.4.3.4	Green Climate Fund (GCF)	45
6.4.3.5	Bilateral financing	45
6.4.3.6	Innovative financing	45
6.4.4	Resource mobilization strategy	45
6.5	Programme activities	46
6.5.1	Priorities	46
6.5.2	Recent activities and achievements	46
6.5.2.1	Mitigation of transboundary air pollution from coal-fired power plants	46
6.5.2.2	Implementing the regional master plan for the prevention and control of dust and sandstorms	49
6.5.2.3	Cooperation mechanisms for nature conservation in transboundary areas	51
6.5.2.4	Eco-efficiency partnership	51
6.5.3	Possible new project activities	53
6.5.3.1	Marine protected areas network for North-East Asia	53
6.5.3.2	Drought risk reduction network for North-East Asia	54
6.6	Partnerships with other collaborating partners	55
6.7	Technical cooperation and capacity-building	55
6.7.1	Science and technology	56
6.7.2	Visiting scientists programme	56
6.7.3	Forums and workshops	56
6.7.4	Training of trainers workshops	56
6.7.5	Project development and implementation	56
6.7.6	Partnership programme between government agencies and enterprises	57
7	Specific Case of Democratic People's Republic of Korea (DPRK)	57
8	NEASPEC Five-Year or Ten-Year Strategic Action Plan	57
9	Conclusions	57
10	Recommendations	59
REFERENCES		61
Table 1.	Subregional mechanisms in Asia and the Pacific	63
Table 2.	Subregional multilateral environmental frameworks and programmes in North-East Asia	67

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EXECUTIVE SUMMARY

The outcome document of Rio+20, *The Future We Want*, has acknowledged “*the importance of the regional dimension of sustainable development*”, and that “*Regional frameworks can complement and facilitate effective translation of sustainable development policies into concrete action at national level*” (paragraph 97). It emphasizes the significant role of “*regional and sub-regional organizations, including the UN regional commissions and their sub-regional offices*” “*in promoting a balanced integration of the economic, social and environmental dimensions of sustainable development in their respective regions*”, and urges “*these institutions to prioritize sustainable development through, inter alia, more efficient and effective capacity building, development and implementation of regional agreements and arrangements as appropriate, and exchange of information, best practices, and lessons learnt*”. This has reaffirmed the important role of UNESCAP and its SRO-ENEA in promoting sustainable development among the NEASPEC member States.

Within the above context, this report reviews the existing subregional environmental cooperation mechanisms in Asia and the Pacific; in particular, the Association of South East Asian Nations (ASEAN), the South Asia Cooperative Environment Programme (SACEP) and the Pacific Regional Environment Programme (SPREP)¹, as well as the existing subregional environmental frameworks and programmes in North-East Asia and East Asia (i.e., Greater Tumen Initiative (GTI), North West Pacific Action Plan (NOWPAP), North-East Asian Forest Forum (NEAFF), East Asian Biosphere Reserve Network (EABRN), Tripartite Environment Ministers’ Meeting (TEMM), Joint Research Project on Long-Range Transboundary Air Pollutants (LTP), and Acid Deposition Monitoring Network in East Asia (EANET)). Based on this review and drawing from the practices of these mechanisms, frameworks and programmes, this report aims to provide a roadmap for strengthening the programmes and institutional arrangement of the North-East Asia Subregional Programme of Environment Cooperation (NEASPEC), including its Secretariat.

NEASPEC, established in 1993, has six member States, namely China, Mongolia, the Democratic People’s Republic of Korea (DPRK), the Republic of Korea (ROK), Japan and the Russian Federation. It adopts a multi-disciplinary and multi-sectoral approach to address transboundary environmental issues in North-East Asia, and with multi-stakeholder partnerships in its programme development and implementation.

NEASPEC is unique, as its member States are politically and economically very diverse compared to those of ASEAN, SACEP and SPREP. Political conflicts within the NEASPEC member States sometimes affect the progress of NEASPEC activities. This has made the operation of NEASPEC more difficult, and therefore strong political will and commitment are needed from NEASPEC member States to make this subregional environmental cooperation mechanism fully functional.

UNESCAP served as the interim Secretariat of NEASPEC until May 2011, when the 67th Commission Session of UNESCAP endorsed the UNESCAP Subregional Office for East and North-East Asia (SRO-ENEA) in Incheon, ROK, which was inaugurated in May 2010, as the permanent Secretariat of NEASPEC.

NEASPEC is governed by the Senior Official Meetings (SOM), a much simpler governing structure compared to those of ASEAN, SACEP and SPREP, which are represented at the Head of State level (ASEAN and SPREP) or Ministerial level (ASEAN Ministerial Meeting on Environment; SACEP and SPREP). An informal ministerial meeting of NEASPEC was held in the margin of the Ministerial Conference on Environment and Development organized by UNESCAP in Seoul in 2005. The

¹ SPREP originally referred to the South Pacific Regional Environment Programme until the name change in 2004 to Pacific Regional Environment Programme (still referred to as SPREP). See Section 4.3.1.

political commitment of the member States of NEASPEC may be strengthened by upgrading the SOM to the ministerial level meeting.

With the permanent status of the NEASPEC Secretariat and its expanding programmes and other activities, including an increase in communications and interactions with the member States and other multilateral agencies and national stakeholders, there is a need to strengthen the Secretariat's human and technical capacity with adequate and predictable financial resources. Member States may second national experts to the Secretariat on a three-year rotational basis. The seconded national experts should be managed as UN-affiliated staff within the UN system. Through this mechanism, the seconded national experts could also enhance their capacities within the UN system. In addition, the high-income member States may provide support for Junior Professional Officers (JPO) through the UN JPO Programme or interns under the UN system. The JPOs or interns could also enhance their capacities within the UN system. Based on the common experience of ASEAN, SACEP and SPREP, each staff member of the NEASPEC Secretariat may be assigned to be responsible for certain thematic areas based on their expertise.

It would be appropriate for the SOM/SRO-ENEA to accord official status to staff members who are serving NEASPEC, including the Coordinator, Deputy Coordinator (if any) and Secretariat assistants, so as to facilitate their communication with member States and external agencies. Currently, four staff members consisting of one P-4 (Environmental Affairs Officer), one P-2 (Associate Environmental Affairs Officer) and two General Services (GS) staff members are supporting the work of NEASPEC within the environment area of work of SRO-ENEA. However, these staff members except for one junior GS staff member are also serving other thematic areas and thus they are not exclusively recruited to serve NEASPEC. As the scope and activities of NEASPEC expand with its new mandate as a permanent secretariat, the Coordinator and the staff members who are serving NEASPEC will have to fully dedicate their time to the NEASPEC activities at some appropriate stage.

In response to the expanding activities of the NEASPEC Secretariat, the financial mechanisms of NEASPEC may need to be reviewed. The present voluntary contributions to the Core Fund vary among member States and hence the amount of Core Fund lacks predictability. Given the different development levels of member States, perhaps the following two alternatives may be considered: (i) all members contribute according to UN scale of assessment; and (ii) a fixed percentage of the Core Fund by all members in equal shares; the remainder is based on the UN assessment scale. These two alternatives were considered at SOM-5 in 1999, even though a North-East Asia Environmental Cooperation Fund (NEAECF) rather than a Core Fund was proposed at that time. Another option is to adopt the NOWPAP formula that includes a fixed equal shares by all member States, and the remainder is based on additional shares provided by higher income member States. All these alternatives will at least ensure the predictability of the financial resources contributed by member States, and any shortfall may be complemented by other sources.

Meanwhile, the relatively small number of projects needs to be expanded. More project-based funding may be accessed from existing multilateral financial mechanisms, especially those under the multilateral environmental agreements (e.g., United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD)), such as the Global Environment Facility (GEF) Trust Fund, Special Climate Change Fund (SCCF), Adaptation Fund (AF), Green Climate Fund (GCF). New and innovative financial resources need to be identified and mobilized, including international non-governmental and charity organizations, and public-private partnerships. A resource mobilization strategy for NEASPEC is needed.

Among the existing transboundary projects – which range from air pollution from coal-fired power plants to prevention and control of dust and sandstorms, nature conservation, and eco-efficiency – two possible new projects, one on *A Marine Protected Areas Network for North-East Asia* and the other

on *A Drought Risk Reduction Network for North-East Asia* may be pursued in the near future, perhaps with funding support from multilateral sources.

NEASPEC must use its comparative advantage to catalyse and build partnerships with existing subregional environmental cooperation mechanisms, frameworks and programmes. One such possible partnership is with the UNEP International Ecosystem Management Partnership (UNEP-IEMP) hosted by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, based in Beijing, focusing on green economy, which includes eco-efficiency, environmental sustainability and green growth, and ecosystem management – these are the common areas shared by UNEP-IEMP and NEASPEC. Green economy is one of the two major themes at Rio+20.

There is still a specific need for enhancing the technical cooperation among NEASPEC member States, especially for Mongolia and DPRK. The following areas in technical cooperation are highlighted: *Science and technology; Visiting scientists programme; Forums and workshops; Training of trainers workshops; Project development and implementation; Partnership programme between government agencies and enterprises.* NEASPEC may facilitate bilateral or subregional technical cooperation and capacity-building activities. The newly initiated China's South-South Cooperation Programme could play a catalytic role in enhancing the human and institutional capacity of Mongolia and DPRK in addressing various environmental issues.

It is also important for NEASPEC member States to share information, experience and lessons learned on other environmental issues, such as climate change, energy, biodiversity, and land degradation/desertification, as well as the synergies between these issues. Partnerships with other relevant agencies for jointly organizing subregional forums and workshops on other environmental issues should be explored whenever and wherever possible.

There is a special case with DPRK, which was typically absent from any NEASPEC activities if these activities were held in ROK. An appropriate solution must be found to address this issue. The difficulties of DPRK in accessing the GEF funds for projects development and implementation are also issues that deserve NEASPEC's attention and possible assistance.

The performance of NEASPEC will depend on the political will and commitment of the member States, the availability and adequacy and predictability of financial resources, and the strengthening of the Secretariat's human and institutional capacity, as well as the creativity and innovativeness of the professional staff of the Secretariat in performing their responsibilities and duties.

There is a need to develop a Five-Year or Ten-Year *NEASPEC Strategic Action Plan* to guide the activities of NEASPEC in the next five (2013-2017) or 10 (2013-2022) years.

1 Introduction

Regional and subregional environmental mechanisms and environmental governance play significant roles in building a common ground for managing the common pool of interdependent ecological resources and shared environment (Nam, 2008).

North-East Asia is a vast geographic ensemble that stretches from Mongolia in the West to the Pacific coasts of the Russian Federation, China, the Korean Peninsula (Republic of Korea and Democratic People's Republic of Korea) and Japan. All these countries are member states of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). The North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC), established in 1993 with the support of UNESCAP, has been an important programme that facilitates environmental cooperation among the North-East Asian countries, especially on technical capacity-building and transboundary environmental issues. UNESCAP had been acting as NEASPEC's interim secretariat until May 2011 when the 67th Commission Session of UNESCAP endorsed the UNESCAP Subregional Office for East and North-East Asia (SRO-ENEA), which was inaugurated in May 2010, as the permanent secretariat of NEASPEC.

Further to the new arrangement, the 16th Senior Officials Meeting (SOM-16) of NEASPEC held in September 2011 in Seoul discussed the need to clearly define rules of procedure for the operation of NEASPEC. In this regard, member States requested the secretariat to conduct a study of similar subregional programmes and entities with a view to learning and benefitting from their experience. In line with this request, the SRO-ENEA has commissioned an international consultant to undertake a review study of functions and institutional arrangements of subregional mechanisms for environmental cooperation in Asia and the Pacific, including the multilateral mechanisms, frameworks and programmes operating in North-East Asia, so as to extract the best practices and most efficient modalities for strengthening the institutional capacity and operational efficiency of NEASPEC.

2 Mandate and Objectives of this Report

This report is prepared by an international consultant according to the Terms of Reference (TOR) provided by the NEASPEC Secretariat (Annex 1). The TOR reflects the mandate given by the 16th Senior Officials Meeting (SOM-16) of NEASPEC. This report will be presented for consideration at the SOM-17 scheduled to be held in Chengdu, China on 20-21 December 2012.

This report aims to provide a roadmap for strengthening the programme and institutional arrangement of NEASPEC, including the secretariat, based on the best practices of other subregional mechanisms in Asia and the Pacific. The specific objectives of the report are to:

- (i) Review the programmes and institutional arrangements of subregional mechanisms for environmental cooperation in Asia and the Pacific, in particular, ASEAN, SACEP, SPREP, with particular focus on the following:
 - Institutional, funding, secretariat arrangements, and governing body structures of the main subregional environmental cooperation mechanisms in Asia-Pacific region;
 - The historical background of evolution of these mechanisms, including insights on the level of political commitment and ownership by member States.
- (ii) Review the programmes and institutional arrangements of subregional multilateral environmental frameworks and programmes operating in North-East Asia, in particular,

the Greater Tumen Initiative (GTI), North West Pacific Action Plan (NOWPAP), North-East Asian Forest Forum (NEAFF), East Asian Biosphere Reserve Network (EABRN), Tripartite Environment Ministers' Meeting (TEMM), Joint Research Project on Long-Range Transboundary Air Pollutants (LTP), and Acid Deposition Monitoring Network in East Asia (EANET), with particular focus on the following:

- Institutional, funding, secretariat arrangements, and governing body structures of the main subregional environmental cooperation mechanisms in North-East Asia;
 - The operational scopes and institutional arrangements of these mechanisms.
- (iii) Formulate potential options for strengthening the programmes and institutional arrangement of NEASPEC, including the secretariat, based on the review in sections (i) and (ii) above.
- Extract the best practices and formulate potential options for strengthening the programmes and the institutional arrangement of NEASPEC, including considerations of its secretariat arrangements, the level of ownership and participation of the member States (e.g. governing body composition, funding, etc.);
 - Provide possible scenarios of the future development of NEASPEC, based on availability of resources and commitment by member States.

3 Scope of the Report

This report is based on a literature review as well as the visits undertaken by the international consultant to the following subregional mechanisms: (i) Environment Division of the ASEAN Secretariat on 26 July 2012; (ii) the ASEAN Foundation on 27 July 2012; and (iii) SACEP on 2 August 2012. The report also benefited from the professional experience of the international consultant who was the Regional Adviser on Environment and Sustainable Development of UNESCAP from 2001 to 2007. During this period, he participated in the NEASPEC Senior Official Meetings on two occasions and also visited SACEP and SPREP. He was also invited to participate in workshops organized by North-East Asia Forest Forum (NEAFF).

The report is divided into 10 sections. Section 1 provides the Introduction. Section 2 states the mandate, objective and specific objectives of the report, as provided by the TOR. Section 3 provides the scope of the report. Section 4 reviews the existing subregional environmental cooperative mechanisms in Asia and the Pacific, in particular, ASEAN and its secretariat, ASEAN Centre for Energy, ASEAN Centre for Biodiversity (ACB), and ASEAN Foundation, SACEP and SPREP, including the history and mission, political commitment, governing body structures and institutional arrangement, programme activities, funding arrangements, and partnerships of each of these mechanisms. Section 5 briefly discusses subregional multilateral environmental frameworks and programmes in North-East Asia, in particular, the Greater Tumen Initiative (GTI), North West Pacific Action Plan (NOWPAP), North-East Asian Forest Forum (NEAFF), East Asian Biosphere Reserve Network (EABRN), Tripartite Environment Ministers' Meeting (TEMM), Joint Research Project on Long-Range Transboundary Air Pollutants (LTP), and Acid Deposition Monitoring Network in East Asia (EANET), including the history and mission, operational scopes, programme activities, governing body structures and institutional arrangements, and funding support of each of these frameworks and programmes. Section 6 reviews the role of regional frameworks after Rio+20, the role and uniqueness of NEASPEC, and the governing body and coordination of NEASPEC, with a view to further strengthening this subregional cooperative mechanism in terms of human resources and secretariat arrangement, financial resources and other possible sources of financing. The section also discusses NEASPEC's programme activities, including priorities, recent activities and achievements, proposed new activities, partnerships with other collaborating partners, as well as the specific areas needed for technical cooperation and capacity-building, especially for developing

member States. Section 7 deals with the special case of the Democratic People's Republic of Korea (DPRK). Section 8 proposes the development of a NEASPEC Five-Year or 10-Year Strategic Action Plan. Section 9 provides the conclusions and Section 10 some recommendations for further actions.

4 Review of Subregional Cooperative Mechanisms in Asia and the Pacific

There are a number of subregional cooperative mechanisms in Asia and the Pacific. This report will focus on only the following: (i) ASEAN, including its secretariat; ASEAN Environmental Cooperation programme; ASEAN Centre for Energy (ACE); ASEAN Centre for Biodiversity (ACB); and ASEAN Foundation; (ii) SACEP, including its secretariat; and (iii) SPREP, including its secretariat. Table 1 provides a summary of this review.

4.1 Association of South East Asian Nations (ASEAN)

4.1.1 History and mission

ASEAN was established in Bangkok on 8 August 1967, with the signing of the ASEAN Declaration by the five founding member States of Indonesia, Malaysia, the Philippines, Singapore and Thailand. Later, the memberships were expanded to 10 to include Brunei Darussalam (joined on 7 January 1984), Viet Nam (Viet Nam on 28 July 1995), Lao PDR and Myanmar (Lao PDR and Myanmar on 23 July 1997) and Cambodia (joined on 30 April 1999). At the 12th ASEAN Summit in January 2007, the leaders affirmed their strong commitment to accelerate the establishment of an ASEAN Community by 2015 and signed the **Cebu Declaration on the Acceleration of the Establishment of an ASEAN Community by 2015**.

The ASEAN Community is composed of three pillars, namely the **ASEAN Political-Security Community**, **ASEAN Economic Community** and **ASEAN Socio-Cultural Community**. Each pillar has its own Blueprint, and, together with the **Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan Phase II (2009-2015)**, they form the **Roadmap for ASEAN Community 2009-2015** (ASEAN, 2011a).

The original ASEAN Declaration has been transformed to the ASEAN Charter², a legally binding agreement that entered into force on 15 December 2008. "The ASEAN Charter serves as a firm

² The purposes of ASEAN, as stated in Article 1 of the ASEAN Charter, are: 1. To maintain and enhance peace, security and stability and further strengthen peace-oriented values in the region; 2. To enhance regional resilience by promoting greater political, security, economic and socio-cultural cooperation; 3. To preserve Southeast Asia as a Nuclear Weapon-Free Zone and free of all other weapons of mass destruction; 4. To ensure that the peoples and Member States of ASEAN live in peace with the world at large in a just, democratic and harmonious environment; 5. To create a single market and production base which is stable, prosperous, highly competitive and economically integrated with effective facilitation for trade and investment in which there is free flow of goods, services and investment; facilitated movement of business persons, professionals, talents and labour; and freer flow of capital; 6. To alleviate poverty and narrow the development gap within ASEAN through mutual assistance and cooperation; 7. To strengthen democracy, enhance good governance and the rule of law, and to promote and protect human rights and fundamental freedoms, with due regard to the rights and responsibilities of the Member States of ASEAN; 8. To respond effectively, in accordance with the principle of comprehensive security, to all forms of threats, transnational crimes and transboundary challenges; 9. To promote sustainable development so as to ensure the protection of the region's environment, the sustainability of its natural resources, the preservation of its cultural heritage and the high quality of life of its peoples; 10. To develop human resources through closer cooperation in education and life-long learning, and in science and technology, for the empowerment of the peoples of ASEAN and for the strengthening of the ASEAN Community; 11. To enhance the well-being and livelihood of the peoples of ASEAN by providing them with equitable access to opportunities for human development, social welfare and justice; 12. To strengthen cooperation in building a safe, secure and drug-free environment for the peoples of ASEAN; 13. To promote a people-oriented ASEAN in which all sectors of society are encouraged to participate in, and benefit from, the process of ASEAN integration and community building; 14. To promote an ASEAN identity through the fostering of greater awareness of the diverse culture and heritage of the region; and 15. To maintain the centrality and proactive role of ASEAN as the primary driving force in its relations and cooperation with its external partners in a regional architecture that is open, transparent and inclusive.

foundation in achieving the ASEAN Community by providing legal status and institutional framework for ASEAN. It codifies ASEAN norms, rules and values; sets clear targets for ASEAN; and presents accountability and compliance” (<http://www.aseansec.org/21861.htm>).

4.1.2 Political commitment

The ASEAN Charter has enhanced the political commitment of the ASEAN member States at the top level, with more roles of ASEAN Foreign Ministers, as well as new and enhanced role of the Secretary-General of ASEAN Secretariat.

4.1.3 Governing body structures and institutional arrangement

ASEAN is governed by the following institutional structures:

1. **ASEAN Coordinating Council** comprises the ASEAN Foreign Ministers. They meet at least twice a year.
2. The ASEAN Community Councils comprise (i) **ASEAN Political-Security Community Council** (composed of Foreign Ministers); (ii) **ASEAN Economic Community Council** (composed of trade, industry and economic affairs ministers); and (iii) **ASEAN Socio-Cultural Community Council** (composed of social and cultural affairs ministers).
3. **ASEAN Sectoral Ministerial Bodies:** Each **ASEAN Sectoral Ministerial Body** may have under its purview the relevant senior officials and subsidiary bodies to undertake its functions.
4. **Committee of Permanent Representatives:** Article 12 of the ASEAN Charter stipulates that “each ASEAN Member State shall appoint a Permanent Representative to ASEAN with the rank of Ambassador based in Jakarta. The Permanent Representatives collectively constitute a Committee of Permanent Representatives (CPR), which shall: (a) support the work of the ASEAN Community Councils and ASEAN Sectoral Ministerial Bodies; (b) coordinate with ASEAN National Secretariats and other ASEAN Sectoral Ministerial Bodies; (c) liaise with the Secretary-General of ASEAN and the ASEAN Secretariat on all subjects relevant to its work; (d) facilitate ASEAN cooperation with external partners; and (e) perform such other functions as may be determined by the ASEAN Coordinating Council.” (<http://www.aseansec.org/21901.htm>).
5. **ASEAN National Secretariats:** These are based in the Ministry or Department of Foreign Affairs in the member States.
6. **ASEAN Committees in Third Countries and International Organisations (ACTC):** There are ASEAN Committees in many countries.

ASEAN Chair: Article 31 of the ASEAN Charter stipulates that “the Chairmanship of ASEAN shall rotate annually, based on the alphabetical order of the English names of Member States. A Member State assuming the Chairmanship shall chair the ASEAN Summit and related summits, the ASEAN Coordinating Council, the three ASEAN Community Councils, relevant ASEAN Sectoral Ministerial Bodies and senior officials, and the Committee of Permanent Representatives.” (<http://www.aseansec.org/21888.htm>)

4.1.4 ASEAN Secretariat

The ASEAN Secretariat, based in Jakarta, was established in February 1976 by the Foreign Ministers of ASEAN. Its basic function is “to provide for greater efficiency in the coordination of ASEAN organs and for more effective implementation of ASEAN projects and activities”, and its mission is

“to initiate, facilitate and coordinate ASEAN stakeholder collaboration in realising the purposes and principles of ASEAN as reflected in the ASEAN Charter.” (<http://www.aseansec.org/22467.htm>).

The ASEAN Secretariat is led by the **Secretary General**, who is responsible to the ASEAN Heads of Government Meeting and to all Meetings of ASEAN Ministers and Standing Committee. The Secretary General has authority to address communications directly to the Contracting Parties. The Secretary General is responsible for initiating, advising coordinating and implementing of ASEAN activities according to policy guidelines and has administrative and financial powers.

The Secretary General is appointed by the ASEAN Summit for a non-renewable term of office of five years, selected from among nationals of the ASEAN Member States based on alphabetical rotation. The current Secretary General (2008-2012) is Dr Surin Pitsuwan from Thailand. (<http://www.aseansec.org/22459.htm>)

There are four **Deputy Secretaries-General (DSGs)**, “who shall be of different nationalities from the Secretary-General and who shall come from four different ASEAN Member States”. The DSGs shall comprise (i) two DSGs who are nominated by Member States on a rotational basis for a non-renewable term of three years; and (ii) two DSGs who are openly recruited based on merit for a term of three years, which may be renewed for another three years.

Each DSG is responsible for implementing and overseeing a thematic area, as follows:

- DSG for ASEAN Political Security Community;
- DSG for ASEAN Economic Community;
- DSG for ASEAN Socio-Cultural Community;
- DSG for Community and Corporate Affairs.

The ASEAN Secretariat has about 100 staff members, including the Secretary General, Deputy Secretary Generals, Directors, Assistant Directors and Programme Coordinators, Senior Officers, Programme and Assistant Programme Officers, and supporting staff.

4.1.5 ASEAN Environmental Cooperation and priority areas

Recognising the importance of environmental dimension for sustainable development and regional integration, ASEAN has since 1977 cooperated closely in promoting environmental sustainability programme among its member States. Indeed, one of the purposes of the ASEAN Charter is “to promote sustainable development so as to ensure the protection of the region’s environment, the sustainability of its natural resources, the preservation of its cultural heritage and the high quality of life of its peoples”.

The ASEAN Vision 2020 calls for “a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region’s environment, the sustainability of its natural resources and the high quality of life of its peoples”. (<http://www.aseansec.org/19601.htm>)

ASEAN’s Environmental Sustainability Programme is one of the six thematic areas of the ASEAN Socio-Cultural Community (Figure 1). The Programme is implemented by the Environment Division under the guidance of the DSG for ASEAN Socio-Cultural Community. It focuses on ten priority areas of regional importance as reflected in the Blueprint for the ASEAN Socio-Cultural Community (ASCC Blueprint) 2009-2015³ (ASEAN, 2011b), as follows:

³ The ASCC Blueprint 2009-2015 was endorsed by the ASEAN Leaders in the 14th ASEAN Summit, held in Cha Am, Hua Hin, Thailand, on 1 March 2009.

1. **Addressing global environmental issues** (chaired by Viet Nam). This principally aims at addressing global environmental issues such as climate change, hazardous and toxic wastes/chemicals, etc. in which ASEAN's cooperation focuses on sharing of experiences and information, developing common understanding/positions and capacity building to meet the obligations of the relevant conventions.
2. **Managing and preventing transboundary environmental pollution** (separate institutional mechanism⁴). This aims at addressing transboundary haze induced by forest fires, including the implementation of the ASEAN Agreement on Transboundary Haze Pollution, and the establishment of the ASEAN Transboundary Haze Pollution Control Fund, and the ASEAN Haze Action Online website (<http://haze.asean.org>) to facilitate information sharing and dissemination on fire and haze issues. A US\$ 15 million regional peatland project ("Rehabilitation and Sustainable Use of Peatland Forests in Southeast Asia"), comprising a grant of US\$ 4.3 million from the Global Environment Facility, is being implemented to undertake measures to prevent peatland fires, the major source of smoke haze in the region. The International Fund for Agricultural Development (IFAD) is the implementing agency while the ASEAN Secretariat is the executing agency for the project.
3. **Promoting sustainable development through environmental education and public participation** (chaired by Brunei Darussalam). This includes the implementation of the ASEAN Environmental Education Action Plan (2008-2012) after the implementation of the ASEAN Environmental Education Action Plan (AEEAP) (2000 – 2005). Activities include promotion of sustainable schools concept and establishment of an ASEAN sustainable/green/eco-school network; conduct of Sustainable Development Leadership Training Programme for key target groups (e.g., government officials, members of parliament and other elected officials, media and communications professionals, youth, women, etc.); maintenance of ASEAN Environmental Education Inventory Database (AEEID) for information exchange and sharing of good practices; development of ASEAN Youth for Sustainable Environment Network; organization of ASEAN Environmentally Sustainable Development Film festival; celebration of ASEAN Environment Year (AEY) once every three years; and raising public awareness on environmental issues, among others.⁵
4. **Promoting environmentally sound technology (EST)** (chaired by Malaysia). This includes the promotion of the adoption of cleaner production processes and technologies and the establishment of the ASEAN Network on Environmentally Sound Technologies (ASEAN-NEST) as a forum to share experiences and information.
5. **Promoting quality living standards in ASEAN cities/ urban areas** (chaired by Indonesia). This includes the initiation of the ASEAN Initiative on Environmentally Sustainable Cities (AIESC) in 2005 which focuses on addressing urban environmental challenges, such as air pollution due to vehicular emissions, solid waste management and water pollution along with access to clean water. Currently, 25 ASEAN cities are participating in the programme. Key Performance Indicators (KPIs) have been developed to assess the current state of the

⁴ Under the Sub-regional Ministerial Steering Committee mechanism and under the Conference of the Parties to Haze Agreement mechanism.

⁵ Other activities include the ASEAN Plus Three Youth Environment Forum: Creating a Climate for Change held on 22-25 April 2010 in Brunei Darussalam, and the 3rd Leadership Programme held on 7-8 October 2010 in Manila, the Philippines, in collaboration with the ASEAN Centre for Biodiversity (ACB) and with technical support from the ASEAN Secretariat and United Nations University – Institute of Advanced Studies (UNU-IAS).

environment of the Member States. The ASEAN Environmentally Sustainable City (ESC) Award programme was initiated.⁶

6. **Harmonising environmental policies and databases** (ASEAN Secretariat). ASEAN published its first State of the Environment Report (SoER) in 1997; the Second SoER (2000) was released in 2001, the Third SoER (2006) was launched by the ASEAN Environment Ministers in November 2006, and the Fourth SoER was launched in October 2009 on the occasion of the 11th ASEAN Ministerial Meeting on Environment (AMME). Additionally, in 2002, ASEAN also published the ASEAN Report to the World Summit on Sustainable Development (WSSD) to update the Summit on ASEAN's progress towards the fulfilment of Agenda 21.
7. **Promoting the sustainable use of coastal and marine environment** (chaired by the Philippines). ASEAN has adopted the *Marine Water Quality Criteria for the ASEAN Region*, the *ASEAN Criteria for National Marine Protected Areas*, and the *ASEAN Criteria for Marine Heritage Areas*. The *Marine Water Quality Criteria* sets values for an initial set of 17 parameters for the protection of aquatic life and human health, while the Criteria for National Marine Protected Areas and ASEAN Marine Heritage Areas contain criteria for designation and management of existing and new protected areas. ASEAN also adopted and published the *ASEAN Marine Water Quality Criteria: Management Guidelines and Monitoring Manual* which aims at providing a reference document for ASEAN member States in coordinating marine water quality management policies and monitoring approaches within each and between the member States.

The 11th ASEAN Ministerial Meeting on the Environment (AMME) also adopted the ASEAN Mechanism to Enhance Surveillance against Illegal Desludging and Disposal of Tanker Sludge at Sea, to ensure coordinated efforts among ASEAN member States to control tanker desludging activities and to promote proper disposal of the tanker sludge at approved disposal facilities.

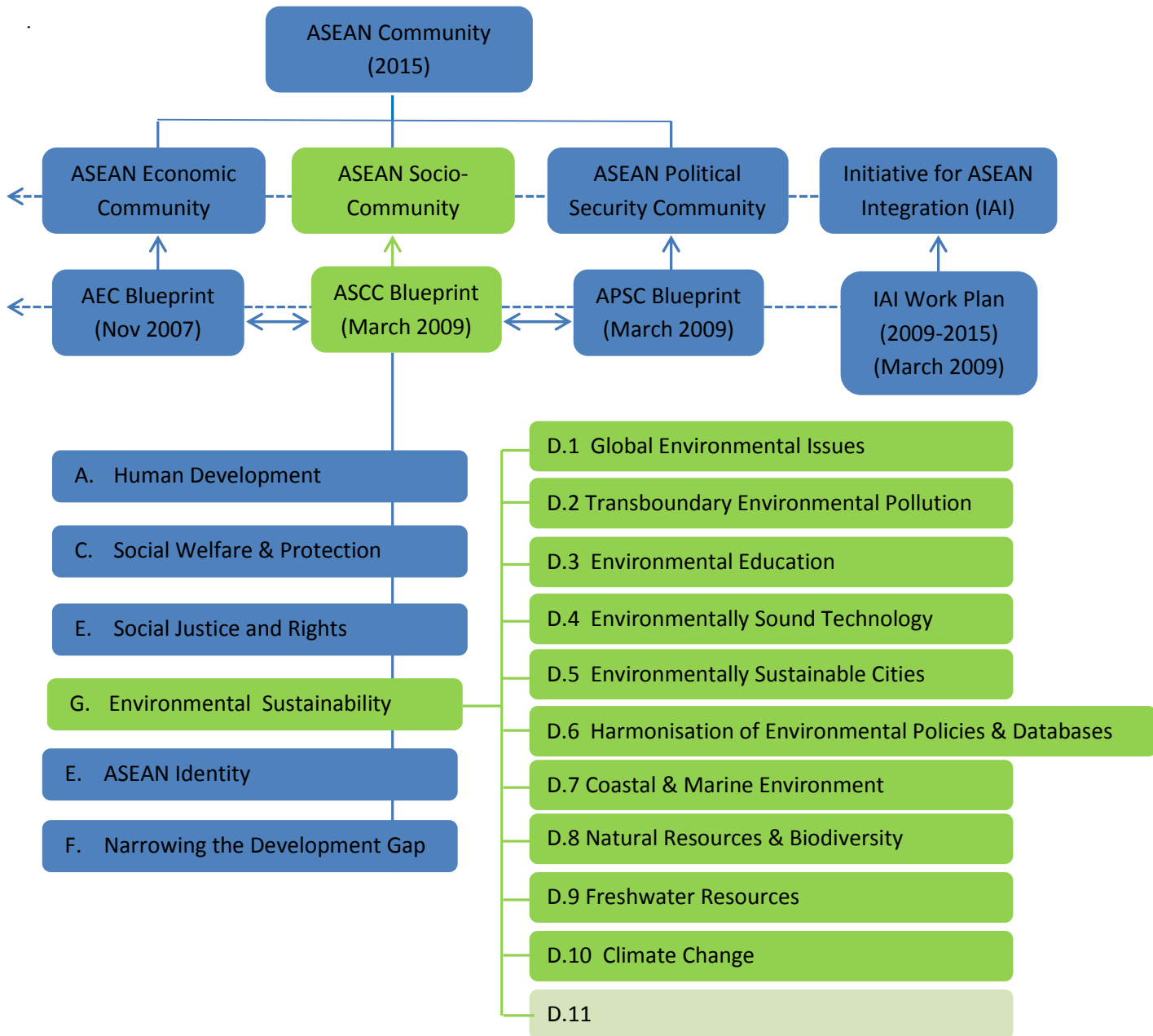
8. **Promoting sustainable management of natural resources and biodiversity** (chaired by Myanmar). This includes the establishment of the ASEAN Centre for Biodiversity (ACB) in late 2005 (see Section 4.1.8) and the ASEAN Heritage Parks (AHP) Programme whereby member States designate their selected national protected areas and reserves as ASEAN Heritage Parks (AHP)⁷, so as to generate greater awareness, pride, appreciation, enjoyment and conservation of ASEAN's rich natural heritage through the creation of and support for a regional network of representative protected areas, and greater collaboration between ASEAN countries in preserving their shared natural heritage.
9. **Promoting the sustainability of freshwater resources** (chaired by Singapore). Following the endorsement of the ASEAN Long Term Strategic Plan for Water Resources Management in 2003, ASEAN adopted the ASEAN Strategic Plan of Action on Water Resources Management (2005) which aims to tackle issues relating to demand and supply allocation, water quality and sanitation, extreme events, and governance and capacity-building.
10. **Responding to climate change and addressing its impacts** (chaired by Thailand). The ASEAN Climate Change Initiative (ACCI) was established as "a consultative platform to further strengthen regional coordination and cooperation in addressing climate change, and to

⁶ The inaugural ASEAN ESC Award ceremony was held in Ha Noi, Viet Nam on 8 October 2008, on the occasion of the 11th Informal ASEAN Ministerial Meeting on the Environment (IAMME). Awards were given to 10 ASEAN cities/townships/districts that made exemplary efforts towards environmental sustainability.

⁷ To date, 28 sites have been designated as AHP and two National Marine Parks of Thailand are in the process of being inscribed as AHP.

undertake concrete actions to respond to its adverse impacts” through policy and strategy formulation; information sharing; capacity building; and technology transfer.

The chairs of the above priority areas will spearhead the implementation of the specific areas of interest and help to create better platforms for further cooperation on the environment. A brief description of each of the above priority areas is provided at the following web link: <http://environment.asean.org/index.php?page=overview>.



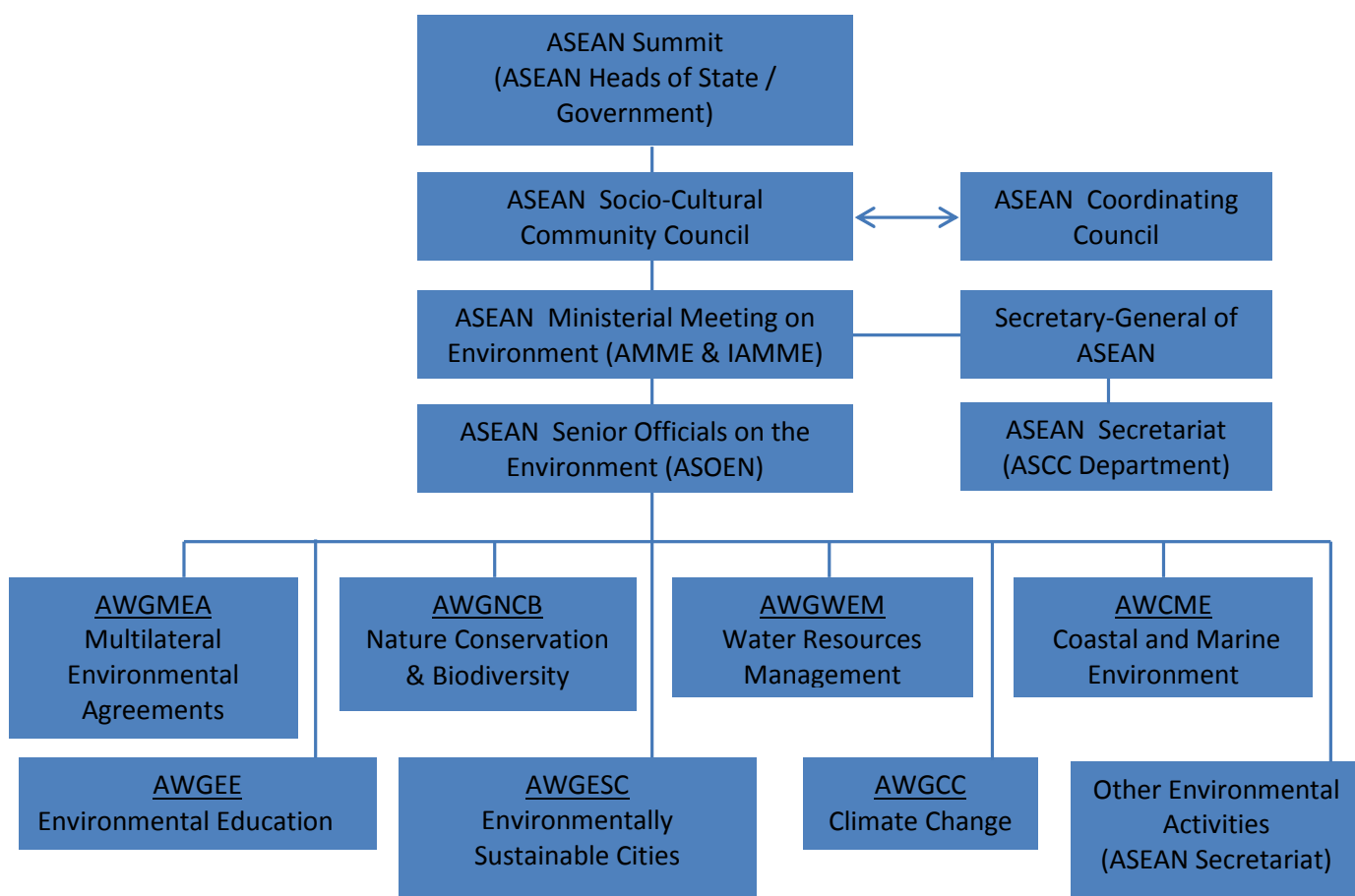
Source: <http://environment.asean.org/index.php?page=overview>

Figure 1. Environmental Sustainability programme within the overall ASEAN Community institutional framework.

The institutional arrangement of the Environmental Sustainability Programme (i) within the overall ASEAN Community structure, and (ii) within the institutional framework of the ASEAN Socio-Cultural Community Council (ASCC) Blueprint with seven working groups are shown in Figures 1 and 2 respectively.

The seven working groups that have been formed to facilitate the work in the above priority areas are: (1) ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB); (2) ASEAN Working Group on Coastal and Marine Environment (AWGCME); (3) ASEAN Working Group on Multilateral Environmental Agreements (AWGMEA); (4) ASEAN Working Group on Environmentally Sustainable Cities (AWGESC); (5) ASEAN Working Group on Water Resources Management (AWGWRM); (6) ASEAN Working Group on Environmental Education (AWGEE); and (7) ASEAN Working Group on Climate Change (AWGCC).

Institutional Framework (Environment)



Source: <http://environment.asean.org/index.php?page=overview>

Figure 2. Institutional framework of the Environmental Sustainability programme within the ASEAN Socio-Cultural Community Council (ASCC) Blueprint with seven working groups.

The ASEAN Senior Officials on the Environment (ASOEN) meet regularly for the development, formulation, implementation, monitoring and evaluation of the ASEAN environmental programmes, complemented by the ASEAN Ministerial Meeting on Environment (AMME), which was established in 1981.

4.1.6 Funding arrangements

The ASEAN Development Fund (ADF) receives equal contributions from ASEAN member States and is open to public and private sources. Member country contributions to the ADF are separate and distinct to those made to the ASEAN Secretariat and other sectoral funds. Project proposals are appraised by the ASEAN Secretariat Project Appraisal Committee (PAC) based on criteria in the context of the Vientiane Action Plan.

External sources of funding include donors contributions, dialogue, sectoral and development partners, regional and international institutions, in particular the ADB, the World Bank/IFC, the UN, regional and international foundations, and private sector (ASEAN, 2011a).

Because of the political, social, economic, cultural and strategic importance of ASEAN, it has received technical and financial support from many donors (e.g., EU, USA, Australia, New Zealand, China, India, Japan, and ROK).

4.1.7 Partnerships

ASEAN, including its Environment Cooperation programme, has established partnerships with many donors (e.g., EU, USA, Australia, New Zealand, Japan, China, India, and ROK) through North-South Cooperation and South-South Cooperation, regional and international institutions (e.g., ADB, the World Bank/IFC, the UN) and foundations, academic institutions, as well as public and private sectors, among others (ASEAN, 2011a).

4.1.8 ASEAN Centre for Energy (ACE)

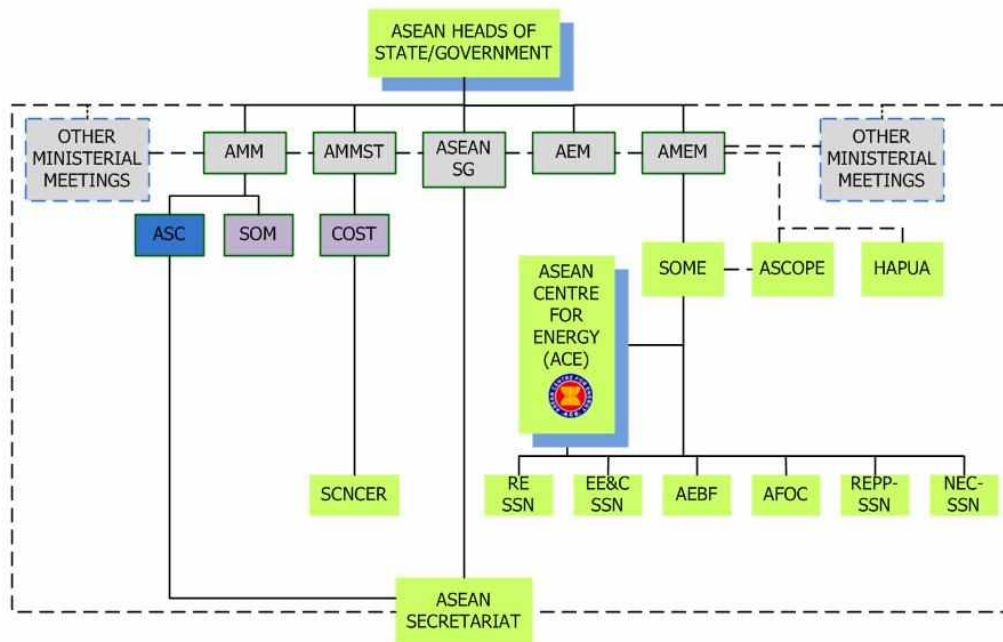
The ASEAN Centre for Energy (ACE), established in 1991, “is envisioned to be a catalyst for the economic growth and development of the ASEAN region by initiating, coordinating and facilitating regional as well as joint and collective activities on energy”. To realize this vision, ACE “will accelerate the integration of energy strategies within ASEAN by providing relevant information state-of-the-art technology and expertise to ensure that over long term, necessary energy development policies and programmes are in harmony with the economic growth and the environmental sustainability of the region.” (<http://aseanenergy.org/index.php/about/introduction>).

ACE plays a key role in the facilitation of ASEAN energy programmes and activities, including cooperation between ASEAN and its partner countries (e.g. European Union, Germany, Japan, Australia and Switzerland) and international organisations (e.g. UNESCAP, International Energy Agency (IEA), etc. (<http://www.aseansec.org/19586.htm>)).

Within the ASEAN structure (Figure 3), ACE is “guided by a **Governing Council** composed of the Senior Officials on Energy of the ASEAN member States (i.e., Senior Officials Meeting on Energy (SOME)) and a representative from the ASEAN Secretariat” (<http://aseanenergy.org/>). SOME is accountable to the ASEAN Ministers on Energy Meeting (AMEM), which is under the ASEAN Economic Community.

ACE is hosted by the Government of Indonesia and located in the compound of the Directorate-General for Electricity and Energy Development of the Indonesia Ministry of Energy and Mineral Resources (<http://aseanenergy.org/index.php/about/introduction>). It is headed by an Executive Director, who is supported by a team of 17 professional and supporting staff.

The core funding of ACE “is provided by an Energy Endowment Fund established from equal contributions of the 10 member States and managed by a private fund manager” (<http://aseanenergy.org/>).



Legend: AEBF (ASEAN Energy Business Forum); AEM (ASEAN Economic Ministers); AFOC (ASEAN Forum on Coal); AMEM (ASEAN Ministers of Energy Meeting); AMM (ASEAN Ministerial Meeting); AMMST (ASEAN Ministerial Meeting on Science & Technology); ASC (ASEAN Standing Committee); ASCOPE (ASEAN Council on Petroleum); COST (Committee on Science & Technology); EE&C SSN (Energy Efficiency and Conservation Subsectoral Network); HAPUA (Heads of ASEAN Power Utilities/ Authorities); NRSE SSN (New & Renewable Energy Source of Energy Subsectoral Network); SG (Secretary General); SOM (Senior Officials Meeting); SOME (Senior Officials Meeting on Energy); REPP-SSN (Regional Energy Policy and Planning Sub Sector Network).

Source: <http://aseanenergy.org/index.php/about/ace-structure>

Figure 3. ASEAN Centre for Energy in the ASEAN structure.

The ongoing ACE activities include the ASEAN - Japan Multi-Country Training Program on Energy Conservation for ASEAN Countries; ASEAN - Japan Promotion on Energy Efficiency and Conservation; ASEAN Energy Business Forum; ASEAN Energy Database; ASEAN Energy Manager Accreditation Scheme; ASEAN+3 Civilian Nuclear Energy; ASEAN+3 Clean Development Mechanism; ASEAN+3 Energy Security System; ASEAN+3 Oil Price Database, and Renewable Energy Support Programme for ASEAN. The details of these activities can be accessed from <http://aseanenergy.org/>.

4.1.9 ASEAN Centre for Biodiversity (ACB)

In 1999, the European Commission provided a grant of €9.5 million to fund a project: the ASEAN Regional Centre for Biodiversity Conservation (ARCBC). This project proved so successful that in 2004, the EC further approved a grant of €6.0 million to support the establishment and initial operation of a new institution, the ASEAN Centre for Biodiversity (ACB). “The Financing Agreement with the ASEAN Secretariat was signed in April 2005, and the Establishment Agreement

for the ACB was signed by the Environment Ministers shortly thereafter. The Centre was formally launched at the 9th Informal ASEAN Ministerial Meeting on 27 September 2005.”⁸

The mandate of the ACB is to “facilitate cooperation and coordination among the ASEAN Member States and with relevant national government, regional and international organizations, on the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from the use of such biodiversity in the ASEAN region.” (http://www.aseanbiodiversity.org/index.php?option=com_content&view=article&id=6&Itemid=83¤t=1). This mandate is performed through the following five components: (1) Programme development and policy coordination; (2) Human and institutional capacity development; (3) Biodiversity information management; (4) Public and leadership awareness of biodiversity values; and (5) Sustainable financing mechanism.⁹

The ACB is hosted by the Government of the Philippines through the Host Country Agreement signed on 8 August 2006 between the Government of the Philippines and the ACB. It is located in Laguna, Philippines.

As an intergovernmental entity, the ACB has a **Governing Board** composed of ASEAN Senior Officials on the Environment (ASOEN). The Secretary General of the ASEAN provides policy guidance and operational supervision for the ACB. The Governing Board reports to the ASEAN Ministers responsible for the environment. The Executive Director, who acts as the Secretary to the Governing Board, is a citizen of an ASEAN member country and serves a term of three years. ACB has a team of 8 staff members led by the Executive Director.

The **ASEAN Biodiversity Fund** was established to support the implementation of activities of the Centre. Member States can make voluntary contributions and is open to external contributions by organisations and governments approved by the Governing Board.

The ACB has also established partnership arrangements with strategic international institutions such as the International Union for Conservation of Nature (IUCN), the CBD Secretariat, the Global Biodiversity Information Facility (GBIF), the Institute of Southeast Asian Studies (ISEAS), the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), and the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC), GIZ, UNESCO, Southeast Asian Regional Centre for Graduate Study and Research in Agriculture (SEARCA), and others.

4.1.10 ASEAN Foundation

The ASEAN Foundation was established on 15 December 1997 in Kuala Lumpur during ASEAN’s 30th Anniversary Commemorative Summit.

Article IV of the Memorandum of Understanding that established the ASEAN Foundation has provided the following objectives:

1. The Foundation shall promote greater awareness of ASEAN, and greater interaction among the peoples of ASEAN as well as their wider participation in ASEAN's activities inter alia through human resources development that will enable them to realize their full potential and capacity to contribute to progress of ASEAN Member States as productive and responsible members of society.

⁸ See http://www.aseanbiodiversity.org/index.php?option=com_content&view=article&id=69&Itemid=79¤t=1

⁹ See http://www.aseanbiodiversity.org/index.php?option=com_content&view=article&id=7&Itemid=84¤t=1

2. The Foundation shall also endeavour to contribute to the evolution of a development cooperation strategy that promotes mutual assistance, equitable economic development, and the alleviation of poverty.

The ASEAN Foundation focuses on training, meetings, professional exchanges, and scholarships to build ASEAN's human capacity. Article V specifies the Foundation's activities, as follows: (i) organize and support activities to promote education, training (including in the areas of science and technology), health and cultural life; (ii) provide assistance to uplift the social condition of the peoples in the ASEAN Member States; (iii) provide fellowships to and support exchanges of ASEAN youths and students; (iv) promote collaborative work among academics, professionals and scientists; (v) implement projects assigned by ASEAN Leaders or Ministers; (vi) collaborate with the relevant ASEAN bodies; (vii) organize its own projects; and (viii) actively raise funds for the Foundation's activities.

Article 15 of the ASEAN Charter states that "The ASEAN Foundation shall support the Secretary-General of ASEAN and collaborate with the relevant ASEAN bodies to support ASEAN community building by promoting greater awareness of the ASEAN identity, people-to-people interaction, and close collaboration among the business sector, civil society, academia and other stakeholders in ASEAN." It "shall be accountable to the Secretary-General of ASEAN, who shall submit its report to the ASEAN Summit through the ASEAN Coordinating Council."

The ASEAN Foundation is governed by a "**Board of Trustees** which is made up of one representative each from the ASEAN Member States, along with the Secretary-General of ASEAN, and the Executive Director, both as ex-officio members. The Board of Trustees formulates the guidelines and procedures for all the activities of the Foundation, [is] responsible for the Fund of the Foundation, approves all projects seeking support from the Fund of the Foundation; and approves the annual operational budget". (http://www.aseanfoundation.org/index2.php?main=org_chart.htm)

The **Council of Advisors**, which includes a representative appointed by the government of each ASEAN member State, acts as an advisory body to the Board of Trustees. The Council advises the Board in setting its programme thrusts in accordance with ASEAN's overall objectives. The members of the Council are eminent individuals from the ASEAN region who have been selected in their individual capacity as experts in areas of interest to the Foundation.

The ASEAN Foundation Secretariat is hosted in Jakarta, Indonesia. It is headed by an **Executive Director** who is a national of an ASEAN member State. The Secretariat has 10 staff members who are nationals of ASEAN member States.

The **Executive Director** represents the Foundation in all administrative and operational matters and manages the activities of the Foundation. Besides appointing appropriate staff to achieve the Foundation's objectives, the Executive Director undertakes activities to raise funds for the Foundation's activities.

The ASEAN Foundation works in parallel with the ASEAN Secretariat, focusing on advocating the involvement of the private sector, civil society and individuals in the work of ASEAN. It supports Project Work Programmes linked to priority areas on promoting ASEAN awareness; interaction among ASEAN stakeholders; developing human resources and reducing poverty. Environmental management is also on its agenda. The ASEAN Foundation's activities are provided in its Annual 2010 (ASEAN Foundation, 2011; 2012).

The ASEAN Foundation has three sources of funds. The Endowment Fund is contributed by member States and the Friends of ASEAN, and the Operational Fund is contributed by member States. The Project Fund is contributed by member States and other donors (e.g., Japan-ASEAN Solidarity Fund, China, ROK, France, Microsoft Indonesia, Hewlett Packard, International Development Research

Centre (IDRC) of Canada, Inter-American Development Bank, and Royal Philips Electronics) (ASEAN Foundation, 2011; 2012). The Project Fund supports project proposals that meet criteria consistent with the objectives, priorities and the Plan of Action of the ASEAN Foundation, benefiting people at grassroots level across ASEAN member States.

4.2 South Asia Cooperative Environment Programme (SACEP)

4.2.1 History and mission

The South Asia Cooperative Environment Programme (SACEP) is an intergovernmental organization established in 1982 by the governments of South Asia. Its mission is to promote regional environmental cooperation in the context of sustainable development, which also includes the social and economic dimensions. It supports conservation and management of natural resources of the region and it works closely with all national, regional, and international institutions, governmental and non-governmental, as well as experts and groups engaged in such cooperation and conservation efforts. The SACEP member States are Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka (<http://www.sacep.org/>).

4.2.2 Political commitment

The political commitment of SACEP member States is strong, with the participation of the Ministers of Environment in the Governing Council (see Section 4.2.3).

4.2.3 Governing body structures and institutional arrangement

The Colombo Declaration and Articles of Association of SACEP provide the legal basis for SACEP, which is governed by the Governing Council (GC) supported by the Consultative Committee (CC), National Focal Points (NFPs), Subject Area Focal Points, and a Secretariat.

The *Governing Council (GC)* is the principal deliberative and review body responsible for determining policies, strategies and programmes. It is represented at the ministerial level and periodically meets to take decisions of strategic significance. Since becoming a legal entity in 1982, SACEP has held eight regular GC meetings and three special sessions.

The *Consultative Committee (CC)* is responsible for facilitating implementation of policies, strategies and programmes determined by the GC and consists of representatives of diplomatic missions of member States residing in Colombo. The CC is also expected to provide guidance to the secretariat in the planning, implementation and monitoring of programmes and projects. The CC meets regularly to provide guidance to the SACEP Secretariat in its activities.

The *National Focal Points (NFPs)* are designated by each member State to facilitate the work of the secretariat and to function as the main communication link with the member states and with the secretariat. They are expected to work towards the implementation of the national programmes and cooperate with the secretariat in programme planning and implementation. The NFPs are deemed to be liaison points in their countries for all matters related to the SACEP including their own.

At an official level, secretaries of the ministries of environment are the designated NFPs of SACEP in the member States. For operational needs, an official of appropriate level in each member country is designated as the liaison officer to assist the secretary of the ministry in the discharge of the work related to SACEP.

4.2.4 SACEP Secretariat

The SACEP Secretariat was established in Colombo, Sri Lanka, in 1982 and it is hosted by the Government of Sri Lanka. The Secretariat comprises 11 staff members, including the Director General, one Senior Programme Officer, two Programme Officers, one Database Assistant and administrative staff.

SACEP is registered as a Multilateral Organization in accordance with Article 102 of the Charter of the United Nations. It is also enlisted as a Specialised Agency under the Diplomatic Missions of the Ministry of Foreign Affairs of Sri Lanka and has been granted privileges, exemptions and benefits in accordance with the Articles of Association of SACEP (SACEP, undated).

4.2.5 Work programmes

The primary function of SACEP is to work with its eight member States:

- To promote cooperative activities in priority areas of environment of mutual concern;
- To ensure that these activities are beneficial individually and collectively to the member States of the region;
- To extend support as needed through exchange of knowledge and expertise available among the member States;
- To provide local resources towards implementation of projects and activities;
- To maximise the impact of support received from donor countries and other sources.

SACEP seeks to work in areas where regional cooperation and collective action can add value to member States and produce better outcomes for the region. The 9th Governing Council has approved a new work programme of SACEP, which includes the following broad areas:

- Waste Management;
- Adaptation to Climate Change;
- Data Management.

4.2.6 Funding arrangements

SACEP members' annual contributions are based on an agreed scale of assessment based on a combination of the South Asia Association of Regional Cooperation (SAARC) and the UN formula. The Sri Lankan government has also provided annual support for the operational cost of SACEP. SACEP also receives project-level funding from various international and regional agencies (see Section 4.2.7).

4.2.7 Partnerships

SACEP has established partnerships with a number of UN and other international and regional agencies. These include UNEP, the United Nations Centre for Regional Development (UNCRD), International Maritime Organization (IMO), World Meteorological Organization (WMO), UNESCO, UNESCAP, ADB, South Asia Association of Regional Cooperation (SAARC), Norwegian Agency for Development Cooperation (NORAD), United States Agency for International Development (USAID), International Coral Reef Initiative (ICRI), International Coral Reef Action Network (ICRAN) and Global International Waters Assessment (GIWA), TRAFFIC International (the wildlife trade monitoring network), Society for Development Alternatives, Centre for Environment Education (CEE) India and Coral Reef Degradation in the Indian Ocean (CORDIO). The details of some of these partnerships can be accessed from the web site http://www.sacep.org/html/about_partnerships.htm.

4.3 Pacific Regional Environment Programme (SPREP)

4.3.1 History and mission

SPREP originally referred to the South Pacific Regional Environment Programme until the name change in 2004 to Pacific Regional Environment Programme (still referred to as SPREP). It is an intergovernmental organisation promoting cooperation and assistance to protect and improve the environment and ensure sustainable development for the South Pacific Region. It has 21 Pacific island countries (American Samoa, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Wallis and Futuna) and five developed countries (Australia, France, New Zealand, the United Kingdom and the United States of America) as members (<http://www.sprep.org/About-Us>). Nam (2008) has provided a brief review of the history of SPREP.

4.3.2 Political commitment

There is very strong political commitment, as the Agreement Establishing SPREP and its Amendment are legally binding on all member States.

4.3.3 Governing body structures and institutional arrangement

The Agreement Establishing the South Pacific Regional Environment Programme was signed in 1993. This Agreement was amended in 2004 regarding the name change (in operation although not yet in force), as follows:

“At the 15th SPREP Meeting it was agreed that:

Article 1 paragraph 1 of the Agreement Establishing the South Pacific Regional Environment Programme (SPREP) be amended to read as follows:

1. The Pacific Regional Environment Programme (hereinafter referred to as SPREP) is hereby established as an intergovernmental organisation.

Article 1 paragraph 2 of the Agreement Establishing the South Pacific Regional Environment Programme (SPREP) be amended to read as follows:

2. The organs of SPREP are the SPREP Meeting and the Secretariat for the Pacific Regional Environment Programme (also to be known as SPREP).

SPREP Meetings are open to the Parties to the Agreement Establishing SPREP, which entered into force on 31 August 1995. The Forum Secretariat, the South Pacific Commission, the UNEP and UNESCAP are also invited to nominate advisers to each Meeting. Any State Member of the United Nations, any State Member of any United Nations Specialised Agency, any United Nations Specialised Agency, any intergovernmental organisation or non-governmental organisation which has a direct concern in the protection of the natural resources and environment of the South Pacific region may also be invited to each Meeting (see Rules of Procedure of SPREP Meeting Adopted by the Eighth SPREP Meeting Apia, Western Samoa, 11-13 October 1995) (<http://www.sprep.org/Legal/agreement-establishing-sprep>).

SPREP Meeting is guided by the Action Plan which sets out the strategy and objectives of the SPREP.

SPREP Meeting elects a Chair from amongst the membership and the Chair remains in this role until the next Meeting. The Meetings are convened by the Director General, who reports annually to the South Pacific Conference and the South Pacific Forum on the activities of SPREP and is responsible for staffing, administration and management of SPREP.

4.3.4 Secretariat for the Pacific Regional Environment Programme (also to be known as SPREP)

The Secretariat for the Pacific Regional Environment Programme (also to be known as SPREP) is based in Apia, Samoa, with over 70 staff. It is led by the Director General, Deputy Director General, Divisional Directors and technical, programme and administrative staff, and is responsible for implementing the activities of SPREP.

Article 7 of the original Agreement Establishing the South Pacific Regional Environment Programme (SPREP) has specified the functions of SPREP, which include the promotion, undertaking and the coordination of the implementation of the SPREP Action Plan; conduct of research and studies as required to implement the SPREP Action Plan; and provision of advice and assistance to Members on the implementation of activities carried out under the Action Plan.

In addition, SPREP is the Secretariat of the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (or the Noumea Convention). It also acts as the Secretariat for other regional conventions, i.e. Convention on the Conservation of Nature in the South Pacific (or the Apia Convention), and Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Waste and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (or the Waigani Convention) (Nam, 2008).

4.3.5 Work programmes

SPREP's activities are guided by its Strategic Action Plan 2011-2015, which is developed through consultation with members, Secretariat programme staff and partner organisations. The Plan establishes four strategic priorities:

- Climate Change;
- Biodiversity and Ecosystem Management;
- Waste Management and Pollution Control;
- Environmental Monitoring and Governance.

SPREP is part of the following networks:

- Pacific Adaptation to Climate Change;
- Pacific Climate Change Roundtable;
- Pacific Invasives Partnership;
- Pacific Invasives Learning Network.

4.3.6 Funding arrangements

Nam (2008) identified the following sources of funding for SPREP:

- **Core Fund**, which is based on members' annual contribution to cover the costs for the operation of the Secretariat and intergovernmental meetings;
- **Programme Fund**, based on donors' contributions for implementing specified activities;

- **Reserve Fund**, which is used as a backup fund for the Core Fund and the Programme Fund in the case of emergency;
- **Pacific Islands Trust Fund** for Nature Conservation, used particularly to support the implementation of National Biodiversity Strategies and Action Plans in member countries.

SPREP projects and initiatives have been funded by various international and regional agencies (see Section 4.3.7).

4.3.7 Partnerships

SPREP has partnerships with UNDP, UNEP, UNESCAP, GEF (e.g., Pacific Alliance for Sustainability (PAS); the Pacific Adaptation to Climate Change (PACC) project (2009-2013)), Australian Agency for International Development (AusAID), Japan International Cooperation Agency (JICA), Agence Française de Développement (AFD), International Maritime Organisation, EU, the World Bank and ADB, UNU, Conservation International, International Union for Conservation of Nature (IUCN), CBD Secretariat, RAMSAR Secretariat, Pacific Regional Environment Programme, Convention on Migratory Species (CMS) Secretariat, and International Fund for Animal Welfare (IFAW).

5 Review of Subregional Multilateral Environmental Frameworks and Programmes in North-East Asia and East Asia

There are a number of subregional multilateral environmental frameworks and programmes in North-East Asia. This report will focus on only the following: (i) Greater Tumen Initiative (GTI); (ii) North West Pacific Action Plan (NOWPAP); (iii) North-East Asian Forest Forum (NEAFF); (iv) East Asian Biosphere Reserve Network (EABRN); (v) Tripartite Environment Ministers' Meeting (TEMM); (vi) Joint Research Project on Long-Range Transboundary Air Pollutants (LTP); and (vii) Acid Deposition Monitoring Network in East Asia (EANET). Table 2 provides a summary of this review.

5.1 Greater Tumen Initiative (GTI)

The Greater Tumen Initiative (GTI), originally known as the Tumen River Area Development Programme (TRADP) launched by UNDP in 1991, is a regional cooperation mechanism established in 1995 by five countries: China, Democratic People's Republic of Korea (DPRK), Mongolia, Republic of Korea (ROK) and the Russian Federation when they signed the *Agreement on the Establishment of the Consultative Commission for the Development of the Tumen River Economic Development Area and Northeast Asia*, thus creating the legal basis for intergovernmental cooperation. Article 2.2 of the *Agreement* stipulates that "The Commission shall be composed of a Government official at the Vice Ministerial level and three other officials from each Contracting Party." (see <http://www.tumenprogramme.org/news.php?id=319>).

On 2 September 2005, the member States adopted the *Changchun Agreement*¹⁰ which extends their cooperation for another successive period of ten years (2006–2015), and revitalized and promoted TRADP as the Greater Tumen Initiative (GTI), with the continued support of UNDP. The new Initiative calls for strengthened regional interaction and expanded geographical coverage for cooperation¹¹. The *GTI Strategic Action Plan 2006-2015*¹² was also adopted, ensuring the full

¹⁰ For *Changchun Agreement*, see <http://www.tumenprogramme.org/news.php?id=55>.

¹¹ The Greater Tumen Region involves the three Northeast provinces (Jilin, Heilongjiang and Liaoning) and Inner Mongolia of China, the Rason Economic and Trade Zone of DPRK, the Eastern provinces of Mongolia, the Eastern port cities of ROK and the Primorsky Territory of the Russia Federation (<http://www.tumenprogramme.org/news.php?id=55>).

¹² For *Strategic Action Plan 2006-2015*, see <http://www.tumenprogramme.org/news.php?id=56>.

ownership of each participating country to drive the collaborative efforts, and focusing more on concrete projects in transport, energy, tourism and investment with environment as a cross-cutting theme, and intensified efforts to involve the private sector in regional development¹³. The Energy Board, the Tourism Board, the Environment Board¹⁴ and the Business Advisory Council (BAC) were established in November 2007 to further enhance the enabling environment for regional cooperation in the priority sectors and for public-private partnership mechanism for economic cooperation in the region. However, DPRK withdrew from the GTI on 5 November 2009.

The institutional structure of the GTI includes a (i) Consultative Commission, which is represented at the Vice Ministerial level from all member States, who meet once a year. The Chair of the Commission rotates on an annual basis among the member countries; (ii) a Coordination Committee, which is represented at the Vice Ministerial level from the three countries adjacent to the Tumen River: China, DPRK and the Russian Federation. The Committee coordinates economic development in the Tumen River area, especially as it relates to trade and investment facilitation, environmental issues, and cross-border transport. The Chair of the Committee rotates on an annual basis among the member countries; (iii) a Council of Eminent Persons who are well respected and experienced individuals from North-East Asia; and (iv) National Teams, who are central and local government representatives.

The Tumen Secretariat, hosted by the Government of China since 1996, is based in Beijing with a small team of staff headed by a Director.

The funding for GTI is contributed by each member State (US\$25,000 annually to programme activities) and donors (e.g., UNDP, GEF, ADB, the Government of Finland, the United Nations Department for Economic and Social Affairs (UNDESA), and the World Tourism Organisation). ROK has set up a special Trust Fund for the Tumen Programme, which has so far contributed US\$1 million; a second tranche of US\$1 million has been pledged. Since 1991, the Tumen Programme has attracted over US\$20 million in donor support (<http://www.tumenprogramme.org/news.php?id=318>).

The GTI partners with the United Nations system, development agencies, the private sector, financial institutions, foundations, non-government organizations and the academia to jointly promote economic cooperation and development in North-East Asia. The main partners are: UNDP, United Nations Office for Partnerships, United Nations Office for Project Services (UNOPS), World Tourism Organization (UNWTO), UNESCAP, United Nations Industrial Development Organisation (UNIDO), UNEP, United Nations Educational, Scientific and Cultural Organization (UNESCO), ADB, GEF, the Association of North East Asia Regional Governments (NEAR), the Economic Research Institute for Northeast Asia (ERINA) (Japan), Korea Development Institute (KDI), Russian Academy of Sciences, BOAO Forum for Asia (China), and Institute for Strategic Studies (Mongolia).

5.2 North West Pacific Action Plan (NOWPAP)

The Northwest Pacific region features coastal and island ecosystems with spectacular marine life and commercially important fishing resources. It is also one of the most densely populated parts of the world, resulting in enormous pressures and demands on the environment.

¹³ See <http://www.tumenprogramme.org/news.php?id=56>; http://www.tumenprogramme.org/index.php?id=129;part1brochure_TfYgaH.pdf.

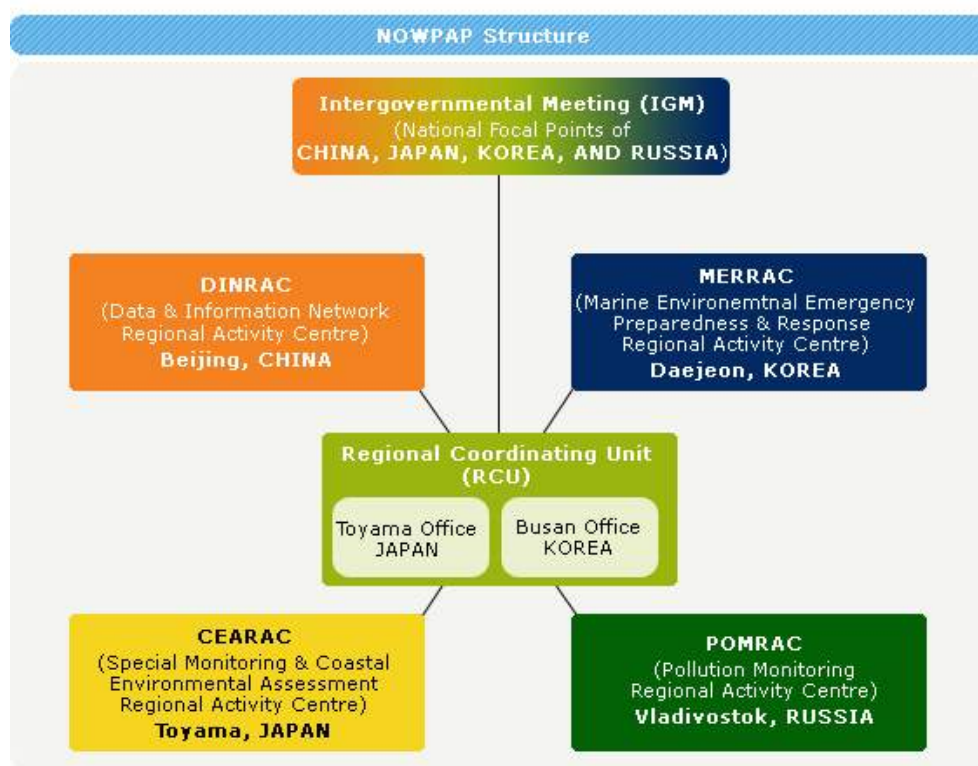
¹⁴ In December 1995, the *Memorandum of Understanding on Environmental Principles Governing the Tumen River Economic Development Area and Northeast Asia* was signed, pledging cooperation in protecting the environment of the Tumen Region and hinterland according to the principles outlined in the MOU.

The Northwest Pacific Action Plan (NOWPAP) was adopted in 1994 by the four Member States, namely China, Japan, ROK and the Russian Federation as a part of the UNEP Regional Seas Programme. The implementation of NOWPAP is financed mainly by contributions from the member States. The implementation of NOWPAP contributes to the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in the Northwest Pacific region (<http://www.nowpap.org/>).

The overall goal of NOWPAP is “the wise use, development and management of the coastal and marine environment so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region’s sustainability for future generations”¹⁵.

The NOWPAP *Medium Term Strategy 2012-2017*¹⁶ sets the following themes for priority projects and activities: (i) Integrated coastal and river basin management; (ii) Regular assessments of the state of the marine environment; (iii) Pollution prevention and reduction, including harmful substances, hazardous waste and marine litter; (iv) Biodiversity conservation (including alien invasive species); and (v) Climate change impacts.

The structure and institutional arrangements of NOWPAP is shown in Figure 4 below.



Source: <http://www.nowpap.org/>

Figure 4. The structure and institutional arrangements of NOWPAP.

¹⁵ The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (1994), p.5, <http://www.nowpap.org/>

¹⁶ NOWPAP Mid-Term Strategy 2012-2017, 18 April 2012, UNEP/NOWPAP IG. 16/10/1/Rev. 2, p.5. <http://www.nowpap.org/data/NOWPAP%20MTS%202012-2017.pdf>

The Intergovernmental Meeting (IGM), held annually on a rotational basis among member countries and made up of senior representatives, is the high-level governing and decision-making body of NOWPAP that provides policy guidance and reviews activities and projects annually or biennially. Representatives of various regional and international organizations may also participate in the IGM as observers.

A Regional Coordinating Unit (RCU) co-hosted in Toyama, Japan, and Busan, Republic of Korea, was set up in November 2004. It has a total of seven staff members. The Regional Seas Unit of UNEP (Nairobi, Kenya) functioned as the interim secretariat for NOWPAP until the establishment of the RCU.

The RCU coordinates, directs and promotes NOWPAP activities. It has overall responsibility for the implementation of the NOWPAP members' decisions regarding the Action Plan. It maintains close contacts with and supports the work of the RACs which serve as national focal points. Establishing cooperative relationships with other international organizations is also an important mission of the RCU.

The Coordinator of the RCU is based in the Busan office, while the Deputy Coordinator is based in the Toyama office (<http://www.nowpap.org/>).

Four Regional Activity Centres (RACs) were established between 2000 and 2002, hosted by the following member States:

- Data and Information Network RAC, Beijing, China;
- Marine Environmental Emergency Preparedness and Response RAC, Daejeon, ROK;
- Special Monitoring and Coastal Environmental Assessment RAC, Toyama, Japan;
- Pollution Monitoring RAC, Vladivostok, Russian Federation.

Each RAC has its specific work programme based on its thematic focus. Since 2005 each RAC received equal allocations, however, a change to this practice was recommended in 2007 by an independent evaluation and some member States.¹⁷

The agreed activities of the Action Plan are financed principally by contributions from Governments, international organizations and non-governmental organizations (NGOs). Direct financial support from UNEP and in-kind contributions from the United Nations and other bodies was made available in the initial stages of NOWPAP.

The NOWPAP Trust Fund was established by participating Governments for the Protection and Management of the Coastal and Marine Environment and the Resources of the Northwest Pacific region. The Trust Fund receives contributions from each of the member States and has an annual target of US\$500,000¹⁸. Administration and management of the NOWPAP Trust Fund is governed by the Financial Regulations and Rules of United Nations.

Project activities have also been funded by UNEP and Asia Pacific Network for Global Change Research (APN).

¹⁷ NOWPAP Mid-Term Strategy 2012-2017, 18 April 2012, UNEP/NOWPAP IG. 16/10/1/Rev. 2, p.11. <http://www.nowpap.org/data/NOWPAP%20MTS%202012-2017.pdf>

¹⁸ Report of Meeting, 21 March 2012, UNEP/NOWPAP IG 16/12, p.9. <http://www.nowpap.org/data/IGM%2016%20report.pdf>

5.3 North-East Asian Forest Forum (NEAFF)

The North-East Asian Forest Forum, (NEAFF), a Civil Society Organization (CSO), was founded in 1998. Its objectives are to restore degraded forest lands, to combat desertification and deforestation, and to promote environmentally sound and sustainable management of forest ecosystems in the region by strengthening networking and exchanging information among the countries in North-East Asia. It comprises a group of representatives from industries, environmental organizations, foresters' groups, academic communities and individuals in China, Mongolia and ROK. National chapters have been established in Mongolia and China.¹⁹

NEAFF is pursuing the following programmes:

- Reforestation and afforestation to rehabilitate degraded land and combat desertification;
- Research on forest conservation and rehabilitation of degraded forest lands;
- Organization and support of international meetings on forest conservation and international conventions related to deforestation and desertification;
- Review of current forest policy issues and recommendation on future forest policy formulation;
- Conservation and protection of precious and endangered forests;
- Development of environmental education for forest conservation and facilitation of scientific programmes at the national and regional levels;
- Collaboration with international agencies and governments concerning policy-related issues for action at the international, regional and national levels.

Project proposals are developed through detailed discussions with host-country officers, civil society representatives and experts.

The NEAFF field activities have been strengthened by financial and technical support from national and local governments in ROK (e.g., the Korea Forest Service and the Seoul Metropolitan City Government), private companies (Yuhan-Kimberly, Ltd., which initiated the “Keep Korea Green” campaign, in which employees and other volunteers have planted more than 39 million trees²⁰), a public fund (the Green Fund) and citizens.

Projects have been carried out in partnership with UNDP, FAO, UNCCD and other international organisations.

NEAFF has organized a number of workshops relating to UNCCD activities. Recently, NEAFF announced a new vision and it will expand its activities globally and not restrict them to North-East Asia.

The NEAFF secretariat is based in Seoul, ROK, and it is headed by a Secretary General.

¹⁹ See <http://www.fao.org/docrep/007/y5841e/y5841e11.htm#TopOfPage>.

²⁰ See <http://www.kimberly-clark.com/sustainability/planet/environmentalpartnerships.aspx>.

5.4 East Asian Biosphere Reserve Network (EABRN)

The East Asian Biosphere Reserve Network (EABRN) is one of the regional networks supporting the UNESCO Man and the Biosphere (MAB) Programme, with three priority themes for cooperation: eco-tourism, conservation policy, and trans-boundary conservation. It was initiated in 1994 and originally was participated in by five countries: China, Japan, DPRK, ROK and Mongolia. The Russian Federation requested to join the EABRN in 1998 and was welcomed by the EABRN members (UNESCO, 2009).

The objectives of EABRN are: (i) to share BR management experience, including zoning, biodiversity conservation, and socio-economic development experience; (ii) to exchange information on the major functions of Biosphere Reserves (BRs) in member States; (iii) to promote cooperative research on biodiversity conservation and socio-economic development in and around BR; and (iv) To strengthen cooperation between EABRN and member States, and encourage international and regional cooperation with other Networks (e.g., EuroMAB²¹, Southeast Asian Biosphere Reserve Network (SeaBRnet), etc.) and IUCN.

EABRN activities span over 30 biosphere reserves across the region. It facilitates information exchange between reserves and governing bodies, and conducts regular regional meetings on issues of common concern. It also serves as a mechanism to facilitate regional capacity-building training courses and site-to-site cooperation using modern technologies and spatial tools (<http://www.unescobej.org/natural-sciences/environment/ecological-and-earth-sciences/east-asian-biosphere-reserve-network-eabrn/>). Four EABRN training courses (in August 2004, December 2006, March-April 2009 and 11-2 April 2011, respectively) on the application of GIS in the Management of Biosphere Reserves were conducted in collaboration with the Chinese Academy of Sciences²². Through EABRN meetings the member States work together to undertake biosphere reserve field evaluations, one of the crucial tasks required by the Statutory Framework of the World Network of Biosphere Reserves and the Seville Strategy.²³

Since 1 January 2003, the EABRN Secretariat was officially transferred from Jakarta to UNESCO Beijing, which is headed by a Director, who is supported by programme specialists in natural sciences, education, social and human sciences, and culture (<http://www.unescobej.org/unesco-beijing/contact-us/whos-who/>).

The EABRN undertakes small-scale research projects, cooperative scientific studies in East Asia and publication of books and a Biosphere Reserve Atlas (one each for China, DPRK, Mongolia and Japan) to share the information of each member country and as promotion of the BR concept to the general public. The Secretariat will work with ROK and the Russian Federation to complete the Atlas for both countries as the next phases.

5.5 Tripartite Environment Ministers' Meeting (TEMM)

The Tripartite Environment Ministers' Meeting (TEMM) of China, Japan and ROK has met annually since 1999 after the first meeting in Seoul, ROK. The three countries aim to promote

²¹ The EuroMAB Network is made up of all Member States of Europe and North America which participate in the Man and the Biosphere (MAB) programme and in the World Network of Biosphere Reserves (WNBR) of UNESCO. See http://www.euromab2011.se/index.php?option=com_content&view=article&id=92:the-euromab-network&catid=36:introduction.

²² See <http://www.unescobej.org/lists/links/eabrn-capacity-building-activities/>.

²³ See (http://portal.unesco.org/geography/en/ev.php-URL_ID=8798&URL_DO=DO_TOPIC&URL_SECTION=201.html).

environmental management, to take a leading role in regional environmental management, and to contribute to global environmental improvement.

TEMM is supported by their respective Ministries of Environment and national institutes: the National Institute of Environmental Research (NIER), ROK; Chinese Research Academy of the Environmental Sciences (CRAES); and National Institute for Environmental Studies (NIES), Japan. TEMM activities are regarded as a leading example of tripartite cooperation and are highly regarded by the leaders in each country.

As TEMM is operated at the **ministerial level**, and the Environment Ministers met annually, so the political commitment to TEMM is strong. The three ministers exchange views on the current environmental conditions and the concerns of each country, as well as those concerns common to the region, and they discuss how to promote environmental cooperation. The priority areas of cooperation include the following: raising awareness that the three countries belong to the same environmental community; enhancing information exchange; strengthening cooperation in environmental research; fostering cooperation in the field of environmental industry and technology; pursuing appropriate measures to prevent air pollution and protect the marine environment; and enhancing cooperation in addressing global environmental issues, such as biodiversity loss and climate change.

Concrete projects have been undertaken under TEMM, including the development of environmental education networks; joint environmental training; website creation and maintenance; freshwater (lakes) pollution prevention; collaboration in environmental industry development; and ecological conservation. A joint research group on Dust and Sand Storms (DSS) was launched at TEMM 9 in December 2007 to develop countermeasures to combat DSS in North-East Asia. The DSS work is led by the Director Generals' Meeting. A Steering Committee and two Working Groups were also established.

The functions of the Steering Committee include determination of the two working group activities, coordination of relevant departments and agencies at national and regional levels, exchange of information, and exploring financial resources. According to the decision made by the Steering Committee, they will conduct joint research on a regional network for dust and sand storm monitoring and an early warning system (Working Group 1) and prevention and control of DSS (Working Group 2).²⁴

Each country hosts the annual meeting in rotation.

There are various bilateral cooperation projects. Multilateral cooperation includes the following:

- Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP);
- North-East Asian Conference on Environmental Cooperation (NEAC);
- North-East Asian Subregional Programme of Environmental Cooperation (NEASPEC);
- Environment Congress for Asia and the Pacific (ECO ASIA);
- Combat Against Long-range Transboundary Dust and Sandstorms;
- Asia-Pacific Seminar on Climate Change;
- Asia-Pacific Migratory Waterbird Conservation Strategy;
- Asia-Pacific Network for Global Change Research (APN);
- Cooperative Marine Environmental Monitoring in the Asian Marginal Seas Using Ships of Opportunity;

²⁴ Joint Announcement Tripartite Director General Meeting on Dust and Sandstorms among Korea, China, Japan. 12-13 March 2007, Ulsan, ROK (http://www.temm.org/sub08/view.jsp?code=tm_dgm&page=1&search=&searchstring=&id=1).

- Kitakyushu Initiative for a Clean Environment;
- South Asia Network for Ozone Officers;
- Tripartite Presidents Meeting (TPM) among NIER, CRAES and NIES;
- Joint Research Project on Long-Range Transboundary Air Pollutants in North-East Asia (LTP project).

5.6 Joint Research Project on Long-Range Transboundary Air Pollutants (LTP)

The LTP project started in 1999²⁵ (encouraged by TEMM) and joint research was launched in 2000 as a government-based air pollution research framework for China, Japan and ROK. Research collaboration includes the following:

- Field observations of the long-range transboundary air pollutants (LTP), including aircraft and ground-based observation. The following monitoring sites were selected: Dalian and Xiamen (China); Gangwha, Taean and Gosan (ROK); and Rishiri and Oki (Japan);
- Modelling and modelling validation of LTP;
- Reports or publications on LTP.

The project developed over three stages: Stage I (2000-2004) included the launching of the Joint Research of LTP; measurement of the concentrations of air pollutants and emissions; establishment of a modelling system; and emission inventory for base year 1998. Stage II (2005-2007) included an updated emission inventory for the base year 2002; research on monitoring and modelling; and calculation of quantitative impacts of the transboundary air pollutants in North-East Asia. Stage III (2008-2012), which is still ongoing, includes an update of the emission data (SO₂, NO_x, NH₃, CO, VOCs, PM_{2.5} or PM₁₀) for the base year 2006; calculation of the Source-Receptor relationship for sulphur and nitrate for 2002; determination of a new methodology to study the Source-Receptor relationship for total nitrate and sulphur; and preparation and evaluation of future emission scenarios (Kim, undated).

A Working Group was formed to coordinate the project, with three members from each country. Two Sub-Working Groups were also formed, one for monitoring (gases and particulates; ground stations and aircraft; and continuous monitoring and campaigns, led by Japan), and the other for modelling (models comparison, and Source-Reception relationship, led by China and ROK) (Kim, undated).

The LTP Secretariat, which is based at the National Institute of Environmental Research (NIER), ROK, provides project support, and it coordinates expert meetings and publications.

The proposed future plans to be discussed with member States include the following: strengthening of the monitoring activity; increasing the monitoring sites; developing the modelling capacity; upgrading of the model by each country, and model inter-comparison and opening to the modelling society; dissemination of results; consensus for the result for policy-makers; activation of research in academia; contribution to the regional activities for air quality in North-East Asia; and strengthening of the mutual cooperation with other programmes, such as EANET (Kim, undated).

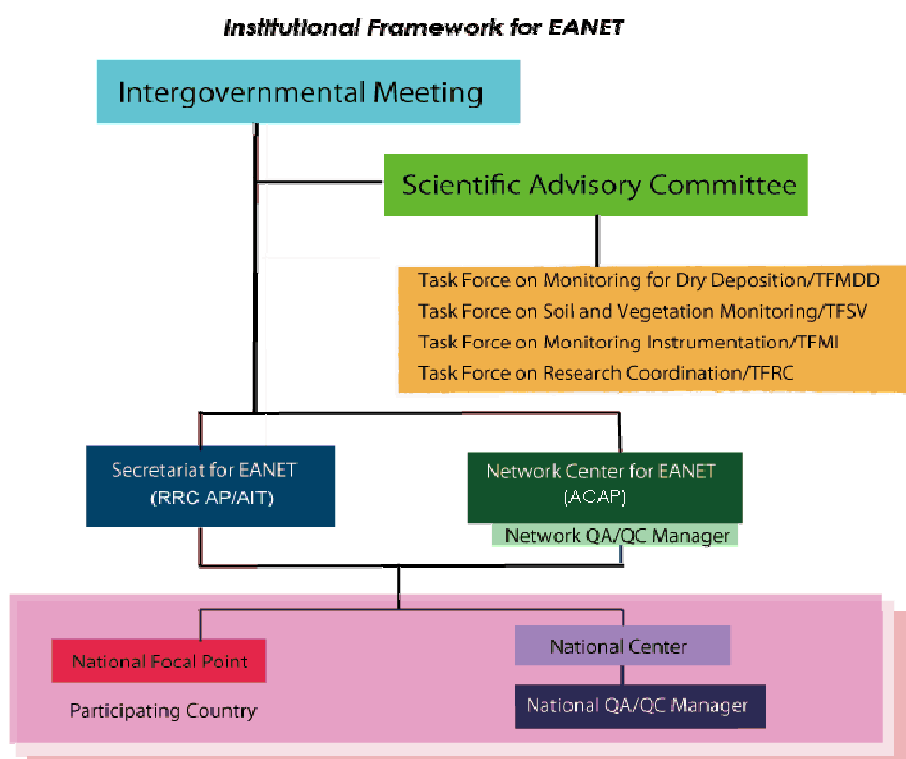
Chang *et al.* (2011) have suggested the following topics for LTP post-2012 Plan: (i) Air Quality Forecast for Northeast Asia; (ii) Implementation of Advanced S-R Methodologies; (iii) Assessment of O₃ and PM for the future LTP Project; and (iv) Scenario-based Collaboration Simulation Approach.

²⁵ The first workshop on long-range transport of air pollutants in North-East Asia was held in 1995 in Seoul, ROK. Collaboration on joint research was first agreed at this workshop, followed by the first expert meeting in 1996, which established the Working Group and sub-working group on monitoring and modelling.

5.7 Acid Deposition Monitoring Network in East Asia (EANET)

Acid deposition (dry and wet deposition) is primarily caused by the deposition of sulphuric and nitric acids that are formed by the air pollutants sulphur dioxide and nitrogen oxides released into the atmosphere as a result of combustion of fossil fuels, such as oil and coal. Acid deposition can be transboundary and it can cause profound impacts on natural ecosystems and the human environment.

EANET is an intergovernmental regional network established in 1993 to promote cooperation among countries in East Asia to address acid deposition problems. The Network has the participation of five North-East Asian countries (China, Mongolia, ROK, Japan and the Russian Federation) and eight South-East Asian countries (Cambodia, Indonesia, Malaysia, Lao PDR, Myanmar, Philippines, Thailand, and Viet Nam) (EANET Secretariat, 2011; <http://www.eanet.cc/eanet/backg.html>; Nam, 2008).



Source: <http://www.eanet.cc/eanet/org.html>

Figure 5. Institutional framework for EANET.

As shown in Figure 5, EANET is governed by the Intergovernmental Meeting,²⁶ which is supported by a Scientific Advisory Committee (SAC),²⁷ Task Forces and Expert Groups²⁸ established under the

²⁶ The Intergovernmental Meeting is composed of representatives of the participating countries; and it makes decisions on the implementation of the Network activities. Since 2001, 13 Intergovernmental Meetings have been held. See <http://www.eanet.cc/eanet/org.html>.

²⁷ The Scientific Advisory Committee is composed of scientists and technical experts nominated by the participating countries. It advises and supports the Intergovernmental Meeting on scientific and technical issues of the network, and establishes task forces where appropriate. See <http://www.eanet.cc/eanet/org.html>.

²⁸ At the Ninth Session of the Intergovernmental Meeting (IG9) held in 2007, the following Task Forces and Expert Groups were established under the SAC: Task Force on Monitoring Instrumentation; Task Force on Research Coordination; Expert

SAC, a Secretariat²⁹ hosted by UNEP Regional Resource Centre for Asia and the Pacific (RRC.AP) based at the Asian Institute of Technology (AIT), Thailand, and a Network Centre³⁰ hosted by the Acid Deposition and Oxidant Research Centre of Japan.

These organizations promote the network activities in close communication, coordination and collaboration with the national focal points,³¹ national centres³² and national QA/QC manager³³ in the participating countries (<http://www.eanet.cc/eanet/org.html>).

The Network Centre is funded by the government of Japan. Participating countries make voluntary contributions to EANET based on their circumstances. The Ninth Session of the Intergovernmental Meeting held in November in 2007 in Vientiane, Lao PDR, decided that participating countries could, on a voluntary basis, make financial contributions to the core budget of the Network Centre as from 2008 (EANET Secretariat, 2007).

Five years after publishing the *Periodic Report on the State of Acid Deposition in East Asia (Executive Summary)*, *Periodic Report on the State of Acid Deposition in East Asia (Part I) (Regional Assessment)* and *Periodic Report on the State of Acid Deposition in East Asia (Part II) (National Assessments)* in November 2006, the *Second Periodic Report on the State of Acid Deposition in East Asia (Part I) (Regional Assessment)*, the *Second Periodic Report on the State of Acid Deposition in East Asia (Part II) (National Assessments)*, and the *Second Periodic Report on the State of Acid Deposition in East Asia (Part III) (Executive Summary)* were published in December 2011 (see <http://www.eanet.cc/product/index.html>).

6 Strengthening of NEASPEC: Options, Challenges and Opportunities

6.1 The role of regional frameworks after Rio+20

The important role of regional frameworks has been confirmed at the Rio+20 conference held in June 2012.

Group on Dry Deposition Flux Estimation under the Task Force on Dry Deposition Monitoring; Expert Group on Revision of Technical Manual on Wet Deposition Monitoring; Expert Group on Revision of Technical Manual on Inland Aquatic Environment Monitoring; and Expert Group on Preparation of the Second Periodic Report on the State of Acid Deposition in East Asia.

²⁹ The EANET Secretariat communicates and coordinates with the participating countries concerning the Network, prepares for the EANET meetings, and conducts necessary administrative and financial management activities for the Network. See <http://www.eanet.cc/eanet/org.html>.

³⁰ The Network Centre compiles, evaluates and stores the EANET monitoring data, provides data upon request to the participating countries, and prepares data reports; it promotes QA/QC activities in, and provides technical support to, the participating countries, including implementation of various training activities; it provides technical support for EANET meetings; it also undertakes research activities on acid deposition; and it raises public awareness. See <http://www.eanet.cc/eanet/org.html>.

³¹ The National Focal Points communicate and coordinate with the Secretariat and the Network Centre for EANET concerning implementation of the network activities. See <http://www.eanet.cc/eanet/org.html>.

³² The National Centres collect the national monitoring data and submit them to the Network Centre, promote national QA/QC activities, and deal with technical matters on the network activities in the country. See <http://www.eanet.cc/eanet/org.html>.

³³ National QA/QC Managers promotes national QA/QC activities in cooperation and coordination with the national centres. See <http://www.eanet.cc/eanet/org.html>.

The outcome document of Rio+20, *The Future We Want*, has acknowledged “*the importance of the regional dimension of sustainable development*”, and that “*Regional frameworks can complement and facilitate effective translation of sustainable development policies into concrete action at national level*” (paragraph 97).

It has also encouraged “*regional, national, sub-national and local authorities as appropriate to develop and utilize sustainable development strategies as key instruments for guiding decision-making and implementation of sustainable development at all levels*”, and in this regard, recognized “*that integrated social, economic, and environmental data and information, as well as effective analysis and assessment of implementation, is important to decision-making processes*” (paragraph 98), and encouraged “*action at regional, national, sub-national, and local levels to promote access to information, public participation, and access to justice in environmental matters, as appropriate*” (Paragraph 99).

The document also emphasizes that “*regional and sub-regional organizations, including the UN regional commissions and their sub-regional offices, have a significant role to play in promoting a balanced integration of the economic, social and environmental dimensions of sustainable development in their respective regions*”, and urges “*these institutions to prioritize sustainable development through, inter alia, more efficient and effective capacity building, development and implementation of regional agreements and arrangements as appropriate, and exchange of information, best practices, and lessons learnt*”. It also welcomes “*regional and cross-regional initiatives for sustainable development*”, and furthermore recognizes “*the need to ensure effective linkage among global, regional, sub-regional and national processes to advance sustainable development*”, and encourages “*the enhancement of the UN regional commissions and their sub-regional offices in their respective capacities to support Member States in implementing sustainable development*” (Paragraph 100).

The above statements reaffirm the important role of UNESCAP and its subregional offices, of which SRO-ENEA is one, in providing support to the member States (including NEASPEC member States), using appropriate analytical tools and various effective instruments for guiding decision-making and implementation of sustainable development at all levels.

6.2 The role and uniqueness of NEASPEC

NEASPEC is inclusive of all North-East Asia (NEA) countries. It aims to promote efforts for sustainable development through subregional cooperation, and enhance the capacity of member States in environmental management. As an important work programme of environmental cooperation in the UN Economic and Social Commission for Asia and the Pacific (UNESCAP), NEASPEC rightly adopts a multi-disciplinary and multi-sectoral approach with multi-stakeholder partnerships in its programme development and implementation, focusing on issues relating to environment and sustainable development that are unique and common to all NEASPEC member States.

ASEAN, SACEP and SPREP all comprise members from developing countries, and their political and economic systems are homogeneous or mostly homogeneous.³⁴ In contrast, NEASPEC’s membership is diverse, both politically and economically, with a mix of both developed and developing countries that are going through different levels of development (e.g., Japan on one hand, and Mongolia and DPRK on the other). Political conflicts within NEASPEC members sometimes affect the progress of NEASPEC. This has made NEASPEC unique among the existing subregional environmental mechanisms, as well as the existing subregional multilateral environmental frameworks and programmes in North-East Asia. At the same time, this uniqueness has made the operation of NEASPEC more difficult, and hence strong political will and commitment are needed from

³⁴ In ASEAN, only Viet Nam has a different political system, but it is pursuing a market economy.

NEASPEC member States to make full use of this subregional environmental platform. This remains a great challenge for the future of NEASPEC.

6.3 Governing Body and Coordination of NEASPEC

NEASPEC has a much simpler governing structure compared to those of ASEAN, SACEP and SPREP. Its governing body is the Senior Officials Meeting (SOM) usually held annually. There are National Focal Points for activity coordination. At SOM 9 held on 2-4 March 2004 in Moscow, Russian Federation proposed to develop a legally binding document defining the principles for subregional cooperation. However, this proposal was not met with support.

In March 2005, an informal ministerial meeting of NEASPEC was held in the margin of the Fifth Ministerial Conference on Environment and Development in Asia and the Pacific (MCED 2005) held in Seoul. As far as NEASPEC meeting is concerned, this was the highest level, though the ministerial meeting was of an informal nature. Even so, DPRK was absent from MCED 2005.

One option to strengthen the political commitment of NEASPEC member States is to hold regular Ministerial Meetings, perhaps biennially. It seems that there was no consensus on this issue when it was discussed at the informal ministerial meeting held during MCED 2005. While the Republic of Korea, Japan and the Russian Federation seemed to support the idea of the ministerial level meetings, Mongolia had some reservations. China, while recognizing the importance of NEASPEC, was of the view that a long-term plan on the financial and institutional mechanisms of NEASPEC would be needed before launching regular ministerial meetings.

It is interesting to note the composition of delegates from member States that are attending the SOM. China and ROK usually sent senior officials from the Ministry of Foreign Affairs together with junior and mid-level officials from other ministries, while Mongolia and the Russian Federation sent senior officials from the Ministry of Environment together with mid-level officials from the Ministry of Foreign Affairs, and Japan sent mid-level officials from the Ministry of Environment. In a way, these representations at SOMs also reflect the present political commitments of member States to NEASPEC. It will be beneficial to NEASPEC if senior officials from the Ministry of Planning and Development also attend SOM. After the SOM is upgraded to the ministerial level, the ministers of environment and/or planning and development should be involved in the ministerial level meetings.

Would NEASPEC need a legally binding Agreement like that of SPREP so that the member States are Parties to the Agreement? Of course this will depend on the political commitment of the member States and whether or not the mandate of NEASPEC can be further strengthened. However, this scenario seems unlikely to become a reality in the near future but its feasibility may be further explored.

6.4 Strengthening of the NEASPEC Secretariat

During the period when UNESCAP was acting as the interim Secretariat of NEASPEC, the responsibility of the interim Secretariat function fell on the Environment Section of the Environment and Development Division at the UNESCAP Headquarters in Bangkok, using the existing staff of the Environment Section. The Chief of the Environment Section attended all the SOM meetings on behalf of the interim Secretariat.

As UNESCAP's Subregional Office for East and North-East Asia (SRO-ENEA) assumed its responsibility as the permanent secretariat of NEASPEC in May 2011 and transformed its secretariat status from "interim" to "permanent", there was a need for the NEASPEC Secretariat to be strengthened, due to the expanded scope of works and new activities, including an expected substantial increase in NEASPEC's interactions with other multilateral bodies and national stakeholders.

The SOM-16 document has reviewed issues concerning the institutional arrangement of NEASPEC (UNESCAP, 2011), and highlighted the following:

“.....during the recent years NEASPEC has considerably expanded its scope of work and partnerships with other entities in the subregion. It is anticipated that with the secretariat now based at a dedicated host office (SRO-ENEA), further growth of its activities in the subregion will materialize and NEASPEC will better serve the member States in jointly addressing subregional environmental challenges and supporting national initiatives through this multilateral body”.

“The considerable expansion of NEASPEC activities became possible due to enhanced interest and participation of member States, improved situation with the human resources since the relocation of the secretariat to SRO-ENEA, and stabilized financial condition with contributions from some member States to the Core Fund as well as the availability of project-based funding”.

However, as pointed out in UNESCAP (2011), *“the effective function of NEASPEC in analyzing subregional challenges, developing joint action, and facilitating the involvement of all relevant stakeholders in implementing joint action require the renewed commitments of member States to financial and institutional support NEASPEC.”*

6.4.1 Human resources and secretariat arrangement

Currently, four staff members consisting of one P-4 (Environmental Affairs Officer), one P-2 (Associate Environmental Affairs Officer) and two General Services (GS) staff members are supporting the work of NEASPEC within the environment area of work of SRO-ENEA. However, these staff members except for one junior GS staff member are also serving other thematic areas and thus they are not exclusively recruited to serve NEASPEC. While this arrangement may be acceptable during the period of “interim” secretariat, it is no longer realistic to maintain the status quo given the transition from the “interim” to “permanent” NEASPEC Secretariat.

Given the budgetary constraint of SRO-ENEA, one option to strengthen the human capacity of the NEASPEC Secretariat is to have national experts seconded from the member States, perhaps each seconded national expert may serve on a 3-year basis. The seconded national experts should be managed as a UN-affiliated staff within the UN system. Through this mechanism, the seconded national expert could also enhance their capacities within the UN system.

In parallel with the secondment of national experts to the NEASPEC Secretariat, the high-income member states may provide support for Junior Professional Officers (JPO) through the UN JPO Programme or interns under the UN system. The JPOs or interns could also enhance their capacities within the UN system.

Based on the common experience of ASEAN, SACEP and SPREP, each staff member of NEASPEC may be assigned to take care of certain thematic areas (e.g., air pollution, climate change, biodiversity, nature conservation, ecosystem management, land degradation and desertification, marine conservation, etc.) based on the thematic and project activities. Some of these thematic areas may be combined, such as air pollution and climate change, biodiversity and nature conservation, etc., depending on the number of staff members or the availability of expertise among the staff members.

The SOM/SRO-ENEA should accord official status to staff members who are serving NEASPEC, including the Coordinator, Deputy Coordinator (if any) and Secretariat Assistant, so as to facilitate their communication with member States and external agencies. As the scope and activities of NEASPEC expand with its new mandate as a permanent secretariat, it will be unrealistic for the current staff arrangement to remain the same. The Coordinator and the staff members who are serving NEASPEC will have to fully dedicate their time to the NEASPEC activities at some appropriate stage.

It is interesting to note that the title of each of the Heads of other subregional mechanisms and programme frameworks varies from Secretary General (ASEAN), Director (ASEAN Environment Cooperation Programme), Executive Director (ACB, ACE, ASEAN Foundation), Director General (SACEP, SPREP), Director (GTI, EABRN), Coordinator (NOWPAP, EANET), and Secretary General (NEAFF) reflecting the various characteristics of institutional structures within the mechanisms and frameworks (see Tables 1 and 2).

At the moment the Coordinator of NEASPEC is under the supervision of the Director of SRO-ENEA, which is a subregional office of UNESCAP. Thus, the management of NEASPEC Secretariat, including appointment of NEASPEC staff, is governed by UN rules and procedures. The official status of NEASPEC staff members will inevitably need to reflect this reality. ASEAN, SACEP, SPREP and NEAFF are independent of UN system.

6.4.2 Financial Resources

Adequate financial resources for implementing programmes and activities are key to the success of any regional or subregional cooperation mechanisms, and NEASPEC is no exception. Current regional cooperation mechanisms are funded by the following sources:

1. Members' annual contribution;
2. Bilateral and multilateral sources;
3. Project-based funding;
4. Private sector

Before NEASPEC's Core Fund was established at SOM-6 held on 9-10 March 2000 in Seoul, a North-East Asia Environmental Cooperation Fund (NEAECF) was proposed at SOM-5, with contributions from participating governments. Three alternatives were proposed to determine levels of voluntary funding: (I): All members contribute according to UN scale of assessment; (II): A fixed percentage of the NEAECF by all members in equal shares; the remainder is based on UN assessment scale; and (III): All members contribute on a voluntary basis. However, member States opted for voluntary contribution to the Core Fund. At SOM-7 held on 27 July 2001 in Beijing, member States were requested to provide the SOM with an indicative and non-binding level of possible contribution to the Fund over a period of ten years. It was decided that the contribution to the Core fund *must not* be based on predetermined assessments of scales, given the different development levels of the participating countries. The contribution from member States to NEASPEC remains voluntary³⁵, as decided at SOM-9 held on 2-4 March 2004 in Moscow. However, the disadvantage is that the voluntary contribution from each member country is not constant, and disparities in financial responsibilities exist among the member States.

At the Expert Group Meeting and Twelfth Senior Officials Meeting (SOM) of NEASPEC held on 22-23 March 2007 in Beijing, China, the options for institutional and financial mechanisms of NEASPEC were once again reviewed (UNESCAP, 2007). Both the UN Scale of Assessment and the NOWPAP formula, which is to combine the principle of shared responsibilities among the member States while respecting distinctive conditions of each country, were compared. While the UN Scale of Assessment shows extremely disproportionate distribution of financial responsibilities among the member States of NEASPEC, the NOWPAP formula seems to provide some compromise (UNESCAP, 2007).

China and the ROK have been the only NEASPEC member States that have sustained the annual contribution to the Core Fund, while the Russian Federation started project-based funding through its

³⁵ It is interesting to note that SACEP members' annual contributions are based on an agreed scale of assessment based on combinations of the South Asia Association of Regional Cooperation (SAARC) and a UN formula. In the case of SPREP, member States make equal contribution.

annual contributions to technical cooperation projects of UNESCAP. Japan has made financial contributions to NEASPEC activities implemented by Japanese agencies. The Asian Development Bank (ADB) has also provided project-based funding³⁶.

In order to make NEASPEC financially viable and predictable, perhaps the annual contribution from member States may be mandatory and based on “burden sharing” or the UN assessment scale, as in the case of SACEP. However, it is important for NEASPEC to look for other sources of finance, such as bilateral and multilateral support, the private sector and charity organizations, among others.

It is clear that there is a need for NEASPEC to mobilize additional financial resources to complement the Core Fund. To this end, a resource mobilization strategy may be developed by the NEASPEC Secretariat to explore other sources of financing and innovative financing for NEASPEC in the future.

6.4.3 Other possible sources of financing

There are a number of other possible sources of financing based on projects or programmes of activities, especially those under the financial mechanisms of the multilateral environmental agreements (e.g., United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD)). Of these, funding for climate change mitigation and adaptation activities remain the largest source. These include the Global Environment Facility Trust Fund, Special Climate Change Fund, Adaptation Fund and Green Climate Fund, as highlighted below. It would be useful to tap some of these funds for NEASPEC activities, though NEASPEC would need to establish a climate change programme, which could include the following existing activities: the Mitigation of Transboundary Air Pollution from Coal-fired Power Plants and Eco-efficiency Partnership. It is a matter of repackaging the above activities so as to make them meet the requirements of the funding mechanisms. This aspect of funding sources should be explored.

6.4.3.1 Global Environment Facility (GEF) Trust Fund

Under the GEF-5 (1 July 2010-30 June 2014), US\$ 4.25 billion is available to fund eligible countries for national, regional and global environmental activities in various focal areas, including climate change, biodiversity, sustainable land management and international waters.

With the exception of Japan, all NEASPEC member States are eligible for GEF funding from its Trust Fund. Thus, it is possible to develop regional projects on climate change (largely for mitigation projects and a small window for adaptation projects under the GEF Trust Fund), biodiversity and land degradation that cover the five eligible NEASPEC member States, with co-financing probably to be provided by Japan.

It may be noted here that DPRK seems to have great difficulties in accessing the GEF funding, as reported by Low and Kim (2012). For example, none of the total “indicative allocation” of US\$10.75 million for project activities related to climate change (US\$6.95 million) and biodiversity (US\$3.8 million) under the **Resource Allocation Framework (RAF)** in GEF 4 has been taken up. The lack of

³⁶ In 1999, the ADB funded the Regional Technical Assistance for Transboundary Environmental Cooperation in North-East Asia with three components: Project I: Pollution reduction in coal-fired power plants; Project II: Environmental monitoring, data collection, comparability and analysis; and Project III: Action plans for improving the efficiency of particulate abatement systems in existing power plants. See Section 6.5.2.1. In 2002, the ADB provided co-financing for a GEF-funded project entitled *Prevention and Control of Dust and Sandstorms in North-East Asia*, which was implemented in 2002-2005. See Section 6.5.2.2 and Footnote 28.

assistance by the GEF agencies and the withdrawal of the UNDP Office from DPRK from 2007 to 2010 probably resulted in the above situation.³⁷

Under the System for a Transparent Allocation of Resources (STAR) in GEF 5 (1 July 2010-30 June 2014), DPRK has been given a total “indicative allocation” of US\$8.94 million for project activities related to climate change (US\$6.93 million), biodiversity (US\$1.5 million) and land degradation (US\$0.51 million). So far none of these allocations have been taken up. The government’s attempts to access some of these allocations through UNEP have met with some difficulties from the GEF Secretariat. NEASPEC needs to be aware of this issue with a view to finding a solution for DPRK.

The NEASPEC Secretariat needs to have a “champion” to assist its member States like Mongolia and DPRK in accessing the GEF funds, as well as developing regional projects for NEASPEC to be funded by the GEF.

GEF 5 has already passed its half-way point. Quick action is needed if NEASPEC is going to tap some of this GEF Trust Fund for its regional activities before the next replenishment for GEF 6.

6.4.3.2 Special Climate Change Fund (SCCF)

The SCCF fund³⁸ is a voluntary trust fund which finances activities, programmes and measures relating to climate change complementary to those funded by the resources allocated to the climate change Focal Area of the GEF; and to those provided by bilateral and multilateral funding. To date, the GEF has received voluntary contributions of about \$120 million for the SCCF (http://www.thegef.org/gef/trust_funds).

Developing country members of NEASPEC are also eligible for the SCCF for both adaptation to climate change and for technology transfer. Once again, NEASPEC may develop regional project proposals to tap this SCCF for activities relating to climate change adaptation and technology transfer.

6.4.3.3 Adaptation Fund

The Adaptation Fund (<http://www.adaptation-fund.org/>) was established by the Parties to the Kyoto Protocol of the UNFCCC to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol based on their specific needs and priorities. Its main source of funding comes from a 2% share of proceeds of all Certified Emission Reductions (CERs) issued under the Kyoto Protocol’s Clean Development Mechanism (CDM) projects. The Fund is expected to reach US\$353 million by the end of 2012. In March 2012, the Adaptation Fund Board set a US\$100 million target for its fundraising effort between now and the end of 2013 (<http://adaptation-fund.org/media/call-public-inputs-options-fundraising-strategy-and-campaign>).

Developing country members of NEASPEC that are Parties to the Kyoto Protocol may access the Adaptation Fund through an accredited Multilateral Implementing Entity (MIE) (e.g., UNDP, UNEP, etc.) or a National Implementing Entity (NIE). From September 2010 to December 2011, 17 projects, with amounts of funding ranging from US\$2,929,500 to US\$9,967,678, were approved by the Adaptation Fund Board (http://www.adaptation-fund.org/funded_projects). The approved projects included adaptation programmes on integrated water resources management, water security, food security, floods and droughts, coastal zone management, among others.

³⁷ Indeed, a PDF-A document was prepared in 2006 by a UNEP consultant for a medium-sized project entitled “*Land Use Planning and Management (LUPAM)*” in accordance with GEF Strategic Priority SLM-1 and SLM-2 under the GEF Operational Programme 15 on Sustainable Land Management. But this project has never been fully developed and funded.

³⁸ The SCCF trust fund has 13 donors: Canada, Denmark, Finland, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom that have made pledges to the SCCF.

In particular, the NEASPEC Secretariat may advise and assist Mongolia and DPRK to tap the Adaptation Fund, perhaps in collaboration with other partner agencies, such as UNEP and UNDP. Unfortunately, the Adaptation Fund has no policy of funding regional projects. However, a change in such policy is possible in the future.

6.4.3.4 Green Climate Fund (GCF)

Under the Cancun Agreements (Decision 1/CP.16), the developed countries have collectively committed “*to provide new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010–2012, with a balanced allocation between adaptation and mitigation; funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, small island developing States and Africa*”.

The developed country Parties also commit, “*in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries*”.

A Green Climate Fund (GCF) has been established under the Cancun Agreements, and it will be operational soon. Developing country Parties to the UNFCCC are eligible to access this GCF for both mitigation and adaptation projects. NEASPEC Secretariat may advise and assist its members which are eligible to the GCF in accessing this Fund. It is unknown at this stage whether or not regional projects can be funded by the GCF.

6.4.3.5 Bilateral financing

Individual developing NEASPEC member States may receive financial support bilaterally from donors, such as European Union. This is the same for ASEAN, SACEP and SPREP.

6.4.3.6 Innovative financing

Depending on the nature of the projects to be developed by NEASPEC, it may be possible to mobilize the financial resources of the private sector through public-private partnerships at the national level for green investment activities (e.g., prevention and control of dust and sandstorms through afforestation, reforestation, and restoration of degraded lands).

Parallel financing of member governments and institutions, including UN and regional agencies, public and private banks, as well as Asian Development Bank, could be another important option.

Another innovative financing initiative is illustrated by “JAL Miles for Eco”, an environmental campaign launched by Japan Airlines in June 2006, which enables members of its frequent flyer programme, JAL Mileage Bank, to make donations using air miles from their accounts to Organization for Industrial, Spiritual and Cultural Advancement (OISCA) International, a non-profit organization. Through this initiative, OISCA has supported the Inner Mongolia Greening Project that aims to combat desertification (<http://www.unpo.org/article/6769>).

Civil society organizations (CSOs), non-governmental organizations (NGOs) and charity organizations could be possible sources for funding NEASPEC activities.

6.4.4 Resource mobilization strategy

Without adequate technical and financial resources, it would be very difficult, if not impossible, to operate NEASPEC and its programme activities, including its Secretariat.

Therefore, how to mobilize adequate resources for the operation of NEASPEC and its programme activities, including its Secretariat, is a great challenge. A resource mobilization strategy may be developed by SRO-ENEA in coordination with UNESCAP and other relevant United Nations agencies.

There is a need for making the case for contributing more funding to NEASPEC among member states and donors.

6.5 Programme activities

6.5.1 Priorities

NEASPEC's programme activities have been guided by the SOMs, and the list of programme activities has been increasing since the establishment of NEASPEC.

The first SOM, held in February 1993 in Seoul, discussed priority areas such as Environmental Impact Assessment (EIA), environmentally sound technologies, energy and environment, ecosystem management, and public participation. The second SOM, held in November 1994 in Beijing, identified three priority areas, i.e. energy and air pollution, ecosystem management and capacity building. In addition, SOM-6 held on 9-10 March 2000 in Seoul adopted a vision statement that requires NEASPEC to periodically review the environmental conditions and trends with a view to identifying additional priority areas for cooperation, and promote common policy dialogue and develop NEASPEC into a comprehensive programme for environmental cooperation in North-East Asia, preferably by SOM-8; enhance member countries' ownership of NEASPEC, and increase the involvement of major stakeholders. SOM-8, held on 20 June 2002 in Ulaanbaatar, requested the development of a comprehensive strategic environmental action plan for the subregion, and promoted a participatory approach.

At SOM-9 held on 2-4 March 2004 in Moscow, China suggested utilizing NEASPEC as a facilitator for subregional responses to the Johannesburg Plan of Implementation (JPOI) of the World Summit on Sustainable Development.

6.5.2 Recent activities and achievements

Compared to ASEAN, SACEP and SPREP and other subregional programmes, the number of programmes and project activities of NEASPEC has been small, reflecting the limited funding that NEASPEC has been receiving both from the member States and the donors, as well as the limited staff capacity for NEASPEC activities. The interim nature of the NEASPEC Secretariat until May 2011 probably had, to some extent, contributed to the situation. From the mid-1990s until 2004, NEASPEC activity was limited to a series of projects on air pollution from coal-fired power plants, which was funded by ADB. As it acquired its own financial resources by creating the Core Fund based on voluntary contributions from member States, NEASPEC has been able to expand its activities from air pollution to nature conservation, integration of economy and the environment (Eco-Efficiency Partnership), dust and sandstorms, etc. (Nam, 2008).

Despite the above-mentioned constraints, NEASPEC has achieved considerably since its establishment. NEASPEC's recent programme activities are discussed in the following subsections, while some past activities are mentioned as background information for the recent activities:

6.5.2.1 Mitigation of transboundary air pollution from coal-fired power plants

Air pollutants from coal-fired power stations include sulphur dioxide and nitrogen oxides, the sources of acid rain, and suspended particulates, which have both health and climatic implications.

The mitigation of transboundary air pollution from coal-fired power plants in North-East Asia was one of the very first NEASPEC activities identified at SOM-1 in 1993. However, it took a few years before the ADB funded the Regional Technical Assistance for Transboundary Environmental Cooperation in North-East Asia in 1999. The regional collaboration activities consisted of three phases. Phases I and II included pollution reduction in coal-fired power plants; environmental monitoring, data collection, comparability and analysis;³⁹ and action plans for improving the efficiency of particulate abatement systems in existing power plants (<http://www.neaspec.org/mitigation.asp>). Expert groups meetings,⁴⁰ training courses⁴¹ on coal testing and combustion, boiler and turbine technology, new technology and practices on pollution control, power plant operation and maintenance, as equipment upgrades and retrofits, performance management, and relevant policies and regulations for participants from China and Mongolia, as well as on-site assessment workshops⁴² for participants from China, Mongolia, Republic of Korea and Japan were conducted, while action plans⁴³ for two specific power plants (Ulaanbaatar Power Plant #4 and Datang Taiyuan #2 Thermal Power Plant of the China) were also developed. The training courses were supported by the North-East Asian Training Centre for Pollution Reduction in Coal-fired Power Plants established at the Korean Electric Power Research Institute (KEPRI) in Daejeon, Republic of Korea, in 2001, while the on-site assessments were supported by the North-East Asian Centre for Environmental Data and Training (NEACEDT) established at the National Institute for Environment Research (NIER) of the Republic of Korea in 2001. However, no representatives from DPRK participated in all the above project activities, while no representatives from the Russian Federation participated in the on-site assessments (<http://www.neaspec.org/mitigation.asp>).

The third phase of the project, which was implemented over a three-year period from August 2009 to July 2012, included the integrated strategies for mitigating air pollution and greenhouse gases;

³⁹ The activities consisted of (a) collecting and managing background information of participating countries; (b) developing compatible analytical and data processing methods; (c) analyzing present and predicting future regional environmental conditions; and (d) facilitating the exchange of available information.

⁴⁰ “Expert Group Meeting on Capacity Building of Air Pollutant Emission Monitoring in North-East Asia” and “Expert Meeting on Capacity Building and Data Intercomparability for Ambient Air Quality Monitoring in North-East Asia” were held respectively on 13-15 March 2002 in Yokohama, Japan and on 24-26 April 2002 in Incheon, Republic of Korea to support the operationalization of the regional monitoring network (<http://www.neaspec.org/mitigation.asp>). Another Expert Consultation Meeting on Transboundary Air Pollution in North-East Asia was held on 9-10 July 2012, St. Petersburg, Russian Federation.

⁴¹ **A training workshop on Emission Monitoring and Estimation** in North-East Asia was held, as a direct outcome of the first Expert Group Meeting held in Yokohama, Japan, in China on 26-28 February 2003, whereby more than 40 participants from China, Mongolia, ROK, Japan and the Russian Federation attended. An **on-site Assessment Workshop on Capacity Building and Data Inter-comparability for Ambient Air Quality Monitoring in North-East Asia** was organized on 22-24 September 2003 in Mongolia, attended by 21 representatives from China, Mongolia, ROK and Japan. An overview of **Data Reporting Format** was presented and two field trips made to a monitoring station and a thermal power plant in Ulaanbaatar (<http://www.neaspec.org/mitigation.asp>).

⁴² The first **On-site Assessment Workshop on Pollution Reduction in Electric Power Plants in North-East Asia** was organized in Guiyang, Guizhou Province, China on 7-9 August 2002 and attended by 12 participants from China, Mongolia, ROK and Japan. A recommendation was made regarding the improvement of efficiency of the particulate abatement system at the Guiyang Power Plant by optimizing the entire plant operation and maximizing the electrostatic precipitator performance. The potential of coal blending to improve particulate and sulphur dioxide emission control and combustibility was also explored. Another **on-site Assessment Workshop on Efficiency Improvement of Particulate Abatement Systems in Existing Power Plants** was arranged in Ulaanbaatar, Mongolia on 25-27 September 2003 by UNESCAP and the Mongolian Ministry of Nature and Environment. The participants made visits to Power Plant No. 3 and 4 for training purposes (<http://www.neaspec.org/mitigation.asp>).

⁴³ A subregional workshop on the Action Plans for Improvement of the Particulate Abatement Systems of Coal-fired Power Plants was held on 7-8 June 2004 in Beijing to review and discuss the action plans. Experts agreed that setting up national standards on emissions from coal-fired power plants was critical in developing any project to reduce emissions. It was recommended that further study on the implications of emissions at the subregional level was needed (<http://www.neaspec.org/mitigation.asp>).

standardization and regulation of technology related to the management of SO₂; demonstration projects; and knowledge transfer and dissemination (<http://www.neaspec.org/mitigation.asp#thenorth>).

Various national and subregional training activities for government officials, experts and technicians were held, such as the following:

- **Training sessions in November 2010 in Ulaanbaatar and in Zhangjiagang:** The Mongolian training session discussed the proposed standards and national action plan in Mongolia, while the training session in China discussed technical aspects of emission control.
- **Final workshop on the proposed emission standards in Mongolia in July 2011 in Ulaanbaatar, Mongolia:** The workshop reviewed methods and best practices for establishing new emission standards for coal-fired power plants in Mongolia. The submission of recommendation to the Mongolian Government was adopted by the 71st decree of the National Council of Standardization and Measuring.
- **Training workshops in December 2011 in Harbin, Qingdao and in Changchun:** Harbin and Qingdao workshops reviewed complex additives, while Changchun workshop provided training in optimized measurement and control of pH value in absorbing tower.
- **Two subregional workshops** on Transboundary Air Pollution in North-East Asia were convened in December 2008 in Tokyo and in November 2011 in Incheon, respectively, in order to review results of ongoing research on transboundary air pollution, policy and technical approaches to mitigating air pollution from coal-fired power plants, and discuss potential areas of cooperation.

Furthermore, NEASPEC has initiated discussions on a joint project targeting transboundary air pollution in North-East Asia through the SOM-15 in March 2010 in Tokyo, an Expert Consultation Meeting held in January 2011 in Incheon, and an Expert Consultation Meeting (ECM) on Transboundary Air Pollution in North-East Asia held on 9-10 July 2012 in St. Petersburg, Russian Federation.

The consultation process noted that currently no subregional/regional framework in North-East Asia provides holistic approach covering all components of transboundary air pollution management. In this connection, the process recommended the development of a mechanism for international cooperation that would strengthen subregional frameworks and increase their geographic scope so that they could work closely with each other to jointly address relevant challenges related to local and regional air pollution issues in North-East Asia and beyond.

Due to the public outcry against the detrimental impacts of acid rain in Europe, the United Nations Economic Commission for Europe (UNECE) has initiated the Convention on Long-range Transboundary Air Pollution (CLRTAP), which was signed in 1979 and entered into force in 1983. As the first regional environmental convention, CLRTAP has been instrumental in the reduction of key harmful pollutants in both Europe and North America. The NEASPEC Secretariat has established close collaboration with the secretariat of the UNECE CLRTAP to facilitate exchange of experience and knowledge between European and Asian experts and draw lessons for North-East Asia from CLRTAP's institutional and scientific development.

While CLRTAP legally binds the 51 parties out of UNECE's 56 member States to reduce air pollution, the mitigation of transboundary air pollution from coal-fired power plants in North-East Asia largely remains at technical level rather than political level. However, it is still unique as no other environmental cooperation mechanisms in the region have addressed the same issue, though it is complemented by the Joint Research Project on Long-Range Transboundary Air Pollutants and the Acid Deposition Monitoring Network in East Asia (EANET).

6.5.2.2 Implementing the regional master plan for the prevention and control of dust and sandstorms

This is a follow up activity an earlier project entitled *Prevention and Control of Dust and Sandstorms in North-East Asia*, which was funded by the GEF and ADB and implemented in 2002-2005⁴⁴. The earlier project, which promoted the establishment of a regional cooperation mechanism¹ to facilitate the cooperation and coordination of the interventions by the participating countries to address the transboundary issue of dust and sandstorms (DSS), has resulted in a Regional Master Plan (ADB, 2005a), which has included an *Investment Strategy* (ADB, 2005b) for strengthening mitigation measures to address the root cause of DSS in source areas (see Footnote 21). In particular, the *Investment Strategy* has recommended one joint demonstration project to be developed across the border areas near Erlianhot (located in Inner Mongolia Autonomous Region on the Chinese side) and Zamin Uud⁴⁵ (on the Mongolian side), which are one of the major DSS source areas.

Based on the recommendation, an Inception Meeting for the NEASPEC Project on Implementing the Regional Master Plan for the Prevention and Control of Dust and Sandstorms in North-East Asia was held on 19-21 April 2011 in Ulaanbaatar and Zamin Uud, Mongolia. The results of this Inception Meeting, including the detailed plan, as well as the outcomes of consultations with national focal points in China and Mongolia, were reviewed at SOM-16 held in September 2011. Consequently, the NEASPEC Capacity Building Training Programme for Mongolian Experts was held in Erlianhot, Inner Mongolia Autonomous Region, China, on 19-26 September 2011. It was organized by the Institute of Desertification Studies (Chinese Academy of Forestry), Forestry Department of Inner Mongolia Autonomous Region, and People's Government of Erlianhot Municipality, with the support of UNESCAP and the National Bureau to Combat Desertification of China. The training programme included a one-day field trip and discussed themes of laws and regulations, strategies and policies, technologies and good practices on combating desertification in China.

Meanwhile, a GIS-based information system for activities and projects on desertification, land degradation and droughts in Mongolia was established. A website was created as a new part of the existing National Environmental Information database and includes information of ongoing and completed projects on desertification, land degradation and droughts (DLDD) across the country (available at www.mne.gov.mn).

To further strengthen subregional cooperation and raise international attention to issues of desertification in North-East Asia, the NEASPEC Secretariat, in collaboration with North-East Asia Forest Network, the Chinese National Bureau to Combat Desertification and the Mongolian National Committee to Combat Desertification, organized a side event on "Subregional Cooperation on Combating Desertification and Land Degradation in North-East Asia" at the Tenth Session of the Conference of Parties (COP-10) to the UNCCD held in Changwon, Republic of Korea. The participants at this side-event discussed the advantages of pursuing multilateral cooperation in coping with such a complex challenge as desertification and outlined some areas for further cooperation at subregional, regional, and global level.

⁴⁴ Four NEASPEC countries, namely China, Mongolia, Republic of Korea and Japan participated in the GEF-ADB funded project, which had a total funding of US\$1.215 million (GEF Grant: US\$0.5 million; co-financing: US\$0.715 million) for the period 2002-2005. The project promoted the establishment of a regional cooperation mechanism to facilitate the cooperation and coordination of the interventions by the participating countries to address the transboundary issue of dust and sandstorms (DSS). A regional master plan to address the issue was developed, and it was endorsed by the Project Steering Committee. It includes a phased programme for establishing a regional monitoring and early warning network for DSS, and an investment strategy including recommendations on sustainable financing mechanisms and identification of nine priority demonstration project sites to disseminate the good practices in addressing the causes of DSS: four in China, four in Mongolia; and one joint demonstration project site across the borderline between China and Mongolia. However, these recommendations have never been implemented, though there have been attempts to develop the joint demonstration project by UNESCAP.

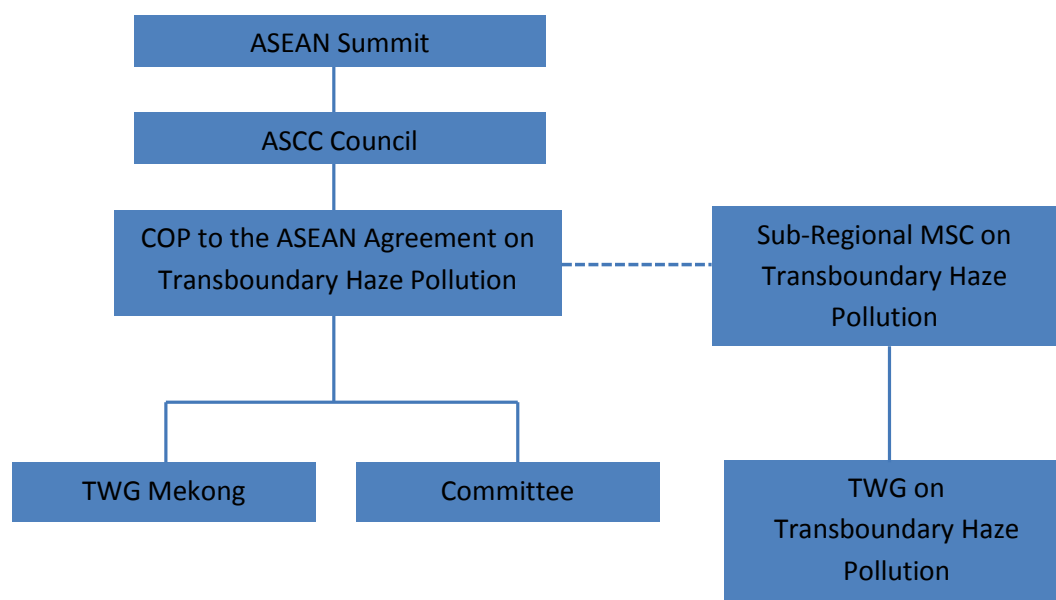
⁴⁵ Zamin Uud, which is located in Dornogobi *aimag*, covers the entire territory of one *soum* (Zamin Uud), with an area of 12,900 km².

A project review meeting was held on 4 September 2012 in Ulaanbaatar, Mongolia. The meeting exchanged ideas on main challenges encountered in the project and its main accomplishments, and identified topics and priorities for future activities.

The implementation of the pilot project on tree planting in Zamin Uud was conducted during 2011 and 2012. As a result, more than 12,500 trees were planted in various locations in the city and on the city outskirts to contribute to preventing sand encroachment into the city.

In some ways, the issue of transboundary dust and sandstorms in North-East Asia bears some similarity to the issue of transboundary haze induced by forest fires caused by slash and burn practices in South-East Asia. However, as shown in Figure 6, there is the **ASEAN Agreement on Transboundary Haze Pollution**, a legally binding agreement that attempts to control haze pollution in South-East Asia. Article 20 of the Agreement has established a Fund, known as the ASEAN Transboundary Haze Pollution Control Fund, for the implementation of this Agreement. The Fund is administered by the ASEAN Secretariat under the guidance of the Conference of the Parties. The Parties shall, in accordance with the decisions of the Conference of the Parties, make voluntary contributions to the Fund. However, the effectiveness of this Agreement has been called into question due to the outbreaks of the **2005 Malaysian haze** and the **2006 South-East Asian haze**.

Institutional Framework (Haze)



- COP: Conference of the Parties
- TWG: Technical Working Group (southern region)
- TWG Mekong: Technical Working Group in Mekong Sub-Region
- MSC: Sub-Regional Ministerial Steering Committee

Source: <http://environment.asean.org/index.php?page=overview>

Figure 6. Institutional framework for the ASEAN Agreement on Transboundary Haze Pollution

It is unlikely that the North-East Asian countries will contemplate a similar legally binding agreement to address the dust and sandstorms issue. Firstly, unlike the outbreaks of the human-induced forest fires, dust and sands are always in existence in the Gobi desert, which is a major natural source of dust

and sands, even though human activities have caused deforestation and hence land degradation and desertification, which has compounded the problem. Thus, the sources of dust and sands are both natural and human-induced. It is very difficult to quantify the respective contribution of the natural and human-induced sources. Secondly, when strong winds sweep across the North-East Asian region with dust and sandstorms, some of the dust and sand could be from local origins. Therefore, the attribution of the sources of dust and sands in each dust and sandstorm event requires scientific research and assessment, and much work is still needed to be undertaken in this area before any legally binding agreement can be contemplated in the future.

6.5.2.3 Cooperation mechanisms for nature conservation in transboundary areas

This two-year project started in September 2010. It aims to strengthen transboundary cooperation mechanisms in Lower Tumen River Area encompassing China, DPRK and the Russian Federation for effective subregional responses to challenges in nature conservation in transboundary areas, which have critical implications for four target species of the NEASPEC Nature Conservation Strategy as home to both Amur tiger and Amur leopard, and part of either breeding grounds or migration corridors of white-napped crane and hooded crane (<http://www.neaspec.org/nature.asp>).

The project reviews the conditions for nature conservation in selected protected areas adjacent to national borders and international protected areas for strengthening transboundary cooperation, with a view to developing a framework for a transboundary cooperation mechanism in the Tumen River basin for endorsement by concerned NEASPEC member States.

The NEASPEC Secretariat in collaboration with the State Forestry Administration of China held an Expert Group Meeting (EGM) on Nature Conservation in Transboundary Areas in North-East Asia on 2-4 November 2010 in Hunchun, China, as the inception meeting of the project. During the EGM, specific pilot projects for further strengthening the cooperation mechanisms in Daurian area and Khanka-Xingkai Lake were suggested and the recommendations for the protection of Amur tigers and Amur leopards were made. Based on the results of the EGM, the NEASPEC Secretariat conducted a comprehensive review on environmental, socio-economic and institutional conditions and experience in selected protected areas. The Secretariat also held the Review Meeting and Field Training on Nature Conservation in Transboundary Areas in North-East Asia on 21-21 July 2012 in Vladivostok, Russian Federation, to consult with major stakeholders on the proposal of launching the NEASPEC Partnership for Tiger and Leopard Conservation. The proposed goals and roles of the partnership include the facilitation of (1) communication for information exchange and knowledge sharing across borders; (2) collaboration among stakeholders for joint work including joint survey and monitoring on the border, joint anti-poaching activities, capacity training programme, sustainable forest management, etc.; and (3) coordination of domestic policies responding to complex conservation issues including ecological corridors and transboundary protected areas. Furthermore, the two-day field trip to tiger habitat in Orlinoye hunting estate provided an opportunity for experts to identify methods and indicators for monitoring.

Concerning migratory birds, other target species of NEASPEC, the Secretariat held an International Workshop on the Conservation and Restoration of Endangered Species' Habitats in North-East Asia (a side event of the World Conservation Congress) on 10 September 2012 in Jeju, Republic of Korea. The workshop reviewed the status and protection policies for migratory birds and reached a conclusion on the need to establish a *North-East Asia Ecological Network* as an action-oriented network among key habitats.

6.5.2.4 Eco-efficiency partnership

Eco-efficiency refers to the efficient use of resources that maximizes values and outputs with minimized environmental impacts. It is a major element of Green Growth or the environmentally sustainable economic growth that UNESCAP has been promoting in recent years. The new initiative

of NEASPEC on eco-efficiency, which started from SOM-10 in 2004, reflects this major focus of UNESCAP.

In North-East Asia, China has been practising the concepts of Resource-Saving Society and Circular Economy, while Japan has a similar practice to become a Sound Material-Cycle Society. In many ways, these are good practices in eco-efficiency.

The NEASPEC (interim) Secretariat prepared a paper focusing on eco-efficiency in North-East Asia and presented it at SOM-11 in October 2005, highlighting the need for shifting the conventional economic growth towards Green Growth and adopting policies and measures for improving eco-efficiency, which would lead to reduction in energy intensity, material intensity, emissions and dispersion of toxic substances, etc., and hence to enhance environmental sustainability. The paper also proposed potential activities of NEASPEC on eco-efficiency, including identifying policy options and challenges for eco-efficiency, conducting joint research on eco-efficiency indicators, developing guidelines for sustainable consumption and production, disseminating information, and formulating action plans for all stakeholders, among others (<http://www.neaspec.org/eco.asp>). An Expert Group Meeting for in-depth discussion on Eco-Efficiency in North-East Asia was held in collaboration with China Standard Certification Centre on 25-26 May 2006 in Beijing. At SOM-12, a subregional action on eco-efficiency, the “Eco-efficiency Partnership in North-East Asia”, was initiated. Potential subregional activities such as the development of strategy report, harmonized EPR (extended producer responsibility) system and eco-labelling, sound material cycle network in NEA, cross-border cooperation on energy efficiency, eco-efficiency indicator, and capacity-building programme have been identified. Subsequently, the NEASPEC Secretariat prepared a guidebook entitled *Eco-efficiency: A Practical Path to Sustainable Development* in 2007. In addition, a series of consultations with the national focal points of NEASPEC and national institutes of the member States were conducted during 2007-2008 for developing a detailed plan of the Partnership.

A series of activities under Eco-efficiency Partnership were undertaken during 2011-2012 (UNESCAP, 2011). These include the following:

- In response to the recommendations from the SOM-15 and the EGM, the Secretariat worked on the development of a capacity building programme for experts on eco-labelling and carbon footprint initiatives. In this regard, the Secretariat consulted with the Korea Environmental Industry and Technology Institute (KEITI) of Republic of Korea and undertook joint activities such as the Asia-Korea Seminar on Carbon Footprint and Asia-Korea Workshop for Carbon Footprint Partnership on 13-14 October 2011 in Seoul. Upon the request by the Mongolian Government, the Capacity Building Training for Mongolian Experts in Eco-labelling was jointly organized by ESCAP, the Ministry of Nature, Environment and Tourism of Mongolia (MONET), Mongolian National Chamber of Commerce and Industry (MNCCI) on 1-3 May 2012 in Ulaanbaatar, Mongolia, bringing together experts from China, Japan, Republic of Korea and Russian Federation.
- **Conference on Low Carbon, Green Cities in North-East Asia on 17-18 November 2011 in Suwon, Republic of Korea:** The conference was held to discuss the technical measures and policy instruments and strategies for developing low carbon, green cities in North-East Asia. It reviewed existing and planned initiatives and built a partnership among North-East Asian cities for local level collaboration.
- **Capacity Building Training for Mongolian Experts in Eco-labelling on 1-3 May 2012 in Ulaanbaatar:** The training focused on review of national process of Type I eco-label to share specific national schemes, products categories, criteria, and certification procedures; potential areas of international cooperation and capacity building for Mongolia were also discussed.

- **Database for Knowledge sharing on low-carbon city strategies:** The Secretariat has been compiling low carbon city strategies as a locus of information platform for collecting, analyzing and distributing strategies and plans for low carbon, green cities.
- **North-East Asian Cities: Moving Towards Low Carbon, Green Cities:** This paper reviews existing city networks, national-level guidelines on green development, and cases of cities in the subregion that have implemented plans and strategies for making a low-carbon , green city.

Various forums such as business forum, NGO forum, expert network on eco-efficiency and annual eco-efficiency partnership forum will be created (<http://www.neaspec.org/eco.asp>).

6.5.3 Possible new programme activities

So far NEASPEC's programme activities have been focusing on transboundary air pollution, dust and sandstorms, nature conservation and eco-efficiency issues. There are new programme activities that NEASPEC may wish to develop based on its comparative advantage. Two new project activities are proposed, as follows.

6.5.3.1 Marine protected areas network for North-East Asia

North-East Asia has extensive marine protected areas (MPAs), and yet there is a lack of subregional network that links these MPAs together.

At SOM-16 held in September 2011 in Seoul, the Republic of Korea proposed to initiate a new framework of cooperation in the subregion to address the various transboundary environmental challenges that East Asia (including North-East Asia) is facing as a consequence of its rapid economic development. This new framework would entail the sharing of knowledge and related information on different environmental issues regarding transboundary marine pollution that arise in North-East Asia and provide ground for concrete projects (NEASPEC, 2012a).

An Expert Consultation Meeting (ECM) was organized in accordance with the decision of the SOM-16 to further elaborate the project proposal on "Strengthening Subregional Cooperation to Address Environmental Challenges related to Transboundary Marine Pollution" for decision at the SOM-17. The meeting was attended by 16 participants including national experts nominated by the governments of China, Japan, Republic of Korea, and the Russian Federation and resource persons from the intergovernmental organization Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), and UN bodies including Northwest of Pacific Action Plan (NOWPAP) of UNEP and UNDP/GEF Yellow Sea Large Marine Ecosystem Project (YSLME) (NEASPEC, 2012a).

Following the ECM, the NEASPEC Secretariat conducted research on the situations of MPAs in the subregion as well as potentials of establishing a MPA network (NEASPEC, 2012a), and later prepared a project concept note on *A Marine Protected Areas Network for North-East Asia* has later been prepared (NEASPEC Secretariat, 2012b). This new project aims to (i) find common definitions for participating MPAs; (ii) establish an information-sharing platform (information on MPAs, management plans, development of a regional guide); (iii) establish common rules concerning management in order to overcome institutional differences (administration manual, bringing stakeholders together, shared funding, shared technology); (iv) establish a platform for joint assessment and monitoring (intergovernmental meetings, joint research projects and management training); and (v) act as a liaison body between individual MPAs, as well as national, regional and global network programmes.

The above new project falls within the Rio+20 strengthened role of regional cooperation concerning sustainable development.

Funding support for this project may be solicited from the GEF and other multilateral sources.

6.5.3.2 Drought risk reduction network for North-East Asia

Drought is an extreme climatic event, often described as a “natural” hazard, though it is now increasingly clear that human activities could exacerbate this hazard. For example, human-induced climate change could cause the shift in seasonal and latitudinal precipitation patterns, as well as an increase in extreme weather events (though there may have regional variations), both of which could have significant implications for drought. The regional precipitation patterns can also be influenced by the distribution of air pollutants (aerosols).

Drought by itself does not trigger an emergency. Whether it becomes an emergency depends on its impact on local people. And that, in turn, depends upon their vulnerability and resilience to such a “shock”. Drought affects land and water (fishery and aquaculture) productivity, hence food security, and thus its substantial impacts can be felt in many parts of the world, although the characteristics of these impacts differ considerably. The ability to cope with drought also varies considerably from country to country and from one region, community or population group to another.

In North-East Asia, drought has been a frequent event. There seems to be a lack of emphasis on the development of national policies and response measures for drought risk reduction in the subregion, based on the best available scientific data and information. In addition, the lack of human and institutional capacity in some NEASPEC member States, such as Mongolia and DPRK, to cope with drought is also a pressing issue that needs to be addressed

It is more cost-effective to improve drought coping and adaptation capacity through a subregional partnership. Thus, there is a need for NEASPEC to establish a subregional Network to share information and to facilitate capacity development activities so as to build resilience for drought risk reduction. This Network will be an important platform for providing and sharing information on data availability; drought policies; emergency response measures; adaptation and mitigation actions; planning methodologies and guidelines (both general guidelines that are applicable for all participating countries and specific guidelines specific to each participating country); stakeholder involvement; early warning systems and information delivery; automated meteorological networks; the use of climate indices for assessment and triggers for adaptation, mitigation and response; impact assessment methodologies; integrated water resources management, including demand reduction/water supply augmentation programmes and technologies; traditional or indigenous technologies and practices; national and regional programmes and technologies; incorporation of drought preparedness into integrated land use planning and management; scientific collaboration; and procedures for addressing environmental conflicts; and any lessons learned..

This proposed new project would complement the project on *Implementing the regional master plan for the prevention and control of dust and sandstorms*.

Funding support for this project may be solicited from the GEF trust fund or Special Climate Change Fund.

However, this proposed new project has not yet submitted to the SOM for endorsement.

6.6 Partnerships with other collaborating partners

Given the various subregional mechanisms and multilateral environmental frameworks and programmes that are operating in North-East Asia, NEASPEC must use its comparative advantage to catalyse and build partnerships with these existing mechanisms, frameworks and programmes.

For example, green economy in the context of sustainable development and poverty eradication was one of the two themes of the Rio+20 Conference. *The Future We Want* considers “green economy ... as one of the important tools available for achieving sustainable development and that it could provide options for policy making but should not be a rigid set of rules” and emphasizes that “it should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth’s ecosystems” (Paragraph 56).

The relationship between green economy and natural resources management, including ecosystem management, is clearly spelt out in paragraph 60 of *The Future We Want*, which acknowledges “*that green economy in the context of sustainable development and poverty eradication will enhance our ability to manage natural resources sustainably and with lower negative environmental impacts, increase resource efficiency and reduce waste.*”

The Future We Want also recognizes that “urgent action on unsustainable patterns of production and consumption where they occur remains fundamental in addressing environmental sustainability, and promoting conservation and sustainable use of biodiversity and ecosystems, regeneration of natural resources, and the promotion of sustained, inclusive and equitable global growth” (Paragraph 61).

Eco-efficiency in natural resources management, environmental sustainability and Green Growth, as promoted by UNESCAP and NEASPEC, are important elements of a green economy, which is actively promoted by UNEP. To this end, a partnership may be established between NEASPEC and the UNEP International Ecosystem Management Partnership (UNEP-IEMP) hosted by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, based in Beijing, focusing on green economy and ecosystem management.

6.7 Technical cooperation and capacity-building

The outcome document of Rio+20, *The Future We Want*, urges the “*regional and sub-regional organizations, including the UN regional commissions and their sub-regional offices...*” “*to prioritize sustainable development through, inter alia, more efficient and effective capacity building, development and implementation of regional agreements and arrangements as appropriate, and exchange of information, best practices, and lessons learnt*”, and it encourages “*the enhancement of the UN regional commissions and their sub-regional offices in their respective capacities to support Member States in implementing sustainable development*” (Paragraph 100).

Given the diverse human and institutional capacity of NEASPEC member States in the implementation of sustainable development, there is still a specific need for promoting technical cooperation among NEASPEC member States, especially between Mongolia, DPRK and other technically and economically more advanced member States. NEASPEC may facilitate bilateral or subregional technical cooperation and capacity-building activities.

The newly initiated South-South Cooperation Programme in China could play a useful and important role in providing human and institutional capacity development in Mongolia and DPRK in addressing various environmental issues.

The following areas in technical cooperation are specifically needed.

6.7.1 Science and technology

Effective mitigation of environmental problems requires the best available science and technology, which are the basis for developing effective policies within the context of sustainable development. Thus, environmental cooperation in science and technology between NEASPEC member States is vitally important, especially between the research institutes and academy of sciences. Transfer of environmentally sound technologies is an important area that the NEASPEC member States can further explore.

6.7.2 Visiting scientists programme

There is a need for establishing a Visiting Scientists Programme (VSP) among NEASPEC countries that could serve as a useful platform for enhancing the scientific and technical capacity of scientists from Mongolia and DPRK. The VSP could be of one to six months duration, depending on the needs and the mutual agreements with the host countries.

Funding support and sponsorships for this VSP may be raised from NEASPEC memberships and from multilateral, bilateral and other sources.

6.7.3 Forums and workshops

Forums and workshops are the best platforms for sharing ideas, research results, experience and lessons learned. Apart from the transboundary issues, there is a need to organize subregional forums and workshops on (i) scientific research in various environmental areas, including climate change, energy, biodiversity, land degradation and desertification, and their synergies; (ii) science and technology relating to nature conservation, terrestrial and marine ecosystems; and (iii) the development and transfer of technology for mitigating transboundary air and marine pollution.

The proceedings of the NEASPEC forums and workshops should be compiled, edited and published.

Partnerships with other relevant agencies for jointly organizing the subregional forums and workshops should be explored whenever and wherever possible.

6.7.4 Training of trainers workshops

In order to further strengthen scientific and technical capacity, “training of trainers” workshops are very much needed in various sectors and areas, especially in land use planning, landscape ecosystem planning, watershed management planning and disaster risk reduction, as well as their effective implementation.

The trained trainers will then play an important role in national and local capacity-building.

6.7.5 Project development and implementation

Development of capacity in project development and implementation relating to environmental issues, such as climate change, biodiversity and land degradation/desertification is still very much needed for some NEASPEC member States, in view of the fact that different United Nations and donor agencies may have specific formats and requirements for project development and implementation. In addition, the process for project development and implementation could be quite complex, as evidenced by the projects funded by the GEF.

There is also a need to strengthen the capacity for reporting, monitoring and evaluation during project implementation. Comprehensive training programmes for various sectors should be developed, and

case studies that highlight the good practices and lessons learned would be very useful in capacity development.

6.7.6 Partnership programme between government agencies and enterprises

The experience in many countries, including China, has shown that both public and private enterprises could play an important role in addressing some of the environmental issues (e.g., combating desertification). Some of the good practices on public-private partnerships, such as creation of an enabling environment, may be shared among NEASPEC member States.

7 Specific Case of Democratic People's Republic of Korea (DPRK)

Of all NEASPEC member States, DPRK needs the most technical cooperation in terms of strengthening human and institutional capacity. However, DPRK has not been active in NEASPEC activities for some reasons. DPRK typically would not attend any NEASPEC meetings whenever the meetings were held in the Republic of Korea. The frequent absence of DPRK has, to a great extent, reduced the effectiveness of NEASPEC as a whole. This situation will continue unless the political deadlock is broken. It is hoped that a solution can be found so that full participation of DPRK in all NEASPEC activities in the future can be secured.

The difficulties of DPRK in accessing multilateral funds, such as the GEF funds even for enabling activities for environmental projects are also issues that deserve NEASPEC's attention and possible assistance.

8 NEASPEC Five-Year or Ten Year Strategic Action Plan

Many subregional mechanisms have developed a "blueprint" (e.g., ASEAN) or a strategic action plan (e.g., SPREP's *Strategic Action Plan 2011-2015*; GTI *Strategic Action Plan 2006-2015*). Hence, there is a need for NEASPEC to develop a Five-Year (2013-2017) or Ten-Year (2013-2022) Strategic Action Plan to provide a roadmap to guide NEASPEC's future activities. The development of this Action Plan will also be a reflection of the political commitment of the NEASPEC member States.

9 Conclusions

The outcome document of Rio+20, *The Future We Want*, has emphasized the significant role of "regional and sub-regional organizations, including the UN regional commissions and their sub-regional offices..." "...in promoting a balanced integration of the economic, social and environmental dimensions of sustainable development in their respective regions". This has reaffirmed the important role of UNESCAP and its SRO-ENEA in promoting sustainable development among the NEASPEC member States.

NEASPEC is a unique environmental cooperation programme in North-East Asia covering six countries: China, DPRK, Japan, Mongolia, ROK, Japan, and Russian Federation. It has a much simpler governing structure compared to ASEAN, SACEP and SPREP, with the annual SOM as its governing body. An informal ministerial meeting was held in the margin of the Ministerial Conference on Environment and Development held in Seoul in 2005. This level of political commitment is lower than those of ASEAN, SACEP and SPREP, which are represented at the ministerial level. In the case of ASEAN, the Head of State could be involved where appropriate. Stronger political commitment for NEASPEC is needed. This may include the upgrade of the SOM to the ministerial level.

In recent years, SOMs have been attended by a mix of senior and junior officials from the Ministry of Foreign Affairs and Ministry of Environment. It would be beneficial to NEASPEC if the senior officials from planning and development ministries also attend future SOMs, even after the SOM is

upgraded to the ministerial level. The ministers from environment and/or planning and development should participate in the ministerial level meetings.

NEASPEC is focusing on cross-sectoral transboundary issues that are important for sustainable development. The activity of NEASPEC has been relatively small compared with other subregional environmental cooperation mechanisms and programmes, with voluntary funding from member States and limited project-based funding from international agencies (e.g., ADB, UNESCAP). However, in recent years, NEASPEC has been able to expand its activities from a series of projects on air pollution from coal-fired power plants to prevention and control of dust and sandstorms, nature conservation, and eco-efficiency. Two possible new projects, one *A Marine Protected Areas Network for North-East Asia* and the other *A Drought Risk Reduction Network for North-East Asia* may be pursued in the near future, perhaps with funding support from multilateral sources.

With the permanent status of the NEASPEC Secretariat since May 2011, there is a need to strengthen its human and technical capacity of the Secretariat (see Recommendations 1 and 2), and this will not be achieved without adequate financial resources. Member States may wish to review the financial mechanisms of NEASPEC, especially its present voluntary contributions to the Core Fund, which vary among member States and lack predictability (see Recommendation 3). Meanwhile, more project-based funding may be accessed from existing multilateral financial mechanisms, especially those under the multilateral environmental agreements (e.g., United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD)), such as the GEF Trust Fund, Special Climate Change Fund, Adaptation Fund, Green Climate Fund. New and innovative financial resources need to be identified and mobilized, including international civil society organizations, non-governmental and charity organizations, and public-private partnerships. A resource mobilization strategy for NEASPEC is needed.

NEASPEC must use its comparative advantage to catalyse and build partnerships with the existing subregional environmental cooperation mechanisms, frameworks and programmes. One such possible partnership is with the UNEP International Ecosystem Management Partnership (UNEP-IEMP) hosted by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, based in Beijing, focusing on green economy, which includes eco-efficiency, environmental sustainability and green growth, and ecosystem management – these are the common areas shared by UNEP-IEMP and NEASPEC.

Given the diverse human and institutional capacity of NEASPEC member States in the implementation of sustainable development, there is still a specific need for enhancing technical cooperation and capacity-building activities among NEASPEC member States, especially between Mongolia, DPRK and other technically and economically more advanced member States, with particular focus on the following areas: *Science and technology; Visiting scientists programme; Forums and workshops; Training of trainers workshops; Project development and implementation; and Partnership programme between government agencies and enterprises*. In addition to the transboundary issues, it is also important for NEASPEC member States to share information, experience and lessons learned on other environmental issues, such as climate change, energy, biodiversity, and land degradation/desertification, and the synergies between these issues. Partnerships with other relevant agencies for jointly organizing the subregional forums and workshops on other environmental issues should be explored whenever and wherever possible.

Of all NEASPEC member States, DPRK requires the most technical cooperation due to its lack of human and institutional capacity, as well as financial resources. However, DPRK was typically absent from any NEASPEC activities if these activities were held in ROK. An appropriate solution must be found to address this issue. The difficulties of DPRK in accessing the GEF funds for projects are also issues that deserve NEASPEC's attention and possible assistance.

The newly initiated South-South Cooperation Programme in China could play a useful and important role in enhancing the human and institutional capacity development in Mongolia and DPRK in addressing various environmental issues.

How NEASPEC will perform in the future depends on the political will and commitment of the member States, the availability and adequacy and predictability of financial resources, the strengthening of human and institutional capacity, as well as the creativity and innovativeness of the professional staff of the Secretariat in performing their responsibilities and duties.

In order to provide a roadmap for NEASPEC's future activities, there is a need to develop a *NEASPEC Five-Year or Ten-Year Strategic Action Plan* to guide the NEASPEC activities in the next five (2013-2017) or 10 (2013-2022) years.

10 Recommendations

In order to strengthen NEASPEC, including its Secretariat's human and technical capacity, the following recommendations are suggested:

1. Member States consider seconding professional staff, perhaps on a three-year rotational basis, to the Secretariat. The high-income member States may provide support for Junior Professional Officers (JPO) through the UN JPO Programme or internship programme under the UN system.
2. Each professional staff member of NEASPEC Secretariat may be assigned to take care of one or more thematic areas based on their expertise. This has been practised in ASEAN, SACEP and SPREP. The SOM/SRO-ENEA should accord official status to staff members who are serving NEASPEC, including the Coordinator, Deputy Coordinator (if any) and Secretariat assistant, so as to facilitate their communication with member states and external agencies. As the scope and activities of NEASPEC expand, the Coordinator and other staff members of NEASPEC may have to fully dedicate their time to NEASPEC activities at some appropriate stage.
3. Adequate and predictable financial resources should be ensured for the implementation of NEASPEC programme activities and the operation of the Secretariat. Member States may wish to review the financial mechanisms of NEASPEC, especially its present voluntary contributions to the Core Fund. The following alternatives, which are similar to those that have been proposed at SOM-5, may be revisited: (i) all members contribute according to UN scale of assessment, as is the case in SACEP; and (ii) a fixed percentage of the Core Fund by all member States in equal shares; the remainder is based on the UN assessment scale. Another option is to adopt the NOWPAP formula that includes a fixed equal shares by all member States, and the remainder is based on additional shares provided by higher income member States. All these alternatives will at least ensure the predictability of the financial resources contributed by member States, and any shortfall may be complemented by other sources.
4. The political commitment of NEASPEC may be raised from the SOM level to the ministerial level, in consistent with ASEAN and SPREP (which could be raised at the Head of State level if necessary) and SACEP. Senior officials or ministers (after the SOM is upgraded to the ministerial level) from the environment and/or planning/development ministries should participate in the SOM or ministerial level meetings.
5. A solution must be found to resolve the general lack of participation of DPRK in NEASPEC activities.

6. A Five-Year (2013-2017) or Ten-Year (2013-2022) *NEASPEC Strategic Action Plan* may be developed to provide a roadmap for NEASPEC's future activities.

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Table 1. Subregional mechanisms in Asia and the Pacific.

Institution	History/Mission	Memberships	Governing structures/ Institutional arrangement/ Secretariat	Title of the Head of institutions/ secretariats	Financial mechanisms	Political commitment	Partnerships
NEASPEC	Established in 1993 as a Meeting of Senior Officials on Environmental Cooperation in North East Asia	China, DPRK, Japan, Mongolia, Republic of Korea, Russian Federation	Senior Officials Meeting (SOM), SRO-ENEAA of UNESCAP functions as Secretariat	Director (SRO-ENEAA)	Voluntary member States contribution to Core Fund; donors (bilateral) and multilateral sources; project-based funding	Strong; Senior officials level/informal Ministerial meetings (2005)	UNESCAP, ADB, UNDP, UNEP, UNCCD, the World Bank
ASEAN	Established 8 August 1967 by signing of the ASEAN Declaration, ASEAN Charter entered in to force 15 December 2008.	10 ASEAN members (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei Darussalam, Viet Nam, Lao PDR and Myanmar and Cambodia	ASEAN Charter, Coordinating Council (Foreign Ministers), Community Councils, Sectoral Ministerial Bodies, Committee of Permanent Representatives (Ambassadorial), National Secretariats, Committees in Third Countries and International Organisations (ACTC), ASEAN Secretariat based in Jakarta, Indonesia	Secretary General	ASEAN Development Fund (ADF) receives equal contributions from ASEAN member States; Other sources include regional and international institutions (e.g., ADB, the World Bank/IFC, the UN) and foundations, public and private sector.	Very strong; Heads of State and Ministerial levels	ASEAN+3 (China, Japan, RO Korea), Australia, New Zealand, US, EU, India, regional and international institutions (e.g., ADB, the World Bank/IFC, the UN) and foundations, as well as private sector, among others
ASEAN Environment Cooperation	One of the six themes under the ASEAN Socio-Cultural Community			Director			EU, China

<p>ASEAN Centre for Energy (ACE)</p>	<p>Intergovernmental organization established in January 1999 by ASEAN member states to accelerate the integration of energy strategies within ASEAN by providing relevant information state-of-the-art technology and expertise to ensure that over the long term, necessary energy development policies and programs are in harmony with the economic growth and the environmental sustainability of the region.</p>	<p>10 ASEAN members</p>	<p>Governing Council composed of the Senior Officials on energy of the ASEAN countries and a representative from the ASEAN Secretariat.</p>	<p>Executive Director</p>	<p>Core funding provided by an Energy Endowment Fund established from equal contributions of the ten member States and managed by a private fund manager</p>	<p>Strong; Senior Officials and Minister levels</p>	
<p>ASEAN Centre for Biodiversity (ACB)</p>	<p>Intergovernmental regional centre of excellence, facilitates: (i) cooperation and coordination among ASEAN Member States and with relevant national governments, regional and international organizations on the conservation and sustainable use of biodiversity; and</p>	<p>10 ASEAN members</p>	<p>Governing Board: ASEAN Senior Officials on the Environment (ASOEN) and ASEAN Secretary General guide policy and operational supervision, Executive Director (Secretary of Governing Board), Headquarters in Laguna, Philippines</p>	<p>Executive Director</p>	<p>ASEAN Biodiversity Fund (Member States make voluntary contributions), external and government funding approved by Governing Board. ACB established by EC grant</p>	<p>Strong; Ministerial level</p>	<p>IUCN, CBD Secretariat, GBIF, the Institute of Southeast Asian Studies (ISEAS), PEMSEA, UNEP-WCMC, EU, China, GIZ, UNESCO, SEARCA..</p>

	(ii) the fair and equitable sharing of benefits arising from the use of such biodiversity. Established by EC funding in 2004.						
ASEAN Foundation	Established 15 December 1997 in Kuala Lumpur, Malaysia to (i) promote greater awareness of ASEAN, and greater interaction among the peoples of ASEAN as well as their wider participation in ASEAN's activities, <i>inter alia</i> , through human resources development; and (ii) contribute to the evolution of a development cooperation strategy that promotes mutual assistance, equitable economic development, and the alleviation of poverty	10 ASEAN members	Board of Trustees, Council of Advisors, Executive Director, Secretariat in Jakarta, Indonesia	Executive Director	The Endowment Fund contributed by Member State and the Friends of ASEAN; the Operational Fund contributed by Member States, and the Project Fund contributed by Member States and other donors.	Very strong; Secretary General level	Japan, China, ROK, France, Microsoft Indonesia, Hewlett Packard, IDRC of Canada, Inter-American Development Bank and Royal Philips Electronics.
SACEP	Intergovernmental organisation established in 1982. Promotes regional environmental cooperation on	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri	Governing Council, Consultative Committee, National Focal Points (designated by the	Director General	Member States contribute based on GDP. Government of Sri Lanka. Cooperative project	Strong; Ministerial level	UNEP, UNCRD, IMO, WMO, UNESCO, UNESCAP, ADB, SAARC, NORAD, USAID, ICRI, ICRAN, GIWA, TRAFFIC

	sustainable development including social and economic dimensions	Lanka.	Ministries of Environment)		agreements with collaborating partners		International, Society for Development Alternatives, CEE India
SPREP	Established on 31 August 1995. Intergovernmental organisation promoting cooperation and assistance to protect and improve the environment and ensure sustainable development for the South Pacific Region	American Samoa, Australia, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia, Fiji, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United States of America, Vanuatu and Wallis and Futuna.	SPREP Meetings (membership of the Parties to the Agreement); Secretariat based in Apia, Samoa	Director General	Core Fund; Programme Fund; Reserve Fund; and Pacific Islands Trust Fund for Nature Conservation	Very Strong; Legally binding Agreement establishing SPREP; Ministerial level	UNDP, UNEP, UNESCAP, GEF, AusAID, JICA, AFD, IMO, EU, WB, ADB, UNU, IUCN, CBD Secretariat, RAMSAR Secretariat, CMS Secretariat, and IFAW.

Table 2. Subregional multilateral environmental frameworks and programmes in North-East Asia.

Institution	History/ Mission	Membership	Institutional arrangement/ Governing structures/ Secretariat	Title of the Head of institutions	Funding	Political commitment	Partnerships
Greater Tumen Initiative (GTI)	Established in 1995 and supported by UNDP. Intergovernmental platform for promoting economic cooperation and peace, stability and sustainability	China, DPRK (withdrew as of 5 November 2009), ROK, Mongolia and Russian Federation	Consultative Commission composed of Government representatives from member States. The Business Advisory Council, Energy Board, Tourism Council and Cooperation Framework Agreement on Environment were established at the 9 th meeting of the CC	Director	UNDP and donors; project-based funding	Strong; Vice Minister level	UNDP, United Nations Office for Partnerships, UNOPS, UNWTO, UNESCAP, UNIDO, UNEP, UNESCO, ADB, GEF, NEAR, ERINA (Japan), KDI, Russian Academy of Sciences, BOAO Forum for Asia (China), and Institute for Strategic Studies (Mongolia).
North West Pacific Action Plan (NOWPAP)	Adopted in 1994 by four Member States as a part of the UNEP Regional Seas Programme. The wise use, development and management of the coastal and marine environment so as to obtain the utmost long-term benefits for the human	China, Japan, ROK and Russian Federation	Intergovernmental Meeting (IGM) is the governing body of NOWPAP; Regional Activity Centres (RAC) serve as national focal points; Regional Coordinating Units (RCU) co-hosted in Toyama, Japan and Busan, ROK.	Coordinator	Contributions from governments, international organizations and NGOs; Direct financial support from UNEP and in-kind contributions from the UN; NOWPAP Trust Fund contributed by	Senior representative level	

	populations of the region, while protecting human health, ecological integrity and the region's sustainability for future generations				participating Governments for the Protection and Management of the Coastal and Marine Environment and the Resources of the Northwest Pacific region. Project-based fund from UNEP and APN.		
North-East Asian Forest Forum (NEAFF)	A CSO founded in 1998 with the objectives to restore degraded forest lands, to combat desertification and deforestation, and to promote environmentally sound and sustainable management of forest ecosystems in the region by strengthening networking and exchanging information among the countries concerned.	China, Japan, ROK, Mongolia	The Secretariat is based in Seoul, ROK.	Secretary General	Financial and technical support from national and local governments in the ROK (the Korea Forest Service and the Seoul Metropolitan City Government), private companies (Yuhan-Kimberly Ltd), a public fund (the Green Fund) and citizens.	Strong; civil society.	UNDP, UNCCD Secretariat, FAO and other international organizations.

<p>East Asian Biosphere Reserve Network (EABRN)</p>	<p>Initiated in 1994, the EABRN is one of the regional networks supporting the UNESCO's Man and the Biosphere (MAB) Programme, with three priority themes for cooperation: eco-tourism, conservation policy, and transboundary conservation.</p> <p>EABRN aims to share BR management experience, including zoning, biodiversity conservation, and socio-economic development experience; exchange information on the major functions of BRs in member States; promote cooperative research on biodiversity conservation and socio-economic development in and</p>	<p>Originally participated by China, Japan, DPRK, ROK and Mongolia. The Russian Federation requested to join the EABRN in 1998.</p>	<p>Since 1 January 2003, the EABRN Secretariat was officially transferred from Jakarta to UNESCO Beijing.</p>	<p>UNESCO Beijing is headed by a Director, supported by programme specialists in natural sciences, education, social and human sciences, and culture.</p>	<p>Funding from UNESCO and members' contributions</p>	<p>Strong; supported by UNESCO and Network members, MAB National Committees.</p>	<p>EuroMAB; SeaBRnet; IUCN; Chinese Academy of Sciences</p>
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	around BR; strengthen cooperation between EABRN and member States, and encourage international and regional cooperation with other Networks.						
Tripartite Environment Ministers' Meeting (TEMM)	The first meeting was held in Seoul, ROK in 1999. The three countries aim to promote environmental management, to take a leading role in regional environmental management, and also to contribute to global environmental improvement.	China, Japan and ROK	Environment Ministers are supported by their respective Ministries of Environment and national institutes: NIER (ROK), CRAES (China) and NIES (Japan).		Each country hosts the annual meeting in rotation.	Strong; Environment Ministers level	UNEP, ADB, NIER (ROK), CRAES (China) and NIES (Japan).
Joint Research Project on Long-Range Transboundary Air Pollutants (LTP)	Established in 1999. Joint research was launched in 2000 as a government based air pollution research framework for China, Japan and Korea.	China, Japan and ROK	A Working Group with nine members (three from each participating countries); two Sub-Working Groups, one for monitoring and the other for modelling; a Secretariat.(NIER,	NIER is headed by a President.	Research funding contributed by the governments of participating countries.	Strong; joint research with monitoring (ground stations and aircraft) and modelling, including relevant instrumentation and equipment.	Researchers from other relevant research institutes.

			ROK)				
Acid Deposition Monitoring Network in East Asia (EANET)	EANET started in 1998 as intergovernmental initiative to create a common understanding on the state of acid deposition problems in East Asia	Five North-East Asian countries (China, Mongolia, ROK, Japan and the Russian Federation) and eight South-East Asian countries (Cambodia, Indonesia, Malaysia, Lao PDR, Myanmar, Philippines, Thailand, and Viet Nam).	Intergovernmental Meeting; Scientific Advisory Committee (SAC); Secretariat (hosted by UNEP RRC.AP based at AIT, Thailand); Network Centre (hosted by Asia Centre for Air Pollution Research (ACAP) based in Japan); National Focal Points; National Centres; and various Task Forces, Working Groups and Expert Groups under the SAC	Coordinator	Funding contribution from the Government of Japan; voluntary contributions from participating countries.	Strong; participating countries are committed to the research Network.	UNEP/RRC.AP, ACAP