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Seoul, the Republic of Korea

# CONSIDERATION OF NEW NEASPEC PROJECT PROPOSALS

(Item 7 of the provisional agenda)

# Review of Existing and Required Capacities for Addressing Adverse Environmental Impact of Transboundary Air Pollution in North-East Asia

Note by the Secretariat

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#### I. OVERVIEW OF PROCESS

1. The initial proposal related to transboundary air pollution in North-East Asia was presented by the Russian Federation at the 15<sup>th</sup> Senior Officials Meeting of NEASPEC (SOM-15) held on 17-18 March 2010 in Tokyo, Japan. Based on the discussions during the SOM-15, the Russian Federation submitted a new proposal in May 2010. Particularly, the proposal now is considered as a separate activity from the currently implemented by NEASPEC project on Mitigation of Transboundary Air Pollution from Coal-fired Power Plants in North-East Asia (please refer to document NEASPEC/SOM(16)/2 regarding that project). The projects have different objectives, scopes, proposed modes of implementation, etc.

2. Subsequently, the NEASPEC secretariat facilitated consultations among the member States on this new proposal in May-June 2010 in order to collect their views and comments. Some specific comments included recommendations that the proposal should take into account regional differences and specific conditions of different countries when assessing the effects of anthropogenic sources of transboundary air pollution. All comments received from the member States were communicated to the Russian Federation.

3. Upon further consultations of the NEASPEC secretariat with the Russian counterparts, the Russian Government provided in November 2010 some additional clarifications on the proposal.

4. The Expert Consultation Meeting was convened by the NEASPEC secretariat on 20-21 January 2011 in Incheon, Republic of Korea, primarily to discuss the Russian project proposal on "the Establishment of a Regional System for Adverse Environmental Impact Assessment of Air Pollution" in order to seek the views of the national experts of member States on air pollution and come up with a further plan of action regarding the proposal.

5. The meeting facilitated in-depth discussions on the proposal submitted by the Russian Federation and on its relevance in the context of the current regional and subregional mechanisms on managing air pollution.

6. Taking into account the existing mechanisms including the Acid Deposition Monitoring Network in East Asia (EANET) and the Joint Research Project on Long-range Transboundary Air Pollutants in Northeast Asia (LTP Project, jointly implemented by China, Japan and the Republic of Korea) and the time frame and resources required for the proposal, the meeting suggested focusing on carrying out a comprehensive study of the existing approaches and methodologies instead of focusing on establishing a new subregional system on assessing environmental impacts of air pollution. 7. It was further recommended by the meeting that the proposed study should examine the results of (a) atmospheric models such as LTP, MICS Asia studies, UNECE/EMEP and relevant regional/ subregional conferences such as Air Quality Modeling in Asia 2011, (b) integrated assessment activities within EANET and modeling with GAINS-Asia, and (c) national studies on environmental impacts of air pollution. Based on this review, the study may identify subregional needs and priorities and formulate options for a possible framework for enhancing multilateral cooperation.

8. Furthermore, the meeting recommended the study to fully utilize existing knowledge in the subregion and involve experts from all member States so that the outcome is a product of joint efforts of all member States; and requested SOM-16 to consider approving the conclusions of the meeting, and launching a new initiative of NEASPEC in this context. The full report of the meeting is attached in Annex II to this document.

9. Taking into account the recommendations of the Expert Consultation Meeting held in January 2011 and the comments of the member States received in the course of the consultations, the Russian Federation submitted an amended proposal in March 2011 to the NEASPEC Secretariat. The Russian Federation has pledged to contribute \$60,000 to the implementation of the project from its annual voluntary contribution to ESCAP. The recent consultations between the Russian Federation and ESCAP confirmed the funding arrangement.

10. The final version of the project proposal titled "Review of existing and required capacities for addressing adverse environmental impact of transboundary air pollution in North-East Asia" is focusing on the review of the current subregional mechanisms and aims to identify possible gaps and opportunities for improvement. The full text of the proposal is attached to this document in Annex I.

#### II. ISSUES FOR CONSIDERATION

11. The Meeting may wish to provide views and comments regarding the project proposal submitted by the Russian Federation and consider adopting it for implementation.

12. The Meeting may wish to request the member States to nominate national focal points and make other necessary national arrangements for implementation of the project.

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# Annex I. Project proposal by the Ministry of Natural Resources and Environment of the Russian Federation on "Review of existing and required capacities for addressing adverse environmental impact of transboundary air pollution in North-East Asia"<sup>1</sup>

### Introduction

Regional and subregional environmental challenges such as transboundary air pollution require attention and joint mitigation efforts in the North-East Asian subregion to ensure sustainable economic and social development of its nations. A multilateral science-based approach to identify and tackle subregional air pollution problems would allow comprehensive assessment, ensure effective dialog and provide recommendations and solutions for countries and the region as a whole. Such an approach, or a system, would require a commonly agreed comprehensive framework which should account for specific requirements of participating countries, regionally and internationally available information and capacities. A number of bilateral and multilateral cooperation initiatives related to the transboundary air pollution assessment in the North-East Asian subregion already exist and provide results essential for the better understanding of the air quality and pollutant transport issues. Also significant international knowledge on regional air pollution assessment and abatement has been developed under the UNECE Convention on Long-range Transboundary Air Pollution. In this regard, persistent environmental problems of the subregion call for enhanced multilateral cooperation among the countries of North-East Asia within the established framework of the North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) in order to achieve effective and synergetic results in minimizing environmental damage. A comprehensive review of the existing information on regional and international scientific and policy approaches to assess and abate transboundary air pollution is considered to be the first step on the way to identify subregional capacities and needs and set the framework for further relevant actions and should be the joint effort of interested member States and other relevant stakeholders.

#### Aim

The project aim is to promote and enhance cooperation in the North-East Asian subregion on assessment and mitigation of transboundary air pollution under NEASPEC.

# Objectives

The project identifies the following objectives:

1. Review available information on existing regional and international scientific studies, air quality monitoring and management mechanisms such as the Acid Deposition Monitoring Network in East Asia (EANET), the Joint Research Project on

<sup>&</sup>lt;sup>1</sup> This Annex has been reproduced as submitted by the Ministry of Natural Resources and Environment of the Russian Federation

Long-range Transboundary Air Pollutants in North-East Asia (LTP Project) and the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP Convention), and other relevant issues;

2. Assess available information and data on relevant atmospheric modeling studies such as LTP, MICS-Asia studies, UNECE/EMEP, integrated assessment within EANET and modeling with GAINS-Asia, national studies on environmental impacts of air pollution, and regional/subregional conferences such as Air Quality Modeling in Asia 2011;

3. Identify subregional knowledge gaps, relevant needs and priorities;

4. Formulate options for a possible comprehensive subregional framework for multilateral cooperation on transboundary air pollution issues;

5. Inform the NEASPEC Senior Officials Meeting on its 17th session of the study results and recommendations for further possible joint actions to assess and mitigate transboundary air pollution in the North-East Asian subregion.

## **Expected outcomes**

The following outcomes are expected to be achieved throughout the project implementation:

1. A comprehensive study of available information and data on subregional and international mechanisms, models and approaches aimed at transboundary air pollution assess-ment and mitigation, including EANET, LTP, UNECE LRTAP Convention, EMEP, GAINS-Asia, MICS-Asia and others;

2. Identified subregional knowledge gaps, rooms for improvement, relevant needs and priorities, and a set of options for a multilateral approach on transboundary air pollution assessment and mitigation in North-East Asia;

3. Enhanced subregional cooperation between the experts of the NEASPEC member States as well as between relevant bodies of the UNECE LRTAP Convention and EANET, and increased priority of the transboundary air pollution assessment and mitigation issues and perspectives at the subregional policy and decision making levels.

Intensive cooperation between relevant experts of the member countries as well as EANET, NEASPEC and LRTAP Convention Secretariat is essential in order to achieve better results of the current work.

#### Tentative timeframe

The project timeframe is 12 months. It is planned to be implemented between the 16th and 17th sessions of the NEASPEC Senior Officials Meeting (SOM).

A workshop on the project results is planned to be held two months prior to the SOM-17.

## Budget

The estimated budget of the project is USD 60 000.

It is expected that the financial support of the project will be provided from the voluntary contribution of the Russian Federation to ESCAP.

## **Implementation arrangement**

The NEASPEC secretariat will involve relevant agencies and technical experts from NEASPEC member States in the implementation of the project, including the Scientific Research Institute for Atmospheric Air Protection (SRI Atmosphere, JSC), Saint-Petersburg, Russia.

## Detailed project budget

Budget Line	Description	Total (USD)
1100	Consultants	34,800
3000	Group Training / Workshops	17,400
	Subtotal	52,200
	Programme Support Cost (13%)	7,800
	Project Total	60,000

Annex II. Report of the Expert Consultation Meeting on NEASPEC activities in the field of Transboundary Air Pollution in North-East Asia held on 20-21 January 2011 in Incheon, Republic of Korea

#### CONCLUSIONS AND RECOMMENDATIONS

1. Participants exchanged views and information on existing regional/subregional mechanisms on transboundary air pollution to identify gaps in the existing approaches and methodologies under those mechanisms. The meeting also discussed the vast experience and expertise accumulated under the United Nations Economic Commission of Europe (UNECE), Convention on Long-range Transboundary Air Pollution (CLRTAP) in order to search for possibilities of taking stock of the institutional and scientific frameworks established by the Convention in the context of the North-East Asian subregion.

2. The meeting facilitated in-depth discussions on the proposal submitted by the Russian Federation on the "Establishment of a regional system for adverse environmental impact assessment of air pollution" and its relevance in the context of the current mechanisms and identified opportunities for improvement.

3. The meeting recognized the need for further strengthening the linkages between scientific studies and policy making process in order to make the best use of the research outcomes for addressing national and subregional challenges to mitigating air pollution.

4. Taking into account the existing mechanisms including the Acid Deposition Monitoring Network in East Asia (EANET) and the Joint Research Project on Long-range Transboundary Air Pollutants in Northeast Asia (LTP Project) and the time frame and resources required for the proposal submitted by the Russian Federation, the meeting suggested focusing on carrying out a comprehensive study of the existing approaches and methodologies. The study may examine results of (a) atmospheric models such as LTP, MICS Asia studies, UNECE/EMEP and relevant regional/ subregional conferences such as Air Quality Modeling in Asia 2011, (b) integrated assessment activities within EANET and modeling with GAINS-Asia, and (c) national studies on environmental impacts of air pollution. Based on this review, the study may identify subregional needs and priorities and formulate options for a possible framework for enhancing multilateral cooperation.

5. In this regard, the representatives of member States participating in the meeting as well as representatives of LTP, EANET and UNECE/CLRTAP Secretariat expressed their willingness to fully cooperate with the study, exchange information and, in particular, provide data required for the study. The study may also explore the possible advantage of using a multi-model approach rather than a single model approach while it may develop common guidelines for further improving the quality of subregional modeling exercises, thereby reducing the level of uncertainties in the results.

6. The meeting recommended the study to fully utilize existing knowledge in the subregion and involve experts from all member States so that the outcome is a product of joint efforts of all member States.

7. The meeting recommended conducting the study for the period of one year between the 16th Senior Officials Meeting of the North-East Asian Subregional Programme for Environmental Cooperation (SOM-16 of NEASPEC) and SOM-17 and requested SOM-16 to consider approving the conclusions of the meeting, and launching a new initiative of NEASPEC in this context. In order to proceed with the proposed study, member States are invited to nominate national experts as focal points for facilitating communication among national experts participating in this study as well as with the implementing agency. These experts will also act as members of the working group responsible for guiding the scope and process of the study.

8. Taking into account the present conclusions and recommendations, the Russian Federation is invited to submit an amended proposal to SOM-16.

#### **PROCEEDINGS OF THE MEETING**

9. The Expert Consultation Meeting was convened primarily to discuss the project proposal on "the Establishment of a Regional System for Adverse Environmental Impact Assessment of Air Pollution" submitted by the Russian Federation. The initial proposal related to transboundary air pollution in North-East Asia was presented by the Russian Federation at the fifteenth Senior Officials Meeting of NEASPEC (15<sup>th</sup> SOM) held on 17-18 March 2010 in Tokyo, Japan. Based on the discussions that took place during the 15<sup>th</sup> SOM, the Russian Federation submitted a new proposal in May 2010. Subsequently, the NEASPEC secretariat facilitated consultations among the member States on this proposal in May-June 2010 and collected views and comments from member States. Upon further consultations of the NEASPEC secretariat with the Russian counterparts, the Russian government provided in November 2010 some additional clarifications on the proposal.

#### A. Attendance

10. The Expert Consultation Meeting was organized by the NEASPEC Secretariat on 20-21 January 2011 in Incheon, Republic of Korea. The meeting was attended by seventeen participants including national experts nominated by governments of Japan, Mongolia, Republic of Korea and the Russian Federation and resources persons from the academia and UN Economic Commission for Europe (Secretariat of CLRTAP).

#### **B.** Opening Session

11. The Expert Consultation Meeting was opened by Mr. Peter Van Laere, Director of ESCAP Subregional Office for East and North-East Asia (SRO-ENEA). In his statement, Mr. Van Laere underscored the importance of adopting multilateral approach in addressing various environmental challenges in the North-East Asian subregion and expressed his hope that the outcomes of the meeting will be useful in further promoting the efforts of member States in dealing with transboundary air pollution as one of the most prioritized environmental issues of the subregion.

12. Mr. Heung-kyeong Park, Deputy Director-General for Green Growth and Environment, Ministry of Foreign Affairs and Trade of the Republic of Korea, in his opening speech, welcomed the participants of the meeting to Incheon and reiterated the utmost importance that the Government of the Republic of Korea attaches to concept of green growth both on national and subregional scale. He also stressed the role of NEASPEC as a platform for addressing environmental issues of the subregion and expressed his gratitude to the Government of the Russian Federation for coming up with a new initiative on management of transboundary air pollution within the frames of NEASPEC.

13. Mr. Maxim Volkov, Councilor of the Embassy of the Russian Federation to the Republic of Korea, thanked the secretariat of NEASPEC for organizing the Expert Consultation Meeting and confirmed strong support and commitment of the Russian Federation to the proposal that was submitted by his country on the Establishment of a Regional System for Adverse Environmental Impact Assessment of Air Pollution.

# C. Current Regional and Subregional Initiatives for Transboundary

#### **Cooperation on Air Pollution**

14. The session reviewed approaches and practices of existing regional and subregional cooperation mechanisms on mitigation of transboundary air pollution based on presentations made by the representatives of the EANET, LTP Project and the Convention on Long-range Transboundary Air Pollution (CLRTAP). The review identified room for improvement in existing approaches and methodologies in the North-East Asian subregion, especially in the light of well developed scientific and institutional approaches of CLRTAP, which can serve as a good model for the subregion.

15. Particularly, the review suggested the need for further strengthening the linkages between scientific studies and policy making process in order to make the best use of the research outcomes for addressing national and subregional challenges to mitigating air pollution. The session also discussed different modeling methods adopted under each mechanism and the necessity for harmonization of regional/subregional modeling methods.

16. Concerning the large scale of technical work required for modeling of transboundary air pollution, the session recommended enhancing the practice of sharing of monitoring data, exchange of modeling methodologies, and development of joint activities among existing regional and subregional mechanisms on mitigation of transboundary air pollution.

# D. Current Methodologies for the Assessment of Environmental Impacts

#### of Air Pollution in North-East Asia and Europe

17. The session discussed studies on assessment of adverse health impacts of air pollution in North-East Asia, especially the health impacts caused by the long-range pollutants, such as PM 2.5 and PM 10. The results of the environmental impact assessment of air pollution in Ulaanbaatar showed that respiratory complications and blood circulating diseases are becoming an increasing threat to the citizens, especially pregnant women and new born babies. Discussions indicated the lack of comprehensive studies on health impact while both transboundary and local air pollutants can have distinct impacts on human health in different regions due to different geographic and climate conditions.

18. The representative of UNECE/CLRTAP secretariat presented the comprehensive scientific and institutional framework for assessment of environmental impacts of transboundary air pollution that was established within the Convention. Particularly, Mr. Olendrzynski introduced the Working Group on Effects as the main body responsible for planning and coordination of the effects-oriented activities. He also elaborated on the functions and tasks of different International Cooperative Programs (ICPs) and Task Forces that cover some specific aspects of environmental impact assessment which include effects on waters, forests, vegetation, materials, health and others.

#### E. New Scientific and Technical Approaches Proposed within the

#### Frames of NEASPEC and possible work plan

19. The representative of Scientific Research Institute for Atmospheric Air Protection presented the proposal on the "establishment of a regional system for adverse environmental impact assessment of air pollution". In his presentation, Mr. Romanov introduced the main objectives and scope of the proposed project, its approximate budget, and the estimated time frame for implementation. He also welcomed any comments and suggestions on the detailed scope of the project as well as on the approaches and methodology to be adopted for its realization.

20. The representative of UNECE/CLRTAP introduced two recent comprehensive studies on the hemispheric transport of air pollutants and black carbon, showing the benefit of co-benefits approach which integrates policies of air pollution and climate

change as a cost-effective way to mitigate transboundary air pollution, thereby limiting risks to human health and improving local environments. In this regard, he informed the participants on the outcomes of the recent session of the Executive Body of the Convention held in December 2010, which particularly adopted the decision to revise the Gothenburg Protocol to the Convention by including actions on black carbon to its provisions and decided to pursue further studies on troposphere ozone and its important precursors such as methane and carbon monoxide.

#### F. Adoption of Conclusions and Recommendations

21. Concerning the proposal of the Russian Federation, the participants adopted a set of conclusions and recommendations for further action and attention of SOM-16 as reflected in the first part of this report.