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Tokyo, Japan

**REVIEW OF PROGRAMME PLANNING AND IMPLEMENTATION**

(Item 5 (b) of the provisional agenda)

**Mitigation of Transboundary Air Pollution from Coal-Fired Power Plants in North-East Asia**

*Note by the Secretariat*

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## I. OVERVIEW OF PROGRESS

1. The 14th SOM reaffirmed member countries' support to implement the third phase of ADB Regional Technical Assistance (RETA) Project on Mitigation of Transboundary Air Pollution from Coal-fired Power Plants and expressed its expectation for the project to start as early as possible, before the expiration of the project approval. The Meeting agreed to reformulate the current approach and scope of the project while the major framework would be maintained. It also endorsed the co-benefit approach to be incorporated in the project document.

2. In order to speed up the implementation of the project, the Secretariat undertook a series of consultations with China and Mongolia, key beneficiary countries of the project. It also took a mission to China on 16 June 2009 to have a bilateral consultation with National Development and Reform Commission (NDRC) and Ministry of Foreign Affairs. Though the project budget has been available from early 2007, ADB and ESCAP have not been able to commence the project due to delays in finalizing some institutional and administrative arrangements, in particular, in relation to hiring international consultants and national consultants for the components focusing on China. In this regard, the mission helped identify and finalize the specific activities and institutional and administrative arrangements related to the Chinese components.

3. Before and subsequent to the mission, the Secretariat carried out a series of consultations with ADB concerning the reformulation of the approach and scope of the project. The consultations and mission came to a conclusion to revert to the initially approved components by the ADB in December 2006 while specific activities under each component are revised as follows:

### **Component 1: Air Pollution Abatement Plans (Integrated Strategies for Mitigating Air Pollution and Greenhouse Gases):** Activities include:

- (i) Assess potential approaches and outcomes of the co-benefits approach;
- (ii) Review existing and potential approaches to address transboundary air pollution in the North-East Asia subregion;
- (iii) Develop national and subregional strategy plan for the application of the co-benefits approach;
- (iv) Develop integrated plans on mitigating air pollution and greenhouse gases emissions for the selected cities as a demonstration project;

### **Component 2: SO<sub>2</sub> Emission Regulation and Compliance:** Activities include:

- (i) Assess the regulatory and technical conditions of controlling SO<sub>2</sub> emissions from coal-fired power plants in China;
- (ii) Provide recommendations on policy, regulatory and technical management for SO<sub>2</sub> emission compliance management, particularly relating to (a) management of transboundary air pollution, (b) management and operation of equipment for controlling air pollution at power plants in China;

**Component 3: Mongolian Power Plant Emission Standards:** Activities focus on:

- (i) Assess air pollution situation in Ulaanbaatar and identify (a) the major contributor of air pollution with quantitative assessment and (b) cause of emissions; and make recommendations for improvement of air pollution;
- (ii) Review national emission standards and identify gaps with international standards and draft a national coal-fired power plant emission standards in Mongolia;

**Component 4: Knowledge Transfer and Dissemination:** Activities include:

- (i) Training workshops for power plant staff;
- (ii) Regional workshops and site visits to showcase regional advances in power plant efficiency improvements and pollution-abatement technologies;
- (iii) International seminars on the co-benefits approach; and
- (iv) Dissemination materials, including project website and brochures.

**Component 5: Demonstration Project and Management Modules (Application of the Co-benefits Approach<sup>1</sup> to Selected Cities):** This component will focus on the actual application of the co-benefits approach for cities that are directly relevant to transboundary air pollution. The targeted cities are Shenyang of China and Ulaanbaatar of Mongolia. Activities will include:

- (i) Develop a guiding manual on the reliability management and post-project assessment technology for the flue gas desulfurization equipment in China;
- (ii) Diagnose the technical conditions of air pollution emissions from the one to three selected power plant(s);
- (iii) Test options and apply technologies to reduce air pollution in the identified power plants in China.

4. Consultations between ADB and the Secretariat also reconfirmed each organization's responsibility for project implementation. ADB will implement Component 1. Air Pollution Abatement Plans (Integrated Strategies for Mitigating Air Pollution and Greenhouse Gases); Component 2. SO<sub>2</sub> Emission Regulation and Compliance; Component 3. Mongolian Power Plant Emission Standards; and Component 5. Demonstration Project and Management Modules (Application of the Co-benefits Approach to Selected Cities) through international/national consultants. ESCAP will take the lead for Component 4. Knowledge Transfer and Dissemination.

5. The Secretariat has recently received a proposal from the Government of the Russian Federation regarding the project components and the role of the Russian Scientific Research Institute for Atmospheric Air Protection as the project coordinator. As this project is mainly funded by the ADB, there are institutional constraints on the role of non-ADB member

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<sup>1</sup> Co-benefits approach in this project refers to integrated policy approaches and measures that simultaneously address both greenhouse gases and local air pollutions.

countries in project implementation. In this regard, the Government has indicated a possibility of Russia's additional financial supports to the project to cover the costs of any additional activities to be implemented in the Russian Federation and/or to be undertaken by Russian institutions. The proposal is attached as the Annex I for the review of the SOM.

6. The project will be implemented over 18 months from as soon as the ADB finalizes all institutional arrangements for hiring international and national consultants, which would be done by March/April 2010). The ADB currently plans the tentative schedule for major activities as follows:

- develop subregional strategy for application of co-benefits approach: May-August 2010
- draft emission standards for power plant in Mongolia: May-September 2010
- develop a plan for SO<sub>2</sub> emission regulation and compliance: May-October 2010
- develop integrated plan for mitigating air pollution and greenhouse gases: October 2010-February 2011
- organize technology showcase tours: May 2011
- apply co-benefits approach at selected demonstration cities: May-June 2011
- organize training for power plants staffs: May-June 2011

7. The arrangement for national implementing agencies in ADB member countries will be (i) China Electricity Council, directed by National Development National Reform Commission (NDRC) for China, (ii) Ministry of Nature, Environment and Tourism for Mongolia; (iii) Ministry of Foreign Affairs and Trade for the Republic of Korea; and (iv) Ministry of Environment for Japan. This arrangement was agreed with the respective governments during a joint fact-finding mission of the ADB and ESCAP from 17 to 30 September 2006 regarding the project's impact, outcome, outputs, implementation arrangements, and financing arrangements.

## **II. ISSUES FOR CONSIDERATION**

8. The Meeting may wish to request member countries to make necessary national arrangements to start the project implementation without any further delay.

9. The Meeting may wish to request the Russian Federation to present its proposal for additional activities to be undertaken with the financial contribution of the Government and the modality of coordination with the existing components.

**Annex I. Project proposal by the Ministry of Natural Resources and Environment of the Russian Federation concerning performance of work within the framework of the ESCATO/NEASPEC project “Mitigation of Transboundary Air Pollution from Coal-Fired Power Plants in North-East Asia”<sup>2</sup>**

**Introduction**

The project “Mitigation of Transboundary Air Pollution from Coal-Fired Power Plants in North-East Asia” which has been initially planned to be implemented in 2007-2009 is dealing with various problems in the field of atmospheric air pollution in North-East Asia region. However, due to several administrative and organizational problems project implementation had to be postponed. Nevertheless, the given project is an extremely important initiative of the North-East Asian countries and ESCATO. It is beyond any reasonable doubt that the implementation of this project will make it possible to establish the atmospheric air management system in the dynamically developing world region taking into account the economical, social and environmental concerns.

Proposals on project implementation were developed on behalf of the Russian Federation using the recommendations listed down in the working paper which has been prepared for the 14th Senior Officials Meeting of NEASPEC (Moscow, 8-9 April, 2009), as well as in the resulting document (item 1.1) of the aforementioned meeting; according to the given document it is necessary to intensify in 2009 the activities within the project in order to avoid the loss of allocated funds and termination of the whole project.

There are four main components of the project:

(i) **Component 1.** Air Pollution Abatement Plans: Activities include (a) preparation of abatement plans, (b) audits of the priority emission sources to identify required infrastructure installations, (c) development of project pre-feasibility studies, and (d) assessment of benefits to transboundary pollution from implementation of the abatement plans.

(ii) **Component 2.** SO<sub>2</sub> Emission Regulation and Compliance: Activities include (a) assessment of compliance issues relating to SO<sub>2</sub> emission regulation policy implementation, and (b) preparation of recommendations on regulatory and market-based compliance management for SO<sub>2</sub> emission control.

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<sup>2</sup> This Annex has been reproduced as submitted by the Ministry of Natural Resources and Environment of the Russian Federation

(iii) **Component 3.** Mongolian Power Plant Emission Standards: Activities focus on providing assistance to develop emission standards and other regulatory documentation for coal-fired power plants.

(iv) **Component 4.** Knowledge Transfer and Dissemination: Activities include (a) training workshops for power plant staff, (b) regional workshops and site visits, (c) transboundary air pollution seminars or expert workshops, and (d) dissemination materials.

### **Proposals on implementation of the project**

**Component 1.** Air Pollution Abatement Plans: Establishment of the information exchange network regarding emission values and sources, emission scenarios (national energy programs) in order to perform further modeling of transboundary pollutant transport and ecological-economic assessment by means of the GAINS model (**G**reenhouse gas and **A**ir pollution **I**nteractions and **S**ynergies Model).

**Component 2.** SO<sub>2</sub> Emission Regulation and Compliance: Arrangement and carrying out of the expert community meetings of the participating countries in order to develop the common position for the North-East Asia region on the issue regarding compliance with the emission standards and related control means taking into account the existing number of approaches, i.e.:

- a) application of the emission standards (values) corresponding to the best available technologies (BAT);
- b) application of the emission standards (values) that imply compliance with the critical loads;
- c) integrated approaches.

**Component 3.** Mongolian Power Plant Emission Standards: An assessment of the current status and greening perspectives of the Mongolian thermal energy sector taking into account the widespread application of the technology that has been developed in the USSR; identification of the emission values and particular characteristics related to the equipment set-up and operation.

**Component 4.** Knowledge Transfer and Dissemination: Establishment of the international expert network in the field of atmospheric air protection in the North-East Asia region; development of the database on emission values and sources; development of the database on international emission calculation methods, as well as the database on specific emission values (emission factors) in order to perform its analysis and potential harmonization; arrangement of the training series on the development and implementation of the common emission inventory system.

## Project budget

Project subsections	Implementation period from the inception date	Indicative project budget: thousand US dollars
1.	18 months	50
2.	8 months	30
3.	12 months	40
4.	18 months	40

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