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REVIEW OF PROGRAMME IMPLEMENTATION

(Item 5 (b) of the provisional agenda)

ADB RETA Project on Mitigation of Transboundary Air Pollution from Coal-fired Power Plants in North-East Asia

Note by the secretariat

CONTENTS

I. The Status of Project Implementation

1. The 12th SOM confirmed the support for the ADB project and expressed its general endorsement for disbursing the Core Fund for promoting the participation of experts from two non-ADB members, i.e. Democratic Peoples' Republic of Korea and the Russian Federation. However, the Meeting did not make the final decision but requested the Secretariat to facilitate further consultations among relevant governments after the SOM as one member country raised an objection to the proposed disbursement. The post-SOM consultation was not able to reach a consensus and, thus, the Chinese Government as the chair of the 12th SOM informed the Secretariat to withdraw the plan.

2. ADB had undertaken further consultations with key beneficiary countries, i.e. China and Mongolia, and subsequently with ESCAP on project components and implementation arrangements. The consultations came to a conclusion to revise the components as follows.

(i) Component 1. Air Pollution Abatement Plans.

This component will assist in developing air pollution abatement plans to minimize transboundary impacts from coal fired power plants. Activities will 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_2 Emission Regulation and Compliance.

This component will (a) assess compliance issues relating to SO_2 emission regulation policy implementation, and (b) based on international experience, provide recommendations on regulatory and market based alternatives for SO_2 emission compliance management, particularly relating to management of transboundary air pollution.

(iii) Component 3. Mongolian Power Plant Emission Standards.

This component will provide assistance to develop emission standards and other regulatory documentation for coal-fired power plants in Mongolia. The scope will cover existing and proposed coal-fired power plants.

(iv) Component 4. Knowledge Transfer and Dissemination.

This component will assist in the preparation of (a) training workshops for power plant staff, (b) regional workshops and site visits to showcase regional advances in power plant efficiency improvements and pollution-abatement technologies, (c) transboundary air pollution seminars or expert workshops, and (d) dissemination materials, including project website and brochures.

3. Consultations between ADB and ESCAP revised each organization's responsibility for project implementation. ADB will take the lead for (i) Component 1: Air Pollution Abatement Plans, (ii) Component 2: SO_2 Emission Regulation and Compliance, and (iii) Component 3: Mongolian Power Plant Emission Standards. ESCAP will take the lead for Component 4: Knowledge Transfer and Dissemination. This component will be implemented over a three-year period from early 2008.

4. In the context of the component 4, ESCAP received some preliminary ideas about potential activities from China Electricity Council. The proposed activities include (1) Training for operators in optimizing FGD operation and maintenance, (2) Training on NOx control, (3) Energy efficiency improvements at coal fired power plants and (4) Symposiums on environmental protection from coal-fired power plants.

5. Nevertheless, project implementation has not been able to commence as scheduled due to delays in finalizing some institutional and administrative arrangements, in particular, in relation to hiring international consultants.

II. Issues for Consideration

6. The Meeting may wish to provide guidance on the timeframe and modality of the project implementation and activities under each project component.

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Annex: A Proposal for Activities under the ADB RETA Project

Submitted by Korea Electric Power Research Institute, Republic of Korea
January, 2008

1) Many kinds of air pollutants from coal-fired power plants disperse into the wide area when emitted from stack. Therefore, the air pollutants affect not only to domestic environment also to neighbor countries. Trans-boundary air pollution from coal fired plants is a major regional environmental issues in the North-East Asia. Thus, the new project idea, "Mitigation of Trans-boundary Air Pollution from Coal-fired Power Plants in North-East Asia", is timely and urgent matter.

2) In 2001 and 2002, Korea Electric Power Research Institute (KEPRI) had conducted two training courses. The training courses were organized jointly by UNESCAP and KEPRI, Republic of Korea, as the first event of the North-East Asian Training Center on Pollution Reduction in Coal-fired Power Plants, which is established in KEPRI under auspice of the framework of the North-East Asian Sub-regional Programme for Environmental Cooperation (NEASPEC)

3) Upon the basis of favorable evaluations of participants who participated the training course from NEASPEC countries, KEPRI proposes the following activities under the new project, "Mitigation of trans-boundary Air Pollution from Coal-fired Power Plants in North-East Asia".

4) To mitigate the trans-boundary air pollution from coal-fired power plants in North-East Asia, we consider more practical and direct assistance by specialists on several technical fields. A number of North-East Asia countries are using pollution-abatement facilities to reduce emissions of pollutants such as FGD for SOx, SCR or low NOx burner for NOx. Others successful methods for reducing SOx and NOx emissions have included improving operational energy efficiencies of power plants to reduce coal consumption. From the present point of view, on the basis of the successful result of the last two trainings in KEPRI, we consider dispatching experts of KEPRI for detailed target fields.

5) The detailed target fields are as follows;
   a) Operation technology of air pollution control facilities.
      i) Optimal operation of Flue Gas Desulfurization system (FGD), Electro Static Precipitator (ESP), and NOx control
      ii) Review on best available air pollution control technology.

   b) Air pollutant reduction by improving heat efficiency of power plants.
      i) Optimal combustion technology to mitigate U.C. (unburned carbon)
      ii) Water treatment technology to suppress the growth of boiler tube scale.

6) Through the activities of this project, NEASPEC countries can take consultation from experts dispatched by KEPRI. The experts on the field of coal fired power plants will find the problems of the power plant, after looking into the target plants, and suggest some counter measures to deal with problems. We consider this project will

contribute to develop the NEASPEC countries' technology on power plants and reduce the air pollution of North-East sub-regional area.

7) All efforts and experiences of each country for the reduction of the air pollution from power plants can be exchanged by these activities. And also these activities will contribute to construct amicable human network.

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