TECHNICAL ASSISTANCE COMPLETION REPORT

Division: Environment and Safeguards Division

TA No., Country and Name:			Amount Approved: $300,000	
TA 6144-REG: Better Air Quality Management in Asia			Revised Amount: $1,010,000	
Executing Agency: Asian Development Bank		Source of Funding: Japan Special Fund/Private Sector Companies	Amount Undisbursed: $32,623.31	Amount Utilized: $977,376
TA Approval Date: 28 November 2003	TA Signing Date:	Fielding of First Consultants: 8 December 2003	TA Completion Date Original: 30 April 2005 Account Closing Date Original: 30 April 2005	 Actual: 30 November 2008 Actual: 31 December 2008

Description

Scientific evidence has increased understanding of the impacts of air pollution on public health, ecosystems, agriculture and climate change. The WHO estimates that about 500,000 premature deaths occur annually in Asia due to ambient air pollution, so Asian countries face significant challenges to improve air quality.

The regional technical assistance (TA) was conceptualized in answer to the continued need at the local, national, and regional levels to stimulate more broad-based involvement in air quality management (AQM) and to improve the quantity, relevance, and quality of AQM activities. The TA was designed to put forward a stronger emphasis on sectoral policy formulation and implementation of concrete AQM policies, interventions and/or specific integrated action plans toward better AQM. A key consideration was strengthening linkages among the government, private sector, and civil society. The TA builds on the efforts of precedent TAs: TA 5937-REG and TA 6016-REG.

Expected Impact, Outcome and Outputs

The anticipated impact of the TA was stabilized or improved air quality levels in Asian cities. The outcome was strengthened AQM in Asia through (i) increased level of awareness of decision makers, and (ii) integration of air pollution management in environmental and AQM-related sectoral (transport, energy, health and urban development) policy making and implementation. The outputs were: (i) improved knowledge base and better understanding of economic and social implications of local and regional air pollution by decision makers in Asia, (ii) formulation of local, national and regional AQM strategies and the identification of AQM assistance in selected locations based on review of legislation where relevant, and (iii) regional dialogue on AQM.

The TA design was clear, appropriate and adequate. It was relevant in terms of consistency with ADB's Environment Policy (2002), the Long Term Strategic Framework (LTSF 2001-2015) and the region's environmental demands in maintaining life-support sytems and reducing poverty and promoting economic growth. The TOR for consultants were consistent with TA scope. The implementation arrangements were appropriate, utilizing the existing committees and networks in ADB, Clean Air Initiative for Asian Cities (CAI-Asia) and multi-stakeholder networks established through CAI-Asia. The original implementation schedule proved to be short in the course of TA implementation as the TA was able to obtain additional funding and had to be extended in order to carry out additional identified activities. Similarly, additional time was needed for the action plan component due to the need for additional consultations with the selected countries and cities on the scope for these action plans, and later for conducting an emissions inventory training course and a pilot project. Likewise, because of the extensive consultations on the drafts of the *Road Map for Cleaner Fuels and Vehicles in Asia*, it took longer to finalize the content of the report. Regional departments, DMCs and other stakeholders were consulted at TA formulation and during implementation as was necessary.

Delivery of Inputs and Conduct of Activities

Twenty consultants were hired under the TA, 18 of which were individuals and two were firms; six were international and 14 were local. One international consultant worked on overseeing major aspects of the TA as well as directly providing inputs for moving the TA's activities forward. Four international fuels experts worked on developing the Road Map report. Four domestic consultants from the Philippines worked on the coordination, website content, research, and action plan components of the TA. Nine domestic consultants from the PRC, Indonesia, Pakistan, Philippines and Sri Lanka were engaged for the organizational development of the respective country networks and/or implementation of pilot projects for AQM in these countries.

The services of the international and domestic consultants were of high quality and their performance was satisfactory as indicated in their PERs. The AQM community— consisting of national policymakers, academe, local governments,

civil society, industry groups and practitioners reached by the list serve and e-groups, as well as those participants at Better Air Quality (BAQ) and other workshops, seminars and conferences— were satisfied with the quality of work done in identifying, producing and disseminating AQM information, studies and strategies and implementing projects. Very good feedback was received from the participants in the AQM trainings conducted under the TA (e.g., Basic AQM Training, Key Source Identification and Emission Inventory Development). The process of developing the Road Map report was especially significant. Two regional workshops were held for broad consultation on the draft. The TA's clientele was also satisfied with ADB's performance. The TA was supervised by successive Senior Environment Specialists, who provided timely, consultative and adequate responses on pending issues in implementation.

The ability of the TA to generate supplementary funding three times from private sector cofinancing indicated the perceived relevance of TA activities to private sector stakeholders. This additional funding, plus an additional TOR for a pilot project consultant, necessitated two major and two minor changes in scope. The supplemental funding supported the establishment of country networks on AQM and sustainable urban transport (SUT) in the PRC, Nepal, Pakistan, and Viet Nam, and strengthening of AQM capacity of these networks.

Evaluation of Outputs and Achievement of Outcome

Despite increasing economic activities, air quality level in Asian cities slightly improved, based on the formulation and implementation of AQM policies. The target outcome of strengthening AQM in Asia was achieved through an improved knowledge base, strategy formulation at the local and national levels, and regional dialogue. The www.cleanairnet.org/caiasia website contributed to decision makers' better understanding of air pollution issues in Asia. The website is one of the most comprehensive and widely used websites on air quality in Asia, with over 4,000 documents online and receives an average of 20,000 visits monthly. The level of awareness of Asian decision makers has also increased as a result of dissemination of the analysis of health impact studies produced by the Health Effects Institute and their participation in at least 15 regional and national AQM workshops, including the BAQ workshops in 2004 and 2006, supported by the TA. The TA generated important reports and publications such as the (a) Strategic Framework for Air Quality Management in Asia (2004), (b) Urban Air Pollution in Asian Cities: Status, Challenges and Management (2006), (c) Sustainable Urban Transport in Asia: Making the Vision a Reality (2006), (d) Compendium of Air Quality Projects and Programs (1st edition, 2004; 2nd edition, 2005; and 3rd edition, 2006), (e) Final Report on the Project to Enhance Vehicle Emission Control in Urumqi through and Improved On-Board Diagnostic (OBD) System (2008), and (f) A Road Map for Cleaner Fuels and Vehicles in Asia (2008).

Country networks—multi-sector groups which promote better AQM in their countries—have been established in the PRC, Indonesia, Nepal, Pakistan, Philippines, Sri Lanka, and Viet Nam. These country networks have worked with governments, civil society and academic organizations to formulate annual work plans which address AQM issues in their countries. AQM strategies were formulated for Pakistan in 2004 and for Surabaya, Indonesia in 2006. A media strategy and action plan was formulated for Sri Lanka in 2007.

Regional cooperation on AQM was strengthened through regional dialogues including: (i) the First Governmental Meeting on Urban Air Quality in Asia held in Yogyakarta in December 2006 which produced a draft long-term vision for urban air quality in Asia, (ii) Dialogue for Cleaner Fuels in Asia which has resulted in the development of the "Road Map for Cleaner Fuels and Vehicles in Asia," and (iii) representation by CAI-Asia of AQM Initiatives in Asia in the Global Atmospheric Pollution Forum and in the UNEP/WHO Technical Working Group on Environment and Health.

Overall Assessment and Rating

The TA was successful. The TA was relevant, as it was an appropriate response to a set of development concerns of high priority in the region. The TA was effective in substantially delivering the intended outputs and outcome. The longer than anticipated implementation schedule did not affect the benefits achieved. The TA outputs were widely disseminated through electronic and printed media. The outcome of the TA, including the website, will be sustained by the CAI-Asia Center, established in 2007 with the mission to improve air quality levels in Asian cities. Also, many national governments in the covered countries have passed or are in the process of formulating policies and strategies in line with AQM (e.g., an administrative order has been issued by the Philippine President to formulate an Environmentally Sustainable Transport (EST) strategy for the country). At the regional level, there is commitment to sustain the gains of the previous BAQ, the objectives of which are supported by the TA. Increased awareness on curtailing air pollution still needs to be bolstered to eventually meet WHO guidelines for ambient air quality.

Major Lessons

(i) Timely responses to pending issues during implementation contribute to the success of TA projects, and (ii) Implementation schedules for TA projects should be realistic and attainable.

Recommendations and Follow-Up Actions

ADB needs to further update and disseminate AQM knowledge products. It will be carried out through TA6510.

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