

TECHNICAL ASSISTANCE COMPLETION REPORT

Division: ECEN

TA No. and Name TA 3840-PRC: Opportunities for the Clean Development Mechanism in the Energy Sector			Amount Approved: \$775,000	
			Revised Amount:	
Executing Agency Ministry of Science and Technology	Source of Funding Canadian Cooperation Fund for Climate Change, funded by the Government of Canada		TA Amount Undisbursed: \$33,198	TA Amount Utilized: \$744,002
Date			Completion Date	
Approval 11 Mar 2002	Signing 13 May 2002	Fielding of Consultants 15 Aug 2002	Original 31 May 2003	Actual 11 Mar 2005
			Closing Date	
			Original 31 May 2003	Actual 12 August 2005
Description <p>Over the past two decades, the PRC economy has expanded rapidly. From 1990 to 2004, gross domestic product has grown by about 9% annually. Future growth will continue to rely on fossil fuels, particularly coal, as the main source of energy due to its abundance, relative low cost and established infrastructure. The growth in industrial capacity and use of fossil fuels during this period has significantly increased greenhouse gas (GHG) emissions from PRC. In 1992, the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) established global GHG emissions and associated climate change as a major international priority. In 1997, the Kyoto Protocol to the UNFCCC was adopted. The Kyoto Protocol established the Clean Development Mechanism (CDM), which enables developed countries (Annex B countries) to meet their emission reduction commitments by undertaking GHG emission reduction projects in developing countries (non-Annex B countries) and obtaining tradable emission reduction credits. Non-annex B countries benefit from increased investment and technology transfer (particularly for cleaner production and pollution abatement technology). The PRC ratified the Kyoto Protocol in 2002 and is listed as a non-Annex B country. The introduction of the CDM in the PRC has the potential to minimize greenhouse gas emissions from the rapidly growing economy. The TA was designed to enhance capacity to promote small-scale CDM in the energy sector.</p>				
Objectives and Scope <p>The objective of the TA was to assist in building national and provincial capacity and to create favorable conditions for early implementation, under the CDM, of eligible small-scale energy projects in the PRC. The scope of work under the TA consisted of (i) training workshops on CDM at both the national and provincial levels; (ii) capacity building of national and provincial experts on the requirements of small-scale CDM projects, (iii) review of current policy and practice in small-scale energy project development, including specific focus on two selected provinces; (iv) development of a handbook for small-scale CDM project development activities; (v) development of a strategic action plan for development of small-scale CDM supported projects in the energy sector; (vi) development of seven detailed case studies/projects in two participating provinces including social, financial, economic and environmental assessments; and (vii) initial identification of potential investors for the portfolio of small-scale CDM eligible projects. Specific deliverables of the TA consisted of (i) a Handbook for small-scale CDM project developers; (ii) seven draft Project Design Documents (PDD) for specific small-scale CDM projects in two provinces, and (iii) a Strategic Action Plan covering institutional, policy, and regulatory issues related to small-scale CDM development in the energy sector. The design, scope and terms of reference for the TA were appropriate for achieving the objectives of the TA. There was a high level of stakeholder participation and ownership of the TA.</p>				
Evaluation of Inputs <p>An international consulting firm was engaged to carry out the TA in accordance with ADB's <i>Guidelines on the Use of Consultants</i>. The consultants were mobilized to the field in August 2002 and a mid-term report was submitted in March 2003. Work was temporarily delayed by the SARS crisis. The consultant submitted the final draft report in March 2004. The international consulting team comprised 6 specialists (total 16 person-months) and the domestic consulting team comprised 8 specialists (total 35 person-months). The consulting team had expertise in greenhouse gas abatement protocols, environmental economics, renewable energy</p>				

and energy efficiency, social development, institutional analysis and policy analysis. The consulting team had the appropriate technical skills to carry out the assignment. ADB was satisfied with the quality of the work conducted by the consultant team.¹ The relative cost of the inputs compared to the outputs derived from the TA is considered acceptable. The Executing Agency (EA) for the project was the Ministry of Science and Technology (MOST). The EA was generally satisfied with the performance of the international consultants. ADB provided close supervision of project progress through regular correspondence and review missions. The performance of ADB and the EA is rated as satisfactory.

Evaluation of Outputs

The capacity building and training components of the TA (workshops, training, handbook development and dissemination, example PDD's) have been successful in raising capacity within the PRC (national government, provincial government and local consultants) to identify potential small-scale CDM projects and to generate appropriate CDM application documentation. Final reports and handbooks have been translated into Chinese and disseminated to relevant government departments. The TA has resulted in over 330 officials and proponents of 35 specific projects receiving training in development of CDM projects. The handbook for small-scale CDM supported projects will be particularly useful to future CDM project proponents. Four PDD's were originally planned to be prepared within the project. At the request of the EA, three additional PDD's were prepared. Therefore, seven PDD's were developed for a range of energy projects (solid waste disposal, bio-fertilizer production, waste water treatment, biogas, wind farm and hydro power stations). These pilot projects successfully raised awareness of the potential applications for CDM projects in the energy sector. To date, six of the seven proposed CDM projects in the TA have commenced development. Five of these projects are intending to submit PDD's to the PRC DNA. These five projects report that CDM was a major factor in the decision to commence project development.

The policy and reform components of the TA (strategic action plan, reform recommendations) have provided practical recommendations to the Government to assist in early development of CDM projects in the energy sector. The Government indicated that they were satisfied with the results of the TA. It is currently developing its policy and reform strategies for regulating CDM projects in the energy sector and is anticipated to use the TA as a reference document when developing its strategies.

Overall Assessment and Rating

The TA has successfully completed the proposed scope of work. The capacity building/training components of the TA are considered to have been effective in developing favorable conditions for early implementation of a range of small-scale CDM energy projects. The PDD's have contributed to project development. The TA provided innovative and practical policy and reform recommendations. The consultant's output was satisfactory and the recommendations provided were innovative and practical and had been established through close consultation with ADB and the Government. The TA is rated as successful.

Major Lessons Learned

Integration of the TA recommendations into government policy will require long-term engagement with a number of government ministries. This TA should be treated as an important step in assisting PRC to mainstream CDM projects in the energy sector.

Recommendations and Follow-Up Actions

ADB should maintain direct dialogue with the relevant government officials to provide further technical guidance. ADB should further engage provincial level small-scale CDM proponents and provide support with suitable lending packages. Development of CDM projects in PRC is currently continuing through support extended by the CDM facility of ADB in bringing together sellers and buyers of carbon emission reduction credits from a range of 'clean' energy projects.

Prepared by Anthony Maxwell Designation Environment Specialist

¹ ADB Consultant Performance Evaluation Report classified the consultant as "excellent".