



Technical Assistance Report

Project Number: 43392-01
Capacity Development Technical Assistance (CDTA)
October 2009

Mongolia: Capacity Building Program on Clean Development Mechanism

(Financed by the Republic of Korea e-Asia and Knowledge
Partnership Fund)

CURRENCY EQUIVALENTS

(as of 30 September 2009)

Currency Unit	–	togrog (MNT)
MNT1.00	=	\$0.0007029876
\$1.00	=	MNT1,422

ABBREVIATIONS

ADB	–	Asian Development Bank
CDM	–	clean development mechanism
GHG	–	greenhouse gas
PDD	–	project design document
PIN	–	project idea note
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting classification	–	General intervention
Sector (subsector)	–	Multisector (energy efficiency and conservation, forestry)
Themes (subthemes)	–	Environmental sustainability (eco-efficiency), capacity development (client relations, network, and partnership development)
Climate change	–	Climate change mitigation and climate change adaptation
Location impact	–	Rural (high impact), urban (high impact), national (high impact), regional (high impact)
Partnership{s}	–	The Republic of Korea e-Asia and Knowledge Partnership Fund

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The Government of Mongolia and Asian Development Bank (ADB) agree on the need to strengthen capacity building for Clean Development Mechanism (CDM) projects; as well as the objectives, scope, implementation arrangements, and financing plan of the technical assistance. ADB will undertake the capacity building program with financial support from the Government of the Republic of Korea. The TA design and monitoring framework is in Appendix 1.¹

II. ISSUES

2. The Mongolian climate has changed significantly over the past 60 years with more than 80% of the country's territory highly vulnerable to climate extremes.² The mean annual temperature increased by 1.8°C between 1940 and 2003. As a result, the permafrost is degrading intensively and high mountain glacier melting has increased.³ Precipitation has decreased by 7.5% in summer and increased by 9.0% in winter. During the last 40 years, the duration of heat waves has increased by 8–18 days, while cold wave duration has shortened by 13.3 days. The rate of future winter warming is expected to vary from 0.9°C to 8.7°C (depending on the area of the country), while the summer temperature is expected to vary from 1.3°C to 8.6°C. Winter precipitation is projected to increase between 12.6% and 19.4%, and summer rainfall is expected to change by between –2.5% to +11.3%.

3. A northward shift of agricultural zones is likely a result of climate change, such that the dry steppe zone in the eastern part of Mongolia would encroach upon the forest steppe to the north, leading to a shrinkage of the high mountainous and forest steppe zones, and expansion of the dry steppe and desert steppe zones. These combined with overgrazing, a 17% decline in spring precipitation, and a rise in surface temperature, will likely lead to an increase in frequency and extent of forest and steppe fires in Mongolia, resulting in a decline of forest cover.⁴

4. Other climate change issues faced by Mongolia include acceleration of desertification due to a significant decline in forest cover, increase in flash floods caused by erratic rainfall, adverse effects on agriculture due to drought and *dzud* (a layer of frozen rain over vegetation), decreasing groundwater table in arid regions, intensification of degradation and desertification of land due to shortage of water and precipitation (footnote 3), and increase in incidence of yellow sand posing a serious transboundary threat.

5. Combating climate change is a critical development challenge for Mongolia. Mongolia signed the United Nations Framework Convention on Climate Change on 12 June 1992 and ratified the Kyoto Protocol on 15 December 1999. A National Committee on Climate was established in 2000, which includes working groups on public–private partnerships, CDM, and energy efficiency.⁵ Since ratification, Mongolia has been working to implement CDM and is undertaking various initiatives to improve energy efficiency and reduce greenhouse gas (GHG) emissions. However, the development of CDM projects requires institutional and human

¹ The TA first appeared in the business opportunities section of ADB's website on 11 September 2009.

² ADB. Forthcoming. *Climate Change Implementation Plan, East Asia Region 2009–2015*, East Asia Department. Manila.

³ International Fund for Agricultural Development (IFAD). 2007. Adaptation Workshop. Paper presented on *Adaptation to Climate Change Actions in Mongolia*. Rome. Available: www.ifad.org/operations/gef/climate/15.ppt.

⁴ Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: Synthesis Report*. Contribution of Working Groups to the Fourth Assessment Report of the IPCC 2007. Valencia, Spain.

⁵ Purevdorj, B. 2005. Fifth Asian Region Workshop on Clean Development Mechanism. Paper presented for *CDM in Mongolia*. Bangkok, Thailand. Available: http://cd4cdm.org/Asia/Fifth%20Regional%20Workshop/CDM-Mongolia_Purevdorj.ppt.

resource capacity in the relevant country. At present, capacity in Mongolia to undertake CDM projects is limited,⁶ mainly due to lack of national expertise. Financial barriers to adopting cleaner technologies in Mongolia lead to inefficiencies in industrial processes, especially for the private sector. The TA aims to enhance capacity through training for relevant government officials and national experts on the CDM project cycle and development of project design documents (PDDs).

6. The long-term strategic framework of the Asian Development Bank 2008–2020 (Strategy 2020) focuses on addressing climate change as part of the broader agenda of environmentally sustainable growth in developing member countries.⁷ One of the envisaged interventions is assistance to reduce GHG emissions by implementing energy efficiency improvement and renewable energy projects, and suggesting concrete policy recommendations leading to the adoption of a low carbon society. Furthermore, energy and environmental issues are identified as priority themes and sectors under the ADB–Mongolia country partnership strategy (2010–2013) currently being prepared.

III. THE TECHNICAL ASSISTANCE

7. The TA aims to enhance capacity and expertise in Mongolia to identify, develop, and undertake CDM projects. This will be achieved by developing a capacity building plan, enhancing the capacity of national CDM experts and government agencies, and undertaking promotional activities encouraging CDM projects. The initiatives being undertaken by Mongolia and those undertaken as a consequence of capacity building under the TA are expected to contribute to reducing GHG emissions in the long term. The CDM projects initiated are expected to also lead to greater efficiency in energy use in the country.

A. Impact and Outcome

8. The TA's impact is to reduce GHG emissions in Mongolia. The main outcome is to enhance the capacity of relevant stakeholders to undertake CDM projects, as currently the country has limited expertise in CDM.

B. Methodology and Key Activities

9. The TA comprises two sets of outputs. The first consists of CDM project capacity building programs, the second is an assessment of potential for CDM projects and related implementation strategies in Mongolia.

10. **CDM Capacity Building Program.** The program will involve three steps:

- (i) **Develop courses.** Develop a capacity building plan; identify and assess training needs; define the target audience and participants, training schedule, and time line; select trainers among national experts with inputs from the local CDM agency; collect and analyze cases from other countries; develop a training manual for national CDM experts and government officials; and prepare brief introductory materials on CDM.

⁶ Begzsuren, M. 2009. *Inputs from CDM National Bureau (DNA) of Mongolia on efficiency in the operation of the CDM and opportunities for improvement*. Available: http://cdm.unfccc.int/public_inputs/2009/CMPreq/cfi/M3BIJNMAL6UZW8ADWDEKAD19MI8VKP

⁷ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank 2008–2020*. Manila.

- (ii) **Conduct capacity building training.** Use national and international CDM experts to improve understanding of CDM projects and benefits for project partners, outline the benefits of CDM projects and the reason for CDM project promotion, introduce CDM project cases, and explain the CDM project implementation process. Conduct two different trainings: a general CDM training for government officials and national experts on the CDM project cycle, including presentation of CDM case studies specifically related to efficient energy use and afforestation, carbon market, evaluating the financial capacity of national CDM and awareness-raising efforts, international development aid activities and enhancing CDM investment; and technical training for national experts on development of PDDs.
 - (iii) **Enhance CDM material and knowledge sharing.** Propose technical guidelines for effective CDM project implementation by developing regulation, legislation, and financial and technical guidelines; update CDM guidelines; translate course material; include best practice examples of CDM implementation; and develop materials on CDM for wider dissemination and knowledge sharing.
11. **Assessment of Potential for CDM Projects and Related Implementation Strategies.** The assessment of the scope for CDM implementation in Mongolia will be conducted in two steps:
- (i) **Assess the current operating capacity for CDM project development.** This includes data collection and analysis on climate change; formulation of a work plan to conduct the analysis; study of the capacity of the Designated National Authority on Climate Change and its operating guidelines, human resources, and role in Mongolia; consultations with Mongolian government stakeholders on CDM project implementation by assessing CDM projects and identifying potential projects; proposed timeline for CDM project implementation and establishment of a national expert pool for CDM projects; conduct of feasibility studies for implementing CDM pilot projects by reviewing existing CDM feasibility studies and relevant literature, and conduct of cost-benefit analysis for potential CDM projects; and finalization of potential CDM projects.
 - (ii) **Develop an implementation strategy.** Following the assessment of potential CDM projects and their cost–benefit analysis, discuss the implementation of CDM projects. After identification and prioritization of possible CDM projects, develop PDDs for possible CDM projects as outputs of the capacity building program.

C. Cost and Financing

12. The total cost of the TA is estimated to be \$500,000 equivalent. The Government of Mongolia has requested ADB to finance \$500,000 equivalent. The TA will be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund and administered by ADB. Appendix 2 provides details of the cost estimates and financing plan.

D. Implementation Arrangements

13. ADB will be the Executing Agency for this TA. Within ADB, the TA is expected to be implemented by the East Asia Department. A study team, comprising national CDM experts

from Mongolia and international consultants, will be formed to carry out the TA activities. The consultants will submit inception, interim, and final reports to ADB as scheduled in the design and monitoring framework.

14. The TA will require 19 person-months of individual international and 16 person-months of individual national consulting services. ADB will engage all the consultants in accordance with the *Guidelines on the Use of Consultants* (2007, as amended from time to time). The consultants' terms of reference are in Appendix 3. The proceeds of the TA will be disbursed in line with *Technical Assistance Disbursement Handbook* (2008, as amended from time to time).

15. The TA is expected to be implemented over 7 months from October 2009 to April 2010. The TA results will be disseminated by producing a CD-ROM and training manual on CDM for wider dissemination. The TA reports will be uploaded on the ADB website. The TA outcome will be evaluated based on the number of national experts and government officials trained and the number of new CDM projects developed in the country.

IV. THE PRESIDENT'S DECISION

16. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$500,000 to Mongolia to be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund for the Capacity Building Program on Clean Development Mechanism, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
Impact Reduced greenhouse gas emissions in Mongolia	Greenhouse gas emission levels lowered by 2020	National policies on climate change and CDM	Assumptions Climate change will continue and impact environment and communities
Outcome Enhanced capacity of stakeholders to undertake CDM projects	Two PDD prepared and CDM projects implemented by April 2011	CDM Designated National Authority (DNA) of Mongolia	Risks CDM projects could be delayed due to existing complicated project implementation procedures Lack of capacity to implement CDM projects in the short term
Outputs 1. Capacity building program designed and CDM training manual and CD delivered 2. CDM project assessments and implementation strategy	50 trained experts CDM training manual and CD available by February 2010 Report by March 2010	Project reports CDM guidelines and manuals prepared by international organizations Project reports	Risks Ministries will not make targeted experts available when required to meet timetable
Activities with Milestones 1. CDM capacity building program (October 2009–February 2010) 1.1 Engage consultants. 1.2 Review existing documents and identify training needs 1.3 Develop training courses and materials 1.4 Select participants for training 1.5 Conduct training 2. CDM project assessment (October 2009–March 2010) 2.1 Gather data and information on CDM projects 2.2 Assess existing CDM projects 2.3 Conduct consultations 2.4 Develop PDD for potential CDM projects 3. Project Management 3.1 Submit inception report – November 2009 3.2 Submit interim report – December 2009 3.3 Submit final report – March 2010 3.4 Disseminate at appropriate domestic and international workshops –April 2010			Inputs \$500,000 from the Republic of Korea e-Asia and Knowledge Partnership Fund 19 person-months of international consulting services 16 person-months of national consulting services

CDM = clean development mechanism, PDD = project design document.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
Republic of Korea e-Asia and Knowledge Partnership Fund^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	344.4
ii. National Consultants	45.1
b. International and Local Travel	32.0
2. Reports and Communications ^b	30.0
3. Training and Consultations	10.0
4. Miscellaneous Administration and Support Costs	10.0
5. Contingencies	28.5
Total	500.0

^a Administered by the Asian Development Bank (ADB). Total amount includes ADB's administration fee, audit cost, bank charges, and provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional grant by the Government of the Republic of Korea.

^b Includes publications-related costs.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. International Consultants

1. **Lead Consultant** (5 person-months, intermittent). The lead consultant will have extensive understanding and knowledge of the Clean Development Mechanism (CDM) project cycle and methodologies and of CDM capacity building programs. The successful candidate will

- (i) manage and supervise the capacity building project specialists, CDM manual developer, training facilitator, proof reader, and national consultant—collectively, the study team, and all activities under the TA;
- (ii) have extensive knowledge of the existing CDM project on the United Nations Framework Convention on Climate Change (or ongoing CDM projects in the pipeline), methodologies for baselines and monitoring plans, and similar activities;
- (iii) cooperate with feasibility study and CDM project specialists to coordinate the capacity building process, and establish the detailed TA implementation plan for undertaking the CDM capacity building program in Mongolia;
- (iv) identify training needs;
- (v) develop a capacity building program to educate government and local CDM project experts, and select participants for the training program;
- (vi) deliver the training programs;
- (vii) propose CDM capacity building strategies for Mongolia;
- (viii) propose technical guidelines for effective CDM project implementation;
- (ix) prepare a national portfolio of potential CDM projects; and
- (x) prepare an inception report, interim report, and final report that includes the outcome of the training programs, potential of future CDM projects, and options for CDM implementation; and manage the subsequent dissemination of the outputs.

2. **CDM Project Specialists** (three specialists, for a total of 10 person-months, intermittent). CDM project specialists will have extensive experience in selecting and developing a target CDM project and preparing project idea notes (PINs) and project design documents (PDDs) for CDM projects in practice. The successful candidates will

- (i) review and analyze existing CDM projects on the United Nations Framework Convention on Climate Change (or ongoing CDM projects in the pipeline), methodologies for baselines, and monitoring plans, among others;
- (ii) review the existing CDM projects in Mongolia;
- (iii) suggest timelines and develop a work plan for the processes from planning stage to implementation, including analysis of the current state of the TA, building a project development framework to identify the target CDM project, implementation of pilot projects, and all the necessary details;
- (iv) build framework for relevant data collection and analysis;
- (v) identify and prioritize target sectors with potential for present and future CDM projects;
- (vi) assess existing CDM projects in the country;
- (vii) review and analyze institutional support for CDM in Mongolia;
- (viii) suggest the scope of consultation procedures for stakeholders including the Government and designated national authorities to implement CDM projects;

- (ix) perform cost–benefit analysis of identified CDM pilot projects and prioritize CDM pilot projects for implementation;
- (x) prepare PINs and PDDs; and
- (xi) propose further work scope and options for scaling up to implement CDM pilot projects successfully.

3. **Manual Developer and Editor** (3 person-months, intermittent). The manual developer and editor will have extensive experience in developing CDM-related training material and

- (i) prepare introductory materials on CDM;
- (ii) develop CDM capacity building training manuals based on identified training gaps;
- (iii) proofread and check the quality of training materials and reports produced;
- (iv) proofread the PINs and PDDs;
- (v) develop the contents of the CD-ROM on CDM; and
- (vi) perform other tasks relevant to this TA as may be assigned by the team leader and the lead consultant.

4. **TA Facilitator** (1 person-month, intermittent). The TA facilitator will generally coordinate and facilitate the training programs under the TA. The successful candidate will

- (i) develop a CDM capacity building training schedule, and prepare suitable lists of participants in collaboration with national focal points and consultants;
- (ii) design and implement internal and external consultation processes, including tasks such as helping prepare training-related materials, maintaining a database to record responses received, and acknowledging all responses received;
- (iii) compile minutes of meetings; and
- (iv) schedule, coordinate, and facilitate the training programs as directed by the team leader and the lead consultant.

B. National Consultants

5. **National CDM Experts** (two experts, 5 person-months each for a total of 10 person-months, intermittent). The national consultants will undertake the review, assessment, and data gathering; and provide administrative support. The successful candidates will

- (i) undertake the review of existing climate policies, identify policy gaps, review studies on climate change, and review the existing CDM initiatives in the country and capacity building training programs conducted to date;
- (ii) identify training gaps and needs;
- (iii) assist in selecting training participants;
- (iv) help with the training program;
- (v) provide inputs for the development of CDM capacity building strategies for Mongolia;
- (vi) help develop PINs and PDDs; and
- (vii) Oversee translation of the training manual.

6. **TA Associate** (6 person-months, intermittent). The TA associate, under the direction and supervision of the lead consultant, will

- (i) coordinate and assist the lead consultant in the activities under the TA;
- (ii) facilitate national meetings and training;
- (iii) help prepare the training material, maintain a database to record responses received to the consultation process, and acknowledge all responses received;
- (iv) assist in developing the CD-ROM; and
- (v) maintain all technical databases for the country and conduct simple analysis, as directed by the lead consultant.