



Validation Report

Reference Number: PVR-199
Project Number: 30531
Loan Number: 1736
November 2012

Mongolia: Cadastral Survey and Land Registration Project

Independent Evaluation Department
Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
ALFP	–	annual land fee payment
NLIS	–	national land information system
PCR	–	project completion report
TA	–	technical assistance

NOTE

In this report, “\$” refers to US dollars.

Key Words

adb, cadastral, evaluation, land, mapping, mongolia, survey, property market, registration

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PROGRAM BASIC DATA

Project Number:	30531	PCR Circulation Date:	Dec 2010	
Loan Number:	1736	PCR Validation Date:	Nov 2012	
Program Name:	Cadastral Survey and Land Registration			
Country:	Mongolia		Approved (\$ million)	Actual (\$ million)
Sector:	Economic growth	Total Project Costs:	12.74	10.14
ADB Financing: (\$ million)	ADF: 9.66	Loan:	9.90	9.66
	OCR: 0.00	Borrower:	2.84	0.48
		Beneficiaries:	0.00	00.00
		Others:	0.00	00.00
Cofinancier:	None	Total Cofinancing:	0.00	00.00
Approval Date:	27 Jan 2000	Effectiveness Date:	24 Jul 2001	27 Sep 2001
Signing Date:	25 Apr 2011	Closing Date:	31 Dec 2007	5 Oct 2010
Program Officer:	S. Rosenthal	Location:	Mongolia Resident Mission	
Validator:	C. Dingcong, Consultant	Peer Reviewer:	F. De Guzman, Evaluation Officer, IED2	
Quality Reviewer:	R. Sabirova, Evaluation Specialist, IED1	Director:	W. Kolkma, IED1	

ADB = Asian Development Bank, ADF = Asian Development Fund, IED 1/2 = Independent Evaluation Department (Division 1/2), OCR = ordinary capital resources, PCR = project completion report, SDR = special drawing right.

I. PROJECT DESCRIPTION

A. Rationale

1. At the time of appraisal in 1999, existing data on land, land titles and its ownership in Mongolia were incomplete and fragmented. There was no supporting infrastructure or cadastral maps to establish a national land information system (NLIS), which could provide vital information to the already existing State Immovable Property Registry. The NLIS was considered essential for an efficient property market since secured title to land use and property could encourage investments and be used to provide collateral. The Cadastral Survey and Land Registration Project (project) was designed to establish the institutional basis for land administration and for the development of Mongolia's property market.¹ Specifically, it envisaged to facilitate efficient issuance and administration of property and land-lease certificates, which were expected to enhance collection of land fee payments and property taxes for urban and agricultural development and to operate a private property market.

B. Expected Impact

2. The project's envisaged impacts indicated in the design and monitoring framework at appraisal were: (i) developed functional property market in Mongolia and an improved land administration system; (ii) investments encouraged in industrial, commercial, and agriculture sectors; and (iii) government's improved fiscal position. For impact (i), the indicator and/or target was increased number of private transactions in property. For impact (ii), the indicator was

¹ ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to Mongolia for the Cadastral Survey and Land Registration Project*. Manila.

increased amount of sector investment, while for impact (iii), the target was increased government revenue and reduced central subsidies to provinces.

3. Secured legal title to properties was to have a wide range of positive social impacts. For instance, the ability to provide collateral or mortgages was to facilitate the development of the financial sector. Economic growth was expected to accelerate through increased investments as a result of secured land titles. In turn, these would lead to increased job opportunities. However, the effects of these benefits on the medium to long-term were difficult to quantify.

4. The project's immediate impact was on increased annual land fee payment (ALFP) to the local government. However, the ALFP for crop areas and residential areas was not expected to affect the disposable income of individuals. For farmlands, reduced disposable incomes from such payments were expected to be insignificant compared with the increased income potential. ALFP payers were expected to benefit from the improved government service as a result of increase in revenues. The project was expected to have significant fiscal benefits with annual revenue increasing to MNT2,612.30 million in 2016 and remaining constant thereafter. Incremental income was projected to be sufficient to cover project costs in 2011.²

C. Objectives or Expected Outcomes

5. The intended outcomes of the project were: (i) provision of guaranteed property title to prevent social and economic costs of disputes over property and land use rights and boundaries, and (ii) improved ALFP. For outcome (i), the performance indicator and/or target was establishment of land-use records for about 2 million hectares while for outcome (ii), the performance target was MNT5 billion collected by 2010.

D. Components and Outputs

6. The project had two components: (i) Component A, for undertaking a systematic cadastral survey and mapping; and (ii) Component B, which pertained to establishing the NLIS. Component A comprised two major activities: (i) collection of geodetic field survey data to identify and record the location and area of all land parcels in both settlement (urban) and cropland areas. This was to result in a digital cadastral map that would form the geographic foundation upon which additional land parcel information or ancillary data could be layered; and (ii) collection of basic textual attribute data about each identifiable land parcel concerning its registration, use, or occupational status. These two data sets were to be merged to create the national cadastral database that would be the basis for the NLIS.

7. The cadastral surveys were to cover 3 million hectares of settlement land areas and farmland, constituting about 2% of Mongolia's land area. The NLIS component was to develop a computerized database for use by Ulaanbaatar and provincial land management departments to facilitate issuance of lease certificates, collection of land fee payments, and organization of public records of rights for possession.

E. Provision of Inputs

8. Total loan utilization amounted to \$9.66 million. The project did not incur significant cost overruns or underruns.

² Footnote 1. paras. 97–100.

F. Implementation Arrangements

9. At project approval and its inception, the State Agency for Geodesy and Cartography was the executing agency for component A, while the Land Management Agency was the executing agency for component B. According to the PCR, all land-related agencies were consolidated in 2002 into one agency—the Agency of Land Affairs, Geodesy and Cartography under the then Ministry of Infrastructure Development (subsequently Ministry of Construction and Urban Development and now Ministry of Road, Transportation, Construction and Urban Development). Project management units were formed initially in the State Agency for Geodesy and Cartography and the Land Management Agency, but these were subsequently merged under the Agency of Land Affairs, Geodesy and Cartography as a result of institutional restructuring.

10. The associated advisory technical assistance (TA) amounting to \$990,000 was approved by the Asian Development Bank (ADB) was approved to provide advice and assist the executing and implementing agencies to carry out their mandates in land information, registration and management.³ It was utilized. The TA completion report rated the TA project *successful*. It supported the government in land administration and management reforms, and advised on new legislation, regulations and instructions necessary to ensure that loan project activities could be carried out and objectives achieved. It helped build the capacity within the land management offices to operate the NLIS, and contributed to the private sector's capability to conduct cadastral surveys using modern survey equipment and software applications.

11. Most of the procurement of goods and services for the cadastral survey mapping went smoothly except for the cancellation of two tenders for aerial photography contracts due to lack of bidders. The performance of suppliers and contractors under component A was considered highly satisfactory. The performance of the contractor engaged for component B was considered satisfactory overall since the system was established and made operational. The loan covenants were relevant and were all complied with.

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

12. The project completion report (PCR)⁴ rated the project *relevant*. It was consistent with ADB's medium-term strategy for Mongolia,⁵ which was to facilitate the transition from a centrally planned economy to one based on market forces. The project also supported the government's efforts to accelerate its privatization program (including land privatization), and addressed the need for a comprehensive and consistent cadastral database and development of a unified NLIS as basis for land registration and related transactions. This validation agrees with the PCR assessment that both components of the project—the cadastral database and the creation of the NLIS, were well-matched with sector needs. However, the PCR pointed out that a more incremental approach to system development should have been more appropriate, with complexity added as external infrastructure improved.

13. The project design made a good change in the processing of land title possible (para. 15) registration. The associated TA was also designed to contribute to fundamental changes in

³ Footnote 1.

⁴ ADB. 2010. *Completion Report: Cadastral Survey and Land Registration Project in Mongolia*. Manila. para. 45.

⁵ ADB. 2000. *Country Assistance Plan: Mongolia, 2001–2003*. Manila.

legislation and in building capacity of institutions with few technical resources and limited capacity. During the midterm review, minor changes were made to the project scope, which included updating the cadastral database in five districts of Ulaanbaatar, procurement of additional computer and survey equipment for district land management offices, and preparation of digital data for NLIS in urban areas. These changes were appropriate and helped to ensure that the project remained relevant. This validation rates the project *relevant* overall.

B. Effectiveness in Achieving Project Outcomes

14. The physical outputs for component A were largely in accordance with expectations set at appraisal. Overall, an estimated 83.35% of component A's area coverage was achieved.⁶ However, completion of aerial photography and orthophoto mapping was only 50% of the anticipated area due to bidding failure and prolonged tender evaluation and subsequent time elapsed that prevented timely input into the cadastral survey and land registration work.⁷ Data produced from the cadastral survey has improved the effectiveness of land administration as reflected in the significant rise in registrations and transactions of land rights. For example, the number of landowners applying for registration of immovable property rights increased from 8,747 in 2004 to 112,779 in October 2009. At project completion, there was twice as many land parcels registered as there were at the start of the project. In 1999, there were 283,600 land possessors and users registered nationwide; by the end of 2008 this increased to 504,900 properties registered.

15. As regards component B, actual outputs also fell short of expectations. The NLIS has been developed and made operational (with only 10% of data installed). However, it is constrained by a lack of data, poor and inconsistent data quality, and problems associated with system architecture and operating environment. These issues have to be addressed in order for NLIS to be effective in delivering the expected outputs envisaged in the project design. This validation concurs with the PCR's findings that the project was *less than effective* in achieving its outcome of providing guaranteed property title. Although component A generally achieved the targeted outputs, component B outputs were only partly achieved. The other intended outcome of improving ALFP was met, which was largely attributed to improved cadastral mapping and property registration.

C. Efficiency of Resource Use in Achieving Outputs and Outcomes

16. The PCR rating was *less than efficient*. There were delays in project implementation. Start-up was delayed by 18 months due to disagreement and lack of dialogue between the two previous executing agencies and the project coordination committee on their respective roles, duties, and responsibilities. Further delays were also experienced as a result of the requirements of the new 2002 procurement law that the project management unit took time to adopt. In component A, the delay was primarily due to the lengthy process followed in the selection of contractors and suppliers, while in component B, the delays were mainly due to the complexity of the NLIS. This was reinforced by the limited expertise of the concerned executing agency, which meant that the component had to move slowly to allow the concerned parties to discuss and understand the complexities of the design. The change in institutional arrangements due to reorganization also affected the timely implementation of the project.

⁶ Estimate by the Agency of Land Affairs, Construction, Geodesy and Cartography.

⁷ Outputs from the satellite image process in phase 3 were supposed to cover 488,000 km² in 271 sheets.

17. Economic analysis was neither undertaken at appraisal, nor at the project completion since the project was largely institutional in nature. Given the implementation delays and the shortfalls in output performance of component B, this validation concurs with the PCR rating of *less than efficient*.

D. Preliminary Assessment of Sustainability

18. The PCR rated the project *likely sustainable*. Financial sustainability, even without a fully functioning NLIS, is likely to be achieved since the appraisal target of MNT5 billion by 2010, from revenues generated from property transactions, was exceeded. This was largely the result of improved cadastral mapping and property registration. Revenues from the ALFP, which was to ensure the sustainability of the land administration system, increased from MNT7.3 billion in 2001 to MNT39.6 billion in 2009. This validation agrees with the PCR that as long as sufficient budget is provided for operation and maintenance of the land management and administration system, the project will remain financially sustainable. A full operationalization of the NLIS will further contribute to increased revenues.

19. On institutional sustainability, there is clear ownership of outputs from component A (by the user local governments) and component B (by the Agency for Land Affairs, Construction, Geodesy and Cartography). Capacity building and training carried out under the project and the associated TA ensured that existing staff of the user agencies have the skills to operate the systems. The support of the Millennium Challenge Account to assist in rolling out the NLIS was expected to contribute to its sustainability.⁸ The Millennium Challenge Account applied some portion of the Millennium Challenge Corporation funding to activities that fall directly under the Property Rights Project that is focused on the improvement of the formal system for land rights. The PCR concluded that on both financial and institutional sustainability aspects, the project is likely to be sustainable. This validation concurs and assesses the project *likely sustainable*.

E. Impact

20. The PCR did not rate the impact but indicated that the project had a positive impact on the property market and land administration in Mongolia. In Ulaanbaatar, 98% of land possessed by economic entities and households were covered with secured land certifications as a result of the project. In all *aimags* (provinces), 632,000 hectares of cropland and home lots were secured with land certificates. Based on cadastral data produced by the project, 181,960 legal bodies (households and economic entities) were issued with land certificates. The improved land administration system is expected to have a positive impact on the property market and could spur investments in key sectors. Increased revenues as a result of improved cadastral mapping and property registration could redound into government's improved fiscal position.

21. The PCR reported that the project and associated TA contributed to the fundamental changes in legislation and in building capacity of institutions with few technical resources and limited capacity. New legislation, regulation, and instructions needed to support the project, and sector reforms in cadastral survey and land management, administration, and registration were developed and subsequently approved. Training and capacity building activities had significant beneficial impact on skills development within the executing agency and implementing agencies, and on cadastral survey contractors and existing staff of land management offices.

⁸ Millennium Challenge Account. 2008. *Property Rights Project*. Ulaanbaatar.

Over 1,000 people reportedly benefited from the training programs. This validation rates the project impact *significant*.

III. OTHER PERFORMANCE ASSESSMENTS

A. Performance of the Borrower and Executing Agency

22. The limited institutional capacity of the executing agencies affected project performance, particularly the NLIS component. Implementation was slow, which eventually resulted in a significant departure from the original specifications for the NLIS on which the contractor's proposed design was based. There was a period when the concerned executing agency demanded additional features for the system and the contractor and the executing agency could not agree on the modifications within the original design. In addition, the executing agency was slow in responding to key issues on the design. All these contributed to some of the problems associated with the system architecture of the NLIS. Despite the significant amount of TA in terms of consultancy services, training and capacity building, the executing agency was unable to achieve the expected output for the NLIS. The PCR rating was *partly satisfactory* for the performance of the borrower and executing agency. This validation concurs and rates it as *less than satisfactory* (footnote 8).

B. Performance of the Asian Development Bank

23. ADB fielded nine review missions and one project completion review mission. These missions helped facilitate adjustments in the project, and identify and address implementation issues. The level of complexity of the NLIS was a difficulty faced by the project. This was in part due to the limited technical resources and capacity of institutions in Mongolia. This validation concurs with the PCR that a simpler design would have avoided the technical problems faced by the system. In the midterm review, ADB recommended a third-party review of the NLIS design. This was not carried out by the executing agency.

24. In 2003, the responsibility for the project was transferred to the Mongolia Resident Mission. Following the midterm review in 2005, ADB increased the frequency of project review missions. The transfer of the project to the resident mission improved the communication and coordination between ADB and the executing agency. It facilitated more effective resolution of outstanding issues related to implementation.

25. The PCR rated the overall performance of ADB as *satisfactory*. This validation concurs with this rating. However, ADB should have pushed for implementing the recommendation in the midterm review for a third-party quality assurance. This could have resulted in a better outcome. Furthermore, ADB overestimated the capacity of institutions particularly in carrying out the NLIS. The design should have taken this into account and provided the necessary support for institutional development and capacity building.

C. Others

26. The 2005 project procurement-related audit conducted by ADB in collaboration with the Mongolian National Audit Office revealed indications of potential procurement fraud and corruption schemes and irregularities in the procurement process. The audit report recommended that the concerned executing agency strengthen project oversight and fiduciary

control to ensure compliance with ADB's policies, guidelines, and procedures.⁹ ADB discussed the findings and recommendations of the audit with the government.

27. The compliance review conducted in 2009 by ADB's Office of Anticorruption and Integrity noted that a number of standard procedures were not being followed by the executing agency, particularly in procurement, and that evaluation of proposals and tenders lack thorough review.¹⁰ The resident mission discussed the report with the concerned executing agency and the Ministry of Finance, particularly the weak procurement practices.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

28. The PCR rated the project *partly successful*. The project contributed significantly in creating an institutional environment for developing a functional property market in Mongolia and helped improve the land administration system. Furthermore, increased revenues from land transactions helped improve the government's fiscal stance. The expected outcome for the NLIS was only partly realized. The system can be operated as intended with some additional support to adjust the system architecture or modify system operations. However, difficulties remain with regards to the reliability of power supplies, internet connectivity, and quality of data. This validation concurs with the overall PCR rating as *less than successful*. The project was *relevant, less than effective, less than efficient and likely sustainable* (see table).

Overall Ratings

Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Relevant	
Effectiveness in achieving outcome	Less effective	Less than effective	
Efficiency in achieving outcome and outputs	Less efficient	Less than efficient	
Preliminary assessment of sustainability	Likely sustainable	Likely sustainable	
Overall assessment	Partly successful	Less than successful	
Borrower and executing agency	Partly satisfactory	Less than satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Impact	Not rated	Significant	Refer to paras. 20–21
Quality of PCR		Satisfactory	

ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report.

Note: From May 2012, IED views the PCR's rating terminology of "partly" or "less" as equivalent to "less than" and uses this terminology for its own rating categories to improve clarity.

Source: ADB Independent Evaluation Department.

⁹ ADB. 2006. *Project Procurement-Related Audit Report: Cadastral Survey and Land Registration Project in Mongolia*. Manila.

¹⁰ ADB. 2009. *Limited Compliance Review*. Manila.

B. Lessons

29. Lessons drawn from the project are valuable to ADB operations especially in countries such as Mongolia where population is small and technical capacity is limited. Greater emphasis should be given to building technical and management capacity of concerned agencies and end-user institutions. Additional technical assistance should have mitigated the problems associated with the technical complexities of the NLIS and might have avoided the system drifting away from its original design. More technical support should have been provided in design formulation of the NLIS. This validation agrees with the PCR that a more incremental approach to system development should have been more appropriate, with complexity added as external infrastructure improved (such as power and connectivity).

C. Recommendations

30. This validation agrees with the recommendations of the PCR. The project was complex and was outside ADB's core of expertise. In such projects, sufficient support should be made available for appropriate level of technical advice and assistance to relevant agencies. Continuing support should be given to the NLIS to enable it become fully operational.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Evaluation Design, Implementation, and Utilization

31. A benefit monitoring and evaluation system was established by the executing agencies. Quarterly reports on progress of project implementation and outputs were submitted to ADB. Indicators such as number of parcels surveyed and land fee payments were collected. These were useful in monitoring project outputs and performance.

B. Comments on Project Completion Report Quality

32. The PCR is consistent with the PCR Guidelines (Project Administration Instructions 6.07). It is clear and concise. The lessons and recommendations are sound and drawn from the report findings. The evaluation on efficiency performance focused mainly on the efficiency of implementation and process. The assessment would have been more robust if it included a least cost analysis of the outcome and outputs. In Appendix 9, the rating of the project was *successful* but in the main text it was rated *less than successful*.

C. Data Sources of Validation

33. This validation report is based on back-to-office mission reports, ADB PCR, report and recommendation of the President, TA completion report, project processing documents, and minutes of the management review meeting.

D. Recommendation for Independent Evaluation Department Follow-up

34. This validation finds no major deviation from the PCR findings. Thus, a project performance evaluation report for this project is not needed.