



Technical Assistance Report

Project Number: 49020-001
Capacity Development Technical Assistance (CDTA)
July 2015

Mongolia: Education Sector Development (Financed by the Japan Fund for Poverty Reduction)

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 June 2015)

Currency unit	–	togrog (MNT)
MNT1.00	=	\$0.0005
\$1.00	=	MNT1,959

ABBREVIATIONS

ADB	–	Asian Development Bank
MECS	–	Ministry of Education, Culture, and Science
TA	–	technical assistance

NOTE

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

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CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 49020-001	
Project Name	Education Sector Development	Department /Division	EARD/EASS
Country Borrower	Mongolia Mongolia	Executing Agency	Ministry of Education, Culture and Science
2. Sector		Financing (\$ million)	
✓ Education	Education sector development		1.00
		Total	1.00
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Client relations, network, and partnership development to partnership driver of change Civil society participation Institutional development	Effective gender mainstreaming (EGM)	✓
Partnerships (PAR)	Bilateral institutions (not client government) Civil society organizations Implementation		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Not Applicable	
6. TA Category:	B		
7. Safeguard Categorization Not Applicable			
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.00	
None		0.00	
Cofinancing		1.00	
Japan Fund for Poverty Reduction		1.00	
Counterpart		0.10	
Government		0.10	
Total		1.10	
9. Effective Development Cooperation			
Use of country procurement systems	No		
Use of country public financial management systems	No		

I. INTRODUCTION

1. The Government of Mongolia requested technical assistance (TA) from the Asian Development Bank (ADB) to enhance management and implementation of Mongolia's education sector reforms with an emphasis on equity of access to quality education. During the missions conducted in February and April 2015, ADB and the government reached agreement on the objectives, scope, implementation arrangements, costs, and terms of reference for consultants. The design and monitoring framework is in Appendix 1.¹ The TA is included in ADB's country operations business plan, 2014–2016 for Mongolia.²

II. ISSUES

2. Since the 1990s, ADB has been providing assistance to the Ministry of Education, Culture, and Science (MECS) in addressing changing priorities and challenges in the education sector. From 2006 to 2014, ADB loan and grant operations supported major education sector reforms, including the expansion of Mongolia's education system from 11 to 12 years in line with international standards, and the country's ongoing education sector quality reform.³ Mongolia has made significant progress in improving access to education, as evidenced by the net enrollment ratio in school year 2014–2015—97% (97% for girls and 98% for boys) at the primary level and 92% (92% for girls and 91% for boys) at the secondary level—which compare favorably with those in other lower middle-income countries.⁴ However, remaining issues include the quality and relevance of education, and disparities in access to quality educational resources and learning opportunities among students.

3. In 2012, the MECS initiated education sector quality reform at the preprimary, primary, and secondary levels. At that time, transition from an 11-year to a 12-year education system was expected to be completed by school year 2014–2015 with the promotion of the first cohort of students to 12th grade. Through the reform, the MECS intended to address emerging post-transition issues related to: quality of student learning; equity (“no child left behind”);⁵ diversification of individual student needs; school-to-work transition; and effectiveness of education governance with a greater involvement of parents, communities, civil society organizations, and the media. However, effective policy measures largely remain yet to be devised.

4. Currently, at the center of the reform is the introduction of new core curricula—organized by skill or competence that students must acquire by the end of preprimary, primary, and junior and senior secondary education through different subjects to be taught in an integrated manner—which was first developed for the primary level and piloted in school year 2013–2014 in 40 laboratory schools. The core curricula have been implemented nationwide at the primary level since school year 2014–2015. Core curricula for preprimary and junior secondary education were developed in school year 2014–2015 and have been piloted since then. In school year 2015–2016, core curricula for preprimary and junior secondary education will be implemented nationwide, and in school year 2016–2017, core curricula for senior secondary education will be piloted. In addition to the core curricula, the reform has introduced new elements to the Mongolian education system, including new teaching–learning approaches, textbooks, standards for school environments,

¹ The TA first appeared in the business opportunities section of ADB's website on 16 April 2015.

² ADB. 2014. *Country Operations Business Plan: Mongolia, 2014–2016*. Manila.

³ ADB. 2012. *Completion Report: Third Education Development Project in Mongolia*. Manila; ADB. 2015. *Completion Report: Education Sector Reform Project in Mongolia*. Manila.

⁴ The school year in Mongolia officially starts on 1 September and ends on 1 June.

⁵ According to the education sector reform policy framework, 2012–2016 of the MECS, no student, regardless of gender, family background, or socioeconomic or disability status, shall be disadvantaged in learning with the introduction of new child-centered teaching approaches.

guidelines for school management, methods of continuous professional development for teachers, and evaluation and assessment system.

5. The MECS has led this reform in education quality together with (i) reform management teams comprising staff of the Institute of Education, Teacher Development Institute, Educational Evaluation Center, and Mongolian State University of Education;⁶ and (ii) a reform implementation team comprising experienced teachers mostly based in *aimags* (provinces). The reform has been implemented by the reform implementation team, working closely with 40 laboratory schools, the majority of which were originally selected under the Mongolia–Cambridge Education Initiative launched in 2009 with a view to align Mongolia’s education system with international standards.⁷ The reform implementation team, together with the laboratory schools, has been piloting the core curricula, demonstrating new teaching–learning approaches, advising school management, and organizing knowledge and experience sharing workshops for teachers at laboratory and non-laboratory schools.

6. Despite the establishment of the education sector reform policy framework, 2012–2016, which aims to meet individual student learning needs and leave no child behind, specific measures need to be adopted to address equity of access to quality education, defined as providing all students, regardless of gender, family background, socioeconomic or disability status, with access to quality educational resources and opportunities to learn. Issues related to equity of access to quality education that require special attention include:

- (i) **Differences in teaching-learning environment:** The organization of teaching-learning environment within schools differs significantly across schools, depending on the availability of basic infrastructure and space, management of financial, human and physical resources, and relationships between schools, communities and parents. Unfavorable teaching-learning environment affects student learning.
- (ii) **Varying levels of teachers’ skills and understanding of the core curricula:** Implementation of the core curricula places a greater demand on teachers’ skills in assessing student needs, preparing lessons, delivering classes, and assessing student learning. However, teachers’ skill levels and their understanding of the core curricula vary greatly, which poses a challenge in providing equal access to quality learning opportunities for all students.
- (iii) **Disparities in financial, human, physical resources:** There are disparities in financial, human, and physical resources distributed across schools and students. These disparities influence the implementation of the core curricula and access to quality educational resources.
- (iv) **Socioeconomic background of students:** A national assessment of mathematics and reading at the primary level conducted in 2008 shows that the following categories of students are disadvantaged in learning: students in rural and ethnic minority schools; students living in dormitories or with foster families; students entering school at the age of 7 or 8 rather than the official school entry age of 6.⁸

7. In 2002, national education budgets were recentralized. In 2014, Parliament approved the decentralization of recurrent budget responsibility to the metropolitan and *aimag* levels. With the

⁶ These are public institutions supervised by the MECS.

⁷ The Mongolia–Cambridge Education Initiative consisted of two separate interventions: (i) introduction of Cambridge International Examinations qualifications (the International General Certificate of Secondary Education and the International A-Level qualification) in a couple of bilingual schools; and (ii) development of Mongolian national curriculum and assessment system based on the Cambridge International Examinations Standard Qualifications.

⁸ Government of Mongolia, Educational Evaluation Center. 2008. *Mongolia–National Assessment of Primary Education Mathematics and Reading*. Ulaanbaatar.

decentralization, metropolitan and *aimag* governments are expected to play a greater role in allocating budgets to schools, supporting the implementation of the core curricula, and promoting equal access to quality education for all students. However, the capacity of local education departments has yet to be strengthened to provide professional and methodological guidance for schools in line with the education sector reform policy framework. The policy framework also calls for the Institute of Education to become a leading institution in providing support for schools and policy makers by conducting research on curricula, teaching–learning approaches, assessments, and teacher training. However, its research capacity still needs to be enhanced.

8. This TA is aligned with MECS’s education sector reform policy framework, 2012–2016. It is also consistent with ADB’s interim country partnership strategy, 2014–2016 for Mongolia, which provides a renewed focus on preprimary and basic education.⁹ The TA is built on recently closed ADB operations in Mongolia’s education sector, including the Third Education Development Project and the Education Sector Reform Project, which supported the transition to the 12-year education system and the implementation of the education sector reform policy framework.¹⁰ This is the first TA focusing on issues that have emerged in the process of expanding the education system to 12 years in Mongolia. Policy recommendations and an action plan to be developed under the TA will be used to identify gaps in policy measures and physical investments to be supported under future operations. The TA is complementary to the Japan International Cooperation Agency’s TA to the MECS in reviewing and improving the core curricula; the World Bank’s Education Quality Reform Project, which supports improved teaching and assessments of the Mongolian language and math skills at the primary level; and Cambridge University’s cooperation with the MECS in the Mongolia–Cambridge Education Initiative.

III. THE CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact will be improved equity of access to quality education. The outcome will be enhanced management and implementation of education sector reforms with an emphasis on equity of access to quality education. Related policy recommendations and an action plan will be adopted by the MECS by the end of school year 2017–2018.

B. Methodology and Key Activities

10. The TA will have two outputs: (i) capacity to identify school factors that affect access to quality educational resources and learning opportunities developed, and (ii) knowledge and measures to enhance equity of access to quality education developed.

11. **Output 1: Capacity to identify school factors that affect access to quality educational resources and learning opportunities developed.** The TA will build capacity to carry out municipal, *aimag*, and national level research on school factors that influence equity of access to quality education. The following three areas will be researched: (i) organization of teaching–learning environment within schools, including school facilities and materials (e.g., heating systems, sanitation and dormitory facilities for boys and girls, libraries, gymnasiums, playgrounds, furniture, information and communication technology and natural science equipment, textbooks, and other teaching–learning materials); teachers (e.g., qualifications, student–teacher ratio, support staff, teacher collaboration, professional learning); school leadership (e.g., instructional leadership, monitoring and evaluation of classrooms, outreach to parents and

⁹ ADB. 2014. *Interim Country Partnership Strategy: Mongolia, 2014–2016*. Manila.

¹⁰ ADB. 2012. *Completion Report: Third Education Development Project in Mongolia*. Manila; ADB. 2015. *Completion Report: Education Sector Reform Project in Mongolia*. Manila.

communities); and organization of student learning (e.g., number of shifts, instruction time, class schedule); (ii) curriculum implementation and teaching–learning processes inside and outside classroom, including grouping and orientation of students; preparation of lessons through teacher collaboration; formative assessment of student learning; and approaches to address learning difficulties, homework, and extracurricular activities; and (iii) distribution of financial, human, and physical resources across schools, including public funding for schools and students, teachers, and school management; and facilities, equipment, and materials. Disaggregated data on students (e.g., gender, language, family background, socioeconomic status, special needs, distance from home to school, etc.) available through MECS’s education management information system will be analyzed to identify profiles of students disadvantaged in learning, together with research on the three topics.

12. Research capacity will be built through collaboration between a consultant team engaged under the TA, the Institute of Education, the reform implementation team, and education departments and laboratory schools in nine districts of Ulaanbaatar and six *aimags* (at least one for each region, including Dundgovi *aimag* in central region, Khentii *aimag* in eastern region, Khuvsgol and Orkhon *aimags* in Khangai region, and Uvs and Zavkhan *aimags* in western region). Research will cover the nine districts of Ulaanbaatar, where about 37% of students in the country study, and all the *soums* (districts) of the *aimags* selected based on student learning achievements. Research framework and tools will be developed in collaboration with the consultant team, the Institute of Education, and the reform implementation team. Metropolitan and *aimag* education departments and laboratory schools will be trained in the use of research framework and tools, and research findings. Research findings and policy recommendations will be presented and discussed at workshops organized in Ulaanbaatar and the research *aimags*, with the participation of teachers; researchers, administrators, and policy makers at the municipal *aimag*, and national levels; parents, civil society organizations; and mass media.

13. Output 1 will be developed in three phases: (i) activities to be carried out in 6 months will include (a) research on the distribution of financial, human, and physical resources across schools using data available through MECS’s education management information system; (b) design of research framework and development of research tools; (c) training of education departments and laboratory schools in the use of research framework and tools and research in nine districts of Ulaanbaatar; and (d) organization of a workshop in Ulaanbaatar to present research findings; (ii) activities to be implemented in 5 months will include (a) training of education departments and laboratory schools; (b) research in Dundgovi, Khuvsgol, and Orkhon *aimags*; and (c) presentation and discussion of research findings at workshops organized in the *aimags*; (iii) activities to be completed in 5 months will include (a) training, research, and workshops in Khentii, Uvs, and Zavkhan *aimags*; (b) a comparative analysis of research findings in Ulaanbaatar and the research *aimags*; and (c) policy recommendations to enhance equity of access to quality education.

14. **Output 2: Knowledge and measures to enhance equity of access to quality education developed.** The TA, in consultation with the MECS, the Institute of Education, and other relevant stakeholders, will support the preparation of policy notes and a costed action plan to enhance equity of access to quality education based on research findings and policy recommendations developed under output 1. The policy notes and costed action plan will be presented and discussed at workshops with teachers, policy makers and administrators, researchers, development partners, civil society organizations, and mass media. Additionally, output 2 will include knowledge products, such as publications and films that feature research findings and policy recommendations.

C. Cost and Financing

15. The TA is estimated to cost \$1,100,000, of which \$1,000,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction. The government will provide counterpart support in the form of counterpart staff, policy documents and guidelines, statistical data, information, office space, and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

16. The executing and implementing agency will be the MECS, which will be responsible for involving all relevant institutions during TA implementation, including the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools. A project steering committee, chaired by the director of the Strategic Policy and Planning Department of the MECS and comprising other MECS department directors and representatives from the Institute of Education, the reform management and implementation teams, Educational Evaluation Center, and Teacher Development Institute, will be established to review implementation progress on a quarterly basis. Collaboration with the Japan International Cooperation Agency and Cambridge University will be sought in research and workshops, if appropriate. The TA will be implemented from 31 July 2015 to 31 July 2017.

17. The TA will engage a consulting firm (international, 14 person-months; national, 34 person-months) to provide expertise in education economics, school management, education psychology, and didactics. The consulting firm will be selected using quality- and cost-based selection with a quality–cost ratio of 90:10 and simplified technical proposals. Additionally, 5 person-months of international consulting services will be engaged on an individual basis to develop knowledge products. The engagement of individual consultants can be justified because the main requirements are individual experience and qualifications rather than collective responsibility. To reduce administrative burden and improve economy, efficiency, and value for money, all the consultants will be engaged on output-based (lump-sum) contracts. The consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). The outline terms of reference for consultants are in Appendix 3. The TA proceeds will be disbursed in line with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

18. The TA will be monitored and evaluated based on the implementation of activities and satisfactory delivery of outputs following the agreed timeline and budget. To support monitoring and evaluation, the consultants will submit an inception report, a midterm report, a draft final report, and a final report to ADB and the MECS. The main mechanism to monitor and assess the TA will be review missions jointly conducted by ADB and the MECS. Analyses and research findings, policy notes and a costed action plan, and knowledge products will be presented and discussed at workshops.

IV. THE PRESIDENT'S DECISION

19. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$1,000,000 to the Government of Mongolia to be financed on a grant basis by the Japan Fund for Poverty Reduction for Education Sector Development, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impacts the project is aligned with:			
Equity of access to quality education improved ^a (MECS's education sector reform policy framework, 2012–2016) ^b			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome			
Management and implementation of education sector reforms with an emphasis on equity of access to quality education enhanced	Policy recommendations and action plan to enhance equity of access to quality education adopted by the MECS by the end of school year 2017–2018	MECS's policy, strategy, and plan documents and orders issued to <i>aimag</i> (province) education departments and schools	The country's macroeconomic situation adversely affecting the availability of resources for education sector reforms
Outputs			
1. Capacity to identify school factors that affect access to quality educational resources and learning opportunities developed	<p>By end 2016</p> <p>1a. Institute of Education, the reform implementation team, education departments, and laboratory schools trained in research framework and tools, and research findings (at least 20 staff) (2015 baseline: 0)</p> <p>1b. Gaps in the distribution of financial, human, and physical resources across schools identified (2015 baseline: Not identified)</p> <p>1c. 5 key factors related to the organization of teaching–learning environment within schools that affect student learning identified (2015 baseline: 0)</p> <p>1d. 5 key factors related to curriculum implementation and teaching–learning processes inside and outside the classroom that affect student learning identified (2015 baseline: 0)</p> <p>1e. Profiles of students disadvantaged in learning identified through analysis of disaggregated data (e.g., gender, language, family background, socioeconomic status, special needs, distance from home to school, etc.) (2015 baseline: Not identified)</p>	1a–e. Consultant reports and workshop feedback	<p>1a. Frequent staff turnover in the Institute of Education, the reform implementation team, and metropolitan and <i>aimag</i> education departments, requiring retraining on research</p> <p>2a. Change in leadership adversely affects progress in the TA implementation and the degree of ownership</p>
2. Knowledge and measures to enhance equity of access to quality education developed	<p>By mid-2017</p> <p>2a. Policy notes and costed action plan presented and discussed with stakeholders (2015 baseline: Not developed)</p> <p>2b. Knowledge products (e.g., publications, films) developed and disseminated (2015 baseline: Not developed)</p>	<p>2a. Consultant reports and workshop feedback</p> <p>2b. Knowledge products</p>	

<p>Key Activities with Milestones</p> <p>1. Capacity to identify school factors that affect access to quality educational resources and learning opportunities developed</p> <p>1.1 Research distribution of financial, human, and physical resources across schools using data available through MECS's education management information system (Q3–Q4 2015)</p> <p>1.2 Design research framework and develop research tools regarding the organization of teaching–learning environment within schools, curriculum implementation and teaching–learning processes inside and outside the classroom, and profiles of students disadvantaged in learning, in collaboration with the consultant team engaged under the TA, the Institute of Education, and the reform implementation team, as well as other development partners (Q3–Q4 2015) (GCD, GEM, PAR)</p> <p>1.3 Train education departments and laboratory schools in the use of the research framework and tools as well as research findings; conduct research on the organization of the teaching–learning environment within schools, curriculum implementation, and teaching–learning processes inside and outside the classroom; and analyze profiles of students disadvantaged in learning in nine districts of Ulaanbaatar (Q3 2015–Q1 2016) (GCD, GEM)</p> <p>1.4 Organize a workshop in Ulaanbaatar to present and discuss research findings with teachers, policy makers and administrators, researchers, civil society organizations, development partners, and mass media (Q4 2015) (PAR)</p> <p>1.5 Train education departments and laboratory schools and conduct research in Dundgovi, Khuvsgol, and Orkhon <i>aimags</i>, and organize workshops to present and discuss research findings (Q1–Q2 2016) (GCD, GEM, PAR)</p> <p>1.6 Train education departments and laboratory schools and conduct research in Khentii, Uvs, and Zavkhan <i>aimags</i>, and organize workshops to present and discuss research findings (Q2–Q3 2016) (GCD, GEM, PAR)</p> <p>1.7 Prepare (i) comparative analysis of research findings in Ulaanbaatar and the research <i>aimags</i>, and (ii) policy recommendations to enhance equity of access to quality education (Q3–Q4 2016)</p>
<p>2. Knowledge and measures to enhance equity of access to quality education developed</p> <p>2.1 Prepare policy notes and a costed action plan to enhance equity of access to quality education based on research findings and policy recommendations in consultation with the MECS, the Institute of Education, and other relevant stakeholders (Q4 2016–Q1 2017) (GCD, GEM, PAR)</p> <p>2.2 Organize workshops to present and discuss policy notes and a costed action plan with teachers, policy makers and administrators, researchers, civil society organizations, development partners, and mass media (Q1–Q2 2017) (PAR)</p> <p>2.3 Develop knowledge products (e.g., publications, films) (Q1–Q2 2017) (KNS)</p> <p>2.4 Disseminate knowledge products (Q2 2017) (KNS)</p>
<p>Inputs</p> <p>ADB (JFPR): \$1,000,000</p> <p>Note: The government will provide counterpart support in the form of counterpart staff, policy documents and guidelines, statistical data, information, office space, and other in-kind contributions. Collaboration with the JICA and Cambridge University will be sought in research and workshops, if appropriate.</p>
<p>Assumptions for Partner Financing</p> <p>Not Applicable.</p>

ADB = Asian Development Bank; GCD = governance and capacity development; GEM = gender equity and mainstreaming; JICA = Japan International Cooperation Agency; JFPR = Japan Fund for Poverty Reduction, KNS = knowledge solutions; MECS = Ministry of Education, Culture, and Science; PAR = partnerships; TA = technical assistance.

^a Equity of access to quality education is defined as providing all students, regardless of gender, family background, or socioeconomic or disability status, with access to quality educational resources and opportunities to learn.

^b MECS. 2012. *Pre-School, Primary, and Secondary Education Reform Policy Framework, 2012–2016*. Ulaanbaatar.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Amount
Japan Fund for Poverty Reduction^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	373.2
ii. National consultants	233.0
b. International and local travel	47.2
c. Reports and communications	30.0
2. Training, seminars, and conferences	165.0
3. Surveys	48.0
4. Representative for contract negotiations	20.0
5. Contingencies	83.6
Total	1,000.0

Note: The technical assistance (TA) is estimated to cost \$1,100,000, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The government will provide counterpart support in the form of counterpart staff, policy documents and guidelines, statistical data, information, office space, and other in-kind contributions. The value of government contribution is estimated to account for 10% of the total TA cost.

^a Administered by Asian Development Bank.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. A total of 19 person-months of international and 34 person-months of national consulting services will be required to support the implementation of the technical assistance. Two packages are proposed: (i) one consulting firm contract for 14 person-months of international and 34 person-months of national consulting services (using quality- and cost-based selection with a quality–cost ratio of 90:10 and simplified technical proposals), and (ii) two individual contracts (two international consultants for 2 person-months and 3 person-months). To reduce administrative burden and improve economy, efficiency, and value for money, all the consultants will be engaged on output-based (lump-sum) contracts. The consultants will be engaged by the Asian Development Bank (ADB) in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time).

A. Consulting Firm

2. The following consultants will be engaged through a firm:

3. **Education economist and team leader** (international, 6 person-months). The education economist will have a master's degree in education economics, education finance, or another relevant discipline and at least 10 years of experience in leading and conducting education sector assessments with an emphasis on equity. Experience in dealing with gender-disaggregated data is desirable. The economist will (i) collect data from the MECS's education sector information system and other sources on schools, students, teachers, and public funding for schools and students; (ii) analyze data to identify disparities in financial, human, and physical resources distributed across schools and students; (iii) design a research framework and develop tools for municipalities and *aimags*, in collaboration with the Institute of Education and the reform implementation team, to collect and analyze data on household expenditures on education in relation to different categories of students; (iv) conduct research on household expenditures on education in relation to different categories of students in collaboration with the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (v) prepare a comparative analysis of research findings in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (vi) explore policy options to address needs of students disadvantaged in access to quality education resources and learning opportunities; (vii) prepare a policy note that will include policy options to reduce disparities in the distribution of financial, human, and physical resources across schools and students and enhance equity of access to quality education; (viii) prepare a costed action plan to implement the policy options to reduce disparities in resources and enhance equity of access to quality education; (ix) train the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use research framework and tools, analyze research data, and provide support for schools based on research findings; and (x) present research findings and policy recommendations, the policy note, and the action plan at workshops organized in Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*. Additionally, the team leader will support the timely completion and submission of milestone reports (para. 9) with clearly defined inputs from the team.

4. **Education economist and deputy team leader** (national, 16 person-months). The education economist will have a master's degree in education economics, education finance, or another relevant discipline and at least 5 years of experience in conducting education sector assessments with an emphasis on equity. Experience in dealing with gender-disaggregated data is desirable. The economist will (i) collect data from MECS's education management information

system and other sources on schools, students, teachers, and public funding for schools and students; (ii) analyze data to identify disparities in financial, human, and physical resources distributed across schools and students; (iii) design a research framework and develop tools for municipalities and *aimags* to collect and analyze data on household expenditures on education in relation to different categories of students; (iv) conduct research on household expenditures on education in relation to different categories of students; (v) prepare a comparative analysis of research findings; (vi) explore policy options to address needs of students disadvantaged in access to quality education resources and learning opportunities; (vii) prepare a policy note that will include policy options to reduce disparities in the distribution of financial, human, and physical resources across schools and students and enhance equity of access to quality education; (viii) prepare a costed action plan to implement the policy options; (ix) train the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use research framework and tools, analyze research data, and provide support for schools based on research findings; (x) present research findings and policy recommendations, the policy note, and the action plan at workshops; (xi) promote effective coordination among ADB, the MECS, the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, laboratory schools, development partners, and other stakeholders; and (xii) organize research and workshops.

5. **School management specialist** (international, 4 person-months). The school management specialist will have a master's degree in education administration, business administration, or another relevant discipline and at least 10 years of experience in conducting research on school management with an emphasis on the organization of the teaching–learning environment within schools. Experience in research on school management from a gender perspective is desirable. The specialist will (i) design a research framework and develop tools for municipalities and *aimags*, in collaboration with the Institute of Education and the reform implementation team, to collect and analyze data on the organization of the teaching–learning environment within schools; (ii) conduct research on the organization of the teaching–learning environment within schools in collaboration with the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (iii) prepare a comparative analysis of research findings in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (iv) explore policy options related to the organization of the teaching–learning environment within schools to enhance student learning; (v) prepare a related policy note that will include policy options; (vi) prepare a costed action plan to implement the policy options; (vii) train the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use research framework and tools, analyze research data, and provide support for schools based on research findings; and (viii) present research findings and policy recommendations, the policy note, and the action plan at workshops organized in Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*.

6. **School management specialist** (national, 9 person-months). The school management specialist will have a master's degree in education administration, business administration, or another relevant discipline and at least 5 years of experience in conducting research on school management with an emphasis on the organization of the teaching–learning environment within schools. Experience in research on school management from a gender perspective is desirable. The specialist will (i) design a research framework and develop tools for municipalities and *aimags* to collect and analyze data on the organization of the teaching–learning environment within schools; (ii) conduct research on the organization of the teaching–learning environment within schools; (iii) prepare a comparative analysis of research findings; (iv) explore policy options related

to the organization of the teaching–learning environment within schools to enhance student learning; (v) prepare a related policy note that will include policy options; (vi) prepare a costed action plan to implement the policy options; (vii) train the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use research framework and tools, analyze research data, and provide support for schools based on research findings; and (viii) present research findings and policy recommendations, the policy note, and the action plan at workshops.

7. **Educational psychologist** (international, 4 person-months). The education psychologist will have a master’s degree in education psychology, psychology, or another relevant discipline and at least 10 years of experience in conducting research on curriculum implementation, teaching–learning processes inside and outside the classroom, and learning difficulties. Experience in gender-sensitive research is desirable. The psychologist will (i) design a research framework and develop tools for municipalities and *aimags*, in collaboration with the Institute of Education and the reform implementation team, to collect and analyze data on curriculum implementation and teaching–learning processes inside and outside the classroom, including grouping and orientation of students, preparation of lessons through teacher collaboration, formative assessment of student learning, and approaches to address learning difficulties, homework, and extracurricular activities; (ii) conduct research on curriculum implementation and teaching–learning processes inside and outside the classroom in laboratory and non-laboratory schools in collaboration with the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*, with attention paid to different categories of students disadvantaged in learning; (iii) prepare a comparative analysis of research findings in nine districts of Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (iv) explore policy options, especially for teacher training and professional development, related to curriculum implementation and teaching–learning processes inside and outside the classroom to enhance student learning with attention to different categories of students disadvantaged in learning; (v) prepare a related policy note that will include policy options; (vi) prepare a costed action plan to implement the policy options; (vii) train the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use the research framework and tools, analyze research data, and provide support for schools based on research findings; and (viii) present research findings and policy recommendations, the policy note, and the action plan at workshops organized in Ulaanbaatar and Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*.

8. **Didactic specialist** (national, 9 person-months). The didactic specialist will have a master’s degree in education or another relevant discipline and at least 5 years of experience in conducting research on curriculum implementation and teaching–learning processes inside and outside the classroom. Experience in gender-sensitive research is desirable. The specialist will (i) design research framework and develop tools for municipalities and *aimags* to collect and analyze data on curriculum implementation and teaching–learning processes inside and outside the classroom, including grouping and orientation of students, preparation of lessons through teacher collaboration, formative assessment of student learning, and approaches to address learning difficulties, homework, and extracurricular activities; (ii) conduct research on curriculum implementation and teaching–learning processes inside and outside the classroom in laboratory and non-laboratory schools, with attention paid to different categories of students disadvantaged in learning; (iii) prepare a comparative analysis of research findings; (iv) explore policy options, especially for teacher training and professional development, related to curriculum implementation and teaching–learning processes inside and outside the classroom to enhance student learning with attention to different categories of students disadvantaged in learning; (v) prepare a related policy note that will include policy options; (vi) prepare a costed action plan to implement the policy options; (vii) train

the Institute of Education, the reform implementation team, metropolitan and *aimag* education departments, and laboratory schools to use the research framework and tools, analyze research data, and provide support for schools based on research findings; and (viii) present research findings and policy recommendations, the policy note, and the action plan at workshops.

9. **Reporting requirements.** The team leader will support the timely completion and submission of the following milestone reports, with clearly defined inputs from the team:

- (i) An inception report that will include (a) a summary of training activities conducted for the MECS, the Institute of Education, the reform implementation team, the metropolitan education department, and laboratory schools; (b) a report on research findings of the distribution of financial, human, and physical resources across schools, using data available through the MECS's education management information system and other sources; (c) a report on research findings of the organization of the teaching–learning environment within schools, curriculum implementation and teaching–learning processes inside and outside the classroom, and profiles of students disadvantaged in learning in nine districts of Ulaanbaatar; and (d) a feedback report from a workshop organized in Ulaanbaatar.
- (ii) A midterm report that will include (a) a summary of training activities and research findings in Dundgovi, Khentii, Khuvsgol, Orkhon, Uvs, and Zavkhan *aimags*; (b) workshop feedback; (c) comparative analysis of research findings in Ulaanbaatar and the research *aimags*; and (d) policy recommendations to enhance equity of access to quality education.
- (iii) A draft final report that will include policy notes, a costed action plan, and workshop feedback.
- (iv) A final report that will incorporate comments from ADB and the MECS.

B. Individual Consultants

10. **Education policy analyst** (international, 3 person-months). The education policy analyst will have a doctor of philosophy degree in education, education administration, or another relevant discipline, at least 5 years of experience in conducting research on education policy, and papers published in international peer-reviewed journals. The policy analyst will write high-quality research articles and studies for publications based on the research conducted by the consulting firm and drawing on other available literature. The articles and studies will be intended for policy makers, researchers, and the general public. The policy analyst will make presentations on the publications at dissemination workshops.

11. **Filmmaker** (international, 2 person-months). The filmmaker will have a master of arts degree in film production, screenwriting, digital cinematography, or another relevant discipline and at least 7 years of experience in writing, editing, presenting, and/or creating documentary films. The filmmaker will produce films that feature research findings and policy recommendations developed under the technical assistance. The films will be intended for policy makers, teachers, school managers, and the general public. The filmmaker will make presentations on the films at dissemination workshops.