



Report and Recommendation of the President to the Board of Directors

Project Number: 38559
October 2007

Proposed Asian Development Fund Grant Kingdom of Cambodia: Enhancing Education Quality Project

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 8 October 2007)

Currency Unit	–	riel/s (KR)
KR1.00	=	\$.0002467612
\$1.00	=	KR4,052.50

ABBREVIATIONS

ADB	–	Asian Development Bank
EA	–	executing agency
EFA	–	Education for All
EIRR	–	economic internal rate of return
ESP	–	Education Strategic Plan
ESSP	–	Education Sector Support Program
EVEP	–	Elective Vocational Education Program
GDP	–	gross domestic product
GER	–	gross enrolment ratio
ICT	–	information and communication technology
JICA	–	Japan International Cooperation Agency
MIS	–	management information system
MoEYS	–	Ministry of Education, Youth and Sport
NER	–	net enrolment ratio
NGO	–	nongovernment organization
NIE	–	National Institute of Education
PDH	–	Publishing and Distribution House
PRD	–	Pedagogic Research Department
Sida	–	Swedish International Development Cooperation Agency
TTC	–	teacher training college
TTD	–	Teacher Training Department
UNICEF	–	United Nations Children's Fund
USAID	–	United States Agency for International Development
WTO	–	World Trade Organization

NOTES

- (i) The fiscal year (FY) of the Government ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2007 ends on 31 December 2007.
- (ii) In this report, "\$" refers to US dollars.

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CONTENTS

	Page
GRANT AND PROJECT SUMMARY	i
MAP	
I. THE PROPOSAL	1
II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES	1
A. Performance Indicators and Analysis	1
B. Analysis of Key Problems and Opportunities	3
III. THE PROPOSED PROJECT	9
A. Impact and Outcome	9
B. Outputs	9
C. Special Features	15
D. Project Investment Plan	15
E. Financing Plan	16
F. Implementation Arrangements	16
IV. PROJECT BENEFITS, IMPACTS, AND RISKS	19
V. ASSURANCES AND CONDITIONS	21
A. Specific Assurances	21
B. Conditions for Grant Effectiveness	21
VI. RECOMMENDATION	22
APPENDIXES	
1. Design and Monitoring Framework	23
2. Sector Analysis	29
3. External Assistance to the Education Sector	35
4. Summary Poverty Reduction and Social Strategy	37
5. Gender Action Plan	40
6. Detailed Cost Estimates	47
7. Implementation Schedule	49
8. Procurement Plan	52
9. Outline Terms of Reference for Consultants	54
10. Economic and Financial Analyses	62
SUPPLEMENTARY APPENDIXES (available on request)	
A. Lessons Learned	
B. Projects Link with the Education Sector Support Program	
C. Indicative Guidelines for the Teacher Trainee Grant Scholarships and Upper Secondary Student Grant Scholarships	
D. Detailed Cost Estimates by Expenditure Category	
E. Good Governance Framework	

GRANT AND PROJECT SUMMARY

Borrower	Kingdom of Cambodia
Classification	Targeting classification: General intervention Sector: Education Subsector: Senior secondary general education Themes: Inclusive social development, capacity development Subthemes: Human development, institutional development
Environment Assessment	Category C. The Project focuses on enhancing the quality of education and will have no negative environmental impact.
Project Description	The Project will help the Government achieve its goal of poverty reduction and economic development by providing support for enhancing the quality of education through institutional capacity development for planning, design, and delivery of education services and by strengthening secondary education.
Rationale	The Government accords high priority to enhancing the quality of education to make the education system more efficient and to improve learning achievements. It also recognizes that investments in secondary education are necessary to meet the growing demand for a well educated and skilled work force.
Impact and Outcome	The impact of the Project will be an increased number of better educated and skilled people from all sections of Cambodia's population. The Project will achieve this by carefully targeting support for (i) education system management and development, (ii) professional development of teachers, and (iii) strengthening secondary education. The Project outcome will be improved quality and equity of education in Cambodia with more effective secondary education, improved teacher training, and stronger education management systems.
Project Investment Plan	The investment cost of the Project is estimated at \$33.38 million equivalent, including physical and price contingencies, taxes, and duties.

Financing Plan

(\$ million)		
Source	Total	%
Asian Development Bank	27.10	81.20
Government	6.28	18.80
Total	33.38	100.00

Source: Asian Development Bank estimates.

The Asian Development Bank (ADB) will provide a grant of \$27.10 million, or 81.2% of the total cost, from its Special Funds resources to help finance the Project. The Government will provide the remaining \$6.28 million (18.8% of project costs) as counterpart financing.

Period of Utilization	April 2008 to 31 October 2014
Estimated Project Completion Date	30 April 2014
Executing Agency	Ministry of Education, Youth and Sport (MoEYS)
Implementation Arrangements	MoEYS will be responsible for project coordination and implementation. A project steering committee, chaired by a secretary of state, will provide overall guidance to the Project. Members of the project steering committee will include representatives from the departments of Planning, Finance, Teacher Training, and General Secondary Education, the Pedagogical Research Department (PRD), and the National Institute of Education (NIE). The steering committee will also include representatives from the ministries of Economy and Finance, Women's Affairs, and Planning.
Procurement	All goods and works financed under the Project will be procured in accordance with ADB's <i>Procurement Guidelines 2007</i> (as amended from time to time) reflecting ADB's <i>Anticorruption Policy</i> (1998, as amended to date).
Consulting Services	The Project will provide a total input of 553 person-months of consulting services (219 person-months international and 334 person-months national) in accordance with ADB's <i>Guidelines on the Use of Consultants</i> (2007, as amended from time to time). The consulting services are designed not only to provide technical support to the project management and implementation but also to build longer-term institutional development and capacity for planning, management, and the delivery of teacher professional development and secondary education. The consulting services cover broad areas of expertise that include (i) institutional development, (ii) management information system (MIS) development, (iii) teacher professional development, (iv) curriculum and materials development including information and communication technology (ICT), (v) examination reform, (vi) facilities and equipment improvement, and (vii) gender and equitable access.

Project Benefits and Beneficiaries

The Project will have substantial benefits for the education sector, in particular the teacher training institutions and secondary education.

Direct beneficiaries will be (i) MoEYS staff, including provincial and district office teams trained to strengthen their capacity to plan, manage, administer, and regulate the system; (ii) teacher training colleges (TTCs), which will have improved facilities including laboratories and libraries; (iii) academic staff and management of the TTCs, who will benefit from inputs to upgrade competencies; (iv) approximately 14,400 current lower and upper secondary teachers benefiting from in-service training; (v) 300 upper secondary schools benefiting from technical assistance in school management, school networking, and school improvement planning; (vi) 36 upper secondary schools which will be developed as resource schools; (vii) 350,000 upper secondary students who will be provided with textbooks; and (viii) approximately 7,000 upper secondary teachers who will be provided with teachers' guides.

In addition, 500 students will be provided with the opportunity to train as teachers through scholarships to NIE and regional teacher training colleges (TTCs). An additional 4,000 students will receive scholarships for upper secondary education. Of the total scholarship beneficiaries, 60% will be females.

The indirect beneficiaries will include (i) current and future trainee teachers who will benefit from improvements in preservice teacher training curriculum and methodologies; (ii) students in lower secondary and upper secondary schools (both those currently enrolled and in the future) will be taught by better trained and motivated teachers and hence will have more relevant skills and knowledge and thus be more employable; (iii) employers and potential employers will have employees with more relevant attitudes, skills, and knowledge which will reduce the need for costly initial training of recruits and/or returns from what they undertake; and (iv) higher-education institutions which will have better prepared applicants.

Risks and Assumptions

The major risk stems from weak institutional and management capacity to implement the range of activities provided. The Project mitigates this risk by providing (i) consulting services for all activities where capacity is perceived to be weak, (ii) adequate time for activities to be completed satisfactorily, and (iii) a realistic time frame for implementation over a 6-year period.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Kingdom of Cambodia for the Enhancing Education Quality Project.

II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

A. Performance Indicators and Analysis

2. Cambodia's economy is experiencing rapid expansion. In 2006, gross domestic product (GDP) growth was estimated at 10.4%, consolidating double-digit growth of the previous 2 years. The upturn is due to stronger industrial production and robust expansion in services and construction activity. Agricultural production expanded by a stronger than expected 4.4% from the record levels achieved in 2005. This trend in strong economic growth is expected to continue in the medium term.

3. A rapidly growing urban economy, together with approximately 74.2% of the population still employed in agriculture, creates a dual challenge for the Government in meeting the emerging demand for a qualified, skilled, and competitive work force, while at the same time bridging disparities in access to education and meeting its goals of universal primary education. To meet this challenge, the Government is placing increasing emphasis on balancing the needs of more equitable access to education by improving the quality and reach of secondary education.

4. The National Strategic Development Plan recognizes education as a crucial factor in developing the country's human resources and endorses the Education Strategic Plan (ESP)—a 5-year rolling plan for developing the education sector. The ESP articulates the vision of the Ministry of Education, Youth and Sports (MoEYS) to "establish and develop human resources of the very highest quality and ethics in order to develop a knowledge based society within Cambodia." The ESP defines MoEYS' long-term mission as ensuring that all Cambodian children and youth have equal opportunity to access quality education consistent with the Constitution and the Government's commitment to the United Nations Convention on the Rights of the Child, regardless of social status, geography, ethnicity, religion, language, gender, or disabilities. The ESP highlights three main policies: (i) equitable access to education services, (ii) quality and efficiency of education services, and (iii) institutional development and capacity building for decentralization. The ESP is supported by an Education Sector Support Program (ESSP) which is reviewed annually in consultation with development partners and serves as the action plan to achieve the sector goals set out in the ESP. The ESSP identifies the necessary program activities and priorities in reaching the Cambodian Millennium Development Goals and the goals set out in the Education for All (EFA) national plan. The Government's Rectangular Strategy for Growth, Employment, Equity and Efficiency includes capacity building and human resource development as one of its four pillars, with enhancing the quality of education being the main feature.

5. The current education system comprises primary (grades 1–6), lower secondary (grades 7–9), and upper secondary (grades 10–12). Basic education is defined as grades 1–9. Entry to upper secondary level is regulated by a national examination at the end of grade 9. Technical and vocational education programs run parallel to upper secondary programs and are the responsibility of the Ministry of Labor and Vocational Training.

6. Despite its historical disadvantage, Cambodia has made considerable progress in the provision of education. In 2006–2007, the gross enrolment ratio (GER)¹ at primary level was 123% and the net enrolment ratio (NER)² was 92.1%. This indicates a 13.5% increase against an NER of 77.8% in 1997–1998. During the same period, the GER for girls at the primary level increased from 81.2% to 119.3%, and the NER for girls at the primary level increased from 72.4% to 91%. The impressive growth in enrolments at the primary level has led to high rates of increase in enrolments at the lower and upper secondary levels. Since 1997–1998, lower secondary enrolments have grown by 135% and upper secondary enrolments have grown by 260%. But, despite the rapidly growing demand for secondary education, the vast majority of children of secondary school age are still not enrolled in school. The GER at the lower secondary level is 60%, and at the upper secondary level it is 21.2%; the NER at the lower secondary level is 31.3%, and at the upper secondary level it is 11.3%. At the lower secondary level, the GER for girls is 54.5% and the NER for girls is 33.1%. At the upper secondary level the GER for girls is 15.3% and the NER is 9.9%. Despite the rapid expansion, overall enrolments at the secondary level are low, largely as a consequence of poor geographic access to lower secondary schools. The Asian Development Bank (ADB) and the World Bank are both supporting construction of lower secondary schools and together will provide 628 lower secondary schools through their ongoing interventions.³ The impact of this on enrolments at the lower secondary level will be felt in the coming years. Meanwhile, such low levels of participation in secondary education are a severe constraint to Cambodia's economic development.

7. Expansion of education has been fueled by the Government's commitment and extensive support from development partners, but the overall quality and efficiency of education remains a serious concern. Expansion of enrolments in primary schools has led to high student-teacher ratios. Drop out and repetition rates remain high. Due to low levels of enrolments, secondary education has relatively higher graduation and lower drop out rates. Of the children who enroll in grade 1, only 14.78% finish grade 12 within 12 years. Low enrolment rates at the secondary level, as well as a low percentage of students completing school, is a cause for concern because the figures indicate large numbers of young people outside the school system and therefore unskilled and unemployable. Across the school system, schools have poor physical infrastructure and inadequate learning materials, laboratories, and libraries. Teachers are poorly qualified, inadequately trained, and unmotivated. Limited resources hamper the Government's ability to effect major improvements, and the poor performance of the education system wastes already scarce resources.

8. Given the rapidly expanding national economy and the global trends in demand for education at all levels, the education sector in Cambodia will continue to experience rapid growth and exert pressure on MoEYS' management capacity. The Project will strengthen institutional and management capacity through a variety of interventions, and target support for enhancing the quality of secondary education. The design and monitoring framework is in Appendix 1.

¹ GER refers to pupils enrolled from all age groups.

² NER refers to pupils enrolled from the eligible age group.

³ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on Proposed Loans and Technical Assistance Grant to the Kingdom of Cambodia for the Second Education Sector Development Program*. Manila. (Loans 2121/2122-CAM, program loan for \$20 million and project loan for \$25 million, approved on 9 December). The second Education Sector Development Program will provide 400 new lower secondary schools. The Cambodia Education Sector Support Program, supported by the World Bank, will provide 228 new lower secondary schools.

B. Analysis of Key Problems and Opportunities

9. An analysis of the performance of the education sector is outlined below and provided in more detail in Appendix 2.

1. Access and Equity

10. Since 2001, equity of access to basic education has improved. Primary and secondary school enrolment has increased by 30%, and there is greater participation by children from the poorest families, ethnic minorities, and by girls. Many additional primary and lower secondary classrooms have been built to improve access. Repetition rates have also fallen in the lower primary grades. However, disparities persist based on gender, ethnicity, geographic location, and economic background. At the primary level, the differentials in NER between urban (93.2%) and rural (92.2%) areas are not significant. The differences are more marked in remote and disadvantaged areas,⁴ where the overall NER drops to 73.2%. Mondulkiri (with an NER of 68.9%) and Ratanakiri (with an NER of 56.9%) have the lowest overall NERs. They also have the highest rates of GER at 202.9% for Mondulkiri and 163.1% for Ratanakiri, indicating overage enrolments of 66% for Mondulkiri and 65.1% for Ratanakiri. Surprisingly, Mondulkiri has a high transition rate to lower secondary of 90.4%, while the corresponding figure for Ratanakiri is 72.6%.

11. Rural urban differentials for gender are not significant, with a marginally higher NER in rural areas (92.6%) than in urban areas (91.1%). However, in disadvantaged areas, the NER for girls drops to 70.6%. The two above-mentioned provinces, along with Otdar Meanchey, have very high GER for girls at the primary level but among the lowest GER at the lower and upper secondary levels. They also have the lowest NER for girls at all levels of school education. In both provinces, the transition rates for girls (83.0% in Mondulkiri and 83.2% in Ratanakiri) are higher than the national average (78.7%). In fact, among female students, drop out rates reduce with each successive grade completed. The NER of children at secondary education in remote and disadvantaged areas is much lower than the national average. Women have the lowest representation in the teaching force in the disadvantaged areas. Thus, while children in disadvantaged areas are least likely to have access to schools, a more critical examination of statistics indicates that the children who do obtain access to schooling are likely to use the opportunity reasonably well.

2. Quality

a. Curriculum

12. MoEYS approved a policy in December 2005 and master plan for curriculum development for the period 2005–2009. Since then, processes for developing and introducing new curricula have been underway; the Pedagogic Research Department (PRD) is responsible for curriculum development, MoEYS has received support from the United States Agency for International Development (USAID) for review of curriculum for basic education (all subjects for grades 1–9), and from the Japan International Cooperation Agency (JICA) in mathematics and three science subjects at upper secondary level (grades 10–12). At the secondary level to date, new curricula have been developed for lower secondary Khmer, mathematics, social studies, and sciences, and for upper secondary mathematics, biology, chemistry, and physics.

⁴ A disadvantaged area is a location where one of the following conditions applies: poor transport infrastructure, population density of less than 10 persons per square kilometer, regularly flooded areas and/or areas vulnerable to natural disasters, integrated areas and/or border areas, and areas that have an insufficient number of schools of all levels.

13. Progress in developing curricula in areas that are not supported directly by donors has been slow due to the lack of technical support to inform and guide the process, as well as the competing demands on PRD staff. Curricula need to be revised for the traditional civics subjects, foreign languages (English and French), and for the proposed Elective Vocational Education Program (EVEP) subjects which are being introduced.

14. PRD needs support to strengthen its professional curriculum development capacity. The current phasing of introducing the new curriculum needs to be adjusted to accommodate several dimensions in order to optimize the benefits from support for strengthening institutional capacity. The dimensions include (i) curriculum coherence across years, (ii) efficient and effective curriculum development, (iii) orientation of schools and teachers to the new curriculum, (iv) minimizing the disruption to students and teachers during introduction of the new curriculum, (v) implications for preparing learning materials to support the new curriculum, (vi) integration of the new curriculum with the preservice teacher training curriculum as well as with student examination and assessment, and (vii) a schedule for curriculum reviews.

b. Assessment

15. The assessment and examination system has benefited from support from the Australian Agency for International Development (AusAID). However, the system still needs significant strengthening since it is not fully standards-based and lacks coherence. The Government is designing assessment against curriculum standards for grades 3, 6, and 9. To complete this system, curriculum standards (and also grade criteria) need to be developed for grade 12. A clear relationship between school-based assessment in grades 1 and 2 and assessment of curriculum standards in grade 3 (and for subsequent grades up to grade 9) needs to be established so that there is coherent reporting on student progress. The new system of national assessments (standardized tests at grades 3, 6, and 9 in Khmer and mathematics, applied to a sample of the student population to assess learning achievement) needs to be supported in applying the curriculum standards by using similar items to those used in schools to assess these curriculum standards. Complementarities need to be established between school-based assessment and the current examination system. The Examinations Office lacks capacity to undertake these reforms and needs a phased strengthening with the introduction of information and communication technology (ICT)-led improvements for management of assessment, administration, and record keeping.

c. Textbooks and Learning Materials

16. MoEYS' stated policy is to ensure adequate provision of core instructional materials and to encourage the process of widening the choice and therefore the quality in the provision of textbooks by opening the textbook market to supply by multiple publishers. This is expected to allow more flexibility in the purchase of core learning materials at the school level with quality and cost benefits for MoEYS. In practice, this has not happened because copyright is vested in the Publishing and Distribution House (PDH) and pricing issues have kept other publishers out of the textbook publishing business. Centralized procurement also contributes to serious delays in provision of textbooks. Lack of textbooks is a major obstacle to student learning. Inputs for strengthening quality of education can only have impact if the complex issues relating to provision of textbooks are resolved as a matter of the highest priority.

17. PRD is responsible for putting textbook writing and production out to tender and supporting interested publishers with specifications, information, and guidance to enable them to develop material suitable for submission to the MoEYS textbook approval process. PRD is

also responsible for ensuring that learning materials are developed on time and in line with curriculum requirements. PRD will play a key role in implementing MoEYS' policy on textbook development and needs support to be able to do this effectively.

d. Teacher Quality

18. The low quality of teaching is a major reason for the poor quality of education. Low entry-level qualifications and inadequate training (or no training at all) are the most basic causes of poor teaching quality. Of the approximately 25,520 teachers at the lower and upper secondary level, about 14,400 are considered underqualified. Poor motivation of both teachers and trainers, and inadequate support and supervision, also contribute to poor teaching quality. The following interventions are considered necessary for improving the quality of teacher training and professional development: (i) strengthening the capacity of teacher training colleges (TTCs) to improve teacher skills and competencies; (ii) strengthening in-service teacher training to improve the quality of classroom teaching; and (iii) a strategy for professional development that addresses, among other issues, a financial and nonfinancial incentive structure.

19. The ESSP prioritizes a staff development program for TTCs and a responsive preservice and in-service teacher training program to enhance the capacity of teachers and trainers. These programs are linked to the introduction of teacher standards, teacher training standards, and improved systems of performance monitoring. The ESSP proposes a formal certification system as a foundation for the development of the national teacher education system. To achieve this, criteria and procedures need to be developed for assessing competencies and certification of courses that teachers and trainers attend. A training needs-analysis for teachers has identified the following competencies that need strengthening: (i) institutional management skills, (ii) the ability to develop and use ICT multimedia, (iii) English language skills, and (iv) upgrading of underqualified teachers in secondary schools. All teacher training programs need to be planned and coordinated to ensure that (i) duplication with other development initiatives is avoided, (ii) future planned activities complement and strengthen current interventions, and (iii) the system has the capacity to absorb the training activities on the scale planned. Since teacher salaries consume a large percentage of the budget for education, improvements in teacher quality will significantly improve resource efficiencies.

e. Institutional Capacity

20. Weak functional capacity in the education system continues to be a barrier to achieving the goal of universal primary education and enhancing education quality. MoEYS has been overstretched in its administrative, planning, and policy formulation functions. Development partners have provided support for building capacity, but this support has been constrained by inadequate staff development, poor facilities, and lack of effective leadership. Besides, rapidly expanding primary education, supported by the national and international focus on universal primary education, has absorbed much of the resources. Lower secondary education, with its inclusion in basic education, is beginning to receive attention; secondary education has remained a neglected subsector. TTCs have received only sporadic support and lack adequate facilities such as libraries and laboratories. These weaknesses have resulted in weak and inefficient implementation of policies, and inadequate capacity for meeting the demands for management and teacher training.

21. Management information systems (MISs) remain weak in MoEYS. Mechanisms for data gathering and manipulation are minimal at the point of collection. MISs often do not have the capacity to interconnect with one another, not only because the basic data sets are incompatible

but also because the staff lack the analytical skills. Where they exist, basic data sets are held within systems which are associated with a specific entry. Currently MoEYS has a number of information systems: the education MIS, centered in the MoEYS Department of Planning; the financial MIS in the Department of Finance, and a human resources MIS in the Department of Personnel. The education MIS system does not interrelate with either the human resources or financial MIS. The human resources MIS is supported by the United Nations Children's Fund (UNICEF) and the European Union, and the education MIS is supported by UNICEF and the Swedish International Development Cooperation Agency (Sida). Other systems that already exist or are planned relate to school construction, nonformal education, higher education, and the Department of Information and ASEAN Affairs.

f. Financing for Education

22. Education's share of the national budget has increased from 13.6% in 2000 to an expected 19.2% in 2007. During the same period, allocations to education in absolute terms increased from KR183.2 billion to KR546 billion. Education expenditures as a percentage of GDP increased from 1.2% in 2000 to 1.93% in 2007. Despite the increases, the share of education in national spending remains low compared with other developing countries.

23. The education sector receives substantial financing from development partners. During the period 2005–2010, committed external funding is estimated at \$327.6 million, without taking into account any further commitments that may be made by development partners. A large number of donors support the education sector with ADB, the World Bank, European Commission and the United Nations agencies being the biggest donors. Resource requirements to successfully achieve the objectives set out in the ESP 2006–2010 are estimated at \$864 million. Despite projections for robust economic growth, the Government will not be able to meet these resource requirements and will continue to depend on external assistance to augment resources.

3. Government Objectives and Strategic Policies

24. The Government's Rectangular Strategy for Growth, Employment, Equity and Efficiency states that the government will continue to increase budget expenditures, and mobilize increased international assistance to (i) provide incentives for teachers; (ii) assure quality instruction; (iii) provide educational materials, equipment, libraries, and laboratories; (iv) build dormitories for students, especially female students; (v) continue to reform curricula and training programs; (vi) provide scholarships to poor students; (vii) promote informal education programs; (viii) finance construction of schools in rural areas; and (ix) support school operating costs.

25. The Government's various aspirational goals for expansion of education opportunities are reflected in the ESP, which was the first step towards adopting a sectorwide strategy for education development. The ESSP outlines how strategies laid out by the ESP will be put into practice. It emphasizes strengthening appropriate MoEYS departments at central and provincial levels, including delegation of responsibilities to districts, clusters and/or communes, and schools. The Government's Framework for Decentralization and Deconcentration reinforces the distribution of responsibilities and resources to provincial and municipal levels. The Government also accords the highest priority to the EFA national plan.

26. In 2006, the Council of Ministers approved the draft Education Law which has been submitted to the National Assembly for ratification. Under the Education Law, a National Council for Education will be established to promote the development of the education

sector. MoEYS has also prepared the Policy and Strategies on ICT in Education (2004), the Gender Mainstreaming Strategy in Education (2006–2010), and the Policy for Curriculum (2005–2009), and provided guidelines for the integration of these policies into the broader process of education reform.

4. ADB's Sector Strategy

27. ADB's strategy in the education sector in Cambodia has evolved to emphasize strengthening the investments made during past projects and building upon them to move towards more integrated support for the education sector. Through the first Education Sector Development Program (ESDP I),⁵ approved in 1999, ADB provided program support for (i) the Government's priority action program, (ii) expanding access to primary education, and (iii) curriculum and textbook development. The second Education Sector Development Program (ESDP II),⁶ approved in 2004, continued the support for policy reforms but shifted support for expanding access to lower secondary education through school facilities development. The ESDP II also provides for construction of 24 new upper secondary schools and 25 model upper secondary schools. It also included technical assistance (TA) for planning for secondary education development.⁷ ADB has also supported policy reform, governance, and regulatory reform for decentralization of education through an advisory TA project⁸ linked to the second education program. ADB provided assistance for expanding access to primary education for children from remote and disadvantaged areas and for upgrading primary schools that do not offer a full 5-year cycle of primary schooling. ADB's support to the education sector has been fully consistent with Government priorities as enunciated in the ESP. The proposed Project will provide much-needed support for systemwide strengthening of institutional capacity for quality education. It will also expand and strengthen secondary education, which is now recognized as key to national economic development.

5. External Assistance to Education

28. Development agencies provide substantial support to the education sector in Cambodia. The World Bank and ADB are the two major funding agencies and, from 2002 to 2007, will together account for 42% of the total external funding for education. Other agencies supporting education include the European Commission, JICA, Sida, the United Nations Populations Fund (UNFPA), UNICEF, and USAID. The World Bank's support has been targeted at primary and lower secondary education. The European Commission has provided budgetary support with technical assistance to strengthen public financial management. USAID has supported curriculum development at the primary level. JICA support has targeted teacher training and curriculum development for science and mathematics at the secondary level.

⁵ ADB. 2001. *Report and Recommendation of the President to the Board of Directors on Proposed Loans to the Kingdom of Cambodia for the Education Sector Development Program*. Manila. (Loans 1864/1865, program loan for \$20 million and project loan for \$18 million, approved on 4 December).

⁶ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on Proposed Loans and Technical Assistance Grant to the Kingdom of Cambodia for the Second Education Sector Development Program*. Manila. (Loans 2121/2122-CAM, program loan for \$20 million and project loan for \$25 million, approved on 9 December).

⁷ The focus of secondary education development was on providing access through the expansion of secondary education. The Project provides complementary support, focusing on quality aspects of secondary education development.

⁸ ADB. 2004. *Technical Assistance to the Kingdom of Cambodia for Education Regulatory Reform and Governance for Decentralization*. Manila.

29. External assistance to the sector is channeled within the ESP framework. Donors have used different modalities to provide support—ADB has used sector development programs, the World Bank has used the project modality, and the European Commission has provided budgetary support. There are no large multidonor cofinanced projects in the education sector in Cambodia. The donor coordination mechanism has strengthened over the years but modalities of assistance have been determined by the extensive needs of the sector and constrained by both donor and government capacity. This project has been designed to target interventions at specific areas that need strengthening in order to improve the quality of learning outcomes. The project is fully consistent with the Government's emphasis on enhancing the quality of school education and addresses key areas highlighted in the ESP and ESSP. The links with the ESSP are highlighted in Supplementary Appendix B. The Project is also consistent with ADB's country strategy program for Cambodia,⁹ which recognizes that quality of education needs to be improved at all levels. An analysis of external assistance is in Appendix 3.

6. Lessons Learned

30. Valuable lessons have been drawn from projects and programs that have supported the education sector in the past. The generic lessons include that (i) rapid expansion of access to primary schooling is putting great pressure on secondary education, which needs attention; (ii) emphasis on expansion needs to be matched by emphasis on quality; (iii) an organizational framework for in-service teacher training which is linked to the preservice TTCs is needed; (iv) provision of facilities needs careful planning in order to ensure optimum utilization of resources; (v) institution building needs flexible inputs and a thorough analysis of institutional needs; (vi) professional development activities must be specific in terms of intended outputs, competencies, certification, and career development opportunities; (vii) adequate technical assistance needs to be provided for strengthening capacity; and (viii) experts need to work closely with counterparts for knowledge and skills transfer and reduce dependency (Supplementary Appendix A).

31. Despite the extensive assistance to the sector, the scope of the education reforms has exceeded the capacity of MoEYS. Institutional and systemic weaknesses have not received adequate attention, and the capacity of the education system to absorb new concepts is constrained by weak capacity. Experience from ADB-supported projects indicates that (i) due to capacity constraints, the policy and program reforms had to be supported by diverting technical assistance provided for other activities, (ii) many recommendations of the technical assistance provided under the ESDP I could not be implemented due to systemic weaknesses, and (iii) support for strengthening capacity needs to be carefully designed to ensure longer-term benefits to the system.

32. The preparation of the Project has been guided by the Government's education policies, in-depth subsector analysis, and the lessons learned from experience. The Project places significant emphasis on (i) policy coherence, (ii) building management and institutional capacity, and (iii) strengthening the quality and reach of secondary education. The Project provides adequate technical assistance to support all proposed activities to ensure that they are implemented satisfactorily. It also proposes an implementation structure comprising technical units for each component to promote ownership and encourage skills transfer and capacity building through partnership with technical experts.

⁹ ADB. 2005. *Cambodia: Country Strategy and Program 2005–2009*. Manila.

III. THE PROPOSED PROJECT

A. Impact and Outcome

33. The impact of the Project will be an increased number of better-educated and skilled people from all sections of Cambodia's population. The Project aims to strengthen the quality of school education by carefully targeting support for (i) education system management and development, (ii) professional development of teachers, and (iii) strengthening secondary education. A key underlying aspect of all proposed activities is strengthening the capacity of institutions and agencies responsible for delivery of quality education. This includes (i) examining the capacity of effectiveness of MoEYS' organizational structure, (ii) supporting capacity building of NIE and TTCs, and (iii) strengthening and integrating the MISs. The Project will provide extensive support for improving teacher quality and management, including upgrading facilities of the TTCs and enhancing competencies of teacher trainers. The quality of secondary education will be strengthened through (i) improved secondary school management; (ii) upgraded facilities including libraries and science and ICT laboratories; (iii) provision of textbooks; and (iv) improved secondary school curriculum, assessment, and examinations.

34. The Project outcome will be improved quality and equity of education in Cambodia with stronger education management systems, improved teacher competencies, and effective secondary education.

B. Outputs

35. The Project outputs and supporting activities are detailed below.

1. Education System Management and Development

36. The objective of this component is to strengthen institutional capacity of MoEYS for more efficient management and delivery of education services. This will be achieved through the following actions.

37. **Dissemination of the Education Law and Gender Mainstreaming Policy.** The Project will support dissemination of the law upon its adoption by the National Assembly through distribution of printed copies to schools, district and provincial offices, and other stakeholders. Materials designed for display in schools and other public places will be distributed to create wider awareness of the provisions of the law. A national workshop will be conducted for senior national and provincial officials of MoEYS and other key ministries to familiarize them with the provisions of the education law. The Project will also support dissemination of MoEYS' Gender Mainstreaming Policy to schools and MoEYS offices and institutions at the district, provincial, and national level.

38. **Policy Framework for Teacher Education and Teacher Management.** The Project will assist MoEYS to prepare a policy framework that integrates policies and strategies related to teacher recruitment, deployment, qualifications, professional development, and career growth, and encompasses five strategic areas: (i) management of the teacher education system, (ii) teacher education methodology, (iii) a system of continuing professional development, (iv) teacher recruitment and retention, and (v) financial and nonfinancial incentives for teachers.

39. **Strengthening the National Institute of Education.** The Project will support NIE to examine different institutional models and identify a suitable model for its own long-term institutional growth so that future support can be targeted in a way that develops NIE's capability to provide leadership on issues of education quality. The Project will also support NIE to (i) develop an institutional development plan with a clear vision for the next 10 years, (ii) strengthen education research capacity, (iii) enhance staff professional capacity, (iv) establish a multimedia center, (v) develop training programs for management and planning, and (vi) implement outreach activities for upper secondary teachers.

40. **Review of the Roles and Functions of MoEYS at the Central, Provincial, District, and School Levels.** The proposed review will consider MoEYS' changing role resulting from the implementation of the decentralization and deconcentration strategy. The review will consider the management, educational, and administrative functions of MoEYS, and the internal structure of the departments to address problems of coordination, communication, overlap, and linkages. The review will include the organization and functions of the provincial and district offices and TTCs, and will be supported by recommendations for rationalizing the organizational structures.

41. **Strengthening Information Systems.** A task force will be formed to develop clear guidelines for the use of information for education planning and to develop an implementation plan to fully integrate the education, human resources, and finance MISs. The Project will support strengthening statistical analysis, general performance and quality indicators, and qualitative reporting for the education MIS. The Project will ensure that the finance MIS is compatible with the Ministry of Economy and Finance system. The human resources MIS will be supported through upgrade of equipment and materials. Information, education, and communication capacity at the Department of Information and ASEAN Affairs will be strengthened to enable it to play a coordinating role in the dissemination of information.

42. **Establishing Monitoring and Quality Assurance Systems.** The Project will assist MoEYS to define the roles and responsibilities of its key departments in monitoring and quality assurance activities of the inspectorate general, and departments of Teacher Training, Primary, and Secondary Education. The self-assessment system for schools will be expanded to include lower secondary and upper secondary schools. A similar self-assessment system will be introduced in the TTCs. Institutional and management capacity will be strengthened to improve the monitoring and quality assurance systems by linking them to the identification of training needs. The professional competencies of secondary school inspectors will be strengthened. Functions and performance of the Committee on Continuous Teacher Development will be reviewed with the objective of strengthening its role in quality assurance. Teacher standards will be linked to the identification of teacher professional development needs. Teacher quality will be monitored using teacher profiles¹⁰ and school self-assessment tools.

43. **Enhancing Capacity of the Pedagogic Research Department and the Education Materials Approval Board.** The Project will support PRD to develop a system to manage the process of textbook development in accordance with MoEYS policies. PRD will draw up detailed procurement briefs to enable MoEYS to invite private publishers to develop books to the required specifications. PRD will be the executing body of the existing Prequalification, Evaluation and Award of Contract Committee and Education Materials Approval Board, which will ensure transparency and quality in book selection.

¹⁰ Complementary to the development of teacher profiles for primary and lower secondary levels, profiles for upper secondary teachers will be developed under the Project as part of secondary school management development.

44. Under MoEYS' policy on textbook development, PRD will have a continuing direct relationship with the textbook drafting and approval process, and in managing and guiding textbook developers. The Project will support capacity building of PRD by enabling staff to develop necessary skills to draft procurement documents, write specimen materials, and commission books to be supplied by the private sector to strict specifications, and to organize transparent book evaluation at all levels.

2. Professional Development of Teachers

45. The objective of this component is to strengthen teacher competencies. This will be accomplished through the following actions.

46. **Enhancing Management Capacity of Teacher Training Institutions.** The Project will support several measures to strengthen TTCs. A framework of teacher training standards linked to the development of a teacher education policy will be developed. The teacher training standards will provide a benchmark for performance monitoring of quality in teacher training. The institutional capacity of NIE and TTCs will be strengthened through a management leadership training program for directors and deputy directors of these institutions to implement (i) quality standards, (ii) institutional improvement planning, (iii) curriculum review procedures, and (iv) performance monitoring of quality in teacher training. This leadership training course will also include building professional research capacity within each faculty.

47. **Strengthening In-Service Teacher Training Curriculum and Performance Monitoring.** Systematic procedures will be introduced to incorporate changes to the school curriculum into the preservice teacher training program and to ensure that appropriate teaching and learning methodology is used in the delivery of the curriculum. The Teacher Training Department (TTD) will be involved in the review of in-service teacher training programs to ensure consistency in content and methodology. The revised teacher training curriculum will include action research as a training and professional development methodology. The quality of teacher training programs will be further enhanced by implementing an improved system of teacher training performance monitoring, including a review of the methods used in the assessment of student teacher competencies, and teacher trainer competencies. The quality of teacher training programs will be evaluated against teacher training standards.

48. **Upgrading Facilities of TTCs.** Facilities of NIE and all TTCs¹¹ will be improved through needs-based construction and rehabilitation of buildings, and provision of learning facilities and/or materials. An assessment of existing and planned physical facilities will be undertaken to identify the requirement of each TTC. Learning centers comprising a library and multimedia center, a computer lab, and a science laboratory will be provided or upgraded in all 26 TTCs.¹² Teacher trainers and trainee teachers will be provided resources to develop skills in practical teaching and learning methodologies and to undertake professional research studies.

49. **Expanding Access to Teacher Training Opportunities.** To increase participation of students, particularly girls, from remote and disadvantaged areas in the teaching profession at the secondary level, 500 scholarships will be provided for teacher trainees at NIE and regional

¹¹ The Government proposes to merge provincial and regional TTCs so the term TTC is being used to cover all levels of TTCs.

¹² The Government of Japan proposes to provide a building for science laboratories in the six regional TTCs. ADB project support will complement this with provision of equipment. This excludes the four resource centers provided under the second Education Sector Development Program.

TTCs.¹³ Teaching instructional materials in NIE and regional TTCs will be revised to include perspectives of gender equality. Facilities of TTCs will be improved to provide a safe and secure environment for female teachers and teacher trainees.

50. Improving Skills and Competencies of Teacher Trainers in the TTCs. Skills and competencies of teacher trainers in the preservice teacher training program will be improved based on a comprehensive training needs analysis. The analysis will be used to develop training programs corresponding to trainer competency criteria described in the teacher training standards and in the teacher standards. Training programs to enhance training skills through (i) a training-of-trainers course, (ii) multimedia instructional materials, (iii) training for use of ICT in the classroom, and (iv) training in basic English competency, have been included based on the skills and competencies identified as priority areas for the professional development of teacher trainers. The research capacity of teacher trainers will be enhanced through an action research initiative linked to an NIE research program and to the inclusion of action research in the revised teacher training methodology.

51. Improving Teaching Skills and Competencies of Secondary Teachers. A 5-year teacher training plan will be developed to coordinate all teacher training activities planned during the Project. A baseline study of teacher training needs linked to teacher competencies and teacher standards will be undertaken. The study will provide information on levels of teacher qualification required to enable prioritization of training to target groups and assist in identifying the most disadvantaged districts in terms of the number of underqualified teachers and lower than average number of female teachers. It will also provide information to make it possible to quantify the competency levels of teachers in order to determine their English language and ICT training needs.

52. Upgrade Competencies of Underqualified Teachers. Training programs will be developed and delivered to upgrade the competencies of an estimated 14,400 underqualified secondary school teachers using (i) multimedia instructional materials wherever possible, (ii) a face-to-face workshop module, and (iii) school-based practical assignments such as action research. The training of school-based technical group leaders will be designed to provide ongoing support for underqualified teachers through a system of mentoring.

53. Strengthening English Language, Science, and ICT Competencies. A training program will be developed to enhance the English language skills of upper secondary school teachers using a decentralized school-based model. The English language course will be based on a course book, interactive CD, and audio cassette developed in the first year of the project, and will be taught by the English-language teacher in the school in classes held for 2 hours per week over a 2-year period. A program similar to this will also be developed to train upper secondary school teachers in teaching science, ICT, and in the use of multimedia instructional materials.

54. Developing Multimedia Modality for Teacher Education. Multimedia modalities for teacher education will be developed, initially through TTD. A comprehensive plan will be developed for the expansion of facilities and the development of technical capacity within relevant departments. The plan will define the links and responsibilities which will be necessary between TTD, PRD, and Information and ASEAN Affairs Department. The multimedia modality for teacher education will support the delivery of some training activities through the use of

¹³ Females will comprise 60% of the beneficiaries under the total number of scholarships for teacher training and for upper secondary level. This percentage is recommended for each category but in case it cannot be met in one or other category due to a lack of eligible candidates, it will be compensated for in the second category.

interactive computer-based learning materials. The disparity in access to multimedia resources across the country will be addressed through the upgrade of facilities and by introducing multimedia modalities in teacher training programs.

55. The technical capacity of teacher trainers and curriculum developers will be strengthened for developing multimedia instructional materials so that they are aware of the potential of multimedia and the ways in which curriculum materials can be prepared. On-the-job training will provide the opportunity for trainers to develop instructional materials for use in selected courses. In parallel with the development of instructional materials it is necessary to develop and implement corresponding systems of academic and administrative support, including (i) distribution of materials, (ii) completion of assignments, (iii) record keeping, and (iv) student support. The effectiveness of multimedia components in teacher training programs for improving quality and contributing towards meeting the challenge of outreach to the more remote and disadvantaged areas where access to teacher training opportunities is limited will be monitored.

3. Strengthening Secondary Education

56. The objective of this component is to strengthen secondary education. This will be achieved through the following actions.

57. **Developing a Secondary Education Development Plan.** Under the second Education Sector Development Program, a secondary education development plan is being prepared focusing on requirements for secondary education based on enrolment projections. The Project will support preparation of a complementary volume of the secondary education development plan focusing on quality aspects of secondary education development.

58. **Strengthening School Networking and Management.** A network, centered on 36 secondary schools to be developed as resource schools, will be established early in the Project to provide support to secondary schools within their catchment areas. The network will be used to strengthen school management, to introduce school improvement planning, and to help develop and sustain teacher competencies through professional development and mentoring activities. A school leadership training program for upper secondary school directors will include a module on school improvement planning linked to the school self-assessment model. It will also focus on (i) facility and resource management, (ii) performance monitoring and achievement of minimum quality standards, (iii) school-based support for the professional development of teachers including mentoring for underqualified teachers, and (iv) school-based induction programs for newly qualified teachers. The training will also include optimal use of textbooks and other instructional materials, including ICT and multimedia learning resources, on (i) gender sensitization and principles of gender mainstreaming, (ii) equitable access to learning opportunities for all children, (iii) student retention, (iv) student assessment, and (v) career guidance.

59. The skills and competencies of school and network-based technical group leaders will be enhanced through a training-of-trainers program. The training program will have a school-based focus. Part of the training activities will be undertaken by the participants in their schools through practical application of new skills and knowledge, using methodologies such as action research and peer evaluation.

60. **Increasing Access for Girls and Children from Remote and Disadvantaged Areas.** To reduce gender disparities and inequity in access to secondary education for children from remote and disadvantaged areas, merit-based scholarships will be provided to 4,000 students,

particularly girls, from remote and disadvantaged areas to enable them to enroll in upper secondary schools.

61. Upgrading Secondary School Facilities including ICT, Laboratories, and Libraries.

Learning centers will be provided at the 36 resource schools. The learning centers will include science and ICT laboratories, and libraries. To cover operations and maintenance costs, business plans will be developed to allow the ICT facilities to be used as a community resource. All remaining secondary schools will receive equipment, learning materials, and library books.

62. Developing Curriculum in Priority Areas for Use in Secondary Schools.

The PRD will be supported to develop the lower secondary and upper secondary curricula in subjects that have thus far not been revised. This includes curricula for EVEP, guidelines for development of the local life-skills program, and the development of grade 12 curriculum standards. The preservice and in-service teacher training curriculum will be strengthened to reflect the changes in the school curriculum training content and methods. The Project will support dissemination of the curriculum items to schools and across the education system in order to ensure that teachers, teacher trainers, and education managers fully understand the requirements and philosophy of the new curricula. The project will also support development of PRD capacity to commission, manage, and evaluate textbook and instructional materials development by publishers and media producers, and strengthen the ICT capacity of PRD.

63. Provision of Textbooks and Teacher Guides to All Upper Secondary Schools.

The new curriculum is expected to be phased in from the academic year 2008–2009. The development and procurement of new books will take a couple of years. In the interim, the shortage of textbooks at upper secondary level will be solved by providing the current textbooks and teachers' manuals needed to bring the ratio of books to pupils to 1:2. Current textbooks and teacher's manuals will be procured from PDH through a negotiated direct-purchasing agreement to enable the books to be in the schools as early as possible in the 2008–2009 school year. The Project will assist MoEYS, in collaboration with the Ministry of Economy and Finance, to comprehensively review the current textbook development and procurement policies, and prepare guidelines for implementing the policies to ensure provision of quality textbooks in a timely manner.

64. Strengthening Assessment of Student Achievement in Secondary Education.

Curriculum standards have been developed at grades 3, 6, and 9 and national assessments (standardized tests) in Khmer and mathematics will be conducted at these grade levels. These are important steps towards a national system of standards-based assessment which will provide a basis for teachers and students to measure student achievement and for evaluating education quality at national, provincial, and school level.

65. A national assessment policy will be developed for a standards-based national assessment and examinations system. The policy will (i) establish a coherent relationship between different types of assessment, (ii) provide for quality assurance of assessment in schools, (iii) ensure equity and access, (iv) define the role of ICT, and (v) set out a strategy for the phased strengthening of the Examinations Office, with a view to it eventually becoming an independent body. The strengthening of the Examinations Office will include the enhancement of its capacity to use ICT for assessment administration and record keeping.

66. Guidelines and exemplar assessment instruments and examination questions will be developed and used as a basis for (i) training Examinations Office staff and item writers to set and mark standards-based examinations, (ii) secondary teachers to implement standards-based

assessment in schools, and (iii) PRD staff to monitor and evaluate standards-based assessment implementation.

C. Special Features

67. The Project is the first intervention to provide inputs for comprehensive capacity building and institutional strengthening to enhance quality of education across the school sector in Cambodia. It is also the first intervention to support improvements in quality of secondary education. In addition to this, the Project aims to integrate ICT, capacity building, and broad interventions related to gender mainstreaming into all project activities.

68. **Capacity Building.** The Project incorporates an appropriate mix of processes and activities to align capacity building of individuals to organizational outcomes and priorities. Three key elements have been considered: (i) human capacity development, (ii) institutional strengthening and development of information flows, and (iii) establishing networks. The Project targets capacity building at the national, provincial, district, and school level through comprehensive and innovative strategies. The resource schools and their role in providing ongoing support and mentoring to teachers through refresher workshops conducted by designated technical group leaders will strengthen quality while compensating for lack of conventional in-service training due to resource constraints. The resource schools will provide support for improving teacher competencies in science, English, and ICT in secondary schools within their respective catchment area. The Project will strengthen school management and planning through leadership training for upper secondary school directors and district and provincial officials.

69. **Information and Communication Technology.** The Project supports wide-ranging use of ICT to strengthen quality and efficiency including (i) education MIS developments, (ii) incorporating ICT in teacher training curriculum, (iii) for teacher trainers, and (iv) for education administrators in using these facilities. The Project pioneers the introduction of ICT in all TTCs and in the resource schools. ICT is introduced both as a means to improve planning and management functions as well as to enhance Cambodia's competitiveness by reducing the technology gap through increased student exposure to ICT alongside curriculum development and teacher training. Elements necessary for an effective ICT development strategy are cohesively introduced, e.g., training matches provision and vice versa, equipment provision is planned with infrastructure developments, and training in new pedagogies relates to ICT provision. The Project has taken into account the infrastructure constraints in order to ensure that the ICT inputs are sustainable.

70. **Gender Mainstreaming.** The Project will disseminate MoEYS' Gender Mainstreaming Policy and bring principles of gender equity into all its activities—the training of teacher trainers, preservice curriculum for teacher training, as well as management training for school directors and district and provincial officials. The Project also provides for facilities in TTCs and schools to be safe and secure for females. A summary poverty reduction and social strategy is in Appendix 4 and a gender action plan is in Appendix 5.

D. Project Investment Plan

71. The project investment cost is estimated at \$33.38 million equivalent, including physical and price contingencies, taxes, and duties (Table 1). The grant proceeds will be used to finance (i) civil works; (ii) procurement of books and instructional materials, vehicles, equipment, and furniture; (iii) scholarships; (iv) consulting services; and (v) training, workshops, and technical

meetings. The proceeds will not finance salaries of regular project staff, rental of office space, taxes, or duties. Detailed cost estimates are in Appendix 6.

Table 1: Project Investment Plan
(\$ million)

Item	Amounts ^a
A. Base Cost^b	
1. Educational System Management and Development	4.52
2. Teacher Professional Development	7.98
3. Strengthening Secondary Education	14.03
4. Project Implementation and Management	4.40
Subtotal (A)	30.93
B. Contingencies^c	2.45
Total (A+B+C)	33.38

^a Includes taxes and duties of \$2.8 million.

^b In May 2007 prices.

^c Physical contingencies computed at 5% for all expenditure categories; price contingencies computed at 1.5% on foreign exchange costs and 4% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: ADB estimates.

E. Financing Plan

72. The Project will be financed by a grant of \$27.10 million from ADB's Special Funds resources to cover 81.2% of the project costs. The Government will finance the remaining \$6.28 million, or 18.8% of the project cost. The summary of the financing plan is in Table 2.

Table 2: Financing Plan
(\$ million)

Source	Total	%
Asian Development Bank	27.10	81.20
Government	6.28	18.80
Total	33.38	100.00

Source: ADB estimates.

F. Implementation Arrangements

73. **Project Management.** MoEYS will be the executing agency (EA) and will have overall responsibility for project implementation. A project steering committee, chaired by a secretary of state, will provide overall guidance to the Project and monitor its activities and outputs. Its membership will include representatives from the departments of Planning, Teacher Training, General Secondary Education, and Pedagogical Research, NIE, and from the ministries of Economy and Finance, Women's Affairs, and Planning.

74. The director general of General Education will serve as the project director and will be supported by a deputy project director, five staff,¹⁴ and four support staff appointed by MoEYS.

¹⁴ The project staff will have expertise in the following fields: administration, finance, accounting, planning and procurement, and monitoring.

The project staff will be located within the Directorate of General Education. The project director will be a member of the project steering committee and will report to it directly.

75. Three technical units will be established to guide and coordinate implementation of component-specific activities. The implementation of specific activities will be the responsibility of the departments under whose authority the activities fall. The technical units will have representation from implementing departments, including a member of the gender working group, to ensure mainstreaming of gender aspects of different activities, and two staff. The technical units will report to the project director who will ensure coordination and supervision of the technical units.

76. **Implementation Period.** The Project will be implemented over a 6-year period. The Project will begin in 2008 and be completed in 2014. The government has assured that adequate budgetary provision for the Project will be included in the FY2008 budget. A detailed implementation schedule is in Appendix 7.

77. **Procurement.** All ADB-financed goods and services will be procured in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). The project director, assisted by the project staff, will be responsible for all procurement. The indicative procurement packages are outlined in Appendix 8.

78. Supply contracts for goods estimated at \$100,000 equivalent or more will be awarded on the basis of international competitive bidding. Supply contracts for goods such as vehicles and computers (except in the case of textbooks and instructional materials) of less than \$100,000 but more than \$20,000 will follow national competitive bidding procedures. Minor items costing less than \$20,000 but more than \$5,000 equivalent may be procured by direct purchase with advertising, and items costing less than \$5,000 may be procured by direct purchase without advertising. Supply contracts for textbooks and instructional materials may be awarded to PDH on the basis of direct purchase.¹⁵ Details of procurement packages and technical specifications must be submitted for the Ministry of Economy and Finance and ADB for approval before procurement.

79. Project civil works will consist of construction and/or upgrade of learning facilities, dormitories, and water and sanitation facilities at TTCs and secondary schools. The civil works component will be financed by ADB and the government and will be awarded on the basis of national competitive bidding procedure, following Government procedures acceptable to ADB. The project director, assisted by the project staff and technical unit in charge, will also ensure that appropriate maintenance contractual arrangements are signed prior to the commissioning of civil works at the expense of the government in order to ensure that the constructed civil works are well maintained during their economic life.

80. **Consulting Services.** The project will be supported by approximately 553 person-months of consulting services (219 person-months international and 334 person-months national). The selection and engagement of consulting services will be procured in a single package requiring a full technical proposal and using a quality-cost ratio of 80:20 for quality and cost-based selection in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The consulting services are designed to provide technical support to the Project management and implementation, as well as to build longer-term institutional

¹⁵ To procure existing textbooks and instructional materials that are in copyright, direct purchasing or single or sole sourcing will be used due to the fact that such materials are available from only a single proprietary source, namely PDH.

development and capacity for planning, management, delivery of professional development for teachers, and secondary education. The consulting services cover broad areas of expertise that include (i) institutional development, (ii) MIS development, (iii) professional development for teachers, (iv) curriculum and materials development (including ICT), (v) examination reform, (vi) facilities and equipment improvement, and (vii) gender and equitable access. ADB has approved advance action for recruitment of consultants. The EA may start the process of selection of consultants. Advance action does not include signing of the contract with the identified consultant firm. Outline terms of reference for consultants are provided in Appendix 9.

81. **Anticorruption Policy.** ADB's *Anticorruption Policy* (1998, as amended to date) was explained to and discussed with the Government and the EA. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the grant regulations and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project will include provisions specifying the right of ADB to audit and examine the records and accounts of the EA and all contractors, suppliers, consultants, and other service providers as they relate to the Project. The Recipient will ensure that information regarding procurement, including a list of participating bidders, name of the winning bidder, and procedures adopted in awarding contracts, is posted on the MoEYS website. The Recipient will also ensure that criteria and procedure for selection of candidates for scholarships is also posted on the MoEYS website.¹⁶ A Good Governance Framework for Cambodia is provided in Supplementary Appendix E.

82. **Disbursement Arrangements.** To expedite project implementation through the timely release of ADB funds for eligible expenditures, a dollar imprest account will be established by the Government at the National Bank of Cambodia or a commercial bank acceptable to ADB. The initial advance to the imprest account shall not exceed the lower of (i) estimated expenditure for the first 6 months of Project implementation, or (ii) the equivalent of 10% of the Grant amount. The Ministry of Economy and Finance will delegate the authority to operate the imprest account to the EA in order to facilitate access to project funds to implement project activities. The imprest account will be established, managed, replenished, and liquidated in accordance with ADB's *Loan Disbursement Handbook*¹⁷ (2007, as amended from time to time). The limit on statement of expenditure procedure and the initial advance to the imprest account will also be in accordance with ADB's *Loan Disbursement Handbook*.

83. **Accounting, Auditing, and Reporting.** MoEYS will maintain records and accounts to identify goods and services financed from the grant proceeds. Project accounts, including financial statements, statement of expenditures, and imprest account records, will be audited annually by independent external auditors acceptable to ADB. The auditors' report and copies of the certified accounts and related financial statements, including the auditors' opinion on the use of grant proceeds, compliance with grant covenants, and use of the imprest account under ADB's statement of expenditures procedure, will be submitted to ADB in English not later than 6 months after the close of the Government's fiscal year. The independent external auditing services will be financed by the Grant.

¹⁶ A project-specific website was developed during the project design phase and is linked to the MoEYS website.

¹⁷ It should be noted that this handbook is applicable to both loan and grant-funded ADB investment projects and programs.

84. The EA will prepare quarterly reports on project implementation and submit them to ADB within 30 days of the end of each quarter. The reports will be in a format acceptable to ADB and will indicate, among other things, (i) the progress made against established targets, (ii) problems encountered during the last quarter, (iii) steps taken to resolve problems, (iv) compliance with grant covenants, and (v) a proposed program of activities for the succeeding quarter. Within 3 months after physical completion of the project, the EA will submit to ADB a project completion report on project implementation, accomplishments, benefits, and impact.

85. **Project Performance Monitoring and Evaluation.** General baseline studies will be undertaken at the beginning of the Project. The monitoring and recording system and procedures will be reviewed and improved. A new project performance management system will be developed and institutionalized within MoEYS to monitor and evaluate implementation performance and development impact at various stages of the project cycle. Project performance monitoring will focus on project implementation plans and targets, and their execution and achievement. Performance evaluations will examine the impact of project interventions, problems and constraints faced, their causes, and solutions to them.

86. **Project Review.** ADB and the government will jointly undertake half-yearly project reviews to assess progress in each component, identify constraints, and determine ways to overcome them. Before each review, the EA will prepare progress reports on a quarterly basis and submit these to ADB and the Government.

87. ADB and the Government will conduct a midterm review during the last quarter of the third year of project implementation to inform planning for the second half of the project. The midterm review will (i) review the scope, design, and project implementation arrangements; (ii) identify changes needed; (iii) assess performance against targets and benchmarks; (iv) review lessons and experiences in education quality enhancement, focusing on the curriculum, textbooks, and teaching and learning facilities; (v) review compliance with grant agreements and covenants; and (vi) recommend changes in project design and/or implementation arrangements. The findings will be discussed at a midterm workshop to be attended by representatives from the ministries of Economy and Finance, Women's Affairs, and Planning, concerned MoEYS agencies, provincial and district education officials, the consultants, and ADB.

IV. PROJECT BENEFITS, IMPACTS, AND RISKS

88. **Project Benefits and Impacts.** In Cambodia, the quality of educational achievement is relatively poor, and investments in improving education quality will have significant positive returns. Substantial economic benefits will accrue from efficiency gains as a result of improvements in quality. Students who do not drop out increase their future earning potential. Studies indicate that each extra year of schooling increases labor productivity and income earned. Similarly, reduction in repetition rates increases the number of wage-earning years. Improved quality of education will lead to a greater number of graduates at different levels of schooling. Investments in secondary education will encourage more of the students completing primary education to continue their studies, thus increasing their wage potential. Improved internal efficiency will reduce the cost of schooling, thereby freeing up resources for expansion of education and for inputs to enhance its quality. The scholarships will provide opportunity for girls and students from remote and disadvantaged areas to continue their education at the upper secondary level. This will have a positive impact on their labor productivity as well as on the income levels of their families.

89. Greater equity in education reduces socioeconomic disparities and leads to better integrated and more harmonious societies. Long-term benefits include (i) human development and productivity efficiency through a better qualified teaching and managerial staff and increased numbers of higher quality secondary students; (ii) social benefits derived from girls' education such as (a) lower fertility, (b) increased prenatal care utilization, (c) improved health and nutrition status of families, and (d) higher educational attainment by their children; and (iii) greater wealth redistribution gains as a result of support to students from remote and disadvantaged areas.

90. The education system will benefit from (i) strengthened institutional capacity for planning, management, design, and delivery of education services; (ii) improved facilities in TTCs and schools; (iii) improved and upgraded curriculum for preservice teacher training and secondary education; (iv) enhanced competencies of teacher trainers and teachers; (v) school networks for outreach to strengthen school management and teacher competencies; and (vi) increased availability of teaching and/or learning materials in TTCs and secondary schools.

91. Direct benefits from the Project will accrue to (i) academic staff and management of NIE and the 24 TTCs through improved facilities and teaching and/or learning resources, and training for enhancing their competencies; (ii) approximately 8,500 teacher trainees over 5 years through activities designed to improve preservice courses; (iii) approximately 14,400 underqualified secondary teachers benefiting from in-service training; (iv) 300 upper secondary schools benefiting from technical assistance in school management, networking and improvement planning; (v) staff of MoEYS, including provincial and district office teams, trained to strengthen their capacity to plan, manage, administer, and regulate the system; and (vi) 600 trainee teachers from accommodation in new and rehabilitated dormitories. At the school level direct benefits will accrue to (i) all secondary schools; (ii) 4,000 disadvantaged students through scholarships; (iii) 350,000 students from textbooks and improved facilities and learning materials; and (iv) approximately 7,000 students through the provision of teachers' guides and improved teaching and/or learning facilities. Benefits of the reforms and quality improvements in teacher training will also extend to a population of school students that is currently around 3.4 million.

92. **Environment and Social Safeguards.** The Project involves upgrading of facilities at existing TTCs and schools where all work, including construction of new facilities, will be carried out on existing property owned by the schools, TTCs, and NIE. School upgrading will require small-scale civil works, and no negative environmental impact is expected. As the Project will not require land acquisition and targets children who are already in the school system, there will be no negative impact on community life or socioeconomic or cultural integrity.

93. **Risks.** The Project has been designed with extensive stakeholder participation. There is ownership and commitment at all levels of government, and within its allied agencies and institutions, to the proposals contained in the Project.

94. The main risk emanates from weak management and institutional capacity. This could hamper timely implementation of project activities, since the expansion of activities will place additional demands on all Government agencies involved in project implementation. The Project mitigates this risk by providing extensive and carefully targeted technical support to strengthen capacity of the concerned agencies, and enhance staff skills and institutional capacity for continuing qualitative support to education. The project also provides for a realistic time-frame with implementation over a 6-year period.

95. **Sustainability.** The Project will generate continuing additional incremental cost of over \$1 million annually after the project period through the operation and maintenance of facilities and equipment. These costs will be a continuation of recurrent costs the government will support during project implementation, and can be reduced with proper and efficient use of facilities and equipment. The Project supports training for personnel in the use of equipment and management of facilities. Efficiency gains are also expected to offset the additional resource requirements. Some project gains that (i) strengthen capacity, (ii) upgrade teacher competencies, and (iii) improve the curriculum, classroom assessment and examination, and the provision of textbooks and other materials to enhance learning, will have long-term beneficial impact and are not susceptible to short-term resource constraints. An economic and financial analysis is in Appendix 10.

V. ASSURANCES AND CONDITIONS

A. Specific Assurances

96. In addition to the standard assurances, the Government has given the following specific assurances, which are incorporated in the legal documents:

97. The Government will:

- (i) Ensure through MoEYs that no rehabilitation or construction of facilities for the schools, TTCs, and NIE will involve involuntary resettlement according to ADB's *Involuntary Resettlement Policy* (1995). Construction of new facilities will be carried out within existing campuses on unoccupied land already owned by the schools, TTCs, and NIE. Proposals for civil works must include confirmation that no land acquisition or resettlement will be required under the Project.
- (ii) Provide counterpart funds for project implementation on time. The Government will also make timely submission of annual budgetary appropriation requests and ensure prompt disbursement of appropriate funds during project implementation.
- (iii) Ensure that the gender and development plan prepared for the Project is fully implemented and monitored in a timely manner in accordance with its terms, related regulations of the Recipient and ADB's policies on gender and development¹⁸ and adequate resources are allocated for this purpose.
- (iv) Ensure that the site selection, design, construction, replacement work, and operation of facilities in schools, TTCs and NIE is implemented in accordance with the relevant Government regulations and standards as well as ADB's environment policy.
- (v) The Recipient shall, within 1 year after the Effective Date, review the current textbook policies and practices with a view to identifying and eliminating any restrictive practices regarding copyrights and printing and publishing processes to ensure production and provision of quality textbooks in a timely manner.

B. Conditions for Grant Effectiveness

98. Conditions for grant effectiveness include:

¹⁸ ADB. 2003. *Gender and Development*. Manila.

- (i) MoEYS will have established the project steering committee, and appointed all members.
- (ii) The project management staff will have been appointed and the technical units will have been established.
- (iii) The upper secondary schools to be supported as Resource Schools and the lower and upper secondary schools falling under their network will have been identified.
- (iv) The Recipient shall have taken a decision and issued the necessary instructions with respect to decentralization of procurement of textbooks.

VI. RECOMMENDATION

99. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve the grant not exceeding the equivalent of \$27,100,000 to the Kingdom of Cambodia from ADB's Special Funds resources for the Enhancing Education Quality Project in accordance with the terms and conditions set forth in the draft Grant Agreement.

Liqun Jin
Vice President

31 October 2007

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Increased number of school graduates with improved knowledge and skills</p>	<ul style="list-style-type: none"> • Improved lower secondary to upper secondary transition rate from 66% in 2006 to 85% by 2018 • Improved upper secondary completion rate from 15% to 50% by 2018 • Improved level of knowledge and skills of secondary school teachers and students by 2018 	<ul style="list-style-type: none"> • EMIS reports • Grade 9 national assessments and examination results at grade 12 	<p>Assumptions</p> <ul style="list-style-type: none"> • Government continues to accord high priority to quality of education • Resource allocations to education are provided to strengthen quality education <p>Risk</p> <ul style="list-style-type: none"> • Government's commitment wavers and resource constraints hinder implementation
<p>Outcome Education of improved quality and equity with more effective teacher development, strengthened education management systems, and improved and expanded secondary education</p>	<ul style="list-style-type: none"> • Access of female trainees from remote and disadvantaged areas to regional TTCs and NIE increased • 14,400 lower secondary and upper secondary teachers given in-service training by 2014 • School curriculum and assessment reforms implemented by 2012 • Facilities in schools and TTCs upgraded in line with criteria and needs analysis by 2013 • Textbooks provided to all upper secondary students in each subject according to the stipulated ratio of 1:2 for school year 2008–2009. 	<ul style="list-style-type: none"> • TTC records • Training records • Dissemination and training records • Construction contracts • Procurement and distribution records • Procurement, distribution records, modified education MIS system 	<p>Assumptions</p> <ul style="list-style-type: none"> • Government provides required level of inputs and resources • Capacity can be built to assist the education system in absorbing a wide-ranging reform process <p>Risks</p> <ul style="list-style-type: none"> • Teachers are insufficiently motivated to implement reforms • Access to education by females and people in remote areas is constrained by traditional and/or cultural barriers
Outputs			
Component 1: Education System Management and Development			
<p>1. Awareness of Education Law and MoEYS Gender Mainstreaming Policy</p>	<ul style="list-style-type: none"> • Education Law disseminated within 6 months of being passed by the National Assembly • Gender Mainstreaming Policy disseminated 	<ul style="list-style-type: none"> • Published Education Law • Distribution records 	<p>Assumption</p> <ul style="list-style-type: none"> • Education Law passed by National Assembly
<p>2. Policy framework for teacher education and teacher management</p>	<ul style="list-style-type: none"> • Policy framework agreed by early 2009 • Subdecree on teacher education and management issued by end 2009 	<ul style="list-style-type: none"> • Policy framework document • Subdecree 	<p>Assumptions</p> <ul style="list-style-type: none"> • Teacher policy framework supported by relevant institutions • All stakeholders willing to implement the policy
<p>3. Review of the organization and function of MoEYS at central, province, district, and school levels</p>	<ul style="list-style-type: none"> • Report with action plan approved by mid-2009 	<ul style="list-style-type: none"> • Technical report • Project reviews • Steering committee deliberations 	<p>Assumption</p> <ul style="list-style-type: none"> • MoEYS committed to the review <p>Risk</p> <ul style="list-style-type: none"> • Human resource constraints hinder restructuring

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
4. Strengthened National Institute of Education	<ul style="list-style-type: none"> • Institutional development plan agreed by mid-2009 • Research studies published by end of 2010 and end of 2011 • Multimedia resource center established by 2011 	<ul style="list-style-type: none"> • Institutional Development Plan document • Research reports 	Assumptions <ul style="list-style-type: none"> • Strong Government commitment • NIE staff support enhancing NIE's responsibilities
5. Information systems strengthened at national, provincial, district, levels and consolidated at central level	<ul style="list-style-type: none"> • Aims and objectives for a fully integrated educational MIS by early 2009 • Review of MIS with detailed and time-related development plan completed by early 2009 • Equipment procured by end 2009 • Integrated system trialed by mid-2010 	<ul style="list-style-type: none"> • Steering committee minutes • Task force reports • Reports from coordinators of each MIS system • Hardware procurement documents and records of installation 	Assumptions <ul style="list-style-type: none"> • The challenges of developing a functional and useful MIS are fully understood • Staff capacity developed to implement information systems stays in post • Designed or procured software adequate for the task
6. Introduction of monitoring and quality assurance systems in place and functional in schools and TTCs	<ul style="list-style-type: none"> • Quality assurance scheme piloted in 33 schools by end of 2009 • Quality assurance system operating in TTCs by end of 2009 	<ul style="list-style-type: none"> • Monitoring report • Project steering committee minutes 	Assumption <ul style="list-style-type: none"> • Teachers, teacher trainers, and communities will accept proposed monitoring systems
7. Enhanced capacity of the Pedagogic Research Department and the Education Materials Approval Board	<ul style="list-style-type: none"> • PRD has the capacity to create prebidding documents for textbook development by late 2008 • PRD has the capacity to create instructional materials by late 2009 • PRD has the capacity to administer evaluation of teaching and learning materials by late 2010 • The supply of textbooks based on the new curriculum is devolved to the competitive market by late 2011 	<ul style="list-style-type: none"> • Prebidding documents • MoEYS and MEF procurement guidelines 	Assumption <ul style="list-style-type: none"> • PRD has suitable staff for training Risk <ul style="list-style-type: none"> • Procedures hinder participation of independent publishers in textbook development
Component 2: Teacher Professional Development			
1. Enhanced management capacity of teacher training institutions	<ul style="list-style-type: none"> • Directors and senior staff of all teacher training institutions trained by 2012 • Procedures for the teacher training curriculum review established by 2012 	<ul style="list-style-type: none"> • Attendance lists • Participants evaluation reports • Review procedure documents • Project steering committee minutes 	Assumption <ul style="list-style-type: none"> • Senior staff willing to participate Risks <ul style="list-style-type: none"> • Insufficient incentive for retention of trained staff • Competence of managers to take on enhanced leadership role

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
2. Upgraded facilities, including ICT at TTCs	<ul style="list-style-type: none"> • Facilities needs-analysis conducted by end 2008. • Facilities upgraded in accordance with the facilities needs-analysis by 2011 • Library books, furniture, and equipment provided by end 2011 	<ul style="list-style-type: none"> • Report to project steering committee • Procurement reports • Review missions 	<p>Assumptions</p> <ul style="list-style-type: none"> • Activities coordinated with other projects • Secure rooms and storage space • Corresponding system for management and maintenance of resources in place
3. Increased enrolment of females and students from remote and disadvantaged areas in lower secondary and upper secondary teacher training programs	<ul style="list-style-type: none"> • Percentage of female students in NIE increases from 30% in 2006 to 40% by 2013 • Percentage of female students in regional TTCs increases from 40% in 2006 to 50% by 2013 • 500 students (of which 60% are girls) from remote and disadvantaged areas receive scholarships 	<ul style="list-style-type: none"> • Student enrolment figures from NIE and regional TTCs disaggregated by gender • Reports from TTD • Education MIS reports 	<p>Assumption</p> <ul style="list-style-type: none"> • Sufficient target groups completing basic education <p>Risks</p> <ul style="list-style-type: none"> • Scholarships not adequate incentive to attract students to the teaching profession • Logistical support for teachers in remote areas remain inadequate
4. Improved skills and competencies of teacher trainers in the preservice teacher training program	<ul style="list-style-type: none"> • Training needs analysis and plan for professional development of trainers completed by early 2009 • Instructional materials for TOT developed by mid-2009, for basic English, use of multimedia and ICT, and science developed by the end of 2009, and training of teacher trainers successfully implemented by 2012 	<ul style="list-style-type: none"> • Training needs analysis and training plan documents • Instructional materials • Attendance lists from training programs • Participants evaluation reports • Performance monitoring reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • Teacher professional development linked to teacher education policy • A system of accreditation is in place which makes certification of courses more meaningful <p>Risks</p> <ul style="list-style-type: none"> • Limited time for teachers to attend training • Allocation of budget not on time according to activity plan
5. Improved teaching skills and competencies of secondary teachers	<ul style="list-style-type: none"> • Baseline study of training needs completed by early 2009 • Training plan completed by mid-2009 • 14,400 underqualified lower secondary and upper secondary teachers trained by 2013 • 3,000 upper secondary teachers, of which 30% are women, trained in basic English by 2012 • 3,000 upper secondary teachers, of which 30% are women, trained in use of multimedia and 	<ul style="list-style-type: none"> • Baseline report • Training plan implemented • Attendance lists • Participant evaluation reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • Sufficient resources including school-based trainers and/or mentors to support professional development of underqualified teachers • Teachers motivated to study over a prolonged period (basic English, multimedia/ICT, and science) • School-based training model is effective and motivating <p>Risk</p> <ul style="list-style-type: none"> • Lack of school-based support

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
	ICT by 2012 <ul style="list-style-type: none"> • 3,000 upper secondary teachers trained in practical science by 2012 		
6. Introduce multimedia methods for teacher education	<ul style="list-style-type: none"> • Technical capacity of MoEYS staff developed by 2011 • Multimedia modality implemented and monitored in selected components of teacher training by 2011 	<ul style="list-style-type: none"> • Participants evaluation reports • Monitoring and evaluation reports • Assessment report 	Assumption <ul style="list-style-type: none"> • Infrastructure (facilities and resources) in place Risk <ul style="list-style-type: none"> • System sustainability problematic—recurrent running costs, technical expertise, maintenance of equipment, and availability of consumables
Component 3: Strengthening Secondary Education			
1. Secondary education development plan	<ul style="list-style-type: none"> • Secondary education development plan approved by mid-2009 	<ul style="list-style-type: none"> • Development plan document • Project steering committee minutes 	Assumption <ul style="list-style-type: none"> • MoEYS committed to strengthening secondary education
2. Strengthened secondary school networks, school management, and school improvement planning	<ul style="list-style-type: none"> • All upper secondary school management teams trained by 2012 • 36 upper secondary resource school networks strengthened by 2012 • All 300 upper secondary schools have school improvement plans by 2012 • TOT programs for school- and/or network-based resource teachers successfully implemented by 2012 	<ul style="list-style-type: none"> • Attendance lists • Participants' evaluation reports • School improvement plans • Attendance lists 	Assumptions <ul style="list-style-type: none"> • School network concept is accepted • Resources will be available beyond the project period to support school networks • School- and network-based trainers have the capacity to be effective
3. Increased enrolment in secondary schools of girls and children from remote and disadvantaged areas	<ul style="list-style-type: none"> • 4,000 students (60% of whom will be girls) from remote and disadvantaged areas provided scholarships to attend upper secondary schools. 	<ul style="list-style-type: none"> • Net admission rates and transition rates into lower secondary and upper secondary 	Assumptions <ul style="list-style-type: none"> • Access and quality of secondary school provision is of an adequate standard • Additional resources are targeted to this beneficiary group Risk <ul style="list-style-type: none"> • Access rates increase but opportunity costs remain high
4. Upgraded secondary school facilities	<ul style="list-style-type: none"> • Criteria developed for providing equipment to schools by late 2008 • 36 upper secondary resource schools receive new library books and laboratory and ICT equipment by end 2012 • Training courses run on 	<ul style="list-style-type: none"> • Working group TOR and record of meetings • Priorities and program defined and evidenced in minutes of working group • Proper procurement process evidenced by records of bidding process • Observation • Training program 	Assumption <ul style="list-style-type: none"> • There is electrical power and internet connectivity to supply the equipment Risk <ul style="list-style-type: none"> • Training wrongly focused on IT and not on pedagogical use of ICT

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
	<p>how to use and maintain the equipment ongoing to end 2012</p> <ul style="list-style-type: none"> All upper secondary schools receive a package of equipment, learning materials, and library books 	<p>documents</p> <ul style="list-style-type: none"> Trainers selected and trained 	
5. Curriculum in priority areas including ICT is developed and in use in secondary school	<ul style="list-style-type: none"> New curricula (including EVEP) for secondary schools developed and introduced in schools by end 2011 	<ul style="list-style-type: none"> Reports from PRD, education MIS, project management, committees; printed copies of curriculum documents in schools EVEP documentation in schools 	<p>Assumption</p> <ul style="list-style-type: none"> Institutional capacity to develop curricula in time is adequate <p>Risk</p> <ul style="list-style-type: none"> Change in policy on curriculum
6. Upper secondary schools countrywide have textbooks and teachers' guides	<ul style="list-style-type: none"> Students in upper secondary schools have textbooks in each subject according to the stipulated ratio by the beginning of school year 2008–2009 Teachers in upper secondary schools have textbooks and teachers' guides by the beginning of school year 2008–2009 	<ul style="list-style-type: none"> Supplier submits delivery receipts signed by the schools 	<p>Assumptions</p> <ul style="list-style-type: none"> Textbook preparation and procurement procedures are streamlined PDH has the capacity to produce the books in time to be delivered to schools in time <p>Risk</p> <ul style="list-style-type: none"> Complexity of procedures hampers timely development and procurement of textbooks
7. Assessment of student achievement in secondary education is based on curriculum standards	<ul style="list-style-type: none"> Assessment policy approved and disseminated to all schools by mid-2009 60 staff trained and guidelines on assessment and exemplar assessment instruments developed by late 2009 Examinations Office capacity strengthened by 2013 TOT delivered to all trainers and all secondary teachers trained by end of 2012 Standards-based assessment implemented at the secondary level by end of 2013 	<ul style="list-style-type: none"> Policy document Assessment guidelines and exemplar instruments Procurement and training records Participant evaluation of training Independent report on the examination items that have been produced by the trained staff 	<p>Assumptions</p> <ul style="list-style-type: none"> There is support for the development of curriculum standards for grade 12 Necessary curriculum development completed on time Donor cooperation in developing coherent and consistent approaches to student assessment Resources available to strengthen use of ICT in assessment and examinations <p>Risk</p> <ul style="list-style-type: none"> Low incentives for teachers discourage active participation

Activities with Milestones	Inputs
<p>1. Component 1</p> <p>1.1 Print and disseminate Education Law</p> <p>1.2 Prepare teacher education and management policy document, submit for approval, issue subdecree</p> <p>1.3 Review current structure and functions of MoEYS at all levels including schools, prepare report with action plan</p> <p>1.4 Develop NIE institutional development plan, develop education research capacity, enhance staff professional capacity, assist planning and management training program, develop outreach capacity</p> <p>1.5 Review MoEYS information systems, design integrated and consolidated system, support education, human resource, and finance MISs</p> <p>1.6 Develop quality assurance concept; establish a quality assurance system for NIE and TTCs, expand and consolidate lower secondary and upper secondary school quality assurance systems</p> <p>2. Component 2</p> <p>2.1 Develop and publish teacher training standards, implement management-leadership training program, review and revise curriculum content and methodology, performance monitoring and trainee assessment</p> <p>2.2 TTC participatory facilities needs analysis, construct and/or upgrade facilities</p> <p>2.3 Develop criteria for equitable access materials, upgrade facilities to make them safer for female staff and students, provide scholarships for female and other teacher trainees at NIE and regional TTCs</p> <p>2.4 Prepare TNA and develop training plan for teacher trainers, TOT training programs, training to produce multimedia materials, English program for TTC staff</p> <p>2.5 TNA for teachers, project teacher training plan, training for underqualified teachers, train upper secondary school teachers in basic English skills, use of multimedia including ICT, practical science</p> <p>2.6 Plan multimedia instructional materials facilities, develop MoEYS staff capacity, multimedia use in teacher training programs, monitor and evaluate effectiveness</p> <p>3. Component 3</p> <p>3.1 Prepare SEDP and issue directives</p> <p>3.2 Strengthen secondary school networks, identify resource schools, leadership training program in school improvement planning for upper secondary school management teams, develop competencies of school and network-based trainers</p> <p>3.3 Upgrade secondary school facilities in remote areas, provide upper secondary school scholarships for talented and disadvantaged students</p> <p>3.4 Learning centers designed and constructed in identified schools, procure equipment, deliver and install, training courses on how to manage, use, and maintain equipment</p> <p>3.5 Develop and disseminate new selected lower secondary and upper secondary curriculum</p> <p>3.6 Purchase upper secondary textbooks and deliver to schools</p> <p>3.7 Develop capacity of PRD and EMAB staff in procurement preparation, train materials' evaluators, workshops on writing materials, place materials on designated website pages</p> <p>3.8 Develop assessment policy, assessment guidelines, exemplar materials, and train MoEYS staff, strengthen the Examinations Office, train PRD to monitor and evaluate implementation activities, train provincial level trainers, train secondary school teachers</p>	<p>Asian Development Bank: \$27.1 million (81%)</p> <p>Government of Cambodia: \$6.3 million (19%)</p> <p>Total Project Cost: \$33.40 million (100%)</p>

EMAB = Education Materials Approval Board; EVEP = Elective Vocational Education Program; ICT = information and communication technology; IT = information technology; MEF = Ministry of Economy and Finance; MIS = management information system; MoEYS = Ministry of Education, Youth and Sport; NIE = National Institute of Education; PDH = Publishing and Distribution House; PRD = Pedagogic Research Department; SEDP = Secondary Education Development Plan; TNA = training needs analysis; TOR = terms of reference; TOT = training of trainers; TTC = teacher training college; TTD = Teacher Training Department.

SECTOR ANALYSIS

1. The Ministry of Education, Youth and Sport (MoEYS) is responsible for leading, managing, developing, and providing education to the children of Cambodia. MoEYS has high-level established positions of minister, secretary of state, and under secretary of state overseeing six structures at the directorate level (administration and finance, education, higher education, youth and sport, and the inspectorate general plus an Education for All secretariat). Below these directorates, inspectorate, and secretariat structures are a number of supporting technical departments. MoEYS also has education offices at provincial and district level, and school management related to communities and communes. In November 2004, responsibility for technical and vocational education was transferred to the newly established Ministry of Labor and Vocational Training.

2. To deliver education services the system has a number of levels, starting with preschool for children aged 3–5. Basic education covers a 9-year period, with primary school covering grades 1–6 and lower secondary covering grades 7–9. Upper secondary level (grade 10) begins with a national examination at the end of grade 9 and finishes with a national examination at the end of grade 12. Technical and vocational education training programs run parallel to the upper secondary programs at grades 10, 11, and 12, but are not the responsibility of MoEYS. Higher-education programs are run at various universities and institutes.

3. In the 2006–2007 school year there were 9,018 schools with 80,733 classes. There were 3,387,310 students, of whom 1,574,900 were girls. The number of teachers was 77,794 teachers, 32,068 of whom were women. The schools served the 2,530,000 households that make up 13,406 villages, 185 districts, and 24 provinces (including the four municipalities).¹

4. In the Education Statistics and Indicators 2006–2007 (MoEYS 2006) secondary schools (colleges and lycées) and school levels (lower and upper secondary) are defined. The 846 colleges are lower secondary schools with grades 7–9. However, some lower secondary schools may not have all three grades. The 283 lycées are upper secondary schools with grades 10–12 but some also have lower secondary grades. Statistics relating to the lower secondary level are collected from all schools with grades 7–9 (1,112 schools) and statistics relating to the upper secondary level are collected from all schools with grades 10–12 (283 schools²). In 2006–2007 at the upper secondary level there were 222,271 students (88,701 of them girls) studying in 4,303 classes being taught by 6,688 teachers (1,956 females). At the lower secondary level there were 626,005 students (285,699 girls) in 12,633 classes being taught by 20,485 teachers (6,890 females).³

5. In 2006–2007 at the national level the gross enrolment ratio (GER) at primary level was 122.7% at lower secondary 60.0% and at upper secondary 21.2% The figures for girls were 119.3%, 54.5% and 17.2 % respectively. The net enrolment ratio (NER) at primary level was 92.1% at lower secondary 33.7% and at upper secondary 12.5% with girls' net enrolment being 91%, 33.1% and 11.3% respectively. Transition rates from primary to lower secondary were 78.7% and from lower secondary to upper secondary 66.2%. Corresponding rates for girls were 77.1% and 65.8%. Pupil-teacher ratios were 51.3% for primary, 30.6% for lower secondary, and 33.2 % for upper secondary. As the statistics indicate, enrolments at the primary level have grown rapidly, expanding 13% between 1997–1998 and 2006–2007. The rates of expansion at the lower secondary (135%) and upper

¹ MoEYS. 2006. *2002-06 Education Indicators*. Phnom Penh.

² Education management information system (EMIS) and Directorate of General Education (DGE) data varies with EMIS data in the MoEYS Education Statistics, 2005–2006 giving a total of 252 upper secondary schools while DGE data gives a total of 283 upper secondary schools. For planning purposes the DGE figure will be used.

³ MoEYS. 2006. *Education Statistics, 2005–2006*. Phnom Penh.

secondary (260%) education have been even higher during the same period. However, overall enrolments at the upper and lower secondary level remain low. This is largely a consequence of poor geographic access to lower secondary schools, which act as a bridge between primary and upper secondary schooling. The Asian Development Bank (ADB) and the World Bank are both supporting construction of lower secondary schools. Through the second Education Sector Development Program⁴ ADB is supporting construction of 400 lower secondary schools. The World Bank is supporting construction of 280 lower secondary schools through the CESSP.⁵ The impact of this on enrolments at the lower secondary level will be felt in the coming years. The second Education Sector Development Program is also providing for 49 new secondary schools to cater to the growing demand for secondary schooling.

6. Under the education strategy set out within the Government's Rectangular Strategy for Growth, Employment, Equity and Efficiency, the Government will continue to increase budget expenditures and mobilize increased international assistance to (i) enable incentives for teachers; (ii) assure quality instruction; (iii) increase provision of educational materials, equipment, libraries, and laboratories; (iv) build dormitories for students, especially female students; (v) continue to reform curricula and training programs; (vi) provide scholarships to poor students; (vii) promote literacy and informal education programs; (viii) finance construction of schools in rural areas; and (ix) support school operating costs. The highest priority is given to implementation of the national Education for All (EFA) plan and associated teacher development programs.

7. The Education Strategic Plan (ESP) planning process has, through more than one cycle, taken the policy and strategy dimensions described above and defined actions and targets. The aim of the Education Sector Support Program (ESSP) 2006–2010⁶ is to outline how the policies and strategies laid out in the ESP 2006–2010 will be put into practice. The basic principle adopted in the ESSP is that programs will be planned and implemented through the Government and MoEYS systems rather than through parallel modalities. The management framework for ESSP places the focus on strengthening appropriate MoEYS directorates and departments at central and provincial levels, including delegation of responsibilities to districts, clusters and/or communes, and schools. The National Strategic Development Plan endorses the ESSP 2006–2010. It is anticipated that the draft Education Law when passed will set a framework for the implementation and consolidation of a number of these policies.

8. The ESSP 2006–2010 policy action matrix divides the policy actions into three categories: equitable access, quality and efficiency, and institution and capacity building. Equitable access policy actions will (i) expand access to Early Childhood Education, (ii) ensure entry of all 6-year-olds into primary school, (iii) reduce parental cost barriers, (iv) reduce repetition and drop out levels in all grades, (v) enable greater community involvement in all stages of schooling, (vi) continue provision of new schools or additional facilities; (vii) increase enrolment in grades 7–9, (viii) increase enrolments in grades 10–12, (ix) ensure teacher provision in remote and disadvantaged areas; (x) improve the efficiency of staff deployment, (xi) ensure widely expanded provision of quality upper secondary education, (xii) increase the number of scholarships for students from poor families; (xiii) expand the provision of quality higher education, and (xiv) expand public, nongovernment organization (NGO), and/or community partnerships in Non-formal Education in border and remote areas. Two major interventions funded by the World Bank and ADB are rapidly changing the scale of access to secondary education in support of the ESP 2006–2010. Other interventions

⁴ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on Proposed Loans and Technical Assistance Grant to the Kingdom of Cambodia for the Second Education Sector Development Program*. Manila. (Loans 2121/2122-CAM, program loan for \$20 million and project loan for \$25 million, approved on 9 December).

⁵ World Bank. 2005. *Cambodia Education Sector Support Program*. Phnom Penh.

⁶ MoEYS. 2005. *Education Sector Support Program (ESSP) 2006–2010*. Phnom Penh.

relate to increasing the number of lower secondary teachers and developing professional competencies.

9. Quality and efficiency policy actions will (i) increase service remuneration and incentives linked to performance; (ii) improve the quality of teaching and learning through nationwide implementation of child-friendly schools; (iii) increase the schools and training institutions' operational autonomy and accountability regarding operational budgets and decisions on programs; (iv) implement the new curriculum policy; (v) improve preservice and in-service teacher development; (vi) strengthen teacher and learning quality (pedagogy and ICT); (vii) implement the minimum standards of student achievement for grades 3, 6, and 9; and (viii) increase transparency and improve performance monitoring and accountability of teachers, schools, and postsecondary institutions.

10. Institution and capacity-building policy actions will (i) provide a clearly defined legislative regulatory framework to the sector; (ii) improve predictability for medium-term financial planning; (iii) strengthen education system performance monitoring; (iv) strengthen central, provincial, and district financial monitoring systems; (v) assure that all designated budget management centers become operational; (vi) strengthen personnel management and monitoring systems; and (vii) improve higher education institutional development and capacity.

11. Despite measures to promote equal access of girls to education, gender disparity still persists widely in education in terms of enrolment, retention, and completion of primary, lower secondary, and upper secondary education. Boys and girls start schooling on an equal footing in primary education but the drop out rate among girl students starts to go up as they progress through the grades, particularly after completion of primary education. Poverty is the overriding reason for gender disparities in terms of enrolment and literacy. Among female students drop out rates reduce with each successive grade completed. The net enrolment rate of children in secondary education in ethnic minority and disadvantaged areas is much lower than the national average. Along with poverty, the distant location of schools, language barriers, disproportionate teacher-student ratios, and inappropriate instructional materials, are the major factors that keep children of ethnic minority groups away from school. These factors affect girls of ethnic minorities more than boys. Potentially some of these issues can be addressed through enhancing enrolment of teacher trainees from ethnic minority and disadvantaged areas at NIE and regional TTCs.

12. Overall, general progress has been made in the education sector in recent years and considerable progress has been made in the last 5 years on implementing education sector planning and reforms. This includes (i) reductions in cost barriers, (ii) effective enrolment campaigns, (iii) the introduction of school operating budgets and remedial classes, (iv) substantial increases in the Government's recurrent spending on education, and (v) the growth of policy-led support. Attention is now shifting to strengthening the quality and efficiency of the education sector.

13. Education quality is determined by a set of multifaceted and interrelated subsectors. These include (i) efficiency of decision making, (ii) provision and deployment of teachers, (iii) teacher training and retraining, (iv) remuneration systems, (v) curriculum development and textbook provision, (vi) valid and reliable assessment of the achievement of students and the performance of schools, (vii) provision of good and well-supported computer systems to enhance learning and teaching programs and infrastructure (such as school buildings and classrooms, furniture, and teaching aids), and (viii) an efficient and effective mechanism for collecting data. To improve quality, five components are needed: (i) building enough classrooms, (ii) providing enough qualified teachers in all subjects, (iii) providing enough materials for teaching and learning, (iv) improving the quality of living for teachers, especially in more remote locations, and (v) providing opportunities for professional development.

14. To improve both decision making and implementation, there is a need to review MoEYS' organization and functions to clarify departmental and office roles, reduce overlapping functions, and to further respond to decentralization and deconcentration policy.

15. Primary school teacher demand projections indicate that the total number of additional teachers needed for the period from now until 2015 will be 30,384. Lower secondary school teacher demand projections indicate a total shortfall of 41,507 teachers from 2007 to 2015. Upper secondary school teacher demand projections indicate that there is a total additional demand during the 2007–2015 period for 36,090 upper secondary teachers. It is difficult to predict teacher demand for the new elective subject system for grades 11 and 12 due to the uncertainty of school and student choice.

16. Teacher education is provided through national, regional, and provincial providers. NIE runs programs training university graduates to become upper secondary teachers. Lower secondary teachers are trained at regional TTCs and primary teachers are taught at provincial TTCs. The Pre-school Teacher Training College in Phnom Penh trains preschool teachers. NIE also trains educational administrators. During the academic year 2005–2006,⁷ 7,261 teachers were in training, of whom 3,034 were women.⁸

17. To improve quality at the upper secondary school level, including at those in remote areas, additional teachers need to be deployed so that more subjects can be taught competently. The current situation results in schools opening but students not attending because they do not wish to study under conditions where teacher competencies do not meet curriculum requirements. There is also a need to ensure a future supply of upper secondary teachers. Estimates suggest that the current capacity of NIE will be inadequate for future supply in the medium term.

18. The six regional TTCs provide 2-year programs to train lower secondary teachers. There is an identified need to improve the living environment (dormitories, cooking facilities and toilets) in addition to expanding facilities that relate to science, ICT, and multimedia. The provincial TTCs located throughout the country provide 2-year programs to train primary teachers. The role of provincial TTCs is changing as they become responsible for training basic education teachers and with the merging of some of the regional and provincial TTCs.

19. The ESSP prioritizes a TTC staff development program and a responsive preservice and in-service teacher training program to enhance the capacity of secondary school teachers and trainers. These programs are linked to the planned introduction of teacher standards, teacher training standards, and improved systems of performance monitoring. A system of formal certification is proposed in the ESSP as a foundation for the development of the national teacher education system. To achieve this, the TTD at MoEYS will need to establish criteria and procedures for assessment of competencies and certification of courses that teachers and trainers attend. The information will be required by the MoEYS Department of Personnel in relation to management of the performance monitoring and education management information system (MIS).

20. A secondary education development plan being prepared by the Department of General Secondary Education identifies a number of improvement areas, underpinned by a number of strategies to enhance the quality of secondary education. This plan has a focus on providing a context for the construction of secondary schools under the second Education Sector Development Program. There is an awareness that a comprehensive plan would cover five broad areas: (i) enhancing the skills of the secondary education workforce; (ii)

⁷ Data from TTD, MoEYS approved on 9 March 2007, indicates total enrolment for 2006–2007 is 8,880 (4,019 women).

⁸ Data from Teacher Training Department (TTD), MoEYS approved on 9 March 2007, TA 4823-CAM document D12, consolidated reports of technical assistance team (ADB. 2006. *Technical Assistance to the Kingdom of Cambodia for Preparing the Education Quality Improvement Project*. Manila.).

strengthening the secondary school support structures with MoEYS; (iii) ongoing secondary school improvement; (iv) supporting secondary teaching and learning; and (v) enhancing facilities, resources, and funding for secondary education. Currently there is inadequate resourcing for a comprehensive secondary education development plan.

21. A process of developing and introducing new curricula is underway throughout the school system. To this end, MoEYS has an approved policy and master plan for curriculum development for the period 2005–2009. PRD is responsible for curriculum development and has received support from the United States Agency for International Development (USAID) at the basic education level and from the Japan International Cooperation Agency (JICA) in mathematics and three science subjects at upper secondary level. To date, new curricula have been developed for lower secondary Khmer, mathematics, social studies, and the sciences, and for upper secondary mathematics, biology, chemistry, and physics. PRD would benefit from technical assistance to support the conceptualization, design, and development of the outstanding new curricula, and in particular in areas which are less familiar than the traditional school subjects. As well as drawing on consultancy support in these areas, PRD may consider a strategy of acquiring existing curricula and courses. Such courses might be adopted or adapted to a Cambodian context from materials that are in use elsewhere in the region. This may particularly be the case for foreign languages (English and French) and some of the proposed Elective Vocational Education Program (EVEP) subjects such as tourism and ICT. Future systems should require PRD to proceed with developing curricula with less direct intervention. It should build on the experience gained from the USAID-funded Basic Education Project but technical assistance should focus on provisions to build the capacity of PRD curriculum writers to enhance their roles in curriculum writing and the management of the process of developing textbooks, teachers' guides, and other instructional materials. MoEYS' stated policy is to ensure the adequate provision of core instructional materials on a national basis and to encourage the process of widening choice (and therefore quality) in the provision of textbooks by opening the textbook market to supply by multiple publishers. This will allow decentralization and more flexibility in the purchase of core learning materials at the school level, with a consequent gain in quality and cost benefits for MoEYS. However, MoEYS' policy has been difficult to implement due to a complex set of factors. The result has been that, so far, textbook production remains the monopoly of PHD. Centralized procurement also results in delays in textbook procurement.

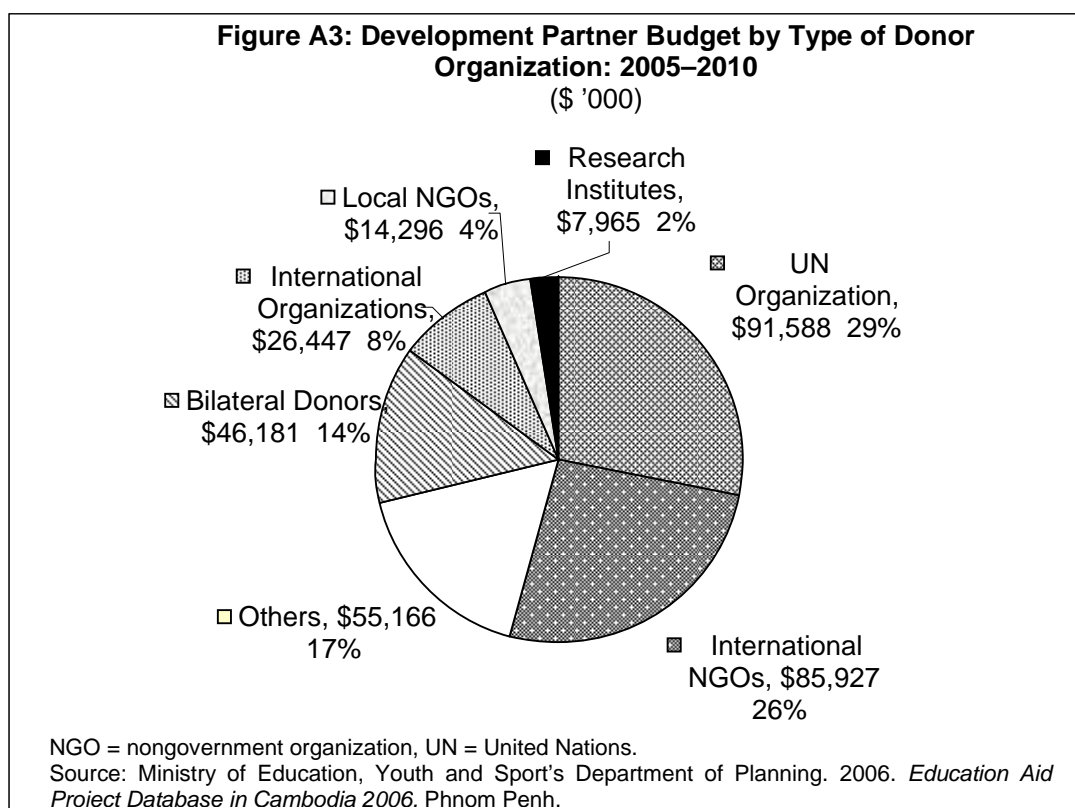
22. Reforms in assessment and examinations are needed to support the national curriculum reform and to ensure valid and reliable measurement of student achievement, which will in turn contribute significantly to quality assurance in education. The national policy on assessment should also address quality assurance of internal assessment (e.g., through external moderation of school assessments by the PRD Research and Evaluation Office) and ensure equitable access to assessment for students with disabilities. The Directorate of General Education Examinations Office currently lacks capacity. A phased strengthening of its capacity is needed both through training and introduction of ICT-led improvements to the management of assessment, administration, and record keeping. Computer-generated examinations and computer-based marking can improve validity and reliability, improve examination security, and reduce costs in the long term. Teachers need to be trained and supported in the development of assessment tools and question papers that assess students against curriculum standards in grades 3, 6, and 9 in a valid and reliable way. The School Based Assessment in other grades needs to be related to the assessment against curriculum standards in grades 3, 6, and 9 to ensure continuity and progression in the assessment of students and reporting to parents and students. The training of teachers will be greatly facilitated by the development and distribution of exemplar assessment tasks and question papers. The process would also benefit from an approach in which teachers were able to get access to expert support at a local level. Capacity needs to be developed at regional and school level to implement a systematic program of training and support.

23. MISs in MoEYS remain weak. Mechanisms for data gathering, retention, and manipulation are minimal at the point of collection. MISs often do not have the capacity to interconnect with another, not only because the basic data sets are incompatible but also because the staff lack the analytical skills. This is the case with current MISs. Where they exist, basic data sets are held within systems which are associated with a specific entity. Currently MoEYS has a number of information systems: an education MIS centered in the MoEYS Department of Planning, a finance MIS in the Department of Finance, and a human resources MIS in the Department of Personnel. The education MIS system does not interrelate with the human resources or finance MIS. The human resources MIS is supported by the United Nations Children's Fund (UNICEF) and the European Union, and the education MIS is supported by UNICEF and the Swedish International Development Cooperation Agency (Sida). Other systems exist or are planned, and these relate to school construction, nonformal education, higher education, and the Department of Information and ASEAN Affairs.

EXTERNAL ASSISTANCE TO THE EDUCATION SECTOR

A. Projected Trends in External Assistance

1. Total external funding to the education sector for the period 2005–2010 is estimated at \$327.6 million, with \$97.2 million actually spent in 2005, \$100.1 million in 2006, and \$130.3 million projected for 2007–2010. The total funding is financed by 124 donor organizations through 324 outstanding projects. Of the total projected financing for the 2005–2010 period, 29% is expected to come from United Nations (UN) agencies, 26% from international nongovernment organizations (NGOs), 15% from bilateral agencies, 8% from international organizations, 4% from local NGOs, 2% from research institutes, and 17% from other sources. Although the funding amount is aggregated, the Asian Development Bank (ADB), the World Bank, the European Commission, and the UN agencies are among the biggest donors to the country's education sector. Summary figures are provided in Figure A3.



2. In terms of annual budget allocation and disbursement, 29.7% of the total budget was actually disbursed in 2005, an estimated 30.5% was disbursed in 2006, and it is projected that the remainder will be disbursed in the following proportions: 18.7% in 2007, 10.9% in 2008, 6.4% in 2009, and 3.8% in 2010. This projection has not taken into account further annual commitments (and disbursements) by the donor community to Cambodia at annual Donor Consultative Group meetings.

3. With regard to budget by subsector, the total 2005–2010 budget is allocated as follows: 34.2% for primary education quality and efficiency; 9.9% for nonformal education expansion; 8.3% for facility expansion; 6.8% for continuous teacher education; 6.6% for capacity building; 6.5% for higher education quality, efficiency, and equitable access; 3.7% for lower secondary education access, quality, and efficiency; 3.4% for secondary

scholarships for the poor; 3.3% for upper secondary education access and equitable access; 2.9% for early childhood education; 1.9% for core instructional materials; 0.6% for strengthened monitoring systems; 0.6% for education service efficiency; 0.2% for youth and sport development, and the remaining 10% is allocated to other subsectors. Details are presented in Table A3.1.

4. It is noted that allocated investment in (lower and upper) secondary education access, quality, and efficiency accounts for just 7.1% of the total budget compared with 34.2% for primary education quality and efficiency. In this regard, more funding should be allocated to improvement of the quality of secondary education due to its significant social returns from this subsector. To this end, ADB's focus in the Project is well justified.

5. By geography, the donor budget distribution for 2005–2010 is balanced, taking into account population, poverty severity, and other economic and demographic indicators. The distribution is also observed to be balanced between nondisadvantaged and disadvantaged provinces. It is indicated that the budget for Phnom Penh accounts for 18% of the total 2005–2010 budget. However, this high proportion is due to the fact that allocations to line ministries are aggregated in this category, rather than Phnom Penh being counted as a normal administrative unit.

B. Responding to Future Funding Requirements

6. The Ministry of Education, Youth and Sport (MoEYS) has endorsed the national Education Strategic Plan (ESP) 2006–2010. The required funding to successfully achieve the ESP objectives is estimated at \$864 million for the 2006–2010 period. Annual projected funding required is as follows: \$140.7 million (16.3%) for 2006, \$162.4 million (18.8%) for 2007, \$172.9 million (20%) for 2008, \$188 million (21.8%) for 2009, and \$200 million (23.1%) for 2010 (Table A3.1).

Table A3.1: Funding Required to Finance the Education Strategic Plan Expenditure 2006–2010
(\$ million)

Item	2006	2007	2008	2009	2010	2006–2010
Recurrent Expenditure	112.4	137.7	150.1	167.0	179.5	746.6
Capital Expenditure	28.4	24.7	22.9	21.0	20.5	117.4
Total Funding Required	140.7	162.4	172.9	188.0	200.0	864.0
%	16.3	18.8	20.0	21.8	23.1	100.0

Source: MoEYS Education Strategic Plan 2006–2010.

7. Although Cambodia's economic growth prospects are bright with high projected gross domestic product (GDP) growth rates, public revenue (mainly from tax collection) will not be capable of funding the implementation of the ESP 2006–2010. Continued donor support is needed and the Project grant will significantly support the ESP implementation process.

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the sector identified as a national priority in country poverty partnership agreement?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Contribution of the sector or subsector to reduce poverty in Cambodia:</p> <p>Low enrolment of boys and girls in disadvantaged areas in secondary education is a major issue in Cambodia, as the Government aims to achieve 9-year basic schooling for all children by 2015 and implement its Education Sector Plan (ESP) 2006–2010. The total net enrolment ratio (NER) in 2006–2007 is estimated at 33.7% (33.1% for females) at lower secondary level and 12.5% (11.3% for females) at upper secondary level. Quality education can improve the skills efficiency and productivity of human resources, and help achieve sustainable growth within a globally competitive environment. Secondary education widens opportunities through enhanced employability. About 54% of the total population is economically active and 7% is unemployed. According to the Socio-economic Survey (2004),¹ only 4% of the labor force in 2004 had received upper secondary or postsecondary education. The Rectangular Strategy for Growth, Employment, Equity and Efficiency sets out the Government's education strategy. In particular, it targets enhancing human resources with high technical and scientific skills that effectively respond to the labor market. The National Strategic Development Plan 2006–2010 targets education as one of the important factors in poverty reduction. The plan endorses the ESP, and emphasizes development of the teaching workforce. Investment to improve teaching quality and enrolment of girls in upper secondary education is necessary to support Government efforts in achieving the Cambodia Millennium Development Goal 3, Target 1, of improving the ratio of girls to boys in upper secondary education from 48% in 2001 to 100% in 2015.</p>			

B. Poverty Analysis

Targeting Classification: General intervention

<p>Cambodia had an estimated 14 million people in 2006, with a population growth rate of 1.8% per annum and a per capita income of \$385. About 36% of the population lives below the national poverty line and one in five Cambodians lives under the food poverty line.² According to the Socio-economic Survey (2004), 91% of poor people live in rural areas. In Tonle Sap 45% people live in severe poverty. The corresponding figure in the mountain and plateau regions is 56%. Poor households have a higher dependency burden and lack human capital. They tend to (i) be uneducated, unskilled, and unhealthy; (ii) have limited access to rural infrastructure and markets; and (iii) be more vulnerable to land rights and housing tenure issues.</p> <p>Poor students are more visible at the primary level (20%) than the upper secondary (2%) or tertiary (0%) level. In comparison, nearly 61% of upper secondary students and 57% of tertiary students come from the richest 20% of the population. The following factors hinder basic education attainment levels in disadvantaged areas: (i) high levels of poverty, (ii) distant location of the school, (iii) lack of teachers particularly from ethnic minority groups, (iv) lack of educational materials, (v) lack of toilets, (vi) lack of security measures, and (vii) poor quality education. Girls are more hindered by these factors, as a higher proportion of girls than boys between the ages of 15 and 19 are part of the labor force. A recent survey found that out of about 1.6 million school-aged children not attending school full time, about 25% indicated household income and/or work responsibilities as the main reason for nonattendance, while only 8% stated a lack of accessible education provision.</p> <p>The education system relies heavily on households' private contributions for both direct and indirect education costs. On average, unofficial monthly school fees per student, excluding incidentals such as uniforms, are KR3,500 (\$0.9) at the primary level, KR8,000 (\$2) at the lower secondary level, and KR10,200 (\$2.5) at the upper secondary level. According to the Socio-economic Survey (2004), annual educational expenses per student includes school fees, tuition, textbooks, school supplies, gifts to teachers, and contributions to building funds. Households estimate educational expenses at KR50,000 (\$12.5) for preschool and primary school students, KR393,000 (\$100) for secondary school students, KR1.1 million (\$275) for technical or vocational school students and KR 2.1 million (\$525) for university students. According to the Socio-economic Survey (2004), parents are willing to pay 10 times as much for quality private schooling, especially at the secondary level. This is more common among the more affluent households in urban areas who are willing to pay substantially for high-quality education.</p> <p>The Project aims to increase the NER of children of disadvantaged families and/or areas in secondary education from 73% in 2006–2007 to 80% by 2020. The Project will employ a number of strategies aimed at addressing the impacts of poverty and other associated factors on the educational attainment of children in disadvantaged areas.</p>
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C. Participation Process

Is there a stakeholder analysis?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>A number of approaches were used to consult with stakeholders during project preparation, such as (i) a review of key documents and regulations, (ii) key informant interviews, (iii) meetings, (iv) task force and technical working group meetings, (v) visits to relevant institutions, (vi) national workshops, (vii) the education sector working group, and (viii) a</p>		

¹ National Institute of Statistic, Ministry of Planning. 2005. *Socio-economic Survey (2004)*. Phnom Penh.

² Ministry of Planning. 2006. *A Poverty Profile of Cambodia 2004*. Phnom Penh.

design and monitoring framework workshop. Key stakeholders include: Ministry of Education, Youth and Sport (MoEYS) line departments; provincial education offices; teacher training institutions; district level education offices; project-level offices; primary schools, lower secondary schools, and upper secondary schools; and development partners such as the World Bank, the European Union, Japan International Cooperation Agency (JICA), the United Nations Children's Fund (UNICEF), and the United States Agency for International Development (USAID).

Is there a participation strategy? Yes No

A participation strategy is integral to project implementation, which reflects the consultation process at the central, provincial, district, institutional, and project levels that was undertaken during project preparation.

D. Gender Development

Strategy to maximize impacts on women:

According to the Cambodia Inter-censal Population Survey 2004,³ in urban areas the unemployment rate of females is 6.7%, compared with 7.6% among males. In rural areas the unemployment rate of males is also marginally higher. A number of studies reveal a link between poverty and the higher drop out rates among female students at secondary level, especially in the disadvantaged areas.⁴ Poverty helps widen gender disparities in enrolment and literacy. Among females, drop out rates reduce with each successive grade completed. Although direct costs of education are the same for boys and girls, parents generally perceive higher opportunity costs and lower benefits from educating daughters. Opportunity costs increase with the increase in age of girls, especially when they reach an age officially acceptable for entry into the formal job market.

Strategies designed to maximize project impact on females include creating an environment conducive to increasing female literacy and retention rates through (i) better information dissemination to stakeholders including communities and parents; (ii) sex disaggregated data collection and analysis; (iii) improved upper secondary school facilities for equitable access (e.g., separate toilets for girls and dormitories for female students); (iv) greater proportion of scholarships for females; (v) orientation session on gender, disability, and ethnic minority issues for writers of instructional materials to encourage equitable access for children from disadvantaged areas; (vi) gender awareness sessions included in the teacher training and leadership training programs; and (vii) monitoring and evaluation of the implementation of the gender mainstreaming policy connected to an education management information system (MIS) review. Gender-responsive outputs and indicators are also included in the design and monitoring framework. A gender action plan is in Appendix 5.

Has an output been prepared? Yes No

E. Social Safeguards and Other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	The Project will include the construction and/or rehabilitation of dormitories and resource centers, facilities in teacher training institutions and upper secondary schools, and learning centers. All civil works will be carried out within the existing boundaries of the schools, teacher training colleges (TTCs) and the National Institute of Education (NIE). All civil works proposals must provide confirmation that all land required is already owned and unoccupied.	<input type="checkbox"/> Full <input type="checkbox"/> Short <input checked="" type="checkbox"/> None
Affordability	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	Scholarships will be provided for NIE and regional TTC trainee teachers and for upper secondary students from remote and disadvantaged areas. 60% of these scholarships will be for females.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Labor	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	The Project is not expected to adversely affect labor regulations. Current unemployment is estimated at 7%. Only 4% of those in the labor force had attained upper or postsecondary education. The Project aims to improve the skills and knowledge base of the population through targeted interventions aimed at improving the quality of education. Trained and qualified female teachers will receive equal or comparable pay to their male counterparts.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

³ National Institute of Statistic, Ministry of Planning. 2004. *Cambodia Inter-censal Population Survey 2004*. Phnom Penh.

⁴ MoEYS. 2006. *Gender Mainstreaming Strategy in Education 2006-2010*. Phnom Penh; and Velasco, E. 2002. *Institutionalizing Gender Equity in Education in Cambodia: Commitment, Policy and Action*. Phnom Penh: UNICEF/Sida.

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Indigenous Peoples	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	<p>The net enrolment rate of children at secondary education in disadvantaged areas (also contain high percentages of ethnic minorities) is lower than the national average. Poverty and disproportionate teacher-student ratios are two causes addressed by EEQP through upper secondary school scholarships for remote and disadvantaged children and enhanced enrolment of teacher trainees from remote and disadvantaged areas at NIE and RTTCs. See Supplementary Appendix C for the indicative guidelines for teacher trainee and upper secondary school grant scholarships.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Specific actions
Other Risks and/or Vulnerabilities	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	None.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

GENDER ACTION PLAN

1. The Project aims to increase the number of educated and skilled people from all sections of the population in Cambodia. The Project targets support to improve the quality of, and achieve greater equity of, education by (i) strengthening capacity of institutions and agencies responsible for delivery of quality education, (ii) improving teaching quality, and (iii) strengthening and expanding the reach of quality secondary education. A gender action plan is prepared to highlight the specific needs and interests of female students and teachers in upper secondary education in Cambodia. It helps to ensure that women have equal access to training opportunities at all levels. The gender action plan includes actions aimed at (i) facilitating performance and retention of girls from poor families in upper secondary schools, (ii) increasing the number of female teachers at secondary schools, and (iii) promoting equal participation of female staff for quality secondary education. The gender action plan is based on the gender analysis prepared for the Project. It is designed according to the Asian Development Bank's (ADB's) *Policy on Gender and Development* (1998), MoEYS' *Gender Policy in Education* (2006),¹ and *A Fair Share for Women: Cambodia Gender Assessment*.²

A. Gender Issues in Upper Secondary Education

2. While gender disparities in education have decreased at all levels, low enrolment of boys and girls from remote and disadvantaged areas in secondary education remains a major issue in Cambodia. Four out of seven provinces classified as remote have high percentages of ethnic minorities.³ Net enrolment rates in primary education show virtual gender parity. However, the total net enrolment ratio in 2006–2007 is 33.7% (33.1% for females) at lower secondary schools and 12.5% (11.3% for females) at upper secondary schools. In both urban and rural areas, more females are moving into higher grades and repetition rates are lower than that of males. However, drop out rates for women are still higher in urban and rural areas than they are for males. Table A5.1 illustrates the number and percentage of females that enroll and repeat grade 9, and transition to upper secondary school based on 2006–2007 Ministry of Education, Youth and Sport (MoEYS) statistics.

Table A5.1: Percent of Female Lower Secondary Students that Complete Grade 9 and Transit to Upper Secondary School

Item	Number of Students								
	Grade 9 Enrolments (2005–2006)			Repeating Within that Year (2005–2006)			Transition Rate to Upper Secondary School (%)		
	Total	Female	%	Total	Female	%	Total	Female	
Urban	44,619	19,746	44	2,540	872	34	89.3	89.9	
Rural	105,795	43,745	41	4,250	1,016	24	55.6	53.9	
Remote	1,464	614	42	32	6	19	29.7	26.3	
Total	151,878	64,105	42	6,822	1,894	28	66.2	65.8	
Mondulkiri	219	82	37	8	3	38	82.9	84.0	
Ratanakiri	502	196	39	50	18	36	71.8	76.6	
Stung Treng	900	408	45	10	6	60	72.0	89.3	
Otdar Meanchey	1,052	397	38	35	10	29	63.4	62.9	
Koh Kong	1,028	414	40	35	13	37	59.2	59.4	
Preah Vihear	1,283	566	44	44	7	16	80.0	76.9	
Pailin	443	173	39	9	0	0	63.7	69.6	

Source: MoEYS. 2007. *Education Statistics and Indicators 2006–2007*. Phnom Penh.

¹ MoEYS. 2006. *Gender Policy in Education*. Phnom Penh.

² United Nations Development Fund for Women, World Bank, ADB, United Nations Development Programme, and the Department for International Development (United Kingdom). 2004. *A Fair Share for Women: Cambodia Gender Assessment*. Phnom Penh.

³ Remote provinces with high ethnic minority populations include: Mondulkiri, Preah Vihear, Ratanakiri, and Stung Treng.

3. Studies reveal a link between poverty and the higher drop out rates among female students at secondary level of education, especially in disadvantaged areas.⁴ Poverty widens gender disparities in education in terms of enrolment and literacy. Among female students, drop-out rates reduce with each successive grade completed. Although direct costs of education are the same for boys and girls, parents generally perceive higher opportunity costs and lower benefits from educating their daughters. Opportunity costs increase with the increase in the age of girls, especially when they reach an age officially acceptable for entry into the formal job market. Common barriers for girls in accessing upper secondary education include poor quality education, security, lack of toilets, lack of educational materials, early marriage, and the lack of female teachers in rural secondary schools.

4. Enhanced quality of education has a direct impact on poverty reduction, as it is a priority area in human development and capacity building. Only 4% of the labor force in 2004 had received upper secondary or postsecondary education, according to the Socio-economic Survey (2004).⁵ The overall unemployment rate in urban areas was 7% (6.7% for females and 7.6% for males) in 2004, according to the Cambodia Inter-censal Population Survey 2004. In rural areas, the unemployment rate for males is marginally higher than the rate for females. Improved quality secondary education not only improves employment opportunities for young people but also improves the skills efficiency and productivity of human resources for more than half of Cambodia's population (women comprise about 52% of Cambodia's total population).

5. In addition, quality secondary education for young women contributes to better health, family welfare, economic growth, and intergenerational benefits. Educated mothers have fewer children, provide better nutrition for their children leading to improved family health, and also provide for a fairer and more equitable intrahousehold allocation of resources, thus reducing future gender disparities. Educated mothers tend to use health services more frequently, increasing efficiencies of health care investments. This has been demonstrated by the recent decline in total fertility rate from 4.0 children per mother to 3.3 children per mother (2005 CMDG Report).⁶

B. Institutional Gender Disparities

6. Gender disparities also exist within MoEYS and within the education service. Within MoEYS, few women are appointed to top-level positions. Based on 2005 data, there is a total of 102,712 officials in MoEYS. There is no female secretary of state or under secretary of state. While females are not found at the director or inspector-general levels, about 5% of deputy directors or inspectors general are women. Females account for about 10% of department directors and 12% of deputy directors. About 7.1% of upper secondary school directors and 7.6% of vice directors are female (Table A5.2).

7. The proportion of female teachers in lower and upper secondary levels has remained relatively constant. In 2005, about one third of an estimated 7,000 upper secondary school teachers and one third of an estimated 25,000 lower secondary school teachers were female (Table A5.2). This is due to a number of reasons: (i) low levels of qualification of lower and upper secondary female teachers, (ii) lack of training opportunities, (iii) lack of teachers in remote and rural areas due to safety concerns, (iv) difficult logistics (e.g., inadequate housing,

⁴ MoEYS. 2006. *Gender Mainstreaming Strategy in Education 2006–2010*. Phnom Penh; and Velasco, E. 2002. *Institutionalizing Gender Equity in Education in Cambodia: Commitment, Policy and Action*. Phnom Penh: UNICEF/Sida.

⁵ National Institute of Statistic, Ministry of Planning. 2005. *Socio-economic Survey (2004)*. Phnom Penh.

⁶ Ministry of Planning. 2005. *Cambodian Millennium Development Goals Report*. Phnom Penh.

low pay, and difficult transport), and (v) lack of female representation in provincial and district offices of education.

Table A5.2: Percent of Ministry of education, Youth and Sport Female Staff and Teachers

No.	Position	2005		2004		2003	
		Total	Female (%)	Total	Female (%)	Total	Female (%)
1	Total officials in the education sector	102,715	36.9	99,049	36.9	91,642	35.9
2	Secretary of State	5	0.0	5	0.0	2	0.0
3	Under Secretary of State	7	0.0	7	0.0	5	0.0
4	Director General	4	0.0	4	0.0	4	0.0
5	Deputy Director General	16	0.0	16	0.0	5	20.0
6	Inspectorate	1	0.0	1	0.0	1	0.0
7	Deputy Inspectorate	4	25.0	4	25.0	1	0.0
8	Director of Department	20	10.0	20	10.0	19	10.5
9	Deputy Director of Department	100	12.0	100	12.0	44	13.6
10	Upper Secondary School Director	196	7.1	233	10.7	214	10.7
11	Upper secondary School Vice Director	434	7.6	498	5.8	223	11.7
12	Lower Secondary School Director	392	5.1	356	4.2	311	4.2
13	Lower Secondary School Vice Director	401	7.2	360	5.6	310	5.8
14	Primary School Director	4,080	7.0	3,969	7.1	4,013	6.4
15	Primary School Vice Director	4,099	7.4	3,954	7.0	3,914	6.4
16	Teacher in Upper Secondary School	6,963	32.7	5,924	23.5	5,811	24.0
17	Teacher in Lower Secondary School	24,865	33.1	24,204	33.2	21,623	29.9
18	Teacher in Primary School	59,788	44.1	57,971	45.2	53,662	45.0
19	Rector of Public University	4	0.0	4	0.0	4	0.0
20	Vice Rector of Public University	14	0.0	14	0.0	7	0.0
21	Lecturers of Public University	14	0.0	14	0.0	7	0.0
	Total	204,122	37	196,707	37.0	181,822	36.0

Source: Ministry of Women's Affairs estimates, 2005.

C. Legal Framework and Regulations

8. The Government aims to achieve 9-year basic schooling for all children by 2015 and implement its Education Sector Plan (ESP) 2006–2010, emphasizing equitable access to education services, quality and efficiency of education services and institutional development, and capacity building for decentralization. The Government's Rectangular Strategy for Growth, Employment, Equity and Efficiency sets out Cambodia's strategy on education. In particular, the strategy targets enhancing human resources with high technical and scientific skills that effectively respond to the labor market. The National Strategic Development Plan 2006–2010 targets education as one of the important vehicles for poverty reduction in the country. The National Strategic Development Plan 2006–2010 endorses the ESP 2006–2010, and includes points related to the development of the teaching workforce. The Education for All (EFA) national plan highlights the importance of addressing gender issues at all levels and within all subsectors of the education system.⁷ The Cambodia Millennium Development Goal states the target of improving the ratio of girls to boys in upper secondary education from 48% in 2001 to 100% in 2015.

9. The draft Education Law emphasizes gender equity in education, as indicated in its goal and direction of education (Article 2), and more specifically in educational services (Article 41):

- (i) **Article 41 (Quality EFA).** School or educational establishments provide instruction that is appropriate to each learner's learning needs, abilities, and learning styles, and instruction that is active, co-operative, learner-friendly, and gender-sensitive.

⁷ Secretary General of National Education For All. 2003. *Education for All National Plan. 2003–2015*. Phnom Penh.

- (ii) **Article 41 (Quality EFA).** School learning environment is ... welcoming, gender-sensitive, disability-responsive, comfortable and safe.

10. The Gender Policy in Education (2006) goes further and indicates in its policy statement the following six areas of support (i) gender is integrated into all aspects of education plans and programs, (ii) an enabling environment for gender mainstreaming and positive social attitudes towards gender equality and girls' education are created, (iii) gender equity in education is achieved and girls have full and equal access to education of good quality, (iv) women's participation in the management and delivery of education services is increased, (v) women will be given equal treatment to men in the workplace, and (vi) gender mainstreaming actions must comply with quality standards. MoEYS proposes a variety of strategies for implementing the gender policy: (i) research and data collection, information dissemination, and awareness raising; (ii) advocacy; (iii) capacity building; (iv) teaching and learning processes; (v) affirmative actions; (vi) partnerships with the Government, nongovernment organizations, or the private sector; and (vii) monitoring and evaluation. The Project reflects these key government commitments on gender equity in quality secondary education.

D. Gender Action Plan

11. Specific actions, as outlined in the gender action plan in Table A5.3, will be implemented and refined as required. New actions will also be considered for inclusion, as deemed appropriate.

Table A5.3: Gender Action Plan

Project Component	Actions Proposed
A. Component 1: Education System Management and Development	
1. Increased awareness of the Education Law and Gender Policy in Education	<ul style="list-style-type: none"> • Distribute the Gender Policy in Education at the national workshop, at the provincial, district, and secondary school levels, and in provincial and regional TTCs. • Enhance communities' knowledge and understanding about girls' education, the Gender Policy in Education through the Project and TA 4892.^a
2. Policy framework for teacher education and management prepared	<ul style="list-style-type: none"> • At least two members of the task force commissioned to draft the policy framework for teacher education and teacher management should be women • Assess gender issues in education, and devise strategies to address them in the framework • Include gender-related achievements and sex-disaggregated data in annual reports on policy implementation
3. Organization and function of MoEYS at central, province, district, and school levels reviewed	<ul style="list-style-type: none"> • At least two members of the task force commissioned to review the current structure and functions of MoEYS at all levels should be women • Review the role of the MoEYS gender working group within the content of the overall review of the organization and function of MoEYS.
4. Strengthened National Institute of Education	<ul style="list-style-type: none"> • Incorporate gender-specific needs (e.g., increased female representation in decision making) in the participatory institutional development plan. • Develop an education research capacity for relevant male and female NIE staff • Review the planning and management training programs from the gender perspective and integrate gender concerns where appropriate.
5. Information systems strengthened and consolidated	<ul style="list-style-type: none"> • At least two women will be members of the task force assigned to strengthen and consolidate an integrated MIS
	<ul style="list-style-type: none"> • Design an integrated MIS to enable recording of data disaggregated by sex and region, where appropriate.
6. Monitoring and quality assurance systems introduced	<ul style="list-style-type: none"> • Integrate into the development of monitoring and quality assurance systems aspects of gender-based monitoring and quality assurance for NIE and TTCs
7. Enhanced capacity of the Pedagogic Research Department and Education Materials Approval Board	<ul style="list-style-type: none"> • At least two women will be members of the task force commissioned to develop new curricula, which will be reflected in preservice and in-service teacher curriculum. • New learning materials will be evaluated among female and male recipients. • At least 30% of learning material evaluators will be female.
B. Component 2: Teacher Professional Development	
1. Enhanced management capacity of teacher training institutions	<ul style="list-style-type: none"> • Include female staff in the development of teacher training standards • Integrate a session on the Gender Policy in Education into the management leadership training • Conduct a gender-sensitive review and modify curriculum content and methodology
2. Upgraded teacher training institutions and facilities (including ICT)	<ul style="list-style-type: none"> • Incorporate specific gender needs into the facilities needs-assessment of TTCs to facilitate women's access to TTCs (e.g., safety issues, separate toilets) • Consider gender needs in constructing and upgrading targeted regional and other TTCs • Upgrade teacher training institution facilities to ensure that they are safe and suitable for female staff and students (e.g., improve security measures or sanitation facilities by having separate toilets in separate locations).
3. Increased enrolment of female students from remote and disadvantaged areas in lower secondary and upper secondary teacher training programs	<ul style="list-style-type: none"> • 60% of 400 scholarships for lower secondary teacher training in regional TTCs are reserved for women • 60% of 100 scholarships for upper secondary teacher training in NIE are reserved for women • Percentage of female students in NIE increased from 30% in 2006 to 40% by 2013
	<ul style="list-style-type: none"> • Percentage of female students in regional TTCs increased from 40% in 2006 to 50% by 2013 • Student enrolment, completion, and teacher placement figures from NIE and regional TTCs receiving a scholarship are disaggregated by sex and place of origin.

Project Component	Actions Proposed
4. Improved skills and competencies of teacher trainers in preservice teacher training programs	<ul style="list-style-type: none"> • Conduct a comprehensive training needs assessment, based on separate TNAs for male and female teacher trainers, to develop a gender-responsive training plan. • Develop criteria for instructional materials for teacher training courses. MoEYS gender working group provides gender-sensitivity training as part of TOT programs • Develop multimedia materials highlighting the benefits of girls' education and equal access for children from remote and disadvantaged areas.
5. Improved teaching skills and competencies of secondary teachers	<ul style="list-style-type: none"> • Conduct a baseline training needs study for male and female teachers to collect information on levels of teacher qualifications for training prioritization • Train at least the current male-female ratio among the 14,400 identified underqualified lower secondary and upper secondary teachers by 2013. • Train at least 33% females out of 3,000 lower secondary and 3,000 upper secondary teachers in basic English and use of multimedia and ICT by 2013.
C. Component 3: Strengthening Secondary Education	
1. Secondary education development plan completed	<ul style="list-style-type: none"> • The gender working group is represented on the task force to prepare the secondary education development plan. • Hold consultations with male and female stakeholders in the education sector on the secondary education development plan.
2. Secondary school networks and management strengthened, and school improvement planning introduced	<ul style="list-style-type: none"> • Integrate aspects of the Gender Policy in Education into leadership training program for upper secondary school directors and vice directors • Committees set up to develop upper secondary school improvement plans will have 30% women membership • Upper secondary school improvement plans will reflect specific gender needs in improving quality and equity of education for female and male students.
3. Increased enrolment in secondary schools of girls and children from remote and disadvantaged areas	<ul style="list-style-type: none"> • 60% of 4,000 scholarships for upper secondary students are reserved for female students from remote and disadvantaged areas.
4. Upgraded secondary school facilities (including ICT), laboratories, and libraries	<ul style="list-style-type: none"> • Upgrade upper secondary school facilities to provide safe school environment for female teachers and students (e.g., security and separate toilets in separate locations) • Ensure female participation in training courses on management, and use and maintenance of equipment
5. Curriculum in priority areas (including ICT) developed and in use in secondary schools	<ul style="list-style-type: none"> • Review instructional materials in secondary schools and teacher training institutions for evidence of gender bias. • The MoEYS gender working group will provide gender orientation training to relevant staff to ensure gender responsiveness of the new selected upper secondary school curriculum, the new selected upper secondary school EVEC curriculum and the new selected lower secondary school curriculum • Develop EVEC and guidelines for local development of life-long skills program in consultation with females and males to determine the appropriateness of subjects.
6. Upper secondary schools have textbooks and teachers' guides	<ul style="list-style-type: none"> • Female upper secondary students and teachers have access to textbooks and teachers' guides. • Efforts to ensure timely provision of textbooks to remote and disadvantaged areas.
7. Student achievement in secondary education based on curriculum standards assessed	<ul style="list-style-type: none"> • Develop an assessment policy and guidelines based on a review that takes into account gender-specific issues (e.g., challenges faced in achieving secondary education). • At least one woman will be involved in training (i) PRD staff for monitoring and evaluation of implementation activities, and (ii) assessment trainers at provincial level. • At least 33% of secondary teaching staff selected to conduct new assessment approaches are women.
D. Project Implementation Arrangements	
	<ul style="list-style-type: none"> • Collection and reporting of gender activities into quarterly and annual reports. • Each technical unit will include a representative from the MoEYS gender working group.

Project Component	Actions Proposed
	<ul style="list-style-type: none"> • Task forces established under the Project will have at least two female members. • The MoEYS gender working group, technical units, and task force units will facilitate female participation in project activities • Recruit national gender expert (6 person-months) to assist in strengthening capacity of the MoEYS gender working group and help develop sex-disaggregated indicators for the PPMS. • The midterm review will review past updates, assess gender-related achievements and constraints to gender action plan implementation for adjustments, as required.

EVEP = Elective Vocational Education Program; ICT = information communication and technology; MIS = management information system; MoEYS = Ministry of Education, Youth, and Sports; NIE = National Institute of Education; PPMS = project performance monitoring system; TNA = teachers' needs assessment; TOR = terms of reference; TOT = training of teachers; TTC = teacher training college.

^a ADB. 2006. *Technical Assistance to the Kingdom of Cambodia for Capacity Development of Female Commune Council Networks*. Manila. The Cambodia Resident Mission Gender Specialist will facilitate cooperation between the Project and TA 4892. The TA was attached to the Commune Council Development Project II. It is implemented by the Women for Prosperity NGO which works to empower female commune councilors in six provinces around Tonle Sap Lake.

Source: Asian Development Bank estimates.

E. Implementation arrangements

12. Implementation arrangements and estimated costs of the gender action plan are integrated into the overall arrangements and total budget of the Project. The implementation schedule of the gender action plan will be in line with the implementation of the Project. The project director will be responsible for overseeing the implementation of the gender action plan and reporting against gender activities in quarterly and annual reports. Each technical unit will have a representative from the MoEYS gender working group. The task forces established under the Project will have at least two female members.

13. A national gender expert will be recruited and will assist concerned departments to develop sex-disaggregated indicators for the project performance and monitoring system. Progress reports will provide updates on implementation progress of gender activities. The gender working group representative in the technical units will report progress against the gender action plan for inclusion into quarterly and annual project progress reports. The midterm review will assess gender-related achievements and constraints to gender action plan implementation and suggest improvements or adjustments to the gender action plan, as required, to enhance project performance.

DETAILED COST ESTIMATES

Item	Cost (\$'000)	ADB		Government	
		(\$'000)	% of Category Cost	(\$'000)	% of Category Cost
A. Civil Works					
1. Design, Monitoring, and Supervision of Civil Works	142.9	142.9	100.0	0.0	0.0
2. Learning Center Construction and Refurbishment	2,632.5	2,632.5	100.0	0.0	0.0
3. Dormitory Construction and Upgrading Sanitation Facilities	302.4	302.4	100.0	0.0	0.0
4. Taxes and Duties	342.0	0.0	0.0	342.0	100.0
Subtotal (A)	3,419.8	3,077.8	90.0	342.0	10.0
B. Equipment and Furniture					
1. MIS Equipment and Furniture	1,064.2	1,064.2	100.0	0.0	0.0
2. Learning Center Equipment and Furniture	2,376.0	2,376.0	100.0	0.0	0.0
3. PIM Equipment and Furniture	117.5	117.5	100.0	0.0	0.0
4. Taxes and Duties	395.3	0.0	0.0	395.3	100.0
Subtotal (B)	3,953.0	3,557.7	90.0	395.3	10.0
C. Learning Center Resources					
1. Learning Center Resources	3,060.0	3,060.0	100.0	0.0	0.0
2. Taxes and Duties	340.0	0.0	0.0	340.0	100.0
Subtotal (C)	3,400.0	3,060.0	90.0	340.0	10.0
D. Books and Instructional Materials					
1. Student's Textbooks	1,286.0	1,286.0	100.0	0.0	0.0
2. Instructional Materials	60.0	60.0	100.0	0.0	0.0
3. Taxes and Duties	0.0	0.0	0.0	0.0	100.0
Subtotal (D)	1,346.0	1,346.0	100.0	0.0	0.0
E. Vehicles					
1. Automobile Vehicles	210.0	210.0	100.0	0.0	0.0
2. Motorcycle Vehicles	43.2	43.2	100.0	0.0	0.0
3. Taxes and Duties	94.8	0.0	0.0	94.8	100.0
Subtotal (E)	348.0	253.2	72.8	94.8	27.2
F. Training, Workshops, and Technical Activities					
1. Costs of Materials	587.9	587.9	100.0	0.0	0.0
2. Costs of Training, Workshops, and Technical Activities	6,719.5	6,719.5	100.0	0.0	0.0
3. Taxes and Duties	811.9	0.0	0.0	811.9	100.0
Subtotal (F)	8,119.4	7,307.4	90.0	811.9	10.0
G. Scholarship Schemes					
1. Scholarship Schemes	1,220.0	1,220.0	100.0	0.0	0.0
2. Taxes and Duties	0.0	0.0	0.0	0.0	100.0
Subtotal (G)	1,220.0	1,220.0	100.0	0.0	0.0
H. Implementation Consulting Services					
1. Consulting Services					
a. Consulting Services - International	3,315.6	3,315.6	100.0	0.0	0.0
b. Consulting Services - National	493.2	493.2	100.0	0.0	0.0
c. Taxes and Duties	423.2	0.0	0.0	423.2	100.0
Subtotal (H1)	4,232.0	3,808.8	90.0	423.2	10.0

Item	Cost (\$'000)	ADB		Government	
		(\$'000)	% of Category Cost	(\$'000)	% of Category Cost
2. PIM Consulting Services					
a. PIM Consulting Services - International	1,029.6	1,029.6	100.0	0.0	0.0
b. PIM Consulting Services - National	108.0	108.0	100.0	0.0	0.0
c. Taxes and Duties	126.4	0.0	0.0	126.4	100.0
Subtotal (H2)	1,264.0	1,137.6	90.0	126.4	10.0
3. Consulting Services - Support Costs					
a. Baseline and Impact Studies	36.0	36.0	100.0	0.0	0.0
b. Office Operating Costs	270.0	270.0	100.0	0.0	0.0
c. Taxes and Duties	34.0	34.0	100.0	0.0	0.0
Subtotal (H3)	340.0	340.0	100.0	0.0	0.0
Subtotal (H)	5,836.0	5,286.4	280.0	549.6	9.4
I. Incremental Recurrent Costs					
1. Incremental Staff Remuneration	1,082.4	0.0	0.0	1,082.4	100.0
2. O&M of Civil Works and Equipment	395.8	0.0	0.0	395.8	100.0
3. O&M of Vehicles	373.2	0.0	0.0	373.2	100.0
4. PMU/TUs Operations	1,402.3	0.0	0.0	1,402.3	100.0
5. Taxes and Duties	34.8	0.0	0.0	34.8	100.0
Subtotal (I)	3,288.5	0.0	0.0	3,288.5	100.0
Total Base Cost (A+B+C+D+E+F+G+H+I)	30,930.6	25,108.5	81.2	5,822.1	18.8
J. Contingencies					
1. Physical Contingencies	1,546.5	1,197.2	77.4	349.3	22.6
2. Price Contingencies	910.6	793.4	87.1	117.3	12.9
Subtotal (J)	2,457.2	1,990.6	81.0	466.6	19.0
Total Project Cost	33,387.8	27,100.0		6,287.8	
% Total Project Cost	100.0		81.2		18.8

ADB = Asian Development Bank, O&M = operation and maintenance, PIM = project implementation and management, PMU = project management unit, TA = technical assistance, TU = technical unit.
Source: Financial analyst estimates.

IMPLEMENTATION SCHEDULE

Activity	2008				2009				2010				2011				2012				2013				2014			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Project Management																												
Set Up Project Management in Directorate of General Education and 3 Technical Units			■																									
Establish Project Performance Management system (including base-line survey)			■																									
Midterm Review														■														
Component 1 Education System Management and Development																												
Output 1.1 Education Law disseminated (Provisional start date: dependent on being passed by National Assembly)																												
1.1.1. Prepare Education Law and posters for dissemination				■																								
1.1.2. Print Education Law and posters and Gender Mainstreaming Policy				■																								
1.1.3. Disseminate printed materials					■																							
Output 1.2 Policy framework for teacher education and teacher management completed																												
1.2.1 Prepare TOR and establish task force			■																									
1.2.2 Document review and consultation completed				■																								
1.2.3 Prepare policy document and submit for approval				■																								
1.2.4 Prepare and issue sub-decree									■																			
1.2.5 Prepare annual reports on policy implementation														■														
Output 1.3 The organization and function of MoEYS at central, province and district levels reviewed																												
1.3.1 Establish a technical working group and prepare TOR			■																									
1.3.2 Comprehensive review of the current structure and functions of the MoEYS			■																									
1.3.3 Prepare report with an approved action plan.					■																							
Output 1.4 Strengthened National Institute of Education																												
1.4.1 Development of an agreed institutional development plan with a clear vision			■																									
1.4.2 Development of an education research capacity			■																									
1.4.3 Staff professional capacity enhanced																												
1.4.4 Review and development of planning and management training programs																												
1.4.5 Distance support to upper secondary teachers																												
Output 1.5 Information systems strengthened at all levels																												
1.5.1 Set up a task force to plan full integration of EMIS with HRMIS, and FMIS			■																									
1.5.2 Review and strengthen the EMIS system of analysis and reporting, including gender																												
1.5.3 Development of MoEYS FMIS system acceptable to MEF																												
1.5.4 Development of the HRMIS																												
Output 1.6 Monitoring and quality assurance systems in place and functional (schools and teacher education institutions)																												
1.6.1 Clarify the functions of key departments in monitoring and quality assurance																												
1.6.2 Establish a quality assurance system for teacher education institutions																												
1.6.3 Strengthen school self-assessment systems for lower and upper secondary schools																												

Activity	2008				2009				2010				2011				2012				2013				2014			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Component 3 Strengthening Secondary Education																												
Output 3.1 Secondary Education Development Plan completed																												
3.1.1 Prepare TOR with focus on quality issues and establish task force																												
3.1.2 Document review and consultation																												
3.1.3 Draft the Secondary Education Development Plan																												
3.1.4 Submit final draft																												
3.1.5 Prepare and issue sub-decree																												
Output 3.2 Secondary school networks, management, and improvement planning introduced																												
3.2.1 Strengthen secondary school networks and identify learning center schools																												
3.2.2 Develop leadership and improvement planning training for school directors																												
3.2.3 Develop competencies of school and network based trainers (TGL)																												
Output 3.3 Increase secondary school enrolment of children from disadvantaged areas																												
3.3.1 Upgrade secondary school facilities for female staff and students safety and security																												
3.3.2 Provide scholarships for bright and disadvantaged students to study at USS																												
Output 3.4 Secondary school facilities including ICT, laboratories, and libraries upgraded																												
3.4.1 Learning centers designed and constructed in identified schools																												
3.4.2 Procure equipment, deliver and install at selected institutions.																												
3.4.3 Run training courses on how to manage, use and maintain the equipment																												
3.4.4 Follow up the training and monitor the effective use of the delivered equipment																												
Output 3.5 Curriculum including ICT developed and in use for secondary schools																												
3.5.1 Develop and disseminate nationwide new upper secondary curriculum, complementing other programs																												
3.5.2 Develop and disseminate new upper secondary curriculum for EVEP subjects																												
3.5.3 Develop and disseminate nationwide new lower secondary curriculum, complementing other programs																												
Output 3.6 Upper secondary schools countrywide have textbooks and teacher's guides																												
3.6.1 Negotiate direct purchasing agreement with PDH																												
3.6.2 Print books and store in PDH warehouse																												
3.6.3 Books delivered to schools by the beginning of school year																												
Output 3.7 Assessment of secondary school student achievement on curriculum standards																												
3.7.1 Develop assessment policy																												
3.7.2 Develop guidelines on standards-based assessment and exemplar assessment																												
3.7.3 Train MoEYS item bank writers and examination paper setters																												
3.7.4 Strengthen capacity of Examinations Office staff administration using ICT																												
3.7.5 Train PRD to monitor and evaluate implementation of standards-based assessment																												
3.7.6 Train assessment trainers at provincial level																												
3.7.7 Train secondary teachers to conduct assessment of curriculum standards and SBA																												

EMIS = Education Management Information System; EVEP = Elective Vocational Education Program; FMIS = financial MIS; HRMIS = human resources MIS; ICT = information and communication technology; MEF = Ministry of Economy and Finance; MoEYS = Ministry of Education, Youth and Sport; NIE = National Institute of Education; PDH = publishing and distribution house; PRD = Pedagogic Research Department; SBA = school-based assessment; TG = technical group; TGL = technical group leader; TTC = Teacher Training College; RTTC = regional teacher training center; PTTC = provincial teacher training college, TOT = training of trainers, USS = upper secondary school.

Source: ADB estimates.

PROCUREMENT PLAN

Project Information

Country	The Kingdom of Cambodia
Name of Borrower	The Royal Government of Cambodia
Project Name	Education Quality Enhancement
Loan/Grant or TA Reference	To be determined (TBD)
Date of Effectiveness	TBD
Amount \$ (total from all financiers)	\$27.1 million
Of which Committed, \$	-0-
Executing Agency	Ministry of Education, Youth and Sports
Approval Date of Original Procurement Plan	17/10/2007
Approval of Most Recent Procurement Plan	17/10/2007
Publication for Local Advertisement ^a	TBD
Period Covered by this Plan	18 months

Procurement Thresholds, Goods and Related Services, Works and Supply and Install^b

Procurement Methods	To be used above/below (\$)
ICB Works	More than \$300,000
ICB Goods	More than \$100,000
NCB Works	Less than \$300,000 but more than \$40,000
NCB Goods	Less than \$100,000 but more than \$20,000
Shopping Works	Less than \$40,000
Shopping Goods	Less than \$20,000

Procurement Thresholds, Consulting Services

Procurement Methods	To be used above/below (\$)
Quality- and Cost-Based Selection (QCBS)	At least \$200,000

List of Contract Packages in Excess of \$100,000, Goods, Works and Consulting Services

Ref	Contract Description	Estimated Costs (\$m)	Procurement Methods ^{c1}	Expected Date of Advertisement	Prior Review Y/N	Comments
1	Civil Works	3.71 (multiple contracts)	NCB	IV 2008	Y	None
2	Equipment and Furniture	4.25 (multiple contracts)	ICB/NCB/Shopping	IV 2008	Y	None
3	Learning Center Resources	3.1 (multiple contracts)	NCB/Shopping	IV 2008	Y	None
4	Books and Instructional Materials	1.45 (1 contract)	Direct Purchase	II 2008	N	None
5	Vehicles	0.37 (1 contract)	ICB/NCB	IV 2008	Y	None
6	Consulting Services	6.31 (1 package)	QCBS QC Ratio 80:20	I 2008	Y	None

ICB = international competitive bidding; NCB = national competitive bidding, QCBS= quality- and cost-based selection; TBD = to be determined. Number of contracts depends on the scope of work. MoEYS will award

^a Includes general procurement notice, invitations to pre-qualify and to bid, calls for expressions of interest.

^b As per the Standard Operating Procedures of the Kingdom of Cambodia, as agreed with the ADB and the World Bank.

^c Multiple packages may be clubbed together for procurement to effect price efficiencies. The mode of procurement will depend on the size of the package.

contracts for individual works or it may combine various works in awarding contracts. This will be determined in the first year of project implementation.
Source: Financial analyst estimates.

Detailed Procurement Packages

Component	Number of Contracts	Cost Estimates (\$ million)	Method of Procurement
A. Civil Works		3.71	NCB
Design, Monitoring and Supervision of Civil Works	1	0.17	
Learning Centers Construction and Refurbishment	50	3.18	
Dormitory Construction and Upgrading Sanitation Facilities	4	0.36	
B. Equipment and Furniture		4.25	ICB/NCB/ Shopping
MIS Equipment and Furniture	1 ^a	1.25	
Learning Center Equipment and Furniture	1 ^a	2.86	
Management Equipment and Furniture	1 ^a	0.14	
C. Learning Center Resources	1	3.66	NCB/ Shopping
D. Books and Instructional Materials		1.45	
Student's Textbooks	1	1.38	Direct Purchase
Instructional Materials		0.07	
E. Vehicles		0.37	ICB/NCB
Automobile Vehicles	1	0.32	
Motorcycle Vehicles		0.05	
F. Consulting Services	1	6.31	QCBS QC ratio 80:20
Total	60 plus	19.75	

ICB = International Competitive Bidding; NCB = national competitive bidding, QCBS = quality- and cost-based selection.

^a Number of contracts depends on the scope of work. MoEYS will award contracts for individual works or it may combine various works in awarding contracts. This will be determined in the first year of Project implementation.

Source: Financial analyst estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. **Team Leader, Institutional and Policy Development Specialist** (international, 40 person-months)

1. The team leader will have extensive experience in education management, institutional development, and policy development for education. He or she will have overall responsibility for guiding the project activities and, supported by the deputy team leader, will be responsible for (i) coordinating all consultant inputs; (ii) providing advice to the project management staff; (iii) overseeing the conduct of a baseline study and ensuring that the data collected is disaggregated by gender and region; (iv) supporting a high-level task force in undertaking a review of the organization and functions of Ministry of Education, Youth and Sport (MoEYS) that includes provincial, district, and school levels; (v) supporting the departments of teacher training and personnel in developing a teacher education and management policy; (vi) assisting project management staff in executing a needs assessment for the teacher training college (TTC) physical facilities; (vii) supporting Department of Planning and the Planning Office of the Department of Secondary Education in preparing a secondary education development plan; (viii) in collaboration with the Ministry of Economy and Finance, assisting MoEYS to comprehensively review the current textbook development and procurement policies and prepare guidelines for implementing the policies in a manner that ensures provision of quality textbooks in a timely manner; and (ix) ensuring the implementation of the project gender action plan and inclusion of gender-related achievements in quarterly progress reports. The team leader will ensure participatory approaches to planning are followed and will serve as advisor to the project director.

B. **Deputy Team Leader** (national, 60 person-months)

2. The deputy team leader will have extensive experience in education and will support the team leader in guiding project activities. He will also be responsible for providing support to specific tasks assigned to the team leader, to ensure continuing support beyond the team leader's inputs. The deputy team leader will also work closely with the international civil works and procurement specialist to achieve the goals related to civil works and procurement.

C. **Institutional Planning Specialist** (international, 5 person-months; national, 5 person-months)

3. The international expert will have considerable experience in institutional planning and development in the education sector. Along with the national expert, he or she will work with and assist the National Institute of Education (NIE) management team to (i) conduct a visioning workshop with NIE staff and appropriate stakeholders; (ii) in collaboration with NIE staff and in consultation with other stakeholders, undertake the development of an institutional development plan; (iii) use the process as a capacity-building exercise; and (iv) produce a document detailing the plan. As part of the visioning workshop and its follow up, the experts will also assist NIE's exploration of institutional models and identify and/or develop a model best suited for adoption by NIE to support the long-term needs of the education sector in Cambodia.

D. **Education Research Specialists** (international, 10 person-months; national, 10 person-months)

4. The international expert will have a strong background in education research. He or she will be supported by a national expert with corresponding professional expertise. They will be

based at NIE and will assist NIE to (i) establish a research unit; (ii) train research unit staff to manage and conduct research activities; (iii) select an appropriate overseas institution to train two NIE researchers; (iv) write terms of reference for a study visit to a selected research institution; (v) assist in the selection of operational studies to support project implementation; and (vi) design, implement, and report on six operational studies.

E. Academic Capacity Development Specialists (four international specialists, 5 person-months each; four national specialists, 5 person-months each)

5. Four international experts (one each for curriculum, pedagogy, information and communication technology [ICT], instructional materials, and action research) will assist in building NIE professional capacity in specific academic areas. In their respective academic areas they will assist task teams in (i) conducting a participatory and gender-sensitive review of the current curriculum, (ii) upgrading the professional capacity of the lecturing staff with an emphasis on content knowledge integrated with pedagogy, (iii) training staff in subject-based action research activities to improve lecturer's classroom practice, and (iv) preparing self-instructional materials for distance education.

F. Quality Assurance Specialists (international, 6 person-months; national, 6 person-months)

6. The international expert will be experienced in the design and implementation of quality assurance systems. He or she will work with the national expert to support a task force related to monitoring and maintenance of quality assurance to (i) clarify the functions of key departments in monitoring and quality assurance; (ii) determine the roles of various offices at central, provincial, district, commune, and school levels; (iii) strengthen lower and upper secondary school self-assessment systems; and (iv) establish a quality assurance system for lower and upper secondary schools.

G. International Information System Specialist (international, 12 person-months)

7. The international specialist will have extensive experience in designing education information systems and will have thorough knowledge of all activities related to education planning and management. The specialist (supported by two national experts) will work with an interdepartmental group led by the Department of Planning and including the departments of Finance, Personnel, and Information and ASEAN Affairs. The group will support a task force with a wider constituency to (i) identify the objectives of a fully integrated education information system connecting education, human resource, finance, and other existing MoEYS management information systems (MISs); (ii) develop an implementation plan for system connectivity; (iii) review the education MIS and strengthen analysis of data; (iv) team with the Department of Personnel to improve the human resource MIS functionality and capacity at the provincial and district levels; (v) team with the finance MIS specialists to ensure integration; and (vi) ensure that all data can be disaggregated by gender and region.

H. Education and Human Resource Management Information System Specialist (national, 12 person-months)

8. The national education MIS specialist will support the international specialist in working with an interdepartmental group and task force to (i) identify the objectives of a fully integrated education information system connecting the education, human resource, finance, and other existing MoEYS MISs; (ii) develop an implementation plan for system connectivity; (iii) review

the education MIS and strengthen analysis of data; (iv) team with the Department of Personnel to improve the human resource MIS functionality and capacity at the provincial and district levels; (v) team with the finance MIS specialists when appropriate to ensure integration; (vi) prepare handbooks as necessary; and (vii) ensure that all data can be disaggregated by gender and region.

I. Finance Management Information System Specialist (national, 12 person-months)

9. The national finance MIS specialist will support the international specialist in working with an interdepartmental group and task force. The expert will have a strong background in information technology (IT), experience in setting up information systems, and thorough knowledge of financial management needs. Working with the international information system specialist the finance MIS expert work will focus on working with the Department of Finance to (i) support a review of the current finance MIS; (ii) identify the aims and objectives of interventions to further develop the finance MIS; (iii) ensure that the interventions are compatible with the proposed integrated education information system connecting the education, human resource, finance, and other existing MoEYS MISs; (iv) assist in developing procurement specifications for ICT equipment and furniture; and (v) ensure that all data can be disaggregated by gender and region.

J. Teacher Professional Development Specialists (international, 7 person-months; national, 9 person-months)

10. The international specialist will have a strong background in teacher development and performance management systems. In collaboration with national consultants, counterpart staff and key stakeholders, the specialists will liaise with the Teacher Training Department (TTD) and teacher training institutions to (i) assist with the development and dissemination of teacher training standards; and (ii) undertake a review and recommend revisions to the system of quality assurance and performance monitoring used in teacher training institutions, including assessment of trainee teachers and professional development of trainers.

K. Teacher Training Curriculum Development Specialists (international, 6 person-months; national, 8 person-months)

11. The international and national specialists will have extensive background and experience in teacher training and curriculum design and, together with counterpart staff and key stakeholders, will work with TTD to (i) undertake a baseline study of teacher qualification levels for prioritization of training needs, (ii) contribute to the development of a teacher training plan to coordinate all project teacher training activities, and (iii) support the implementation of a procedure for systematic review and revision of the preservice teacher training curriculum content and training methodology.

L. Training of Teacher Trainers Specialists (international, 6 person-months; national, 13 person-months)

12. The international specialist will have extensive experience in teacher training. The national expert will also have corresponding experience at the national level. In collaboration with counterpart staff and key stakeholders, the specialists will build the capacity of teacher trainers in teacher training institutions and in upper secondary schools. The specialist will (i) conduct a training needs analysis and assist in the development of a training plan for professional development of TTC trainers and national trainers, (ii) assist in designing and

delivering programs for professional development of teacher trainers, and (iii) assist in designing and delivering programs to develop skills and competencies of school and network-based trainers (Technical Group Leaders).

M. Specialists in Upgrade Training for Secondary School Teachers (international, 5 person-months; national, 10 person-months)

13. The international specialist will have a strong background in upgrading competencies of secondary teachers. In collaboration with national consultants, counterpart staff, and key stakeholders, the specialist will support the teacher training institutions to prepare and deliver a training program to upgrade and/or retrain underqualified lower and upper secondary school teachers.

N. Specialists in Management Leadership Training (international, 10 person-months; national, 14 person-months)

14. The international expert will have strong knowledge of the principles of school management and leadership as well as the ability to design and impart training. In collaboration with national consultants, counterpart staff, and key stakeholders, the specialists will work closely with the teacher training institutions and upper secondary schools to (i) develop and implement a management leadership training program for TTC directors and deputy directors to support the implementation of (a) the teacher education policy, (b) teacher training standards, (c) the teacher education plan, (d) the revised procedures for teacher training curriculum review, and (e) the revised procedures for quality assurance and performance monitoring in teacher training; and (ii) develop and deliver a leadership training program in school improvement planning for lower secondary and upper secondary school directors to support (a) the implementation of the secondary education development plan, (b) the establishment of secondary school networks, and (c) the school self-assessment mechanisms for quality assurance and performance monitoring in secondary schools.

O. Multimedia Instructional Materials and Outreach Program Developers (international, 12 person-months; national, 12 person-months)

15. In collaboration with national consultants, counterpart staff, and key stakeholders, the materials developers will work with NIE, TTD, the Pedagogic Research Department (PRD) and the Department of Information and ASEAN Affairs to support (i) the development of a comprehensive plan for expansion of multimedia instructional materials facilities (ICT resources) and skills required for development of some components of teacher training programs; (ii) the technical capacity development of MoEYS staff required for expansion in the use of multimedia instructional materials for teacher training through on-the-job training in course development; (iii) implementation of multimedia instructional materials in selected components of teacher training programs, for example through the production of DVD, CD, and/or video materials; (iv) the strengthening of outreach activities delivered by NIE through school networks; (v) the identification and development of pilot programs of distance support to upper secondary school teachers linked to secondary school networks; (vi) the development of corresponding systems for academic and administrative support for multimedia course delivery in teacher training centers; and (vii) the monitoring of the effectiveness of multimedia in course components for trainers and learners. The national specialist will assist in the regular updating of the designated website to provide information on project progress, reports, and instructional materials.

P. English Language Teacher Training Specialists (international, 10 person-months; national, 20 person-months)

16. In collaboration with national consultants, counterpart staff, and key stakeholders, the specialists will work with TTD, the regional and provincial TTCs, and the upper secondary schools to (i) develop an English-language teacher training program to improve the competency of trainers in teacher training institutions, and (ii) to develop an English language basic skills program to improve the competency of upper secondary school teachers.

Q. Multimedia Instructional Materials Teacher Trainers (international, 6 person-months; national, 8 person-months)

17. In collaboration with counterpart staff and key stakeholders, the specialists will work at regional TTCs and upper secondary schools to (i) develop skills of teacher trainers and key trainers from relevant departments to produce instructional materials for teacher training, (ii) train upper secondary school teachers in the use of multimedia instructional materials including ICT, and (iii) support teacher trainers in training upper secondary school teachers in the use of multimedia.

R. Information and Communications Technology Technical Support to Learning Centers (international, 3 person-months; national, 12 person-months)

18. The two experts will have extensive experience in the use of ICT as a learning tool and in the use and management of ICT-based learning centers. In collaboration with counterpart staff and key stakeholders, the expert will work with the Department of Information and ASEAN Affairs and will liaise with the teacher training institutions and secondary schools where learning centers are located in order to (i) provide guidance and advice on design of learning centers; (ii) draw up procurement specifications and installation requirements for multimedia and practical learning laboratories; (iii) train learning center managers in resource management, including the use and maintenance of multimedia equipment; (iv) prepare training manuals for effective management of learning centers including guidelines for training of librarians, computer technicians, and laboratory technicians; and (v) provide training for learning center managers in business planning and management to enable the learning center to become a self-financing community resource.

S. Upper Secondary School Curriculum Development Specialists (international, 12 person-months; national, 12 person-months)

19. The international specialist will have significant experience in curriculum design for upper secondary education and in the development of outcomes-based curriculum statements for lower secondary education, curriculum guidelines, and related assessment and evaluation frameworks. In collaboration with counterpart staff and key stakeholders, the specialists will work with PRD to assist with planning and delivery of secondary school curriculum development. The specialist will (i) conduct a review of the curriculum development needs and draft an implementation schedule; (ii) carry out a capacity analysis matrix and plan for capacity development and task allocation; (iii) design and manage a curriculum development work plan and manage the curriculum development teams; (iv) plan, design, and facilitate capacity-building workshops; (v) liaise with other specialist areas of the project (assessment, teacher professional development, textbooks, and ICT); (vi) ensure that issues of gender and equitable access are reflected; (vii) advise PRD staff on options and cost effectiveness in media use; (viii)

incorporate action research into the curriculum design; and (ix) develop appropriate quality assurance systems for monitoring curriculum implementation.

T. Upper Secondary School Elective Vocational Education Program Curriculum Specialists (international, 12 person-months; national, 12 person-months)

20. In collaboration with counterpart staff and key stakeholders, the specialists will work with PRD to assist with planning and delivery of the Elective Vocational Education Program (EVEP) curriculum. The specialist will (i) map out EVEP capacity and possible models for vocational education at upper secondary school level; (ii) develop and evaluate models for use outside the formal education sector; (iii) develop assessment of vocational education in conjunction with the assessment and teacher education project work; (iv) develop guidelines and advisory and counseling material for teachers to use with students in selecting EVEP modules; and (v) pilot, evaluate, and plan further development of the EVEP curriculum.

U. Lower Secondary School Curriculum Development Specialists (international, 12 person-months; national, 12 person-months)

21. The international curriculum development specialist will have significant experience in curriculum design for lower secondary education and in the development of outcomes-based curriculum statements for lower secondary, curriculum guidelines, and related assessment and evaluation frameworks. In collaboration with counterpart staff and key stakeholders, the specialists will work with PRD to assist with planning and delivery of the lower secondary school curriculum. The specialist will (i) review and build on the curriculum development work already done with United States Agency for International Development (USAID) support to complete the curriculum development of lower secondary school subjects; (ii) identify and evaluate existing examples of Local Life Skills Program modules used in Cambodia and elsewhere; (iii) develop guidelines for an LLSP curriculum relevant to Cambodia; (iv) develop methodology for sharing of Local Life Skills Program modules and experiences between lower secondary schools; (v) liaise with French and English teaching bodies and publishers in relation to availability of existing materials; (vi) develop curriculum standards for grade 9 in the subjects to be developed.

V. Specialist in Student Assessment and Examinations Reform (international, 10 person-months; national, 10 person-months)

22. The international specialist will have a strong professional background in school assessment systems. In collaboration with counterpart staff and key stakeholders, the specialists will (i) advise on the development of a national assessment policy, (ii) develop guidelines on standards-based assessment and advise on the development of exemplar assessment instruments and examination questions, (iii) train Examinations Office staff and item writers in development of standards-based examinations, (iv) train PRD staff in monitoring and evaluating the implementation of standards-based assessment, (v) train six teams of regional trainers in standards-based assessment and implementation of assessment training programs, (vi) provide ongoing support to regional trainers as they train technical group leaders in schools, and (vii) monitor and evaluate the implementation of the nationwide training program

W. Subject Specialists in Student Assessment and Examinations Reform (national, 17 specialists for 3 person-months each, total 51 person-months)

23. The specialists will have strong skills in student assessment needs in their respective subject areas. In collaboration with other consultancy team members, counterpart staff and key

stakeholders, the specialists will (i) develop exemplar assessment instruments and examination questions, (ii) develop a training program and train six teams of regional trainers in standards-based assessment and implementation of assessment training programs, and (iii) provide ongoing support to regional trainers as they train technical group leaders in schools.

X. Gender and Equity Specialist (national, 6 person-months)

24. The national specialist will work with the gender working group to support gender and equitable access initiatives through the scope of the project. The specialist will (i) assist in the preparation of a half-day national workshop on MoEYS' Gender Mainstreaming Policy, linked to the national workshop to disseminate the Education Law, (ii) develop criteria for assessment of instructional materials so they encourage equitable access in secondary schools and teacher training institutions, (iii) collect and assess instructional materials used in teacher training institutions, (iv) collect and assess instructional materials used by teachers in secondary schools, (v) develop a training manual and conduct training for writers of instructional materials on equitable access of children from disadvantaged areas, (vi) team with the civil works specialist to identify and make recommendations on the facilities of teacher training institutions and upper secondary schools that need to be upgraded for safety and security of female students and teachers; (vii) develop specific eligibility criteria for scholarship for female teachers in NIE and regional TTCs and disadvantaged students at upper secondary schools, and (viii) follow up on the disbursement of scholarships.

Y. Editor, Textbook Evaluator, and Learning Materials Specialist (international, 3 person-months)

25. The specialist will have extensive experience in the development of teaching and learning materials from concept stage to final production stage, including professional and technical experience in the editorial supervision and project management of textbook publishing projects. The specialist will have three tasks, each focusing on 3 different sets of PRD staff. First, the specialist will work with four counterpart staff of PRD to develop the capacity of the PRD team to produce model materials for commissioning textbooks from independent publishers; this will include creating editorial briefs, physical specifications, outlines, and specimen chapters in all subjects of the new curricula. These documents will be used by MoEYS as the procurement specifications. The consultant will assist PRD in giving independent publishers and writing groups transparent information about the MoEYS process of commissioning textbooks and prepare and deliver a workshop to provide information and advice to publishers on the commissioning process. Second, the specialist will assist PRD in preparing criteria for selection of an independent book evaluation panel and advise MoEYS and its contractors on procedures for selecting the panel members. Once the panel members have been identified, the specialist will provide training to the panel on how to apply those criteria and assist PRD in organizing the first evaluation of materials submitted by independent publishers or writing groups. Third, the specialist will build the capacity of selected PRD staff to write teachers' guides and teacher training materials relating both to the subjects in the new curriculum and to good teaching practice.

Z. Civil Works and Procurement Specialist (international, 12 person-months)

26. The specialist will have extensive experience of managing civil works in similar projects and have prior experience with, and knowledge of, Asian Development Bank (ADB) procurement, disbursement, and monitoring procedures. He or she will work closely with the team leader and the deputy team leader and will assist the project staff in (i) preparing and

costing a design for the civil works package, (ii) monitoring procurement connected with civil works, (iii) supervising the construction of learning centers at the targeted TTCs and at the targeted upper secondary schools, (iv) supervising the construction and/or rehabilitation of dormitories at TTCs, (v) supervising the upgrade of facilities for female students at secondary schools, and (vi) correspondence with ADB with regard to bidding, bid evaluation, and contracting.

27. The specialist will contribute to reviewing cost estimates and assist the project staff and/or technical units in preparing an annual overall procurement plan for all goods, works, and services to be procured under the Project, and train local staff in the project procurement and financial requirements to build capacity and ensure sustainability after the consulting service contract.

ECONOMIC AND FINANCIAL ANALYSES

1. The economic analysis addresses two important dimensions: (i) benefit-cost analysis, and (ii) fiscal impact and sustainability analysis.

A. Economic and Policy Justifications

2. Public investment at all levels of education in Cambodia during the last 7 years has been substantial. Increased government and household spending on education at all levels has had a direct impact on access and participation. During this same period, enrolments in primary schools, lower secondary schools, and upper secondary schools have increased substantially. The Government's long-term goal is to develop a sustainable and competitive economy in Cambodia. The Rectangular Strategy for Growth, Employment, Equity and Efficiency reflects the Government's determination and commitment in this regard. One of the four important pillars of the strategy is capacity building and human resource development, in which enhancing education quality has been identified as the key to achieving the long-term goal of developing a sustainable and competitive economy. The strategy has been acting as a base guide for establishing (and revising) the Education for All (EFA) plan, Education Strategic Plan (ESP), Education Sector Support Program (ESSP), all of which are consistently working towards achieving long-term EFA goals (2015) by ensuring equitable access to basic and postbasic education, enabling quality and efficiency improvement, and capacity building for decentralization.

3. While significant resources and attention have been directed to all education levels (particularly the basic level, grades 1–9), improved access and quality in the education sector as a whole remain critical. This is even more critical for the secondary education level, where students must obtain adequate knowledge and skills to align with the increased demands (in number and quality) of the labor market.¹ The socioeconomic, political, cultural, and labor-market climate of the country calls for improvement of education quality, including (i) preservice and in-service teacher training, (ii) physical school conditions and facilities, (iii) curriculum development and teaching methods, (iv) adequate provision of textbooks for students and instructional materials for teachers, and (v) efficient education management systems, i.e., quality staff and infrastructure at all education administrative levels.

4. Cambodia became the 148th member of the World Trade Organization (WTO) on 13 October 2004. Like all least-developed countries, Cambodia's objective of WTO accession is to seek to leverage the benefits of trade. In this area, Cambodia is not only the first least-developed country to have acceded to the WTO, but is also a champion in mainstreaming trade in development strategies. As Cambodia is one of the fastest growing garment exporters over the last 8 years, trade is at the centre of the country's Socio-economic Development Plan, Poverty Reduction Strategy, and the Governance Action Plan to ensure Cambodia develops a sustainable and competitive economy. To achieve a sustainable growth path and to survive in a globally competitive environment, Cambodia needs to build a dynamic human resource base with adaptable skills. Investment under the Project consists of improving quality, promoting access and participation, and increasing the efficiency and effectiveness of education management through (i) preservice and in-service teacher training, (ii) physical school conditions and facilities, (iii) curriculum development and teaching methods, (iv) adequate provision of textbooks for students and instructional materials for teachers, (v) scholarship and incentive schemes, (vi) improved fiscal transfers, (vii) management training, and (viii) improvement of education management systems. The Project is expected to yield substantial economic, social, and institutional benefits.

¹ According to the Cambodia Socio-Economic Survey, 2004, only 4% of the labor force in 2004 has upper secondary or postsecondary education.

B. Benefit – Cost Analysis

1. Labor Market Demand

5. The total population at the end of 2006 was estimated at 14 million people, increasing from 11 million people in 1994. With an average annual growth rate of 1.8%, the population is projected to increase to over 15 million people in 2010. Gross domestic product (GDP) per capita is \$385 in 2005, up from \$288 in 2000. About three quarters (74.2%) of the employed population work in agriculture, 18.8% work in the service sector, and only 7% work in the manufacturing sector. Only 0.2% of workers are an employer (or self-employed), and 13% are paid employees. Most of the workers are self employed or unpaid family workers. Cambodia's labor force in 2006 was 7.6 million, or 54% of the total population. As children aged 0–6 years are not considered to be economically active, and only a small percentage of those aged 7–14 years are in the labor force, the labor force participation rate is higher when only older ages are considered. Thus, 65.5% of the population aged 7 years and over, and 83.7% of the population aged 15 years and over, are economically active.

6. The labor market in Cambodia continues to consist of predominantly unskilled, agricultural, or household workers. According to the Cambodia Socio-Economic Survey 2004, the educated and trained labor force comprised only 4% of employed persons (at the technical professional level). The labor market will continue to increase by 4.0% per annum, meaning that every year another 300,000 people will enter the labor market. These are young, often unskilled workers with limited experience, who live in rural, remote, and often disadvantaged areas where land and nonfarming jobs are rare. Those who will not be absorbed by the formal sector will continue to work in household enterprises. If the private sector does not develop significantly, as planned by the Government, unemployment will increase, especially as Government-owned enterprises and the agriculture sector employ fewer people, and because the capacity of the labor-intensive, low-productivity service sector is low. The Government, while reducing its monopoly in employment, has not invested sufficiently in retraining, which has been left to individual initiatives.

7. The transition to a market economy and rapid economic growth in the last 7 years has raised the demand for skilled labor. Further growth promises to be more labor intensive. Given its strong position and reputation in export processing, particularly garments and textiles, Cambodia can double its exports and create around 1 million manufacturing jobs in export sectors in the immediate future. To be competitive, however, Cambodia must develop the high-technology sectors and upgrade its labor force. Secondary education is particularly important to foster the needed labor skills and the capacity to learn on the job while adapting to new technologies. Measures must mitigate the poverty and inequality that may worsen with increasing globalization. Cambodia's comparative advantage is likely to be in (i) sectors and enterprises that require relative shifts in the skills for the export industry export manufacture, (ii) a steady increase in labor-intensive products, and (iii) a dramatic increase in science-based goods, including those that are technologically complex. An equally important issue recognized by the Government is the promotion of balanced development between the rich and poor and/or disadvantaged regions. A large number of recent programs (both Government and donor initiatives) have been directed towards improving the socioeconomic conditions of the poor, remote, and disadvantaged regions. Thus, education aiming to improve labor skills for local economic development has been on the priority list.

2. Project Benefits and Economic Rates of Return

8. Economic benefits will potentially include high social returns from the project investment to be obtained through (i) improvement in system efficiency through better infrastructure and personnel, and in allocation of resources; and (ii) improved productivity of upper secondary school graduates.

9. In terms of improvement in system efficiency through better infrastructure and personnel, and in allocation of resources, economic benefits will be achieved in a number of ways. The economic benefits will be realized in the following five major ways.

- (i) MoEYS staff, including provincial and district office staff, will receive technical assistance, training and support in planning, management, technical, and professional issues. They will be trained to strengthen their capacity to plan, manage, administer, and regulate the system.
- (ii) Activities designed to improve preservice courses will directly and indirectly enhance quality of management and academic staff of NIE and TTCs, as well as teacher trainees, preparing them for a solid professional teaching career. Also, initiatives to improve in-service training will help to substantially enhance the quality of the majority of secondary school teachers.
- (iii) Upper secondary schools will be improved through capacity building for school management, school networking, and school improvement planning.
- (iv) The Project will support physical and technical improvements to the management information systems (MISs) including the education MIS, finance MIS, human resource MIS, and school construction MIS. The synchronization of the existing MIS subsets will improve the monitoring and planning capacity of MoEYS. This will facilitate timely and correct management decisions, which will minimize wastage from both capital and recurrent spending perspectives.
- (v) Efficiency will be enhanced through project investment in new and rehabilitated infrastructure such as learning resource centers and dormitories, library books, learning equipment for TTCs and upper secondary schools, upper secondary school textbooks, and instructional materials for upper secondary school teachers.

10. The economic benefits to be achieved as analyzed in the preceding list will be derived from the internal system efficiency of the education system by reducing the unit cost of producing a graduate. It is assumed that the cost saving is based on the minimum rate of 0.5% of annual recurrent expenditure of the education sector and that such a saving will begin to yield in year 3 of the project implementation. Based on these assumptions, the average annual cost saving is \$0.98 million.

11. With regard to improved productivity of upper secondary school graduates, the Project is expected to contribute to the national effort to increase the number of annual secondary school graduates (more precisely, upper secondary graduates) by financing improved access to, and quality of, education. Under the project interventions, students in lower secondary and upper secondary schools, both currently and in the future, will be taught by better trained and better motivated teachers (and hence there will be lower repetition and drop out rates) and will have more relevant attitudes, skills, and knowledge, and therefore be more employable. In this regard, the Project will directly improve the quality of outcomes and performance of graduates in the labor market. The Project will provide ways to raise academic standards and help improve the alignment between graduate skills and the labor market. Increased earning capacity and spending ability of low-income groups will help reduce poverty incidence in Cambodia.

12. Project economic benefits derived from the improved productivity of upper secondary school graduates is often called productivity differential—benefits from increased earnings or inflows. The quality enhancement measures are expected to increase earnings of new graduates based on better skills and knowledge that they will receive as a result of the project investment. Benefits will come from increased earnings because better-qualified

teachers, pedagogical approaches, equipment, facilities, and infrastructure will help improve student performance and thus improve the quality of graduates and the labor force.

13. Expected benefits from productivity differential are also based on the expected minimum and indicate an estimated annual benefit of \$8.62 million.

14. The approach used in the above benefit quantification is to estimate minimum benefit that can be expected from the proposed investment in enhancing education quality in Cambodia. The aggregated minimum benefit and cost for the Project are outlined in Table A10.1. Where possible, the expected benefits have been summarized in monetary terms, either as cost savings (such as producing the same output at a reduced overall cost) and increased earnings (such as producing more graduates who earn more due to better education and/or contribution to the local economy). In all cases, these benefits exclude externalities that accrue to the Project. Using a discount rate of 12% as the economic opportunity cost of capital, the economic analysis yield an economic internal rate of return (EIRR) of 22.4%, and a benefit-cost ratio of 1.53 in the base case. The Project is assessed economically viable.

Table A10.1: Benefit-Cost Analysis, Base Case

Serial No.	Year	Benefit Stream ^a	Cost Stream ^b	Net Cash Flow
1	2008	0.00	7.68	(7.68)
2	2009	0.00	7.15	(7.15)
3	2010	3.14	6.86	(3.72)
4	2011	4.29	5.44	(1.15)
5	2012	5.63	2.58	3.05
6	2013	7.26	0.95	6.32
7	2014	9.03	1.47	7.56
8	2015	10.99	1.47	9.52
9	2016	12.95	1.47	11.48
10	2017	14.92	1.47	13.45
11	2018	16.89	1.47	15.42
12	2019	18.86	1.47	17.39
13	2020	20.84	1.47	19.37
NPV@ 12%		39.52	25.90	EIRR
BCR		1.53		22.4%

^a Benefit stream includes (i) annual cost savings due to increased system efficiency; and (ii) annual productivity differential.

^b Costs are economic costs derived from financial costs applying a standard conversion factor of 0.95 for Cambodia.

Source: ADB estimates.

15. A sensitivity analysis is conducted to test the robustness of the base-case model. Five sensitive cases are examined: (i) benefit decrease of 10%, (ii) cost increase of 10%, (iii) benefit decrease of 10% and cost increase of 10%, (iv) benefit delay of 1 year, and (v) benefit delay of 2 years. The output of the sensitivity analysis is presented in Table A10.2.

Table A10.2: Summary Sensitivity Analysis

Cases	BCR	EIRR	SI (ENPV)	SV (ENPV)
Base Case	1.53	22.4%		
1. Benefit Decrease 10%	1.37	19.7%	2.5	40.8%
2. Cost Increase 10%	1.39	19.9%	1.5	68.8%
3. Benefit Decrease 10% and Cost Increase 10%	1.25	17.3%	3.9	25.6%
4. Benefit Delay 1 Year	1.20	15.8%	2.3	ENPV = 49.9% lower
5. Benefit Delay 2 Years	0.92	10.3%	2.3	ENPV = 92.2% lower

BCR = benefit-cost ratio; EIRR = economic internal rate of return; ENPV = economic net present value; SI = sensitivity indicator, the ratio that compares percentage change in ENPV with percentage change in a variable; SV = switching value, the percentage change in a variable sufficient to reduce ENPV to 0.

Source: ADB estimates.

16. The EIRR is identified to be highly sensitive to the benefit delays. In the case of a benefit delay of 1 year, the benefit-cost ratio is reduced from 1.53 to 1.20, EIRR is reduced from 22.4% to 15.8%, and the economic net present value is 49.9% lower. In the case of a benefit delay of 2 years, the benefit-cost ratio is reduced from 1.53 to 0.92, EIRR is reduced from 22.4% to 10.3% (or 1.7% lower than the 12% threshold), and the economic net present value is 92.2% lower, suggesting that a benefit delay of 2 years would make the Project economically unviable.

17. Based on this analysis, it is recommended that MoEYS (the executing agency), closely follows the agreed project implementation schedule to ensure project benefits are realized as scheduled. It further implies that the factors delaying project implementation should be well under control and minimized to ensure the project economic viability and sustainability.

C. Fiscal Impact and Sustainability Analysis

18. The fiscal impact of the Project is important as it helps assess the sustainability level. In practice, education projects often support recurrent expenditures as well as capital outlays, thus making the recurrent cost sustainability issue one of central importance for the economic analysis. The impact on the overall budget once the Project is completed often determines whether the Project objectives will be sustained in the long run. A key issue to be addressed includes what impacts the investment in the project will have on fiscal indicators such as total annual budget, and capital and recurrent expenditure for the education sector in Cambodia during and after the implementation period of the Project.

19. The Project has been designed bearing in mind that recurrent costs should be minimized for the Government and the community. The improvement of the quality support systems under the Project is intended to reduce wastage, improve the internal efficiency of the education sector (with a particular focus on the secondary education level), and reduce the cost of producing an upper secondary school graduate in Cambodia. The incremental recurrent Project costs arise largely from increased access to secondary schooling through enhanced quality and relevance. The costs of civil works and learning facilities have been minimized by using efficient designs and maximizing the utilization of locally available resources and materials. Although new construction and rehabilitation works are being financed, sustainability is being ensured by the Government's commitment to operate and maintain facilities after the project implementation period.

20. The total financial cost of the Project, inclusive of taxes, duties, contingencies, and interest charges, is \$33.40 million for an implementation period of 5 years. The Asian Development Bank (ADB) will finance 81%, and the Government will finance the remainder. The analysis indicates that the Project will have negligible impact on the state budget for the education sector. The recurrent expenditure to be paid by the Government after the project implementation is estimated to be \$1.47 million per annum and includes incremental staff remuneration, operation and maintenance costs of civil works, facilities, equipment, and vehicles procured under the Project. It is indicated that the project recurrent expenditure after project implementation (2014–2020) will only account for an average of 0.58% of annual recurrent expenditure allocated to the education sector during the 2014–2020 period. It is observed that this proportion will be much smaller than the threshold of 5.0%.