



Completion Report

Project Number: 32236
Loan Number: 1840
September 2011

Nepal: Teacher Education Project

CURRENCY EQUIVALENTS

Currency Unit	–	Nepalese rupee/s (NRe/NRs)	
		At Appraisal	At Project Completion
		15 August 2001	29 June 2010
NRe1.00	=	\$0.0130	\$0.0135
\$1.00	=	NRs74.928	NRs73.930

ABBREVIATIONS

ADB	–	Asian Development Bank
BME	–	benefit monitoring and evaluation
Danida	–	Danish International Development Assistance
DEC	–	Distance Education Center
DOE	–	Department of Education
EIRR	–	economic internal rate of return
EFA	–	Education for All
HSEB	–	Higher Secondary Education Board
MOE	–	Ministry of Education
MOF	–	Ministry of Finance
NCED	–	National Center for Education Development
PTTC	–	primary teacher training center
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the government ends on 15 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2011 ends on 15 July 2011.
- (ii) In this report, "\$" refers to US dollars.

Vice-President	X. Zhao, Operations 1
Director General	S. H. Rahman, South Asia Department (SARD)
Director	B. J. Hitchcock, Nepal Resident Mission, SARD
Team leader	S. Gyawali, Associate Project Officer (Education), Nepal Resident Mission, SARD
Team member	M. B. Shrestha, Associate Finance Control Officer, Nepal Resident Mission, SARD

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
BASIC DATA	i
I. PROJECT DESCRIPTION	1
II. EVALUATION OF DESIGN AND IMPLEMENTATION	2
A. Relevance of Design and Formulation	2
B. Project Outputs	3
C. Project Costs	6
D. Disbursements	6
E. Project Schedule	7
F. Implementation Arrangements	7
G. Conditions and Covenants	7
H. Related Technical Assistance	8
I. Consultant Recruitment and Procurement	8
J. Performance of Consultants, Contractors, and Suppliers	9
K. Performance of the Borrower and the Executing Agency	9
L. Performance of the Asian Development Bank	10
III. EVALUATION OF PERFORMANCE	10
A. Relevance	10
B. Effectiveness in Achieving Outcome	10
C. Efficiency in Achieving Outcome and Outputs	11
D. Preliminary Assessment of Sustainability	12
E. Impact	12
IV. OVERALL ASSESSMENT AND RECOMMENDATIONS	13
A. Overall Assessment	13
B. Lessons	14
C. Recommendations	15
APPENDIXES	
1. Project Framework	17
2. Status of Teacher and Management Training Activities	20
3. Annual Loan Disbursement	21
4. Quarterly Contract Awards and Disbursements	22
5. Implementation Schedule	23
6. Status of Compliance with Loan Covenants	27
7. Economic Analysis	32

BASIC DATA

A. Loan Identification

1.	Country	Nepal
2.	Loan Number	1840-NEP
3.	Project Title	Teacher Education Project
4.	Borrower	Government of Nepal
5.	Executing Agency	Ministry of Education
6.	Amount of Loan	SDR15,585,000
7.	Project Completion Report Number	1262

B. Loan Data

1.	Appraisal	
	– Date Started	14 May 2001
	– Date Completed	25 May 2001
2.	Loan Negotiations	
	– Date Started	13 August 2001
	– Date Completed	14 August 2001
3.	Date of Board Approval	
4.	Date of Loan Agreement	24 September 2001
5.	Date of Loan Effectiveness	28 January 2002
	– In Loan Agreement	
	– Actual	
	– Number of Extensions	28 April 2002 09 May 2002
6.	Closing Date	0
	– In Loan Agreement	
	– Actual	
	– Number of Extensions	30 June 2008 9 December 2009
7.	Terms of Loan	1
	– Interest Rate	
	– Maturity (number of years)	
	– Grace Period (number of years)	1.0 32
8.	Terms of Relending (if any)	8
	– Interest Rate	
	– Maturity (number of years)	
	– Grace Period (number of years)	Not Applicable
	– Second-Step Borrower	

9. Disbursements

a. Dates

Initial Disbursement	Final Disbursement	Time Interval
16 August 2002	9 December 2009	88 Months
Effective Date	Original Closing Date	Time Interval
09 May 2002	30 June 2008	74 Months

b. Amount (in SDR '000)

Category	Original Allocation	Last Revised Allocation	Amount Canceled	Net Amount Available	Amount Disbursed	Undisbursed Balance
Civil Work	560	530	30	530	466	64
Equipment	238	210	28	210	191	19
Materials	888	762	126	762	790	(28)
Program Development and Studies	440	772	(332)	772	796	(24)
Staff Development	994	765	229	765	743	22
Training of Teachers	7,724	6,958	766	6,958	6,193	765
Consulting Services	1,650	1,045	605	1,045	775	270
Incremental Operating Costs	323	193	130	193	183	10
Service Charge	862	862	0	862	282	580
Unallocated	1,906	299	1,607	299	0	299
Total	15,585	12,396	3,189	12,396	10,419	1,977
in \$ '000	19,600		4,600		15,543	3,179

10. Local Costs (Financed)

- Amount (\$) '000	13,126
- Percent of Local Costs	84
- Percent of Total Cost	59

C. Project Data

1. Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
Foreign Exchange Cost	7.20	2.597
Local Currency Cost	18.70	20.148
Total	25.90	22.745

2. Financing Plan (\$ million)

Cost	Appraisal Estimate	Actual
Implementation Costs		
Borrower Financed	6.240	7.022
ADB Financed	18.533	15.117
Other External Financing Danida		0.180
Total	24.773	
IDC Costs		
Borrower Financed		-
ADB Financed	1.085	0.426
Other External Financing		
Total	25.858	22.745

ADB = Asian Development Bank, Danida = Danish International Development Assistance, IDC = interest during construction.

3. Cost Breakdown by Project Component (\$ million)

Component	Appraisal Estimate	Actual
1. Building an Effective and Sustainable System for Teacher Education	4.927	2.620
2. Training Curriculum and Materials	1.012	3.084
3. Teacher and Management Training	13.420	15.332
4. Serving Disadvantaged Groups and Girls	0.711	1.283
5. Contingencies	3.067	
6. Interest, duties, and taxes during construction	2.721	0.426
Total	25.858	22.745

4. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultants	30 June 2003	25 June 2004
Equipment and Supplies		
Dates		
First Procurement		29 April 2004
Last Procurement		12 July 2007
Other Milestones:		
First Loan Cancellation		5 August 2002
Second Loan Cancellation		22 March 2006
Third Loan Cancellation		13 February 2009
Final Loan Cancellation		9 December 2009

5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 24 September 2001 to 30 April 2004	Satisfactory	Satisfactory
From 1 May 2004 to 31 July 2007	Satisfactory	Highly Satisfactory
From 1 August 2007 to 9 December 2009	Satisfactory	Satisfactory

D. Data on Asian Development Bank Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members^a
Fact Finding	12 Feb–2 Mar 2001	4	60	a,c,k,m,
Appraisal	14–25 May 2001	4	40	a,c,k,l
Project inception	10–15 Jun 2002	5	40	a,b,c,d,e
Project review 1	23 Sep–2 Oct 2002	1	9	a
Project review 2	17–23 Mar 2003	1	6	a
Project review 3	22–28 Nov 2003	2	12	a,g
Project review 4	26 Jun–2 Jul 2004	2	12	a,g
Project review 5	13–26 May 2005	2	26	g,e
Project review 6	30 Dec 2005–17 Jan 2006	3	52	g,h,i
Midterm review	16–21 Dec 2006	4	20	g,j,f,h
Project review 7	26 Jun–4 Jul 2007	3	24	g,f,h
Project review 8	7–31 Oct 2007	2	24	g,f
Project review 9	26 Dec 2008–9 Jan 2009	3	39	g,f,h
Project review 10	7–17 Jul 2009	3	30	g,f,h
Project completion review	17–31 May 2010	4	52	g,f,h,i

^a a = education specialist, b = financial management specialist, c = counsel, d = project implementation officer, e = consultant (gender specialist), f = assistant project analyst, g = senior project implementation officer, h = assistant disbursement analyst, i = staff consultant, j = senior education specialist, k = project economist, l = financial analyst, m = senior programs officer.

I. PROJECT DESCRIPTION

1. Poor-quality classroom teaching was identified as one of the key reasons for the overall low efficiency of basic education in Nepal, as manifested by low learning achievements and high drop out and grade repetition rates of students. Improving the quality of classroom teaching is vital to improving the quality of education. Poor teaching stems from lack of emphasis on teacher training, an unsuitable teacher training curriculum and teaching methods, and weak management capacity. At the request of the Government of Nepal, the Asian Development Bank (ADB) provided technical assistance (TA)¹ to assist the government in preparing a project for training primary school teachers.

2. ADB approved a loan of SDR15.6 million (\$19.6 million equivalent)² for the Teacher Education Project on 24 September 2001. The project aimed to establish an effective and sustainable teacher education system for primary education. The specific objectives of the project were to improve the quality and coverage of teacher training by building institutional capacity for a teacher training system that encompasses pre-service, in-service, and recurrent training of primary school teachers, and to improve access for girls and other disadvantaged groups.

3. These project objectives were to be achieved by (i) building the capacity for policy making, planning, and managing teacher training programs; (ii) improving the professional skills of teachers by training trainers and teachers and developing a curriculum and materials; and (iii) encouraging increased recruitment of female teachers and providing fellowships for pre-service training for women and candidates from other disadvantaged groups.

4. Four components were envisaged during appraisal:

- (i) **Component 1: Building an effective and sustainable system for teacher education.** This included
 - (a) strengthening the institutional capacity of (i) the National Center for Education Development (NCED), primary teacher training centers (PTTCs), the Distance Education Center (DEC), and other selected private providers including private PTTCs to create a network of institutions responsible for teacher training; and (ii) the Training Management Coordination Committee to formulate and review the teacher education policy;
 - (b) providing for staff and infrastructure development including improvement of training complexes constructed under an earlier ADB-financed project;³ and
 - (c) strengthening links between the Department of Education (DOE), NCED, and DEC to optimize the benefits of teacher training activities.
- (ii) **Component 2: Developing an effective teacher education curriculum and materials.** This included developing a teacher education curriculum and teaching learning materials, including a training of trainers manual, trainers' guide, resource materials for trainees, and materials for cultural and gender sensitization for administrators and teachers.

¹ ADB. 1999. *Technical Assistance to the Kingdom of Nepal for the Basic Education Project*. Manila.

² On 21 June 2002, the Government of Denmark approved a grant of \$300,000 equivalent to co-finance the project, and requested that ADB administer the grant on behalf of the Government of Denmark. The grant was to be used to finance the international consulting services. As a result, the loan agreement for the project was amended to reduce the amount from \$19.6 million to \$19.3 million.

³ ADB. 1991. *Report and Recommendation of the President to the Board of Directors: Loan to the Primary Education Development Project*. Manila.

- (iii) **Component 3: Providing teacher and management training.** This included provision of (a) in-service training of various packages⁴ to 107,000 primary school teachers; (b) pre-service training for about 15,000 potential primary teachers; (c) management training for 600 officials and 3,000 primary school principals; (d) supplementary in-service training for 12,900 primary teachers, who had completed differing training modules in the past,⁵ to bring uniformity to the level of training received by teachers; and (e) shortened training of 2.5 months specially designed for 4,300 teachers aged above 50 years.
- (iv) **Component 4: Educating teachers to better serve the needs of girls and disadvantaged groups.** This included (a) sensitizing teachers and administrators to the extent and nature of discrimination and providing ways to minimize discrimination and enhance self-esteem among girls and children from disadvantaged groups; and (b) scholarships for pre-service training for 2,500 females and members of disadvantaged groups of 12 identified districts (later expanded to 22 districts).

5. The Ministry of Education (MOE) was the executing agency, and the NCED was the implementing agency. During the implementation of the project, ADB was also involved in the Secondary Education Support Project⁶ and Education for All (EFA) program 2004–2009.⁷ These projects played a complementary role in improving primary and secondary education and assisted the government in moving towards a holistic approach to school education. The project activities were undertaken by the NCED, DEC, nine PTTC⁸s, 25 secondary education development units, and private teacher training providers (65 alternative training providers for in-service training and 99⁹ private PTTCs for pre-service training).

II. EVALUATION OF DESIGN AND IMPLEMENTATION

A. Relevance of Design and Formulation

6. The project's design was consistent with the government's strategy as highlighted in the Ninth Five-Year Plan (1997–2002), which emphasized developing qualitative aspects of teacher training and providing at least basic teacher training opportunities to all primary teachers. The Tenth Five-Year Plan (2002–2007) also aimed to improve the quality of primary education in addition to improving access. It underscored the need to improve and expand teacher training programs to raise the quality of education. Similarly, the Three-Year Interim Plan (2007–2010)

⁴ Ten months of training is required for teachers to be fully trained, and this was divided into four packages. The first basic package comprised 2.5 months, mostly delivered at the training centers. The second and third integrated training packages comprised 5 months, delivered through distance mode. The last package comprised 2.5 months and it was a combination of center-based learning activities and school classroom observations.

⁵ The first package was earlier divided into two modules, consisting of 150 hours and 180 hours, and the second package was also split into two modules consisting of 2.5 months for each module.

⁶ ADB. 2002. *Report and Recommendation of the President to the Board of Directors: Loan to the Secondary Education Support Project*. Manila.

⁷ ADB. 2006. *Report and Recommendation of the President to the Board of Directors: Loan to the Education Sector Program 1*. Manila.

⁸ As part of a loan covenant requirement under the Secondary Education Support Project, the DEC and the Secondary Education Development Center along with its 25 district-based secondary education development units were merged under the NCED, making it responsible for teacher and management training within the MOE system. As a result of the reorganization, the name of the PTTC was changed to the Education Training Center (ETC) "A", and the secondary education development units to ETC "B" and ETC "C".

⁹ The number of affiliated private training providers for pre-service training reached 151 during implementation. However, the NCED annulled the affiliation of 52 providers due to poor performance. As a result, the number dropped to 99 at the end of the project.

embraced a policy of continuing in-service training based on competency to improve the performance of teachers.

7. The project was consistent with ADB's country operational strategy (1999–2002) for Nepal at the time of approval.¹⁰ The overall objective of the strategy was sustainable poverty reduction through promoting sustainable economic growth, enhancing human development, protecting and improving the environment, and building effective institutions. One of the thrusts of ADB's strategy was to accelerate improvements in human development by aligning with the government's priority on basic education. It emphasized the need for improving the quality of education through teacher training, curriculum development, and better school management, maintenance, and supervision. ADB's country strategy program (2005–2009) included education as one of the key interventions towards achieving socially inclusive broad-based growth.¹¹

8. Overall project preparation and formulation were adequate. Considering the huge number of untrained and partially trained primary school teachers, the relevance of the project was well established. Given the existing structure of the educational system in Nepal, the project's scope and the components were relevant to achieving the intended project's objective of building capacity for policy, planning, management, and teacher training; enhancing professional skills of teachers and trainers; and promoting representation of females and other disadvantaged groups in the teaching cadre.

9. The borrower's project completion report noted that the cascade model and supply-driven teacher training program modality adopted in the project's design was one of the constraining factors in terms of effective transfer of teaching skills into improving student learning and achievement processes. Further, the project's available resources were adequate to undertake only limited follow-up activities for trained teachers. In hindsight it was realized that continuous monitoring and supervision of the teachers with focused follow-up after the training is required.

10. During the formulation of the project there was close collaboration with the staff of the NCED, DOE, MOE and other stakeholders. The project preparatory technical assistance (TA) incorporated the sector experiences and lessons learned from past assistance. The project preparatory TA assisted the government in preparing the 10-month training packages, which were pre-tested and validated for implementation right after the project's approval.

B. Project Outputs

1. Building an Effective and Sustainable System for Teacher Education

11. As part of institutional capacity building of the NCED and PTTCs, 27 permanent positions, including a position for senior account officer, were created to enable the NCED and PTTCs to function effectively. Various short-term trainings—in the areas of capacity building planning, training design, distance education management, a teacher management information system, monitoring and evaluation, and procurement and financial management—were provided to 218 staff of the NCED and its affiliated agencies, against the project target of 102. Due to the government's policy of prohibiting international training programs and/or visits using

¹⁰ ADB. 2000. *Country Operation Strategy: Nepal, 1999–2002*. Manila.

¹¹ ADB. 2004. *Country Strategy Program: Nepal, 2005–2009*. Manila.

foreign-assisted loan resources, an international study tour visit and overseas short-term training program for 28 staff and an internship program for two staff as originally envisaged were not implemented under the project. However, the NCED was able to undertake this activity by mobilizing resources from Danish International Development Assistance (Danida).¹² As a result, 159 staff benefited through various overseas training, seminars, and visit programs under the project. The project's allocated resources to carry out the above-mentioned activity were partially used for dissemination of the newly acquired skills to other professional colleagues of the NCED and its agencies.

12. As envisaged in the appraisal of the project, a new resource center—with provision of training materials, reference books, audiovisual equipment, and a computer lab—was built, a distance education studio refurbished, and NCED and education training center buildings renovated. A maintenance plan was also prepared for the infrastructure developed and rehabilitated under the project. During the project completion review mission, the Ministry of Finance (MOF) gave assurances that it would allocate the maintenance budget as needed. The teacher management information system was established, and capacity development activities were carried out for the NCED and PTTCs to effectively and efficiently manage the information system. The teacher management information system was later integrated with the education management information system of the DOE for accurate and combined reporting relating to teachers.

13. Membership of the training management and coordination committee was broadened through the inclusion of all key actors in the training system, with the NCED serving as the secretariat. The committee approved the teacher training policy in 2007, and later approved the revised training policy in 2011 under the School Sector Reform Program.¹³ In addition to the coordination mechanism at the central level, the NCED also established a coordination mechanism at the zonal and district levels. This proved very useful in bringing untrained teachers to training venues, creating a group of roster trainers and monitors, piloting a follow-up training program in five districts with close involvement of district education officers at the resource-center level, and partnering with district education officers to initiate a campaign to train all primary teachers.

14. As originally planned in the project, a network of training institutions comprising public and private training providers was established to provide in-service and pre-service training programs. The private training providers utilized by the project were mainly either higher secondary schools affiliated with the Higher Secondary Education Board (HSEB) or campuses affiliated with the Faculty of Education of the Tribhuvan University. Towards the end of the project, 66 alternative training providers were providing the in-service training program and 99 private PTTCs were providing the pre-service training program. The 2009 benefit monitoring and evaluation (BME) report¹⁴ noted that the quality of training provided by many of these private institutions was reported to be unsatisfactory. As a result, the NCED annulled the affiliations of 52 private PTTCs. As provisioned in the project, the NCED supplied these alternative providers and private PTTCs with various kinds of technical support such as training

¹² Under Danida's direct technical assistance support for the Education for All program in Nepal.

¹³ To build on the achievements of Education For All, and address the remaining shortcomings and constraints, the government has developed the School Sector Reform (SSR) program, which aims at the expansion, improvement and comprehensive restructuring of the grades 1-12 education system. The SSR program implementation period spans seven years, from 2009/10 (FY2010) to 2015/16 (FY2016). ADB, Australia, Denmark, European Union, Denmark, Finland, Norway, United Kingdom, United Nations Children's fund and the World Bank are the pooling partners for the education sector wide approach.

¹⁴ NCED. *Benefit and Monitoring Report*, 2009. Nepal

materials, training of trainers, and access to various professional training workshops at the public training centers. The status of the design and monitoring framework is in Appendix 1.

2. Developing an Effective Teacher Education Curriculum and Materials

15. The NCED had already pre-tested and validated the pre-service and in-service training curricula under the project preparatory TA based on the need analysis of teachers. In addition, the NCED prepared training resource materials, a training guide, a separate 2.5 months of condensed curriculum for senior teachers, management training packages for head teachers and educational managers, and training of trainers manuals. According to the 2009 BME report (footnote 14), the NCED prepared 12 sets of curricula and materials. Further, the report notes that according to training participants, these materials enhanced their knowledge and skills. The methodologies adopted for the whole training package were characterized as accommodative, positive, and nondiscriminatory. The ADB project completion review field survey findings also reported a general consensus among stakeholders (teachers, head teachers, school management committees, parent-teacher associations, education officials, and teacher union) on the usefulness of the training materials developed under the project.

3. Providing Teacher and Management Training

16. The 10-month training curriculum for primary teachers, which was broadly designed at the time of the project preparatory TA with extensive consultation, was utilized during the implementation of the training program. The detailed achievement in terms of teacher and management training with regard to the project targets is in Appendix 2. The education regulation was revised to include the mandatory provision of 10 months of training for in-service primary teachers.

17. In terms of the teacher training target, the overall achievement of the project was about 99%. Representation of women was approximately 30%. During the design of the project, the aim was to complete the basic first package of training in the first 5 years of the project so that all primary teachers would have received at least basic training. The project also had envisioned that it would initiate the training in the integrated packages 2-3 and package 4 during the project. However, under the project it was anticipated that the training for all primary teachers would be completed after the original project period—in the eighth year for the package 2-3 training and in the ninth year for the package 4 training.

18. During the implementation of the project, a teacher training master plan was also prepared. In accordance with the master plan, the MOE made a policy decision to complete the teacher training for all in-service primary teachers occupying permanent positions utilizing the project's available resources. As a part of this policy initiative, starting from July 2008 the NCED carried out a back-log clearance campaign with close involvement of district education officers. District profiles of untrained teachers were prepared and accordingly teachers were enrolled in the training program. At the end of the project period, approximately 2% of the total teachers remained untrained because of their reluctance to participate in the teacher training program. The untrained teachers included those who were retiring soon, had no interest in training, or were recently promoted to higher grades.

19. During implementation of the project the importance of an effective follow-up teacher training program to improve the teaching-learning practices was recognized. Hence, it was agreed to implement the follow-up teacher training program through resource centers in limited districts and then expand it to other districts through the ongoing EFA program. However, this

was initiated only from January 2009 because of the long time taken to finalize a detailed mechanism and tools. Hence, for most of the project period teachers received minimal monitoring and evaluation and follow-up support after training.

20. The pre-service training was provided to 15,000 potential teachers as targeted. Similarly, 3,450 head teachers received the training against the target of 3,000. Altogether, 602 officials of the MOE received management training.

4. Educating Teachers to Better Serve the Needs of Girls and Other Disadvantaged Groups

21. The fourth component of the project was to promote equality by increasing the number of female teachers and teachers from disadvantaged communities in 12 districts by offering scholarships to 2,500 candidates to receive pre-service training. All targeted fellowships were distributed and the trainings were completed. All 2,500 candidates were females from disadvantaged groups, with 52% being from the *dalit*¹⁵ community. However, it was noted during the implementation of the project that the absorption rate of these fellows in the selected 12 districts was very low. Hence, during the midterm review, the number of targeted districts was expanded to 22 districts to increase opportunities in the teaching profession. As a result, the absorption rate of these female fellows in the teaching profession gradually improved, from 12.3% in 2006 to 43.0% by end of the project period. About 20,000 girls and students from disadvantaged communities have benefited from the remedial tutorial classes through the active involvement of 600 school support groups in the original 12 districts. In addition, short-term trainings of 2–4 days on culture and gender sensitization were provided to 6,500 (approximately 50% were females) district officials, trainers, teachers, and community members to raise their awareness of ways to minimize discrimination and enhance self-esteem among girls and children from disadvantaged groups.

C. Project Costs

22. The project cost estimate at appraisal was \$25.9 million, including a foreign exchange component of \$7.2 million and a local cost component of \$18.7 million. The final project costs at closing were about \$22.7 million, including \$0.4 million for interest during construction. The percentage of local cost financing of the actual project cost was 89%, and the foreign cost financing 11%. ADB financed the entire foreign exchange cost (\$2.6 million) and part of the local currency cost (\$13.1 million). About 68% of the total project cost was financed by ADB, which is less than the appraisal estimation of 71%. The total loan cancelled including cancellation at the time of financial account closing was \$7.8 million (40%). The appreciation of the special drawing rights against the US dollar from the date of the loan agreement to the loan closing date, cofinancing through a Danida grant to finance international consulting services, prohibition of overseas travel using loan resources, and low training costs contributed to the loan cancellation. Details of disbursement by cost category are in Appendix 3.

¹⁵ The National Dalit Commission defines *Dalit* as those communities who, by virtue of caste based discrimination and so called untouchability, are most backward in the social, economic, educational, political, and religious spheres, and are deprived of human dignity and social justice. The population of *dalit* is 13% of the total population of the country (Census 2001).

D. Disbursements

23. Disbursement was low during years 1 and 7 of project implementation but exceeded the yearly target during years 2–6. While the loan closing date was 15 July 2009, the loan account remained open until the 9 December 2009 to process payments related to expenditure incurred up to the closing date of the project implementation period. The total loan disbursement was \$15.5 million including \$0.4 million of interest during construction. Details of the disbursement are in Appendix 4.

24. According to the provision in the loan agreement, the NCED used the imprest fund provided under the loan by establishing an imprest account of \$0.9 million with the Nepal Rastra Bank. The total amount of replenishment was \$13.5 million. The imprest account was fully liquidated before the loan closing date. Disbursement using the statement of expenditures procedure was \$13.8 million, which was about 89% of ADB disbursement. The average imprest account turnover ratio for the entire project period was 2.21 and found to be satisfactory.

E. Project Schedule

25. The project was originally envisaged to be implemented over 7 years, with a loan closing date of 30 June 2008. In the initial phase there was a delay on the part of the government in restructuring the NCED and providing necessary counterpart staff. As a result there was a delay of almost a year in commencing in-service training of teachers. Further, in line with the government's tenth 5-year plan to provide in-service training to all primary school teachers, it was pertinent that the project completed all in-service training of primary teachers. Hence, at the request of the government, ADB approved the project extension of 1.04 years, with a revised loan closing date of 15 July 2009 to complete in-service training of all primary teachers and carry out activities to improve the quality of teacher training and capacity development of training institutions. Details of the implementation schedule are in Appendix 5.

F. Implementation Arrangements

26. Overall, the implementation arrangements were reported as satisfactory. The MOE was the executing agency and the NCED was the implementing agency. The project was implemented by the NCED by integrating the project activities within its regular administrative setup. The NCED executive director assumed overall responsibility for the project, and a project coordinator was appointed to liaise with ADB. This helped to instill a greater sense of ownership as well as strengthen the institutional capacity of program implementation. As envisaged by the design of the project, the steering board composition of the Second Basic Primary Education Project was enlarged by including the membership of the NCED and DEC, and responsibility for overseeing the project activities was vested in this committee.

27. At the field level, nine zonal coordination committees were established to coordinate the activities at PTTC level. After the restructuring of the NCED under ADB's Secondary Education Support Project in 2005, all training institutions at the central and district levels were integrated under the NCED.¹⁶ As a result, PTTCs with the support of secondary education development units were able to effectively carry out the project activities and coordinate with district education officers. Although there was a shortage of counterpart staff during the initial period of

¹⁶ ADB. 2002. *Report and Recommendation of the President to the Board of Directors: Loan to the Secondary Education Support Project*. Manila.

implementation, the number and retention of counterpart staff at the NCED and its field offices was broadly satisfactory.

G. Conditions and Covenants

28. The project was declared effective within 3.4 months of the project signing. Out of 24 project-related covenants, 22 were complied with and two were partly complied with. Of the 22 covenants that were complied with, two were complied with but with delays, particularly in the case of conversion of temporary positions in the NCED and PTTCs into permanent ones, approval of the teacher education policy, and establishment of mobile training units. The details of the loan covenants are in Appendix 6. After the approval of reorganization of the NCED in 2005, 27 temporary positions in the NCED and PTTCs were converted into permanent ones. The MOE approved the teacher education policy in August 2005. The mobile training unit was established in September 2005 to provide training in remote areas after finalizing a mobile training mechanism and obtaining detailed information on untrained teachers. The MOE complied with the timely submission of the audited project accounts during the project period, and the auditor's opinion on the audited project accounts was unqualified. The audited project accounts were submitted within 9 months of the fiscal year closing, although the loan agreement specified submission within 12 months of the fiscal year closing.

29. Two loan covenants, relating to application of criteria for overseas training and strict adherence to the policy of recruiting fully trained teachers, were partly complied with. Although the project developed and approved detailed criteria for overseas training, it could not be implemented as the MOF disallowed the use of foreign-assisted project resources for external training under its foreign aid policy. Completion of 10 months of teacher training was made mandatory in the teacher service regulation when recruiting teachers. However, this provision was relaxed twice by the MOE—when recruiting teachers from female and disadvantaged groups to increase their numbers, and recently for serving temporary teachers, mainly due to political pressure. Further, none of the major covenants was modified, suspended, or waived as most covenants were realistic and relevant to project needs. Regular follow-up on compliance with the covenants was undertaken by ADB through review missions.

H. Related Technical Assistance

30. The advisory TA¹⁷ for \$500,000 was approved by ADB on 17 February 2002, and was completed on 31 October 2003; \$476,642 was utilized. The purpose of the TA was to improve the knowledge and pedagogical skills of primary school teachers by building capacity of the teacher training institutions. An impressive range of training materials and technical papers has been developed, which includes a training curriculum, training of trainers manual, training guide, resource material for trainees, and relevant and effective audiovisual training material. Furthermore, gender and culture sensitization training program materials were prepared for primary teachers, local officials, and trainers. A staff development implementation plan was prepared by the TA team together with the NCED staff. Regular and frequent interaction and consultation with the consultants provided a significant learning opportunity for the NCED staff, particularly in planning, designing training materials, and conducting training. Materials produced under the TA were extensively used during implementation of the project. A separate technical assistance completion report was prepared and circulated. The overall rating of the TA was *successful*.

¹⁷ ADB. 2002. *Technical Assistance to the Kingdom of Nepal for Capacity Building for Teacher Education*. Manila.

I. Consultant Recruitment and Procurement

31. Recruitment of consultants was carried out in accordance with ADB's Guidelines on the Use of Consultants (1998, as amended from time to time), while procurement followed ADB's Procurement Guidelines (1999, as amended from time to time). The project had the original provision of 58 person-months for 10 international consultants and 309 person-months for 15 national consultants to strengthen the capacity of the NCED, PTTCs, DEC, and MOE. However, during the packaging of consulting inputs, the MOE wanted to reduce both international and national inputs substantially as part of the government's overall view on minimizing the use of consultants in the project. However, ADB was reluctant to reduce the consulting inputs. Hence, after discussion between ADB and MOE, the revised inputs were agreed upon. The total consulting services were reduced to 47 person-months for eight international consultants and 234 person-months for 28 national consultants. The key areas of support by the consultants were project management, management training, teacher education, distance education and open learning, and monitoring and evaluation. Due to the above-mentioned disagreement, there was delay in the recruitment process of the consultants. Mobilization of consultants began in March 2005.

32. Thirty two consultants (8 international and 24 national) were mobilized for a total of 281 person-months to support the implementation of four components of the project. As part of the cofinancing agreement between ADB and Danida, all international consultants were financed under the TA grant (from Danida).¹⁸ Only \$0.18 million of the cofinanced grant of \$0.30 million was utilized because of the revised international consulting input (para. 31). Apart from the civil works construction for the teacher resource center at the NCED, all other civil works packages were small. Most of the packages for goods relating to teaching learning materials, including communication and multimedia equipment, were procured. Apart from initial delay in recruitment of consultants, there was no problem encountered in other procurement matters.

J. Performance of Consultants, Contractors, and Suppliers

33. During the initial input of the consultants, there was a lack of coordination and mutual trust between the consultants and the NCED. Further, the consultants' team leader was unable to adequately lead his team or coordinate with the NCED. Later, the consulting team leader was changed. Some of the national consultants based in PTTCs found it difficult to stay in their centers due to the deteriorating security situation in the country. The inputs of the consultants were also revised in 2007 based on the recommendations of the midterm review of the project. The inputs were directed to the strategic concerns and needs of the NCED. As a result, the rate of deployment and utilization of the consulting inputs increased significantly. According to the borrower's project completion report, substantial and steady improvements in the professional capacity and ability of NCED systems were noted after implementation of the revised consultant deployment plan. As a result, the performance of the consultants has been noted as satisfactory in terms of enhancing the quality of project implementation and capacity building of the project staff. The performance evaluation report has been updated accordingly. The overall performance of civil works contractors and suppliers was satisfactory as there were no major delays.

¹⁸ ADB. 2002. *Co-financed grant from the Danish Government for the Teacher Education Project*. Manila.

K. Performance of the Borrower and the Executing Agency

34. Overall, the performance of the MOF as the borrower and the MOE as the executing agency in fulfilling the responsibilities assigned in the implementation plan was satisfactory. Throughout the project implementation period the project was categorized as a priority-one project by the government, which ensured adequate budgetary provisions. After the new foreign aid policy was introduced, the borrower was unable to allow the use of loan resources for overseas staff development activities. However, the MOE and MOF were able to mobilize the resources through other external resources, and ADB resources were partly used for disseminating newly acquired skills to related stakeholders of the project. Despite the initial delays, additional permanent positions were created at both the center and field level as part of institutional capacity building. Overall, the institutional capacity of the NCED has considerably improved. The project was acknowledged as having the "best project management team" by the ADB Nepal Resident Mission three times during its period of implementation. However, the MOE could not strictly adhere to recruiting only trained candidates as teachers because of the continuing fluid political situation in Nepal and influences exerted by different groups.

L. Performance of the Asian Development Bank

35. The performance of ADB was *satisfactory*. From project preparation to implementation, ADB provided significant human and financial resources to the project. ADB fielded 12 missions, including one project inception mission, one midterm review mission, and one project completion review mission. ADB missions mostly focused on project inputs; physical progress of the project, including contract award and disbursements; and implementation delays. Each mission provided a time-bound action plan that could be readily monitored. ADB organized monthly meetings with the project management team to monitor contract awards, disbursements, counterpart funds, and other project implementation issues, and improved project performance. ADB processed withdrawal claims in time. In the borrower's project completion report, the performance of ADB was observed as being effective, catalytic, and forward looking in terms of carrying out minor adjustments and responsiveness to project implementation bottlenecks.

III. EVALUATION OF PERFORMANCE

A. Relevance

36. The project was highly relevant to government and ADB policies and priorities—both at its design and completion stages—in terms of improving the quality and efficiency of access to basic education through provision of better-qualified teachers. The project design, rationale, and strategies were relevant and addressed the issue of teacher quality through comprehensive in-service teacher training. The project facilitated improving the quality and coverage of teacher training by strengthening the institutional capacity of the teacher training system that encompasses pre-service and in-service training of primary teachers. Further, it was designed to play a coordinating role to the Second Basic Primary Education Program and EFA program being implemented during the same period, which had a provision for recurrent teacher training based on demand of teachers, particularly relating to subjects being taught in school.

37. The recurrent training program being implemented under the Second Basic Primary Education Program and EFA program could not be implemented in an effective and coordinated manner, and the complementary effect anticipated during the design of the project in terms of teaching–learning practices did also not materialize. Nonetheless, almost 98% of primary

teachers occupying permanent positions are now trained. As a result, the NCED has stopped the long-term in-service basic training and is concentrating on recurrent training under the School Sector Reform Program with close cooperation from the DOE. In terms of capacity development of institutions in teacher training as envisaged during the design, the project was successful in transforming the NCED and its agencies. In addition, the affirmative measures of providing pre-service training and other support measures to female and disadvantaged groups and sensitizing stakeholders were important interventions in terms of not only increasing the share of these groups in the teaching cadre but also as a factor in creating a background for reserving such positions in the teacher recruitment process.

B. Effectiveness in Achieving Outcome

38. Overall, the project was effective in achieving its outcome indicators as specified in the design and monitoring framework. The project was effective in (i) building capacity for policy, planning, management, and delivery of teacher training through different job-related competency training of 218 professional staff of the NCED, PTTC, and DEC; (ii) increasing professional skills of teachers and trainers by delivering training to all 99% of primary teachers in permanent positions; and (iii) promoting representation of females and other disadvantaged groups in the teaching cadre through fellowships to 2,500 candidates for pre-service training.

39. Professional capacity of the NCED and PTTCs including other public training institutions has substantially increased through the project support. The NCED and its offices can now plan, design, implement, and manage training programs; carry out research; design and implement monitoring and evaluation programs; and provide various kinds of training in the teacher and management training areas as required. Physical infrastructure for effective design and delivery of training programs has been improved. In terms of human resources, additional permanent positions were created at the NCED, which now has a trained and capable staff.

40. The project has provided training to 114,406 teachers against the target of 115,700. However, there is no available research and data which shows the impact of teacher training on student learning achievements. The 2009 BME report indicated that the training programs have positively influenced the cognitive capacity of teachers and acquainted them with the various methods of student-centered and activity-based teaching. Although there has been no national study on the impact of teacher training on student learning outcomes,¹⁹ the research study undertaken by the project reported a gradual increase in student learning achievement over time. Similarly, the ADB project completion review survey noted that there was general consensus on the usefulness of teacher training.

41. Apart from the fellowships provided for pre-service training to 2,500 potential female or disadvantaged-group teachers, the project held a continuous dialogue with the MOE and DOE to promote the representation of females and other disadvantaged groups in teaching. As a result, the MOE and DOE instructed the local school management committees to give priority to these groups when recruiting temporary teachers under the government *Rahat* and “per child fund” teacher recruitment programs. In this regard, in 2011 the MOE adopted a teacher reservation policy for these groups through amendment of the teacher service regulation. Under the regulation, 45% of vacant teacher positions have to be assigned to females and other disadvantaged groups. The 2009 BME report also noted a substantial increase in the

¹⁹ In March 2010 standardized tests for four core subjects in grades in 3 and 5 covering sample students in 45 schools of 25 districts were carried out by the project under a research study—Contribution of Teacher Training Programs in Nepal.

percentage of female teachers and gradual increase in the composition of *janjati*²⁰ and *dalit* teachers. The percentage of female teachers in permanent primary education teacher positions increased from 22.5% in 2000 to 33.2% in 2009. Under the School Sector Reform Program, the government is planning to increase the percentage of female teachers to 50% by 2013.

C. Efficiency in Achieving Outcome and Outputs

42. The project is rated *efficient* in achieving its outcomes and outputs based on an economic analysis using the same methodology as used during appraisal of the project. The details of the economic analysis are in Appendix 7. The economic internal rate of return (EIRR) is estimated at 24.1% as against 21.9% during appraisal on the basis of a reduction in drop out and repetition rates, and actual project expenses. This indicates that the project is justified from the economic analysis.

43. In the project design phase, it was assumed that improved teacher training would also increase learning achievement levels. There were only two achievement tests administered to a nationally representative sample of grade 3 students in 1997 and 2001 under the Second Basic Primary Education Program to track improvements in student learning achievements in Nepali, mathematics, and social studies. The test findings showed that while there was a substantial improvement in test scores for social studies, there was little progress in Nepali and mathematics. Apart from these findings, evidence on improvements in student learning outcomes at the primary level is not available. Hence, the 2006 BME study took the pass rate in grade 5 as an alternative indicator, and this was reported at 79% in August 2006²¹. The MOE's Flash Report FY 2008²² recorded an overall pass rate of 89.3% in grade 5, which is significantly higher than that reported in the 2006 BME report. These improvements indicate an overall improvement in the internal efficiency of primary education.

D. Preliminary Assessment of Sustainability

44. The sustainability analysis carried out during appraisal of the project envisaged that an additional 3 years beyond the total project of 5 years would be required to complete 10 months of teacher training for all teachers. However, during implementation the project was able to complete the training of about 98% of teachers by extending the loan closing date by only 1 year. As the remaining teachers were either unwilling to take the training or were uninterested in it, the NCED decided to annul the in-service training program and began implementing the teacher professional development program—a short-term demand-based training program through resource centers under the School Sector Reform Program—based on the experiences from the pilot teacher support program implemented during the project.

45. As part of an exit policy on pre-service training, the project was able to secure an agreement with the HSEB to accredit in-service and pre-service trainings, and to grant an opportunity to about 65,000 teachers to enroll in grade 12 with an additional course to meet the new qualification requirement of teachers under the School Sector Reform Program. Similarly, an action plan to upgrade the academic qualifications of basic education teachers has been prepared and the new teacher training policy was issued in 2011 under the School Sector

²⁰ *Janajatis* are indigenous ethnic groups who have own cultural and linguistic identities other than the mainstream language and culture. According to National Foundation for Development of Indigenous Nationalities there are 59 indigenous ethnic groups who make 37% of total population of the country (Census 2001).

²¹ NCED. 2006. *Benefit and Monitoring Report*. Nepal.

²² MOE. 2008. *Flash Report*. Nepal.

Reform Program. Necessary resource requirements on teacher training will be financed under the School Sector Reform Program. Hence, the project is rated *likely to be sustainable*.

E. Impact

46. The teacher education policy was approved by the MOE in 2005.²³ Institutional infrastructure and human resources to plan and prepare teacher training materials and manage and conduct teacher and management training activities have been considerably strengthened. There has been steady improvement in the overall quality and efficiency of the primary education subsector. The 2009 BME report notes the drop out rate at the primary level has been reduced to 8.0%, well below the final project target of 12.5%. The current primary repetition rate of 15.7% is also significantly below the project target of 23.0%. There has been a gradual improvement in the pass rates for the primary level, from 65.6% in 2007 to 76.3% in 2009. Survival rates to grade 5 in the same period have also improved, from 80.3% to 84.9%. Gender disparities are also narrowing and the gender parity index at primary level is 0.98. Enrollment of traditionally excluded groups such as *dalits* and *janjatis* has risen at the primary level. *Janjatis* now account for 40.3% of the total student body and *dalits* 20.2%. However, it is well understood that these improvements reflect the consolidated effect of all interventions in the overall primary education program, including the project's contribution. All of these improvements indicate an overall improvement in the internal efficiency of primary education (footnote 22). These improvements, together with an increase in wages as reported by the National Labor Standard Survey, are clear indicators of the advantages the project could have generated in terms of contributing to these factors.

47. As part of long-term benefits, the project, without undertaking any quantification, anticipated the greater representation of females and other disadvantaged groups in the workforce, and improved human development indicators such as reduced fertility rates and improved health outcomes. As indicated, representation of these groups has increased in the teaching force. Similarly, although the female employment–population ratio (for women aged 15 years and above) declined from 84.3% in FY1999 to 81.7% in FY2008, the same employment ratio for primary-educated females increased from 6.5% to 8.5% during the review period.²⁴ There has been significant improvement in health outcomes. As reported in various periodical plans,²⁵ the total fertility rate declined from 4.1 in FY2002 to 3.1 in FY2007.

48. The project's impact can be undeniably seen in the reduced drop out and repetition rates in primary education. However, the discussions and the opinion survey with several stakeholders have indicated that the actual impact of the teacher training upon teachers' classroom performance is limited for different reasons. It is to be noted that the major findings of a research study (footnote 17) carried out by the NCED are as follows:

- (i) teacher training helped build teacher confidence through additional knowledge and skills learned, but the application of the training program has yet to demonstrate a specific impact on the teaching–learning process;
- (ii) there has been a gradual increase in student learning achievement over the years, but substantial contributions of teacher training towards improving systemic efficiency was not observed;
- (iii) teacher training substantially contributed to increasing teacher efficacy, collegiality, and professional growth;

²³ A revised policy was approved in 2011.

²⁴ Reports on the Nepal Labor Force Survey 1998/99 and 2008, published by the Central Bureau of Statistics of Nepal.

²⁵ Tenth Five-Year Plan and Three-Year Interim Plan published by the National Planning Commission of Nepal

- (iv) teachers and other stakeholders have acknowledged the importance of teacher training to inculcate the required teaching skills in them;
- (v) the classroom environment for implementing acquired skills is inadequate; and
- (vi) the contribution of the teacher training programs to teacher development and overall school development initiatives is significant, while the contribution is less in terms of improved quality of, access to, and equity and efficiency of primary education.

IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

A. Overall Assessment

49. Overall, the project is rated *successful*. The project was designed in line with the strategic priority of the government and ADB. It was broadly implemented as envisaged during its design. In terms of outcome achievements, under the project 10 months of teacher training for almost all primary permanent teachers in the system was completed. The project was efficient and its sustainability is rated likely as its contributions are fully integrated with the ongoing School Sector Reform Program. The NCED and its offices have developed into fully capable institutions for delivery of teacher training. Pre-service and in-service training programs, which were the major interventions of the project, have been successfully integrated into qualification upgrading programs through the accreditation mechanism agreed with the HSEB. This mechanism will greatly help to achieve the government's academic upgrading program of about 65,000 teachers under the School Sector Reform Program. In addition to providing pre-service training to targeted groups, the project also helped to promote increased representation of females and other disadvantaged groups in the teaching force.

B. Lessons

50. The absence of motivation and incentives for teachers and an effective mechanism for monitoring teachers' classroom performance emerged as major reasons for the overall improvement in the classroom teaching–learning process.

51. Establishment and institution of a strong monitoring and evaluation and teacher support mechanism at the classroom level was necessary at the beginning of the project to continuously oversee the teaching–learning processes and provide professional support to the teachers to use the knowledge, skills, and attitudinal changes gained during training.

52. Available evidence on using resource centers for extending professional support and services to the teachers shows it has not been very effective. The current structure of the resource centers needs to be reconceptualized with increased capacity under the School Sector Reform Program.

53. The design and monitoring framework of the project had weak linkages among impact, outcome, and output indicators. Improvement in the overall quality and efficiency of primary education depends on many factors apart from teacher training. The outcome and output indicators were repeated.

54. Since the NCED as a regular department rather than a separate project implementing unit within the NCED was involved in project implementation, there was strong ownership and coordination among stakeholders, which facilitated implementation of the project.

55. It is difficult to implement reform measures in a country during periods of political transition, as vested interest groups actively protect their interests.

56. Although the public–private participation approach is an efficient way to implement project activities, the effectiveness will largely depend on close follow-up monitoring and strict adherence to the selection criteria. The in-service training provided by alternative training providers was ranked low as compared to the training provided by PTTCs and secondary education development units.

57. Even though the HSEB and Faculty of Education are now taking responsibility for pre-service teacher training, there is still a need to financially support them in developing their capacity to deliver pre-service teacher training.

C. Recommendations

1. Project Related

58. **Future monitoring.** While implementing the teacher professional development program under the School Sector Reform Program, it should be ensured that teachers receiving such modular training also receive post-training support to improve teaching–learning practices in the classroom. The NCED should review this activity annually through a regular mechanism and should present its findings during joint missions of the government and development partners, including ADB, under the School Sector Reform Program.

59. **Further action or follow-up.** The NCED needs to work in collaboration with the HSEB and the Faculty of Education at Tribhuvan University in designing teacher preparation courses for the various levels of the teaching profession. Such collaboration should be extended to designing and implementing professional degree courses targeting teachers with qualifications lower than the new qualification criteria set by the School Sector Reform Program across the school levels (basic to secondary level). Further, development partners and the government need to closely monitor teacher training through the School Sector Reform Program.

60. **Additional assistance.** Although the teacher training and professional development has been integrated into the School Sector Reform Program (where ADB is assisting as a pooled development partner), it is likely that the government will require technical assistance in developing a teacher career framework and guidelines in view of likely revision of government teaching recruitment and management policies .

61. Considering ADB’s continuous involvement in the teacher training program, the MOE and NCED requested the project completion review mission to further support the NCED in developing its institutional capacity. The mission advised the MOE to provide a concept paper along with its request to ADB on ways of further transforming the NCED in the areas of teacher training. Although the NCED’s institutional capacity has been strengthened significantly under the project, sustainability of the NCED will lie in further capacity development under the School Sector Reform Program.

62. **Timing of the project performance evaluation report.** It is recommended that the project performance evaluation report be prepared in early 2012 as it can also observe the preliminary results of the teacher professional development program implemented under the School Sector Reform Program.

2. General

63. The design and monitoring framework of a project needs to be developed with clear linkages between impact, outcome, and output. It is noted that appropriate output, outcome, and impact indicators must be included.

64. Strong monitoring, evaluation, and follow-up support should be provided from the very beginning of the training programs to make them effective.

65. A longitudinal study should be carried out to examine the relationship between the length of experience of trained teachers and improvement in the quality of education.

66. The NCED has been designated as an apex institution in terms of teacher training, however a number of short-term trainings for teachers are still being carried out by the DOE and/or district education officers without the involvement of the NCED. In this regard, the MOE needs to have a clear strategic vision on the roles and responsibilities of the NCED and execute accordingly. The NCED should continue as an apex institution for professional and career development for teachers.

67. The teacher professional development program has been integrated through the School Sector Reform Program and has been implemented from 2009 under proactive initiation of the NCED. The program for basic-level teachers is currently implemented through resource centers. Given that resource center institutional capacity is weak, continuous capacity building through onsite technical support by education training centers and supervision monitoring must be intensified by education training centers and district education officers. The NCED in close consultation with the DOE should also assess current institutional arrangements for implementing the teacher professional development program through resource centers and make the necessary changes to effectively and efficiently run the teacher training program under the School Sector Reform Program.

PROJECT FRAMEWORK

Design Summary	Performance Indicators/Targets	Assessment
<p>Goal</p> <p>Improvement in overall quality and efficiency of the primary education subsector</p>	<p>Drop out rate decreased from 13.0% to 12.5% and repetition rate from 24.5% to 23.0%</p> <p>Grade 5 pass rates increase from 72% to 77%</p> <p>Teachers trained in the basic package increased from 43% to 100%</p> <p>130 professional staff from NCED, PTTC, and DEC are trained in job-related competencies through multiple training modalities</p> <p>Training of targeted number of teachers (115,700 teacher receive training of varying durations)</p> <p>Student learning outcomes are improved</p>	<p>Drop out rate decreased from 13.0% to 8.6% in 2007 and 8.2% in 2009; repetition rate from 24.5% to 15.9% in 2007 and 15.7% in 2009</p> <p>The promotion rates for primary level reached 76.3% in 2009 from 65.6% in 2007. The survival rate to grade 5 improved from 80.3% in 2007 to 84.9% in 2009</p> <p>Teachers trained in the basic package increased from 43.0% to 98.3%</p> <p>218 professional staff against the target of 130 from NCED, PTTC, and DEC are trained in job-related competencies through multiple training modalities</p> <p>114,406 teachers received training of varying durations</p> <p>There has been no conduct of learning achievement tests. Hence, evidence on improvements in student learning outcomes at the primary level is not available. Hence, the project used the pass rate in grade 5, which has gradually improved.</p>
<p>a. Promote representation of females and other disadvantaged groups in the teaching cadre</p>	<p>2,500 candidates from among women and other disadvantaged groups are provided with fellowships for pre-service training to allow for increased intake of teachers from these groups</p>	<p>All 2,500 candidates from among women and other disadvantaged groups received fellowships from 22 districts for pre-service training. The absorption rate of these fellows in the teaching force reached 43% at the end of the project.</p>

Design Summary	Performance Indicators/Targets	Assessment
<p>Outputs</p> <p>1. An effective and sustainable system for teacher education is established through:</p> <p>a. Strengthened professional skills of personnel</p> <p>b. Designed and operationalized monitoring and evaluation system</p> <p>c. NCED undertaking accreditation, licensing, and evaluation</p> <p>d. Enhanced skills of staff in institutions imparting training</p> <p>e. Improved physical infrastructure</p>	<p>NCED, PTTC, and DEC administrative and management functions are improved as evidenced by training schedules being followed, and streamlined administrative procedure.</p> <p>TMIS information is collected, analyzed, and disseminated.</p> <p>Improved quality of incoming teachers is ensured through certification of minimum qualifications</p> <p>NCED, PTTC, and DEC personnel are trained using multiple modalities; 102 receive in-country training and 28 obtain international training</p> <p>NCED training resource center is established.</p> <p>Need-based improvement and additions are made to existing NCED and PTTC infrastructure. DEC recording facilities are renewed and refurbished.</p>	<p>Through different capacity development activities, NCED, PTTC, and DEC administrative and management functions have been improved.</p> <p>The TMIS has been functional and has been integrated with the EMIS.</p> <p>The system has been put in place for certification of minimum qualifications.</p> <p>218 personnel were trained using multiple modalities. Due to the government policy of not using loan resources for international training programs or visits, an international study tour visit and overseas short-term training program for 28 staff and an internship program for two staff were not used. However, NCED met this gap by mobilizing resources from Danida. Altogether, 159 staff benefited through various overseas training, seminars, and visit programs up until the end of the project.</p> <p>NCED training resource center established All necessary infrastructures in NCED and PTTC improved and DEC recording facilities refurbished.</p>
<p>2. Effective teacher education curriculum and materials are prepared</p>	<p>Learning materials are used in delivering training and are activity based</p>	<p>Different training curriculum and material sets were developed and utilized</p>

Design Summary	Performance Indicators/Targets	Assessment
<p>3. Teachers, trainers, and management personnel are trained.</p> <p>a. Master trainers, trainers, and teachers are trained.</p> <p>b. Education administration officials and primary school principals are trained</p>	<p>1,480 trainers receive training 70 master trainers are trained Teaching content and delivery skills are improved through</p> <p>(i) 32,000 teachers trained in package 1</p> <p>(ii) 45,000 teachers trained in packages 2–3</p> <p>(iii) 34,400 teachers trained in package 4</p> <p>100 administration officials and 500 primary school principals are trained annually</p>	<p>3,000 trainers receive training 200 master trainers trained</p> <p>(i) 30,429 teachers trained in package 1 (ii) 37,715 teachers trained in packages 2–3 (iii) 46,247 teachers trained in package 4</p> <p>602 administrative officials and 3,450 primary school principals trained</p>
<p>4. Teachers are educated to better serve the needs of disadvantaged groups and girls</p> <p>a. Eligible candidates from disadvantaged groups, particularly females, are provided fellowships for pre-service teacher training</p> <p>b. Teachers and administrators are sensitized to the needs of disadvantaged groups and girls</p>	<p>2,500 eligible candidates are awarded fellowships for pre-service training</p> <p>The sensitization package is prepared and integrated into the training curriculum to raise awareness of the needs of disadvantaged groups.</p>	<p>2,500 eligible candidates were awarded fellowships for pre-service training</p> <p>Content on gender and cultural sensitization has been incorporated into the regular training courses. At the same time, a large number of teachers and education officials have been provided separate short-term training on gender sensitization.</p>

Danida = Danish International Development Assistance, DEC = Distance Education Center, EMIS = education management information system, NCED = National Center for Education Development, PTTC = Primary Teacher Training Center, TMIS = teacher management information system.

Sources: ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Nepal for the Teacher Education Project*. Manila; and ADB project completion review mission, June–July 2010.

Status of Teacher and Management Training Activities

Performance Target	Achievement	Remarks
70 master trainers trained	286 trained	408% increase to meet the demand for TOT
1,480 trainers received TOT for in-service training	3,000 trained	202% increase to maintain a reasonable number of roster trainers
32,000 teachers received basic training package 1 of 2.5 months	30,429 trained	95% against the target
45,000 teachers ^a received integrated training packages of 2–3 (5 months)	37,175 trained	83% against the target
34,400 received training package 4 (2.5 months)	46,267 trained	134% against the target
9,700 teachers received 180 hours of training	536 trained	6% against the target. The training did not start immediately and most teachers participated in the basic package.
4,300 senior teachers ^b trained in overall condensed special package	535 trained	12% against the target. The package was prepared late and no mechanism of accreditation of the training could be established.
240 trainers received TOT for pre-service training	900 trained	375% against the target. This was increased to meet the increasing demand from higher secondary education schools and FOE campuses.
15,000 potential teachers received pre-service training	15,000	100% against the target
600 administrative officials trained	602 trained	100% against the target
3,000 school head teachers trained	3,450 trained	115% against the target
Total 115,700 Teachers^c trained	114,406	99% against the target

FOE = Faculty of Education, TOT= training of trainers.

^a Includes 3,200 teachers who have completed old third package (2.5 months).

^b Teachers who have served 15 years and more and age of 50 years.

^c The total number is as reported in project framework. It does not add up to the total number of teacher trainees as it does not include the teachers completing 180 hours and old third package training. The overall progress is about 89% if all modules of teacher training are considered.

Source: Benefit and Monitoring Evaluation Report and Borrower's Project Completion Report, 2009.

ANNUAL LOAN DISBURSEMENT
(**\$**)

Category	Description	2002	2003	2004	2005	2006	2007	2008	2009
01	Civil Works	2,100	5,151	5,151	317,858	506,642	511,409	679,129	708,383
02	Equipment	10,278	118,057	129,658	155,070	192,789	256,814	260,084	280,401
03	Materials	100,258	171,841	324,165	545,625	711,214	1,001,426	1,175,723	1,175,723
04	Program Development and Studies	20,451	91,675	159,189	318,713	485,677	724,689	995,627	1,209,984
05	Staff Development	45,592	192,122	335,451	615,780	839,543	1,023,410	1,080,939	1,090,190
06	Training of Teachers	709,794	1,121,999	2,228,100	3,374,248	4,976,645	6,861,121	8,335,138	9,229,266
07	Consulting Services	65	706	66,562	385,777	746,128	1,021,189	1,113,484	1,154,306
08	Incremental Operating Costs	21,462	54,515	95,083	135,987	199,370	228,929	257,008	268,905
09	Service Charge	...	10,243	30,788	68,354	131,575	225,695	356,844	426,295
	Total	910,000	1,766,309	3,374,147	5,917,412	8,789,583	11,854,682	14,253,976	15,543,453

Source: Loan Financial Information Systems, Asian Development Bank.

QUARTERLY CONTRACT AWARDS AND DISBURSEMENTS

(\$ million)

Year	Quarter	Contract Awards		Disbursements	
		Projected	Actual	Projected	Actual
2002	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.050	0.000	1.900	0.910
	4	0.050	0.000	0.000	0.000
	Subtotal	0.100	0.000	1.900	0.910
2003	1	0.150	0.000	0.150	0.005
	2	0.150	0.233	0.150	0.233
	3	0.150	0.408	0.150	0.413
	4	0.150	0.205	0.150	0.205
	Subtotal	0.600	0.846	0.600	0.856
2004	1	0.200	0.095	0.100	0.104
	2	0.800	0.530	0.400	0.530
	3	1.500	0.709	0.500	0.277
	4	0.200	1.551	0.600	0.697
	Subtotal	2.700	2.885	1.600	1.608
2005	1	0.340	0.742	0.330	0.279
	2	1.200	0.696	0.870	0.634
	3	0.150	0.264	0.190	0.669
	4	0.400	0.611	0.780	0.960
	Subtotal	2.090	2.313	2.170	2.542
2006	1	1.090	0.501	0.000	0.645
	2	1.240	0.880	1.090	0.873
	3	1.240	0.562	1.240	0.296
	4	0.150	0.686	1.240	1.058
	Subtotal	3.720	2.629	3.570	2.872
2007	1	0.520	0.674	0.450	0.411
	2	0.580	0.093	0.920	0.732
	3	0.650	0.950	0.740	1.334
	4	0.511	0.544	0.405	0.588
	Subtotal	2.261	2.261	2.515	3.065
2008	1	1.120	0.341	0.260	0.437
	2	0.520	1.055	1.260	0.963
	3	0.000	0.703	0.620	0.674
	4	0.000	0.143	0.000	0.325
	Subtotal	1.640	2.242	2.140	2.399
2009	1	0.500	0.218	0.120	0.433
	2	1.000	0.695	1.000	0.000
	3	0.500	0.990	0.590	0.623
	4	0.000	0.041	0.290	0.234
	Subtotal	2.000	1.944	2.000	1.290
Total		15.111	15.120	16.495	15.542

Source: Loan Financial Information Systems, Asian Development Bank.

Activity	2002				2003				2004				2005				2006				2007				2008				2009			
	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	1	2	3	4
Component 4: Serving Disadvantaged Groups and Girls																																
4.1. Increased teachers from ethnic minority and disadvantaged groups																																
4.2. Culture and gender sensitization of teachers																																
a. Design sensitization package and develop training materials																																
b. Deliver training for teachers from 12 districts																																
4.3. Girls education promotion program																																
a. Pilot tutorial programs																																
b. School support groups																																

DEC = Distance Education Center, FOE = Faculty of Education, HSS = higher secondary school, IT = information technology, M&E = monitoring and evaluation, MEd. = masters in education, MS = masters in science; NCED = National Center for Education Development, PTTC = primary teacher training center, RC = resource center; SEDU = Secondary Education Development Unit, TMCC = Training Management and Coordination Committee, TMIS = Teacher management information system, TOR = terms of reference, TOT = training of trainers, TRC = training resource center

Sources: ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Nepal for the Teacher Education Project*. Manila; and Borrower's Project Completion Report, 2009

 Planned
  Actual
  No activity

STATUS OF COMPLIANCE WITH LOAN COVENANTS

Covenants	Reference in Loan Agreement	Status of Compliance
1. The Program Execution Board (PEB) of the BPEP II shall act as the Project Steering Committee for the Project and shall provide overall guidance to, and monitoring of, Project implementation. Within three months of the Effective Date, the PEB shall expand its membership to include NCED and DEC. The specific function of the PEB in relation to the Project shall be to facilitate the coordination between relevant Ministries, Agencies, and BPEP II to ensure the smooth implementation of the Project.	Schedule 6. para.1	Complied with.
2. NCED's staff shall be responsible for the day-to-day implementation of Project activities. Within three months of the Effective Date, MOES shall expand the existing staff levels within NCED by (a) engaging a procurement consultant on a part-time basis for a total duration of six months; and (b) upgrading the position of senior accounts assistant to accounts officer.	Schedule 6. para.3	Complied with. Procurement consultant was recruited under TA3865-NEP and position for senior accounts officer has been created
3. Within six months of the Effective Date, the Borrower shall convert all temporary positions in the NCED and PTTCs to regular positions and appoint personnel with a stable tenure of at least two years.	Schedule 6. para.4	Delayed compliance. Following the restructuring of NCED, a total of 27 positions of trainers in nine ETCs and support staff positions in NCED were converted into permanent ones.
4. Within three months of the Effective Date, NCED shall establish (a) a Training Coordination Committee at the national level for liaison with the Department of Education and DEC regarding teacher selection, training and supervision; and (b) Zonal Training Coordination Committees at the PTTC level to coordinate with district education officers and Resource Centers regarding teacher selection, training and supervision.	Schedule 6. para.5	Complied with.
5. Within three months of the Effective Date, the PTTCs shall, in accordance with guidelines from NCED, select the higher Secondary Schools and University Campuses for provision of pre-service training.	Schedule 6. para.6	Complied with.

	Covenants	Reference in Loan Agreement	Status of Compliance
6.	Within six months of the Effective Date, TMCC shall develop, and MOES shall approve, a final Teacher Education Policy, including the issues of pre-service and in-service training and management of teachers.	Schedule 6. para.7	Delayed compliance.
7	Within three months of the Effective Date, MOES shall establish a Technical Committee, headed by Secretary, MOES and including representatives of MOF, NCED, DEC and at least three eminent teacher training and management experts. The Committee shall evaluate a shortlist of overseas training institutions compiled by the Chief Technical Advisor, and submit its final recommendations to the Bank for approval. Within six months of the Effective Date, the Committee shall develop criteria for the selection of candidates for overseas training. The criteria shall include guidelines for the encouragement of eligible female candidates. All candidates for overseas training shall be selected in accordance with these criteria.	Schedule 6. para.8	Partly complied with. The committee has been formed by the Ministerial level decision. However, in accordance with new Foreign Aid Policy, the Government has not allowed to use loan resources for foreign training. A mechanism has been established for institutional linkages with Asian Institute of Technology under Danida grant assistance to upgrade capacity building.
8	MOES shall ensure that all teachers to be newly recruited for primary schools shall have successfully completed the ten-month teachers' training program. This shall be applicable both for permanent and temporary positions.	Schedule 6, para 9	Partly complied with. MOES/TSC e relaxed this mandatory provision two times to allow untrained candidates representing female and disadvantaged groups and now to the untrained serving temporary teachers
9	Within six months of the Effective Date, MOES shall design a package of incentives and disincentives to encourage untrained, already recruited teachers to participate in the ten-months training program. MOES shall ensure the timely release of teachers selected to participate in the program.	Schedule 6, para. 10	Complied with. The revision of the Education Regulation was undertaken to include the mandatory provision for 10

Covenants	Reference in Loan Agreement	Status of Compliance
		month in service training. The provisions of positive and negative motivational measures were also adopted.
10. Within six months of the Effective Date, the PTCCs, under the guidance of NCED, shall establish mobile training units to train teachers in remote areas. The staffing of the mobile training units shall, to the extent possible, reflect the composition of the target groups and include at least one female trainer.	Schedule 6, para. 11	Delayed compliance..
11. The Borrower shall ensure that design, extension, upgrading, renovation and operations of facilities under the Project shall follow the Borrower's environmental requirements, the Bank's environmental guidelines for Selected Infrastructure Development Projects, and other relevant Bank guidelines on environment.	Schedule 6, para. 15	Complied with. The ADB's safeguard requirements were followed before proceeding to any civil works.
12. MOES shall take all necessary and appropriate measures to increase the number of female teachers as well as teachers from other disadvantaged groups. Qualified candidates from districts where vacancies are advertised shall be given priority for recruitment in those districts.	Schedule 6, para. 12(a)	Complied with. The education act has the provision for ensuring at least one female teacher in each school or more for those schools have more than three permanent positions.
13. Within one months of the Effective Date, MOES shall issue a Directive to all primary schools underscoring the obligation to strictly implement the provisions of the Education Regulations according to which each school shall have at least one female teacher. Accordingly, MOES shall ensure that no male teachers shall be posted against vacancies for female teachers if female candidates are available.	Schedule 6, para. 12(b)	Complied with. The directives were issued to all the schools. The percentage of female teachers in permanent teacher position for the primary education has increased from 22.5% in 2000 to 33.2% in 2009.
14. Within three months of the Effective Date, NCED shall develop a list of criteria for eligibility for scholarships to be provided under the Project. The criteria shall be developed in such a way as to encourage the application for scholarships by	Schedule 6, para. 12(c)	Complied with.

Covenants	Reference in Loan Agreement	Status of Compliance
female candidates and candidates from other disadvantaged groups. The criteria list shall be subject to prior approval by the Bank. NCED shall ensure that the application forms for the scholarships, including the eligibility criteria, shall be widely distributed among the disadvantaged groups. The first group of scholarship students shall be identified within six months of the Effective Date and shall participate in the first training program following the selection.		
15. The Borrower shall take all appropriate and necessary measures to allocate sufficient resources to cover all recurrent costs related to the Project.	Schedule 6, para. 14	Complied with.
16. The Borrower shall establish immediately after the Effective Date, an imprest account at the Nepal Rastra Bank. The initial amount to be deposited into the imprest account shall be six months of estimated expenditure or 10% of the loan amount, whichever is less.	Schedule 3, para. 8	Complied with.
17. MOES shall be the Executing Agency for the Project. NCED shall be the Implementing Agency for the Project. Project set-up, responsibilities and activities shall be integrated with NCED's regular set-up, responsibilities and activities. The Executive Director of NCED shall assume overall responsibility for the implementation of the Project.	Schedule 6, para. 2	Complied with.
18. The Borrower shall prepare a maintenance plan for all facilities extended, upgraded or renovated under the Project. The maintenance plan shall be completed before the completion of the extension, upgrading or renovation. The Borrower shall make budgets available to fund the maintenance plan.	Schedule 6, para. 13	Complied with.
19. The Borrower and the Bank shall jointly undertake a midterm review (MTR) of the Project at the end of the third year of Project implementation.	Schedule 6, para. 16	Complied with.
20. Within six months of the Effective Date, NCED shall prepare and submit to the Bank for approval, detailed baseline data for the evaluation of the Project's achievements. Baseline data shall include information on the level of training of teachers, segregated by disadvantaged groups, further segregated by gender. Data will be compiled at school, district, zonal and national level.	Schedule 6, para. 17	Complied with. The benefit and monitoring report was prepared twice for measuring outcomes and outputs. He reports were prepared for the mid-term review and at the

Covenants	Reference in Loan Agreement	Status of Compliance
		completion of the Project.
21. At least 45 days prior to the fielding of the project midterm and completion review missions; NCED shall prepare and submit to the Bank a midterm and final BME report.	Schedule 6, para. 18	Complied with.
22. Four-monthly reports shall be submitted to the Bank within such period as the Bank shall reasonably request.	LA, Section 4.07(b)	Complied with.
23. Promptly after physical completion of the Project, but in any event not later than three (3) months thereafter, or such later date as may be agreed for this purpose between the Borrower and the Bank, the Borrower shall prepare and furnish to the Bank a report, in such form and in such detail as the Bank shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by the Borrower of its obligations under this Loan Agreement and the accomplishment of the purposes of the Loan	LA, Section 4.06(b)	Complied with.
24. Submission of audited and financial statements to ADB not later than 12 months after the end of each related fiscal year.	LA, Section 4.06(b)	Complied with.

ADB = Asian Development Bank, BME= Benefit Monitoring and Evaluation, MOES=Ministry of Education and Sports, NCED= National Center for Education Development, PTTC= Primary Teacher Training Center, RC= Resource Center, TMCC= Training Management and Coordination Committee, TMIS= Teacher Management Information System

Sources: ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Nepal for the Teacher Education Project*. Manila; and Borrower's Project Completion Report, 2009

ECONOMIC ANALYSIS

1. Economic Justification

1. The project was designed to improve the quality and efficiency of primary education (grades 1–5) by raising the quality of teachers through teacher training. It was expected to bring down the drop out and repetition rates, and increase the completion rate.
2. Achievements in educational development would lead to reduced fertility rates, improved health outcomes, better nutritional status, and more equitable distribution of resources within the households. These indicators are not readily quantifiable and they are intergenerational. So, a prior cost–benefit analysis considered first-round effects in terms of improvement in drop out, repetition, and completion rates in the primary education system.
3. It was estimated that the project would bring down the dropout rate from 13.0% to 12.6%, and the repetition rate from 24.5% to 23.3%.
4. The economic benefits of the project were calculated from the market value of the additional pupil years completed every year of primary education due to the project. The parameters and assumptions to calculate the base scenario were as shown in Table A7.1.

Table A7.1: Parameters and Assumptions for the Base Scenario

Parameter	Value
Exchange Rate (July 2000)	US\$ 1 = NRs74.928
Discount Rate	12.0%
Annual primary-level drop out rate (without project) – 1998 data	13.0%
Annual primary-level drop out rate (with project, end of implementation)	12.6%
Annual primary-level repetition rate (without project)	24.5%
Annual primary-level repetition rate (with project, end of implementation)	23.3%
Teacher attrition rate	4.5%
Average monthly salary of an agriculture worker	NRs1,124 (NLFS 1999)
Public unit cost per annum of an additional primary student	NRs1,700
Private unit cost per annum of an additional primary student	NRs612

NLFS = National Labor Force Survey

Source: ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Nepal for the Teacher Education Project*. Manila

5. On the basis of these assumptions, the economic internal rate of return (EIRR) was estimated at 21.9%.

2. Updates on the Economic Justification

6. To evaluate whether the expected economic returns were achieved at the end of the project, the following updates were made:
 - (i) The cost streams were updated by inserting actual expenses consisting of both project as well as government expenses (for 2002–2009). The aggregate government expenses were distributed in proportion to the expenses made by the project over the period. For the period after project completion, the cost figures were taken as the same as before, on the assumption that the operation and maintenance costs remain the same as estimated at the design phase.
 - (ii) In the case of benefits, benefit streams from improvement in drop out and repetition rates and access were updated on the basis of actual annual changes,

- adjusted to the estimated contribution from the project interventions. The contribution from project intervention was obtained using the proportion of project targets and the overall targets for these rates, available in the project document and the World Bank pre-appraisal document on the Education for All program.
- (iii) The new EIRR was calculated on the basis of a new time series. It is to be noted that actual progress made in three indicators—drop out rates, repetition rates, and improved access—for 2002–2009 was only considered in calculating the EIRR. It is assumed that the three indicators will make progress for the remainder of the project period (i.e., 2010–2023) as assumed in the project document.
- (iv) The new EIRR was estimated at 25.9%. It is somewhat higher than that estimated at the time of project design mainly due to the lower expenditure level than that planned.

**Table A7.2: Economic Rate of Return and Net Present Value,
Present Value of Economic Cost (NRs million)**

Year	PV of Economic Cost	Reduced Dropout	Reduced Repetition Rate	Improved Access	Total	NPV of the Project at 12%
2002	70.4					(70.371)
2003	67.0					(137.344)
2004	119.4	39.984	63.284	3.929	107.197	(149.526)
2005	184.3	(95.703)	58.301	-3.696	-41.098	(374.946)
2006	209.0	(94.983)	243.121	-0.597	147.541	(436.401)
2007	217.4	229.960	494.628	15.714	740.302	86.468
2008	157.1	390.427	120.768	16.335	527.531	456.936
2009	96.0	2.716	9.371	0.232	12.319	373.213
2010	73.9	23.202	128.846	2.754	154.802	454.115
2011	63.0	18.964	103.499	2.343	124.806	515.922
2012	53.2	15.384	82.437	1.998	99.820	562.542
2013	44.9	12.407	65.386	1.713	79.506	597.147
2014	37.7	9.981	51.642	1.449	63.072	622.519
2015	31.8	8.059	40.964	1.236	50.259	640.978
2016	26.7	6.470	32.274	1.067	39.811	654.089
2017	22.3	5.146	25.275	0.911	31.331	663.120
2018	18.5	4.082	19.641	0.767	24.491	669.111
2019	15.2	3.182	15.093	0.659	18.934	672.845
2020	12.4	2.467	11.447	0.559	14.473	674.918
2021	10.0	1.869	8.568	0.467	10.905	675.823
2022	8.0	1.396	6.264	0.404	8.063	675.886
2023	6.2	1.018	4.466	0.345	5.829	675.515

NPV = Net Present Value, PV = Present Value

Source: ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Nepal for the Teacher Education Project*. Manila; Project Completion Report Consultant's field survey.