

ASIAN DEVELOPMENT BANK

PCR: LAO 26328

PROJECT COMPLETION REPORT

ON THE

**POSTSECONDARY EDUCATION RATIONALIZATION PROJECT
(Loan No. 1374-LAO[SF])**

IN

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

March 2004

CURRENCY EQUIVALENTS

(as of 20 November 2003)

Currency Unit – kip (KN)

		At Appraisal	At Project Completion
		20 August 1995	10 November 2003
KN1.00	=	\$0.0013	\$0.000096
\$1.00	=	KN785	KN10,400

ABBREVIATIONS

ADB	–	Asian Development Bank
EA	–	executing agency
HTVED	–	higher, technical, and vocational education
ICB	–	international competitive bidding
ICT	–	information and communication technology
Lao PDR	–	Lao People's Democratic Republic
LCB	–	local competitive bidding
LTPU	–	Lao textbook publishing unit
MIS	–	management information system
MOE	–	Ministry of Education
NUOL	–	National University of Laos
O&M	–	operation and maintenance
PCU	–	project coordination unit
PIU	–	project implementation unit
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the Government ends on 30 September.
- (ii) The academic year (AY) starts in September.
- (iii) In this report, "\$" refers to US dollars.

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BASIC DATA**A. Loan Identification**

1.	Country	Lao People's Democratic Republic (Lao PDR)
2.	Loan Number	1374-LAO(SF)
3.	Project Title	Post Secondary Education Rationalization
4.	Borrower	Lao PDR
5.	Executing Agency	Ministry of Education
6.	Amount of Loan	SDR12,112,220.30
7.	Project Completion Report Number	PCR: LAO 794

B. Loan Data

1.	Appraisal	
	– Date Started	18 May 1995
	– Date Completed	3 Jun 1995
2.	Loan Negotiations	
	– Date Started	16 Aug 1995
	– Date Completed	17 Aug 1995
3.	Date of Board Approval	19 Sep 1995
4.	Date of Loan Agreement	25 Sep 1995
5.	Date of Loan Effectiveness	
	– In Loan Agreement	25 Dec 1995
	– Actual	19 Dec 1995
	– Number of Extensions	None
6.	Closing Date	
	– In Loan Agreement	30 Jun 2002
	– Actual	14 Mar 2003
	– Number of Extensions	One
7.	Terms of Loan	
	– Interest Rate	1.0%
	– Maturity (number of years)	40
	– Grace Period (number of years)	10
8.	Disbursements	

a. Dates

Initial Disbursement	Final Disbursement	Time Interval
5 Aug 1996	14 Mar 2003	79.6 months
Effective Date	Original Closing Date	Time Interval
19 Dec 1995	30 Jun 2002	78.4 months

b. Amount (\$)

Category or Subloan	Original Allocation	Last Revised Allocation	Amount Canceled	Net Amount Available	Amount Disbursed	Undisbursed Balance
01 Civil Works	2,824,608	3,734,250	(22,822)	3,757,072	3,757,072	0
02A Equipment	1,950,847	2,383,096	28,823	2,354,273	2,354,273	0
02B Furniture	424,424	626,993	(3,657)	630,650	630,650	0
03 Materials	357,069	418,213	207,996	210,217	210,217	0
04 Training/Fellowships	4,531,706	4,488,149	920,850	3,567,299	3,567,299	0
05 Consulting Services	3,919,108	4,934,747	72,973	4,861,774	4,861,774	0
06 Service Charge	525,535	525,021	199,628	325,393	325,393	0
07 Unallocated	2,856,549	59,569	59,569	0	0	0
08C Project Administration	137,879	268,443	(10,263)	278,707	278,707	0
99 Imprest Fund	47,691	0	(2)	0	0	0
Total	17,575,416	17,438,481	1,453,095	15,985,385	15,985,385	0

9. Local Costs (Financed)

- Amount (\$)	1,458,744
- Percent of Local Costs	20%
- Percent of Total Cost	7%

C. Project Data

1. Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
Foreign Exchange Cost	16.9	14.5
Local Currency Cost	8.1	7.5
Total	25.0	22.0

2. Financing Plan (\$ million)

Cost	Appraisal Estimate			Actual		
	Foreign	Local	Total	Foreign	Local	Total
Implementation Costs						
Borrower-Financed	0.00	5.00	5.00	0.00	6.00	6.00
ADB-Financed	16.34	3.06	19.40	14.21	1.46	15.67
Subtotal	16.34	8.06	24.40	14.21	7.46	21.67
IDC Costs						
Borrower-Financed	0.00	0.00	0.00	0.00	0.00	0.00
ADB-Financed	0.60	0.00	0.60	0.33	0.00	0.33
Subtotal	0.60	0.60	0.60	0.33	0.00	0.33
Total	16.94	8.06	25.00	14.54	7.46	22.00

ADB = Asian Development Bank, IDC = interest during construction.

3. Cost Breakdown by Project Component (\$'000)

Component	Appraisal Estimate			Actual		
	Foreign Exchange	Local Cost	Total Cost	Foreign Exchange	Local Cost	Total Cost
Staff Development						
In-Country	0	2	2	84	219	303
Overseas						
- Short-Term	2,743	0	2,753	2,175	0	2,175
- Long-Term	2,430	0	2,430	1,089	0	1,089
Specialists and Consultants	3,456	1,002	4,458	4,596	266	4,862
Facilities Development						
Civil Works	2,769	1,845	4,614	3,220	2,169	5,389
Equipment and Furniture						
Vehicles	181	10	191	370	0	370
Equipment	2,028	107	2,135	1,984	0	1,984
Furniture	120	481	601	473	312	785
Instructional Materials/Library Books	409	22	431	210	0	210
Project Implementation Costs						
PIU Staff	0	162	162	0	79	79
Project Operating Expenses	0	122	122	0	214	214
Recurrent Operational Costs	0	2,853	2,853	0	3,812	3,812
Taxes and Duties	0	377	377	0	388	388
Service Charge on the Loan	600	0	600	325	0	325
Unallocated	2,194	1,083	3,277	0	0	0
Imprest Fund	0	0	0	0	0	0
Total	16,940	8,066	25,006	14,526	7,459	21,985

PIU = Project implementation unit.

4. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultants	April 1996	July 1997
Civil Works Contracts		
Date of Award	March 1996	July 1996
Completion of Work	March 1998	October 2002
Equipment of Supplies		
First Procurement	March 1996	August 1996
Last Procurement	June 2002	July 2002
Completion of Equipment Installation	June 1998	June 2002

5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
19 Sep 1995 to 31 Dec 1995	Satisfactory	Satisfactory
1 Jan 1996 to 31 Dec 1996	Satisfactory	Satisfactory
1 Jan 1997 to 31 Dec 1997	Satisfactory	Satisfactory
1 Jan 1998 to 31 Dec 1998	Satisfactory	Satisfactory
1 Jan 1999 to 31 Dec 1999	Satisfactory	Satisfactory
1 Jan 2001 to 31 Dec 2001	Satisfactory	Satisfactory
1 Jan 2002 to 31 Dec 2002	Highly Satisfactory	Highly Satisfactory

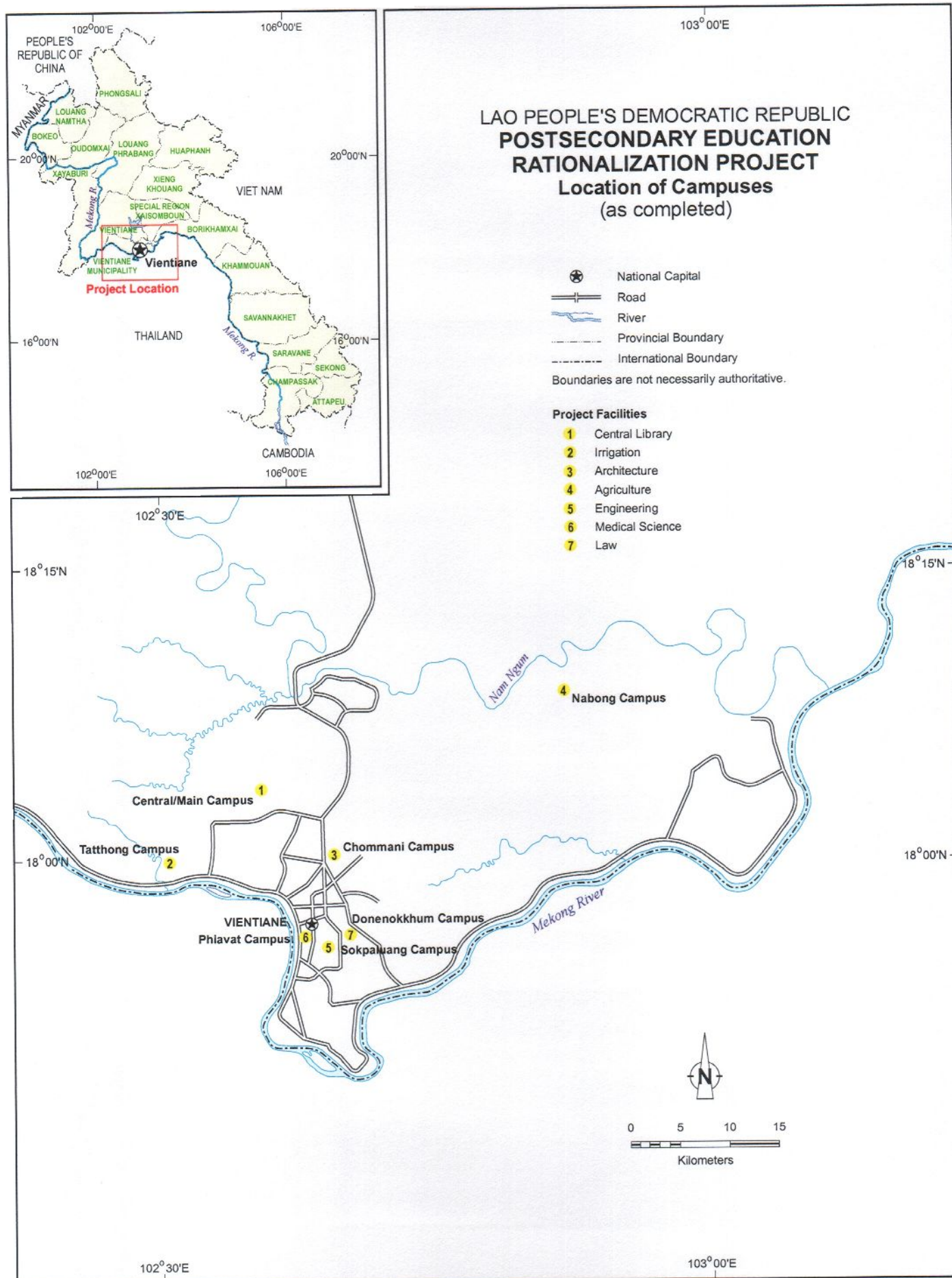
D. Data on Asian Development Bank Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members ^a
Appraisal	18 May–3 Jun 1995	4	68	a, c, d
Inception Review	5–14 Dec 1995	1	15	a
Review 1	24 Jun–3 Jul 1996	1	11	a
Review 2	3–7 Dec 1996	1	5	a
Review 3	3–9 Mar 1997	1	5	a
Review 4	23–27 Feb 1998	1	5	a
Review 5 (SLAM)	28 Sep–6 Oct 1998	2	18	a, e
Review 6 (Midterm)	13–21 Jan 1999	2	18	a, e
Review 7	25–28 Nov 1999	1	4	a
Review 8	14–19 Nov 2000	1	6	a
Review 9	4–25 Jul 2001	2	23	a, b
Review 10	6–10 May 2002	1	5	b
Review 11	18–22 Nov 2002	2	10	b, e
Project Completion Review ^b	10–21 Nov 2003	2	24	b, e

^a a = education specialist, b = project specialist, c = programs officer, d = consultant, e = assistant project analyst.

^b Yo Ikeda, project specialist, prepared this project completion report.

SLAM = special loan administration mission.



I. PROJECT DESCRIPTION

1. The Project aimed to assist the Lao People's Democratic Republic (Lao PDR) in its transition toward a market economy by strengthening postsecondary education, which provides human resources to lead the change. The Project's immediate objective was to rationalize postsecondary education by establishing the National University of Laos (NUOL) by consolidating degree-level institutions. The project components are (i) institutional development to establish an operational framework for NUOL, including a management structure, functional divisions, educational resources, and a support mechanism in the Ministry of Education (MOE); and (ii) program development to enable NUOL to deliver academic programs in foundation studies and in economics, management, and science. The project framework is in Appendix 1.

II. EVALUATION OF DESIGN AND IMPLEMENTATION

A. Relevance of Design and Formulation

2. In the early 1990s, the Government was urged to accelerate the transition toward market economy; however, the country lacked domestic human resources to carry out policy and institutional changes in key sectors such as finance, manufacturing, and commerce. Postsecondary education would be a torchbearer for change in various sectors by developing human resource, and was therefore in urgent demand. Unfortunately, postsecondary education needed changes as well. Line ministries and provincial authorities ran their own postsecondary education institutes to train staff for predetermined jobs, and there was little coordination among them. Postsecondary education was not prepared to meet the emerging demands of the transition to a market economy.

3. The MOE was cognizant of the need to rationalize postsecondary education, and the ministry's development plan for 1994-95—as well as the Government's 5-year plan for 1991-1995—put a priority on rebuilding postsecondary education to meet the urgent need for human resources. The Government requested assistance from the Asian Development Bank (ADB) to implement the plans. ADB was conducting a comprehensive study on the education sector in Laos in 1989,¹ the country operational strategy study in 1991 and 1995, and a labor market study in 1993.² Based on the findings and recommendations of these studies, the country operational strategy in 1996 recommended ADB assist the transition to a market economy by developing human resources. A project preparatory technical assistance³ (TA) was implemented in 1994.

4. The TA conducted a joint review of the postsecondary education rationalization framework through dialogue with postsecondary education authorities—ministries and provincial agencies—which then administered their postsecondary education institutes. External donors that had been active in the higher education sector were also involved.⁴ The TA conducted an extensive survey and assessment of 37 postsecondary education institutes in the Lao PDR, analyzed lessons from previous and ongoing projects, and evaluated the Government's financing capacity. The TA then presented a framework for rationalizing postsecondary education with three phases: amalgamation of postsecondary education institutes under different management authorities (Phase I) and consolidation (Phase II) for upgrading to a

¹ ADB. 1989. *Technical Assistance to Lao People's Democratic Republic for Education Sector Study*. Manila.

² ADB. 1993. *Technical Assistance to Lao People's Democratic Republic for Strengthening Labor Market Monitoring and Analysis*. Manila.

³ ADB. 1994. *Technical Assistance to Lao People's Democratic Republic for Postsecondary Education Rationalization Project*. Manila.

⁴ Major donors included the World Bank, and the governments of Australia, Germany, Japan, and Switzerland.

national university, followed by regionalization (Phase III) to establish a higher education network across the country under the coordination of the MOE's Department of Higher, Technical, and Vocational Education (HTVED). With this framework, the TA recommended ADB's assistance in the first two phases, including development of facilities, human resources, policies, and institutions. Helped by the close supervision and intensive policy dialogue led by the appraisal mission leader, TA output and recommendations, being widely shared among relevant management authorities and key external donors, ensured proper project design, policy framework, and coordination during implementation. The TA was successful.

5. Based on the TA recommendations, project appraisal was conducted in close collaboration with other donors. The United Nations Development Programme (UNDP) helped ADB lead donor coordination to maximize synergy without investment duplicate.⁵ During implementation, the Government constantly demonstrated its commitment to policy and institutional development, taking the establishment of NUOL as a catalytic force for rationalization. ADB supported the Government's efforts with timely review and approval of design changes by communicating well with the Borrower. The Project was completed with relevance, as envisaged at appraisal, providing leading human resources to help the transition to a market economy during and after implementation.

B. Project Outputs

6. The Project was completed on 31 December 2002, with a 6-month extension of the loan period. Outputs were as conceived at appraisal. Except for this extension, there was no major change in project scope or implementation. The Project supported postsecondary education rationalization, focusing on two phases: amalgamation of 10 postsecondary education institutes⁶ and the subsequent consolidation to create NUOL, the country's first national university.

1. Institutional Development

7. **Management Structure.** Rationalization of the postsecondary education system started on 9 June 1995, 3 months ahead of loan approval, with Prime Minister's Decree No. 50. The decree provided the legal framework for establishing NUOL by amalgamating 10 postsecondary education institutes. MOE set up the NUOL Establishment Committee in 1995 to lead rationalization. In January 1996, the prime minister appointed the first rector and vice rectors of NUOL and opened core faculties and administration departments. The archetype of NUOL management was completed within a year of project commencement. The Government revised the above framework by issuing Decree No. 87 in June 2000, incorporating lessons from the amalgamation process. The new decree's main purpose was to enhance NUOL's autonomy by transferring administrative and financial authorities from HTVED in support of policy and institutional development. NUOL's rector was redesignated president in September 2001.

8. Under the above policy and legislation, the Project provided a comprehensive package of physical and technical inputs to functionalize NUOL management structure. The package included (i) civil works for rehabilitating administrative buildings and student dormitories with facilities for female students; (ii) office equipment and furniture for administrative offices; (iii) consulting services for the key administrative skill mix for university management such as

⁵ Result of donor coordination is briefly summarized in para. 31 and Appendix 5.

⁶ (i) Pedagogical University, Dong Dok; (ii) National Polytechnic Institute, Vientiane; (iii) Higher Technical School of Electronics and Electrotechnics, Vientiane; (iv) Institute of Agriculture, Veunkham (not operational when NUOL was proposed); (v) School of Architecture, Vientiane; (vi) School of Communication, Vientiane; (vii) School of Irrigation, Tad Thong; (viii) Nabong Agricultural College, Nabong; (ix) Dong Dok Forestry College, Dong Dok; and (x) University of Health Sciences, Vientiane (amalgamation started with four core institutes: Pedagogical University, National Polytechnic Institute, Nabong Agricultural College, and University of Health Sciences).

program accreditation, student administration, financial management, research planning, marketing, and publicity; and (iv) short-term overseas training for heads of administrative units. During implementation, MOE reviewed the training plan in consultation with ADB to minimize absences of key staff from the workplace. As a result, training was conducted intermittently until 2002 and timing of equipment procurement and installation was adjusted. The Government provided staffing for NUOL, keeping pace with these physical activities. Appendixes 2, 3, and 4 summarize project inputs.

9. In February 1998, the Government completed the launch of NUOL by appointing 17 members of NUOL Council, an apex decision-making body with a 4-year term. The appointment was delayed by 2.5 years compared to the plan at appraisal because of a shortage of qualified professionals to manage university affairs. The Government had to wait for the completion of staff development activities under the Project before it could approve the list of council members. Although the final approval of the council members was given late, the core members were already working on their roles in the NUOL Establishment Committee, and Council activities started smoothly. In its second term since 2002, the council increased its membership to 27 with representatives from relevant stakeholders including public and private enterprises, trade unions, the Lao women's union, the Lao youth organization, the NUOL student union, and faculty members. The Council was active during the remaining project period, convening members meeting four times a year. It provided timely decisions and proposals to MOE and the higher authorities.

10. In the academic year (AY) 2002/03,⁷ 1,659 staff members, 692 of them female (42%), were working at NUOL. At total of 944 were academic staff, and 415 were in administrative jobs. NUOL comprises 7 campuses with 10 faculties: the central campus in Dong Dok for education, science, forestry, social sciences, letters, economics, and management; Phia Wath for the faculty of medicine; Sokpaluang, Tad Thong, and KM5 for the faculties of engineering and architecture; Don Nok Khum for law and administration; and Nabong for agriculture. The School of Foundation Studies (SFS) is located in the Dong Dok central campus. Since AY2003/04, NUOL converted the academic system from a 2+3 system (2 years' foundational studies, followed by 3 years in an individual faculty) to a 1+4 system. Appendix 5 shows NUOL's academic and management structure.

11. **Functional Development.** Key outputs of the Project comprise management information systems (MIS), updated instrumentation, management services for buildings and equipment, and renovated facilities to meet academic requirements. The MIS advisor led the development of a pilot MIS in 1998 to consolidate the 10 institutes' different information systems, as envisaged at appraisal. After a 2-year pilot period, MIS was finalized in 2002 with the provision of information and communication technology (ICT) equipment, including a server at the central campus, client systems at the seven other campuses, and an intercampus wireless transmission network.⁸ Short-term overseas training in MIS was provided for 11 staff and domestic training for 17 staff. MIS introduced standard data formats for handling student and administrative information across each campus, enabling accurate and timely information processing and record keeping by computer at the central level as envisaged at appraisal. A 10-member planning and MIS section under the president's office has been responsible for MIS operation. NUOL established the instrument/equipment maintenance and the building maintenance units in the building and service office in 2002, with 14 administrative and 28

⁷ NUOL's academic year starts on 1 September with 2-semester system, the first semester from September to January and the second semester from February to June. There is also a supplementary semester for remedial classes from mid-June to August. For instance, AY2000–2001 means a 12-month period from 1 September 2000 to 31 August 2001. The Government's fiscal year (FY) 2000-2001 runs from 1 October 2000 to 30 September 2001.

⁸ A wireless transmission system was cheaper and easier than cable for establishing a wide area network (WAN).

technical staff that had been trained under the Project. The equipment maintenance advisor, helped by customer engineers from equipment suppliers, prepared maintenance manuals that cover equipment inventory, specifications, work instructions, repair schedule, stock plans for spare parts and consumables, maintenance check points, and financial requirements. The buildings and service advisor prepared a similar manual for building maintenance.

12. **Educational Resources.** The Project supported (i) development of seven libraries with ICT-based library management system, including a central library at the Dong Dok main campus and six branches in each campus with ICT-based library management system and (ii) textbook publishing facilities in the Lao language. The library system included an intercampus library network and a computerized library catalogue in the central library as anticipated at appraisal. In 1998 and 2001, the Project provided civil works for renovating a library building in the central campus; computers and network equipment; reference materials, including 29,629 books for the central library and a total of 58,000 books divided among six branch libraries; a library advisor; and short-term overseas training programs for 20 staff, including a chief librarian for the central library and six librarians for the branches. Each library is given a discretionary budget for book purchasing. In AY2002–2003, KN213 million (\$20,500 equivalent) was allocated for library updates. Appendix 5 provides details of each library, including floor area, seating capacity, and number of books.

13. The Lao Textbook Publishing Unit (LTPU) was established in 1996 as envisaged at appraisal to facilitate teaching and learning in the Lao language at SFS.⁹ The Project provided a Lao textbook publishing advisor, printing and binding equipment, and short-term staff development programs for seven LTPU staff. Under the Project, LTPU produced more than 71,000 copies of textbooks in the Lao language for 28 courses in foundation studies. Most of these were for use in the central library. Following the completion of initial distribution to the libraries, LTPU is preparing extra copies for sale at an average of KN10,000 per copy. NUOL recovered KN125 million or \$12,000 equivalent from the sale of 15,874 copies in AY2002–2003.

14. **MOE's Support Mechanism.** To ensure sustainable operation of NUOL as an autonomous higher education institute, the Project involved rebuilding the institutional framework for postsecondary education administration. HTVED, which was responsible for administration of postsecondary education, was reorganized under the Project. A team of advisors for MIS, academic planning, university administration, curriculum planning, and personnel administration facilitated reorganization. The advisory team used a participatory approach with a task force in HTVED. For a new skill mix needed to complete the reorganization process, the Project provided staff development programs, including short-term overseas training for 24 key HTVED staff in MIS system design and development, sector planning and management, human resource management, and budget administration. Wherever possible, training was provided through on-the-job, workshop, and intensive lecture courses to maximize relevance and minimize absence of key staff from daily activities. HTVED's organizational development was completed 2.5 years later than the target date, mainly because a consultant team was fielded late and staff development activities were slow to start up (para. 29). Appendix 6 summarizes the work divisions and responsibilities in HTVED.

15. **Policy Development.** Based on Decrees No. 50 and No. 87, the Government undertook comprehensive institutional and policy development to ensure NUOL's sustainable operation. Policies have been developed in four key areas: (i) autonomy of NUOL and the transfer of management practices, (ii) rationalization of staffing, (iii) selection and admission of students, and (iv) cost recovery.

⁹ Students at most faculties had textbooks in Lao language authored by Laotian teachers, but no textbooks in the Lao language were yet available for the SFS students because SFS was newly introduced under the Project.

16. With the Prime Minister's Decree No. 50 in 1995, which approved the establishment of NUOL, NUOL started as a higher education institute at budget level 2, meaning NUOL was required to seek MOE approval for its annual budget and expenditures and other key academic activities. The Government continued a step-by-step approach to NUOL autonomy that was envisaged at appraisal. In February 1998, the education minister approved the transfer of authorities of academic planning and management, student admission, and financial management from HTVED to NUOL. In October 2000, Prime Minister's Decree No. 87 legitimized management transfer, upgrading NUOL's financial management authority to budget level 1. This upgrade gave substantial autonomy to NUOL in (i) finances, (ii) international cooperation and relations, and (iii) academic affairs. NUOL no longer requires MOE approval in these areas. For financial management, NUOL can submit its budget directly to the committee for planning and cooperation for approval by the Ministry of Finance (MOF). For international relations, NUOL can submit proposals directly to the Ministry of Foreign Affairs. NUOL has authority to plan and manage academic activities such as curriculum and program development and administration. Faculties were upgraded to budget level 2.

17. HTVED drafted its staff redeployment and upgrading policy in 1995 for incorporation in the NUOL Strategic Plan (NSP) for 2000-2020 and the 5-Year Plan for 2000-2005.¹⁰ To complete consolidation, the Project introduced a central personnel database at HTVED that was used to redeploy existing staff for jobs at NUOL. This avoided the cost and time of recruiting, as well as the risk of overstaffing. The policy facilitated new work divisions and reassignment of staff and implementation of training under the Project. The redeployment increased NUOL's student/faculty ratio from 7:1 at appraisal to 19.5:1 in AY200-2003, compared to the appraisal target of 15:1. Staff members at the faculty of science also teach in SFS, as well as in other faculties, so the student/faculty ratio was higher than the appraisal target of 10:1. NSP 2000-2020 aimed to increase to 40% the number of teaching staff with postgraduate qualifications. For this target, the Project provided long-term overseas fellowship programs for postgraduate degrees for 45 teaching staff in NUOL. In AY2002-2003, qualified instructors already accounted for almost 30%, compared to 22% in the previous academic year. Deployment was also carried out for other postsecondary institutes to rationalize staff allocation. The student/teacher ratio exceeded the appraisal target of 15:1.

18. After a comprehensive review of the selection and admission policy to ensure equity and financing in higher education, (i) a national entrance examination system and (ii) a special course system were introduced in NUOL in 1996 and 1999, respectively. As a result, NUOL students are registered in either normal or special courses. Students in normal courses include quota students whom MOE nominates for entry with scholarship and non-quota students who passed the entrance examination. They pay the annual registration fee only. Special course students are allowed to enter NUOL without taking entrance examinations if they pay tuition in addition. With this new system, MOE, being responsible for quota administration, successfully maintained the share of quota students below 50% of the total entrants since AY1997-1998 as agreed at appraisal. The quota students' share was reduced to 40% in AY2000-2001. The introduction of the special course further reduced the share to 18.7% in AY2001-2002 and 17.5% in AY2002-2003. Or in AY2002-2003, NUOL had 946 quota students who accounted for 37% of normal course students. For improved gender balance, NUOL also increased the female students' share of the total quota to 35% in AY2000-2001, 42% in AY2001-2002, and 51% in AY2002-2003, compared to the appraisal target of 50%. Gender balance for each academic year is shown in Appendix 7, indicating females formed 41% of SFS students in AY2002-2003. Female students form about 40% of enrollment in year 6 of secondary school.¹¹

¹⁰ Government agencies, including NUOL, normally follow a common planning structure comprising a 20-year strategic plan, a 10-year plan, and a 5-year plan.

¹¹ Staff estimate based on Annual Bulletin, 2001-2002, the Ministry of Education, Lao People's Democratic Republic.

19. NUOL has autonomy in selection and admission, but the administrative authority of the quota system remained in HTVED because (i) the quota system is designed to provide candidates for postsecondary education in NUOL and other technical education or vocational training institutes; and (ii) provincial education offices, which fall under the jurisdiction of MOE, are responsible for selecting candidates from secondary schools. Nevertheless, some delinking of scholarships from quotas occurred during implementation. Quota students were the de facto scholarship beneficiaries, but NUOL also introduced performance-based scholarship renewal. Continuation of scholarship depends on students' academic performance during the first semester of the first year, as well as family background. New students who enter by taking the entrance examination (non-quota normal course students) can be considered for scholarship if they perform well. In AY2002-2003, the scholarship was KN70,000 per month. About half of the quota students entered NUOL.

20. Financial autonomy that Prime Minister's Decree No. 87 provided enabled NUOL and MOE to review several cost-recovery measures. During appraisal, it was agreed to introduce appropriate fees from those who could afford to pay. The report and recommendation of the President,¹² as well as Schedule 6 of the Loan Agreement, included (i) introduction of KN50,000 as annual fee from AY1996-1997; (ii) step-by-step introduction of separate user fees for library, laboratory, and other facilities, along with tuition, to support half of the operations and maintenance (O&M) cost by AY2001-2002; (iii) full cost recovery of lodging and boarding, which were heavily subsidized before the Project; and (iv) improved scholarship and student loan programs to help students in need.

21. All NUOL students pay KN50,000 for annual registration. Special course students pay an average of KN400,000 for annual tuition (KN320,000 to KN720,000, depending on the faculty). In AY2002-2003, revenues from the registration and tuition were KN173 million (\$0.16 million) and KN3.54 billion (\$0.34 million equivalent), respectively. Fees for using school facilities such as dormitory and libraries, as well as charges for professional services to external clients, generated revenue of KN2,025 million (\$195,000 equivalent). Together with revenues from sale of Lao language textbooks, NUOL has already fully recovered O&M costs of about KN3.45 billion in FY2002-2003.

2. Program Development

22. **School of Foundation Studies (SFS).** SFS was an output specific to the creation of NUOL. It was established in 1996, for AY1996-1997, on NUOL's main campus to provide perfectly programs for all first- and second-year students. SFS prefaculty programs include 28 common preparatory programs such as mathematics, physics, history, and geography. The program was were combined from four core institutes—Pedagogical University, Dong Dok; Nabong Agriculture College, Nabong; National Polytechnic Institute, Vientiane; and the University of Health Science, Vientiane—that had already been conducting similar core course programs before amalgamation. The Project provided short-term overseas training for 20 staff and long-term fellowships for 5 teaching staff to upgrade their qualifications. It also provided equipment, furniture, and civil works for renovating lecture rooms and building new science laboratories. Perfectly programs in SFS started in AY1996-1997 with 1,157 new students, 302 of them female (26%). In AY2002-2003, 4,106 students were studying in SFS. Enrollment data is in Appendix 7.

¹² ADB. 1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Lao People's Democratic Republic for Postsecondary Education Rationalization*. Manila.

23. **Faculty of Economics and Management (FEM).** The Project helped the Government launch higher education in economics and management at NUOL. At the time of appraisal, there were no one in the Lao PDR qualified to teach or manage these subjects at a degree level. The Government tried to appoint a dean and deputy dean of FEM but appointments were completed only in January 1998, a delay of 2 years. To establish FEM, the Project provided comprehensive consulting services and a staff development package. Consulting services included subject advisors in economics and management to assist faculty development, subject specialists to prepare curriculum and course programs, and temporary lecturers to implement classroom programs while Laotian lecturers were absent taking fellowships. Staff development included in-country training, short-term overseas training for 12 staff, and long-term fellowships for 2 Laotian teaching staff. Appendixes 2 and 4 summarize the consulting services and staff development activities. Admission began in AY1998-1999, as envisaged at appraisal, with 161 third year students, 89 of them female (55%). Of the first batch of students, 156 graduated in June 2001 with Bachelor of the Arts (BAs) degrees in economics or management. In AY2002-2003, 1,537 students studied at FEM for undergraduate degrees in economics or management. Enrollment data is in Appendix 7.

24. **Faculty of Science (FOS).** The Project consolidated and strengthened existing resources for postsecondary science education in biology, chemistry, physics, mathematics, and ICT. Renovation and development of laboratories and other physical facilities was completed in Dong Dok central campus in 2001. The Project provided short-term overseas training to 55 administrative and technical staff for 55 person-months—compared to 5 administrative staff for 16 person-months as envisioned at appraisal—to include technician training for laboratory instruments, as well as equipment maintenance and repair. The Project provided long-term overseas fellowships to 13 teaching staff at the postgraduate level, as well as short-term subject advisors to assist consolidation. Actual inputs, compared with the original provisions at appraisal, are summarized in Appendixes 2 and 4. In AY1996-1997, the first academic year at NUOL, FOS had 291 students transferred from the amalgamated institutes. Until AY1998–1999, FOS operated under the old curriculum. FOS started its new curriculum and programs in AY1999-2000. At the end of AY2002-2003, 102 students, including 27 female students (26%), graduated from FOS under the new curriculum with Bachelor of Science (BSc) degrees in biology, chemistry, physics, mathematics, or informatics (ICT). Enrollment in AY2002-2003 comprised 270 students, 98 of them female (36%). Enrollment data is in Appendix 7.

25. **Staff Upgrading in Other Faculties.** The Project strengthened the Faculty of Education and Humanities by providing long-term fellowships for 23 teaching staff. Some 16 staff participated in long-term overseas fellowships and 7 in distance education for doctorate degrees. Fellowships were awarded to 11 teachers in humanities, 5 in education, 6 in engineering, and 1 in forestry. The Faculty of Humanities was reorganized to the Faculty of Social science and Letters from AY2001-2002, as envisaged at appraisal.

C. Project Costs

26. Actual project costs totaled \$22.0 million equivalent at loan closing, compared to \$25.0 million equivalent as estimated at appraisal. ADB financing was \$16.0 million of the actual loan amount of \$17.4 million equivalent at completion,¹³ including \$14.5 million for foreign exchange and \$1.5 million for local currency cost. The Government financed \$6.0 million for local currency cost, including tax and duties, compared to \$5.0 million anticipated at appraisal. At completion, \$1.4 million was unutilized because overseas training was moved to regional countries from

¹³ The appreciation of US dollar against the SDR decreased the available loan amount in US dollar.

USA or European countries and the local currency was depreciated substantially during the implementation period. Project costs are summarized in Appendix 8.

D. Disbursements

27. The first disbursement of \$0.5 million was made during the first quarter of 1996. The final disbursement of \$441,000 was made on 14 March 2003. Funds disbursed for each category were generally within original allocations. Total disbursements amounted to \$15.99 million, and the undisbursed balance of about \$1.46 million was canceled on 14 March 2003, the effective loan closing date.¹⁴ The annual imprest fund turnover ratio average 2.06 during implementation, a level considered satisfactory. Disbursements records are summarized in Appendix 9.

E. Project Schedule

28. The loan was approved on 19 September 1995 and became effective on 19 December 1995. The Project was to be completed by 30 June 2002 at appraisal. The amalgamation of 10 postsecondary institutes—the first phase of postsecondary education rationalization process—was carried out without delay thanks to the strong commitment of the Government. However, the consolidation phase could not start as anticipated at appraisal because of a shortage of experienced human resources for administration. Appointments for NUOL council members and the dean and vice dean of FEM were completed 2.5 years and 1 year late, respectively.

29. Selection and engagement of 4 consulting firms was difficult to complete within the schedule envisaged at appraisal.¹⁵ Each consulting service package included substantial and highly academic expert services, which made it difficult for the project implementation unit (PIU) to conduct selection concurrently for each contract. Fielding of consultants during 1997-1998 should be considered good performance on the part of the PIU, considering that selection and engagement of a consulting firm normally takes at least 7 months.¹⁶ Late fielding of consultants affected the overall implementation schedule, including procurement and staff development programs. Most of the staff development activities started late in 1998, with a delay of about 2 years. In September 2001, ADB approved an extension of the loan closing by 6 months up to 31 December 2002 at the request of the Borrower. As indicated in the Appendix 10, most initial delays were recovered after the fielding of consultants without limiting anticipated project benefits and development impacts. The Project was completed within the revised loan period.

30. The implementation schedule accounted for complicated policy and physical processes for amalgamation and consolidation of 10 institutes into NUOL, the country's first degree-level university, by using dedicated monitoring indicators. Progress monitoring indicators, with target dates prepared at appraisal, facilitated implementation. The schedule provided at appraisal was well prepared and appropriate.

F. Implementation Arrangements

31. The executing agency (EA) was the MOE, represented by the project coordination unit (PCU). MOE has a steering committee for education projects (SCEP). The SCEP and the PCU

¹⁴ This indicates the effective date of loan account close, including a 3-month grace period and adjustments for closing as per Project Administration Instruction No. 4.05. The loan closing date after the extension was 31 December 2002.

¹⁵ When the Project was appraised, ADB's advance action allowed only up to the preparation of long-list, without further actions such as short-listing and dispatch of invitation documents or up to submission of proposals in sealed envelopes. Limited provision for advance action could not help accelerate implementation in practice.

¹⁶ When the PIU carried out selection, the simplified procedures or QCBS currently available had not yet been introduced. The PIU needed to follow a two-envelope system with full proposals.

are permanent units in the MOE, coordinating and administering all projects funded by external agencies, including faculty development by other financiers as indicated in Appendix 5. The PIU for individual projects is normally established with a full-time project manager within the PCU. The Project initially followed this arrangement as confirmed during appraisal. However, due to the specific nature of the Project which aimed at establishing NUOL as an autonomous higher education institute, MOE transferred the PIU function with key staff to the project unit (PU) within NUOL in 1998 with the approval of ADB when NUOL Council was officially established and consulting services started. Considering that most of the daily implementation activities, including offices of consultants, were located at NUOL's Dong Dok campus, this arrangement, together with the initial implementation arrangements at appraisal were generally appropriate to deliver the project outputs and achieve the project purpose with efficiency.

G. Conditions and Covenants

32. The loan agreement included 36 covenants: (i) 19 general covenants under Article IV, which include covenants for financial audits and project accounts, progress reporting, and the Borrower's project completion report; and (ii) 17 under Schedule 6 for project-specific assurances, including (i) autonomous management authority of NUOL (para. 18); (ii) rationalization of staffing (para. 19); (iii) review of quota system (paras. 20 and 21); (iv) cost recovery (paras. 22 and 23). Audited financial statements for previous years, progress reports, and the project completion report were submitted in time. All other general and project-specific covenants had been complied with. No covenants were modified, suspended, or waived. Appendix 11 summarizes the covenants.

H. Related Technical Assistance

33. This section does not apply to the Project.

I. Consultant Recruitment and Procurement

34. **Consultant Recruitment.** Consulting services comprised four packages: the institutional development, FEM development, FOS development, and library development. Selection and engagement of international consulting firms, individual consultants, and domestic consultants for civil work engineering and supervision were carried out in accordance with ADB's *Guidelines on the Use of Consulting Services* or procedures confirmed as satisfactory to ADB for engagement of domestic consultants. No major difficulties were encountered with procedures and contracts were successfully negotiated with four international consulting firms, which provided the first ranked technical proposals for each package. Contracts were negotiated as cost-plus-fee contracts in view of the long-term engagement and nature of services to assist institutional development process by service input. Consultants were mobilized within the agreed period and provided services according to annual work plans agreed upon between the PU/NUOL and the consultants. During the midterm review in January 1999, ADB and MOE agreed to engage five individual consultants to supervise construction. Total input of consulting services under the Project was 360.5 person-months, compared to 369 person-months estimated at appraisal, including the input of domestic consultants for civil work engineering which was 25 person-months, the same amount as estimated at appraisal. Consulting services under the Project are summarized in Appendix 2.

35. **Procurement Process.** The indicative procurement plan at appraisal included three civil works packages for rehabilitation of teaching and administrative buildings, rehabilitation of dormitories at the main campus, and provision of water supply, electric supply, and sewage treatment facilities by local competitive bidding (LCB); one civil works package for building laboratories and the central library by international competitive bidding (ICB); two packages for

utility vehicles and five buses for intercampus transport by direct purchase (DP) and international shopping (IS), respectively; seven equipment packages by IS or DP as appropriate, except one by ICB for science equipment package; three packages for furniture by LCB; and two packages for library books and journals by IS or DP as appropriate. Except for the procurement of basic reference books instead of journals and some other minor changes such as change of procurement mode from ICB to IS or LCB to DP due to the smaller package values as approved by ADB, actual procurement was carried out as envisaged at appraisal and in accordance with the ADB's *Guidelines for Procurement*. Appendix 3 compares actual procurement with the indicative procurement plan at appraisal. There was no significant problem during implementation.

J. Performance of Consultants, Contractors, and Suppliers

36. Consultants' performance was highly satisfactory, helped by the Government's commitment to implement the Project. In particular, their work organization, timeliness, output, and relationships with counterpart staff facilitated effective technical transfer, as well as timely and accurate billings. As indicated by the actual person-months, contract variations were kept to a minimum. Installation and delivery of instruments and equipment were mostly on schedule. Customer engineers from equipment suppliers helped project consultants prepare maintenance manuals and plans at no extra cost. There were no significant problems in the performance of civil works contractors or equipment providers.

K. Performance of the Borrower and the Executing Agency

37. MOE as the EA carried out its responsibilities in implementing the Project in a timely manner, without reducing the project's scope despite extra time needed at the beginning of the Project. Initial delays, particularly the 2-year start up delay in the staff development programs, were mainly a result of a shortage of qualified candidates, a problem that should not be attributed to MOE. Project completion with a 6-month extension was satisfactory. Compliance with loan covenants, including submission of progress reports and audited financial statements, had been generally satisfactory. The PU/NUOL, in close collaboration with the PCU, the EA, and the Borrower, was able to utilize resources provided under the Project efficiently and effectively, particularly the consulting services for institutional development during consolidation. Annual turnover of the imprest fund also indicates efficient financial management. Contrary to ADB's initial concern, the Government—including the Borrower, the EA, the PU/NUOL, and other agencies concerned—worked together in establishing NUOL within the revised project period. The assessment provided at appraisal for the EA's implementation capacity and commitment was reasonably accurate.

38. Overall, the performance of the Borrower and the EA, including the PU/NUOL, was highly satisfactory. The good performance was also a result of the step-by-step project preparation that led the government policy formulation process and the project provisions accompanied by concrete targets and monitoring indicators.

L. Performance of the Asian Development Bank

39. ADB dispatched 12 review missions during implementation from December 1995 to November 2002, including inception and midterm review missions and two review missions per year. Earlier review missions helped government policy formulation through continued policy dialogue. The project completion review mission was advised that review missions were effective in resolving various issues in their early stages. ADB's performance was generally satisfactory. ADB invited the project manager and concerned officials to project implementation and administration seminars held in Vientiane and Manila during the project period.

III. EVALUATION OF PERFORMANCE

A. Relevance

40. The Project was highly relevant. As discussed in paras. 2–5, the design and formulation of the Project (i) addressed the Lao PDR's socioeconomic context in terms of its shortage of qualified human resources to lead the transition to a market economy; and (ii) was consistent with the operational priority set forth in the COS 1996 and the government national development plan. The Project has been relevant to ADB's education policy.¹⁷ First, the policy confirms that countries at all stages of development require the knowledge and skills of persons with higher education and that higher education produces the analytical, research, and management skills essential for sound economic management, and for maintaining economic competitiveness. This coincides with the purpose of the Project.

41. For key dimensions addressed in ADB's education policy to support the development of higher education, amalgamating and consolidating postsecondary education institutes under the Project has (i) developed government capacity for policy formulation, setting standards, and accreditation by strengthening HTVED, with continued commitment demonstrated by the Government; (ii) increased access for girls and the poor to higher education by introducing entrance examinations, performance-based scholarships, and special courses; (iii) improved quality and cost-effectiveness by consolidating proliferated postsecondary education institutes, which suffered from weak coordination, poor external efficiencies, and duplications in educational content and facilities; (iv) strengthened institutional governance by ensuring management autonomy in NUOL; (v) established financial sustainability through full cost recovery by introducing special courses for upper-income students and a book publishing unit; and (vi) provided MIS with modern ICT, enabling online access to educational resources and management information via common data formats. With these achievements in key dimensions addressed in education policy, it is most likely that NUOL, in collaboration with HTVED, will support the role of private sector once it is developed under the market economy. The Project at completion is relevant to ADB's education policy.

B. Efficacy in Achievement of Purpose

42. The Project has achieved its immediate objective to establish NUOL as the country's only degree-level university by developing an operational framework and academic programs, with a total enrollment of 18,366 in AY2002-2003, compared to 5,129 anticipated at appraisal. There is a strong likelihood that the Project will contribute to realizing the wider development goal of a transition to market economy, as well as continued rationalization in postsecondary education. Considering that FOS and FEM started in AY1996-1997 and AY1998-1999, respectively, NUOL will be able to produce human resources for various sectors to ensure the transition to a market economy (para. 40). The project was highly efficacious.

C. Efficiency in Achievement of Outputs and Purpose

43. **Internal Efficiency.** The Project improved cost-effectiveness of postsecondary education by consolidating proliferated postsecondary institutes (para. 43, [iii]). The cost of education in NUOL in AY2003-2003 was estimated at \$88 per student, while the cost of education in the 10 postsecondary education institutes before consolidation into NUOL was estimated at an average at \$264 per student for AY1995-1996.¹⁸ After deducting costs

¹⁷ ADB. 2003. *Our Framework: Policies and Strategies, Education*, Manila (see 5. Higher Education in paras. 59–61)

¹⁸ Staff estimate based on *Annual Bulletin, 1994–1995 and 1995–1996*, MOE, Lao PDR for enrollment in postsecondary education institutes; and *Education Financing in Lao PDR* (draft), 30 August 2003, EQIP-II, MOE for recurrent expenditures in the education sector. Present value of the unit cost in AY1995-1996 was calculated in US

recovered by NUOL, the cost of NUOL education to the Government in AY2002-2003 was estimated at \$57 per student. During consolidation, staffing was carried out by redeploying existing staff instead of recruiting at the risk of overstaffing. Redeployment improved NUOL's student/faculty ratio of 19.5:1, compared to 7:1 at appraisal and the appraisal target of 15:1. The redeployment was also carried out for other postsecondary institutes, resulting an overall student/teacher ratio of 15:1, as envisaged at appraisal. In AY2002-2003, student promotion rates in SOF, FEM, and FOS were 85%, 96%, and 92%, indicating satisfactory efficiency (Appendix 7).

44. **External Efficiency.** During 1994-1995, when the Project was being discussed with the Government, a transition to a market economy was a top priority for the Lao PDR to survive the post-Cold War period. Postsecondary education—particularly higher education—was seen as critical in producing capable human resources. By AY2002-2003, ending 30 June 2003, NUOL had enrolled 18,366 students, compared to 5,129 anticipated at appraisal. It had produced 2,734 graduates, 1,601 with bachelor degrees (499 of them female) and 1,133 with diplomas (152 females).

45. To prepare graduates for work, NUOL has been providing students with internships of up to 6-months long in their final year. NUOL has been disseminating information on graduating students through media and is constantly receiving inquiries from public- and private-sector employers about graduates. A tracer study of FEM graduates completed in March 2003 indicated that more than 80% of FEM graduates in AY2000-2001 and 2001-2002 found jobs within a year in government (29%), private firms (21%), state-owned enterprises (11%), international organizations and NGOs (8%), and public schools (3%)¹⁹. Some graduates chose postgraduate study or voluntary unemployment to look for job opportunities which may satisfy their career aspirations as university graduates. Graduates have been assigned to technical positions (30% of working FEM graduates), administration and management (28%), and finance and accounting (10%), and sales and marketing (9%).

46. Postgraduate programs in neighboring countries have been accepting NUOL graduates with undergraduate degrees. Credit exchange is also being discussed with countries in the Association of Southeast Asian Nations (ASEAN). Over all, NUOL has achieved a level of quality acceptable in academic circles, as well as on the job market.

47. Having achieved internal and external efficiency as anticipated at appraisal, the Project is considered very efficient.

D. Preliminary Assessment of Sustainability

48. The Project is most likely sustainable. This is supported not only by the relevance, efficacy, and efficiency of the Project but also by government policy, legal, and financial commitments; market demand; and institutional arrangements.

49. **Financial Provisions.** Counterpart funds at the time of completion were \$6.0 million, compared to \$5.0 million estimated at appraisal. Disbursement of government counterpart funds was smooth (Appendix 9). NUOL prepared a 5-year financing plan for post-project operation using AY2002-2003 as a baseline (Appendix 12). Projections were based on MOE's estimates of the numbers of secondary school graduates. NUOL planned to add teaching staff correspondingly with modest increase rate to maintain internal efficiency without harming the

dollars using the exchange rate in the academic years (KN780/\$ and KN10,400/\$ in AY1995-1996 and AY2002-2003, respectively) and 3% annual inflation was used to adjust the US dollar price over the 7-year period.

¹⁹ Tracer studies for other faculties have also been undertaken by NUOL and MOET. Reports are still being prepared.

quality of education (student/teacher ratio at about 20:1 during the projection period). Recurrent budget projection was prepared based on MOE's expenditure framework. Considering NUOL as an autonomous institute, the principle of projection is that (i) all operational expenditures and some staff salaries (premium pay and contract lecturers' salaries) will be fully recovered through NUOL revenue; and (ii) the recurrent budget will finance regular staff salary, as well as minor capital and other expenditures. With the revenue-earning framework institutionalized in NUOL (para. 23), the plan indicates that not only that there will be little financial risk for NUOL after the Project but also that the Project did not harm resource allocation for education.²⁰

50. **Policy and Legal Commitment.** At the time of appraisal, government support for rationalization, which required substantial policy and institutional change, was seen as a critical risk factor to the successful project completion. The Government has made a constant commitment to the policy and legal changes necessary to postsecondary education rationalization. During appraisal, the prime minister pushed forward ADB's consideration of the Project by issuing Decree No. 50 providing legal framework for establishing NUOL. During implementation, with promulgation of Decrees No. 87, the Government undertook comprehensive institutional and policy development activities in four key areas as agreed at appraisal: (i) NUOL autonomy, including academic, administrative, and financial management; (ii) staff rationalization by redeploying and retraining incumbent staff for management efficiency; (iii) selection and admission of students to provide equity access to higher education; and (iv) cost recovery (paras. 14-19).

51. The above policy and legal framework has also made a positive impact on postsecondary education by setting up waymarks to lead HTVED efforts to continue the rationalization with the 27 other postsecondary education and training institutes in the Lao PDR.

52. **Demand.** The Project has contributed to mitigating the imbalance between the demand for and supply of postsecondary graduates (para. 8 of the report and recommendation to the President [footnote 12]) by increasing the supply of NUOL graduates from 614 in AY1996-1997 to 2,734 in AY2002-2003 (para. 45). Increasing enrollment illustrates secondary school graduates' growing interest in higher education.

53. Special course is helping support increasing enrollment. NUOL introduced special course as evening program. This has opened up the access to postsecondary education to working secondary school graduates who need to improve their skills and knowledge through formal education. NUOL successfully converted the need for higher education into a real demand. Tuition paid by the special course students indirectly helps poor students learning in the normal course (Appendix 12). This revenue from special course accounts for 60% of NUOL's own financial sources or 35% of the NUOL's total expenditures in AY2002-2003.

E. Institutional, Sociocultural, and Environmental Impacts

54. Project design and implementation did not have an adverse impact on the environment. ADB consistently addressed mitigation of sociocultural bias in education sector. Loan covenants included increasing the percentage of female students and it was complied. To select students by academic performance rather than gender or ethnic origin, NUOL has introduced a national entrance examination and a performance-based scholarship system (paras. 18 and 19). This will improve access to higher education for ethnic minorities and female students. More female students and a better gender balance among NUOL staff demonstrate the project's social development impact (paras. 12 and 20, and Appendix 5). The Project's impact on institutional development was substantial as indicated in the previous paragraphs for the project output.

²⁰ ADB. 2003. *Our Framework: Policies and Strategies, Education*, Manila.

IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

A. Overall Assessment

55. The Project was highly successful. Key criteria in ADB guidelines: relevance, efficacy, efficiency, sustainability, institutional development, and other impacts as discussed above, and the indicators summarized in the project framework (Appendix 1) support the rating.

B. Lessons Learned

56. The Project included advance actions for initial procurement with retroactive financing. This helped the PIU's initial activities. Advance action for consultant selection, however, was available only up to the preparation of the long list of candidates. A provision for more concrete advance action could have mitigated initial delays, considering the time required for selecting consultants (para. 29). Such a provision could include consultant selection up to receipt of consultant proposals prior to loan effectiveness. A project preparatory technical assistance could help the Government take advance action.

C. Recommendations

1. Project-Related

57. Although government efforts to regionalize higher education should be appreciated in view of increasing access to tertiary education, NUOL needs to give priority to quality of education and human resources that it produces by reaching the targets in NSP2000-2020 (para. 19). NUOL also needs to ensure its external efficiencies by (i) promoting an alumni association; (ii) including employers as members of the university council; (iii) establishing a regular monitoring function, in particular the graduate tracer study (para. 45); and (iv) introducing career counseling. National staff in the resident mission can monitor progress through occasional visits, as well as through NUOL and MOE official publications and yearbooks.

58. A project performance audit review could be conducted in 2006 if the relevant ADB departments consider it necessary.

2. General

59. Quality higher education will be achieved not only by qualified faculty but also by quality students. Investment in primary and secondary education should continue to receive the education sector's top priority.

PROJECT FRAMEWORK

Design Summary	Performance Indicators	Monitoring Mechanisms	Project Achievements
Goal			
Smooth transition to a market economy	<ul style="list-style-type: none"> Gross domestic product growth Poverty indicators 	<ul style="list-style-type: none"> Government statistics 5-year plans Asian Development Bank statistics 	
Purpose			
Postsecondary education rationalized to provide human resources needed for the transition to a market economy	<ul style="list-style-type: none"> Enrollment in National University of Laos (NUOL) increased by 45% by 2001 	<ul style="list-style-type: none"> Annual bulletin published by the Ministry of Education (MOE) 	<ul style="list-style-type: none"> Enrollment increased from 8,137 in AY1996-1997 to 18,366 in AY2002-2003 by 125%
Outputs			
1. Institutional Framework Developed for NUOL			
(i) Management structure	<ul style="list-style-type: none"> Initial legal framework for NUOL established in 1995 University Council functionalized in 1995 Amalgamation and consolidation process launched in 1995 NUOL management structure established by 1996 Management structure functionalized by 1998 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission Copies of decrees Member list of Council NUOL organizational diagram and staffing list Record of consulting services Record of contract awards 	<ul style="list-style-type: none"> The prime minister promulgated Decree No. 50 in June 1995, providing a legal framework for amalgamating 10 post-secondary institutes for establishing NUOL NUOL Establishment Committee was appointed in 1995, upgraded to the Council in 1998 Amalgamation process started in 1995 by Decree No. 50 In January 1996, the prime minister appointed the rector and vice rectors, NUOL and opened faculties and administration departments Advisory team was fielded in 1998
(ii) Functional development	<ul style="list-style-type: none"> Equipment procured by 1996 Management information system (MIS) functionalized by 1998 upon completion of staff training The instrumentation unit functionalized by 1998 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission NUOL organization diagram and staff list Record of consulting services 	<ul style="list-style-type: none"> Information and communications technology equipment, including server-client network system was procured by 1998 MIS initial system started in 1998. External training was implemented intermittently from 1998 to 2002, parallel with on-the job training provided by MIS advisor The units were established in 2002
(iii) Educational Resources	<ul style="list-style-type: none"> Libraries developed at seven campuses by 1998 Lao textbook publishing unit 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission Record of 	<ul style="list-style-type: none"> Buildings renovated in 1998 and 2001 Libraries equipped with electronic catalogue online The unit established in 1996

Design Summary	Performance Indicators	Monitoring Mechanisms	Project Achievements
	established by 1998	consulting services <ul style="list-style-type: none"> Record of contract awards 	
(iv) MOE support mechanism	<ul style="list-style-type: none"> Higher, Technical, and Vocational Education Department (HTVED) strengthened by 1999 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission Record of consulting services 	<ul style="list-style-type: none"> Implemented short-term overseas training for 24 staff Provided consulting services for organization development by 11 person-months for academic planning, university administration, curriculum planning, and personnel deployment
(iv) Policy development	<ul style="list-style-type: none"> Autonomous management established in NUOL Staffing rationalized to improve the student-teacher ratio in NUOL from 7:1 at appraisal to 15:1 by end of Project Student admission policy reviewed so that (i) the number of quota students will be less than 50% in the new enrollment; (ii) the number of female students will account for 50% in the quota students; and (iii) scholarships will be delinked from quota 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission Copies of decrees MOE's annual bulletin 	<ul style="list-style-type: none"> In February 1998, the education minister approved transfer of authority over academic planning and administration, student admission, and financial management from HTVED to NUOL In October 2000, the prime minister promulgated Decree No. 87 to legitimize NUOL's autonomous management authority HTVED prepared a staff redeployment plan for incorporation in NUOL strategic plan for 2000-2020 and the government 5-year plan for 2000-2005 Student-teacher ratio in NUOL achieved 19.5:1 by 2002 by deployment of teachers NUOL introduced entrance examinations and special courses to increase access to higher education for nonquota students and working secondary school graduates The share of quota students was kept below 50% of the total entrants since academic year (AY) 1997-1998 The female students share in the quota students increased to 51% in AY2002-2003 NUOL introduced a performance-based scholarship so that the scholarship depends on students' academic performance during the first semester of the first year, as well as family background. Vice-versa, new students who entered NUOL via entrance examinations without quota (nonquota normal course students) can be considered for scholarship if they perform better

Design Summary	Performance Indicators	Monitoring Mechanisms	Project Achievements
	<ul style="list-style-type: none"> Cost recovery introduced for (i) introduction of KN50,000 as annual fee from AY1996–1997; (ii) step-by-step introduction of separate user fees for library, laboratory, and other facilities, along with tuition, to support half of the operation and maintenance cost by AY2001–2002; (iii) full recovery of cost of lodging and boarding; and (iv) improved scholarship program and student loan program 		<ul style="list-style-type: none"> All NUOL students pay KN50,000 for annual registration The special course students pay, an average of KN400,000 for the annual tuition In AY2002–2003, revenue from registration and tuition fees was KN173 million (\$0.16 million equivalent) and KN3.54 billion (\$0.34 million equivalent), respectively Fees for use of school facilities and charges for professional services to external clients generated revenue of KN2.03 billion or \$195,000 equivalent NUOL has already fully recovered operation and maintenance costs of about KN3.45 billion in FY2002–2003 Improvements to scholarships, including delinking from quotas, has progressed
2. Program Developed			
(i) School of Foundation Studies (SFS)	<ul style="list-style-type: none"> Two-year prefaculty program established by 1997 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission MOE's annual bulletin 	<ul style="list-style-type: none"> SFS started since AY1996–1997 for 28 common preparatory programs
(ii) Faculty of Economics and Management (FEM)	<ul style="list-style-type: none"> FEM established by 1997 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission MOE annual bulletin 	<ul style="list-style-type: none"> FEM enrollment started since AY1998–1999
(iii) Faculty of Science (FOS)	<ul style="list-style-type: none"> FOS established by 2001 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission MOE annual bulletin 	<ul style="list-style-type: none"> FOS enrollment started in AY1999–2000
(iv) Staff upgrading in other faculties	<ul style="list-style-type: none"> The faculties of education and humanities strengthened through staff development 	<ul style="list-style-type: none"> Quarterly progress report Loan review mission 	<ul style="list-style-type: none"> Long-term fellowship programs for upgrading provided to 23 teaching staff

Source: ADB.1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao People's Democratic Republic on Postsecondary Education Rationalization Project*. Manila.

Note: This is a reproduction of the project framework from the Project's report and recommendation of the President, which did not include a project framework in the standard format.

SUMMARY OF SPECIALIST AND CONSULTANT UTILIZATION

No.	Expertise	International or Domestic	Person-months		Individual or Firm	
			Plan	Actual	Plan	Actual
1	NUOL Council Advisor	International	6	5	Firm	Firm
2	NUOL Curriculum and Self-Accreditation Advisor	International	6	5	Firm	Firm
3	NUOL Graduate Placement and Alumni Tracer Advisor	International	4	4	Firm	Firm
4	NUOL Finance/Personnel Advisor	International	6	5	Firm	Firm
5	NUOL Buildings and Services Advisor	International	4	4	Firm	Firm
6	NUOL Research Development Advisor	International	4	4	Firm	Firm
7	NUOL University Marketing Advisor	International	4	4	Firm	Firm
8	NUOL Management and Campus Information Services Advisor	International	4	3.5	Firm	Firm
9	NUOL Instrument/Equipment Maintenance Workshop Advisor	International	6	5	Firm	Firm
10	NUOL/HTVED MIS Advisor	International	3	0	Firm	Firm
11	NUOL/HTVED Academic Planning Administration Advisor	International	3	3	Firm	Firm
12	NUOL/HTVED Advisor on University Ministry Liaison and University Autonomy	International	3	3	Firm	Firm
13	NUOL/HTVED Sectoral Curriculum Planning Advisor	International	2	2	Firm	Firm
14	NUOL/HTVED Academic Personnel Administration Advisor	International	3	3	Firm	Firm
15	Advisor in Economics	International	36	30.6	Firm	Firm
16	Advisor in Management	International	24	26.6	Firm	Firm
17	Subject Specialists	International	12	12	Firm	Firm
18	Temporary Lecturers (Economics)	International	96	96	Firm	Firm
19	Temporary Lecturers (Management)	International	96	96	Firm	Firm
20	Subject Advisor (Biology)	International	3	3.46	Firm	Firm
21	Subject Advisor (Chemistry)	International	3	3.46	Firm	Firm
22	Subject Advisor (Mathematics)	International	3	3.46	Firm	Firm
23	Subject Advisor (Physics)	International	3	3.46	Firm	Firm
24	Library Advisor	International	6	6	Firm	Firm
25	Lao Text Development Unit Advisor	International	4	4	Firm	Firm
26	Civil work Engineer	Domestic	7	7	Firm	Individual
27	Architectural Advisor	Domestic	7	7	Firm	Individual
28	Campus and Space Planner	Domestic	2	2	Firm	Individual
29	Staff Development Advisor	International	5	5	Firm	Individual
30	Science Equipment Advisor	International	4	4	Firm	Individual
Total			369	360.5		

HTVED = Higher, Technical, and Vocational Education Department; MIS = management information system; NUOL = National University of Laos.

Source: Director NUOL, Project Unit, 22 November 2002.

PROCUREMENT SUMMARY IN NOVEMBER 2003

Item	Amount at Appraisal (\$'000)	Actual Amount (\$'000)	Amount Financed by ADB (\$'000)	Procurement Mode at Appraisal	Actual Procurement Mode
A. Civil Works					
1. Rehabilitation (Teaching and Administrative Buildings)	0.69	0.77	—	LCB	LCB
2. Rehabilitation (Dormitories)	0.67	0.43	—	LCB	LCB
3. New Construction	2.48	2.85	—	ICB	ICB
4. Water, Electric Supply, and Sewage Treatment	0.77	0.34	—	LCB	LCB
5. New Classroom Buildings	—	0.56	—	LCB	LCB
6. Sports Ground Development	—	0.18	—	LCB	LCB
7. Other Facilities and Miscellaneous Items	—	0.13	—	LCB	LCB
8. Construction of Sports Facilities	—	0.08	—	LCB	LCB
9. Staff Cafeteria for Central Campus	—	0.05	—	LCB	LCB
Subtotal (A)	4.61	5.39	3.76		
B. Vehicles					
1. PIU Basic Utility Vehicles	0.04	0.06	—	DP	DP
2. Buses	0.15	0.18	—	IS	IS
3. NUOL Vehicles	—	0.13	—	DP	DP
Subtotal (B)	0.19	0.37	0.37		
C. Equipment					
1. PIU Office Equipment	0.01	0.02	—	DP	DP
2. NUOL and MOE Office Equipment	0.07	0.80	—	IS	IS
3. Communication Equipment	0.04	0.83	—	DP	DP
4. Maintenance Workshop Equipment	0.10	0.09	—	IS	IS
5. Printing and Binding Equipment	0.03	0.09	—	DP	DP
6. Computer Laboratory Equipment	0.24	0.19	—	IS	IS
7. Science Equipment	1.65	0.88	—	ICB	IS
Subtotal (C)	2.14	2.90	2.90		
D. Furniture					
1. PIU Furniture	0.01	0.01	—	DP	LCB
2. Furniture for Rehabilitated Facilities	0.20	0.26	—	LCB	LCB
3. Furniture for New Facilities	0.39	0.51	—	LCB	DP+LCB
Subtotal (D)	0.60	0.78	0.63		
E. Instructional Materials					
1. Library Books	0.25	0.21	—	IS	IS
2. Journals and Other Instructional Materials	0.18	0.00	—	DP	Cancelled
Subtotal (E)	0.43	0.21	0.21		
Total	7.97	9.65	7.87		

ADB = Asian Development Bank, DP = direct purchase, ICB = international competitive bidding, IS = international shopping, LCB = local competitive bidding, MOE = Ministry of Education, NUOL = National University of Laos, PIU = project implementation unit.

Costs of equipment and vehicles include taxes and duties.

Source: Staff estimates based on NUOL, loan financial information system, and Appendix 10, p.63 of ADB.1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Lao People's Democratic Republic on Postsecondary Education Rationalization Project*. Manila.

STAFF DEVELOPMENT

Table A4.1: Overseas Short-Term Training Programs
(as of November 2002)

Component	Number of Participants		Total Person-Months		Period of Training		Country of Training	Cost of Training (\$'000)	
	Appraisal	Actual	Appraisal	Actual	Appraisal	Actual		Appraisal	Actual
Subcomponent 1.1 Management Structure	45	228	166	276	1996-1998	1998-2002	PHI, MAL, SIN, PRC, FRA, SRI, THA	1,245,000	681,234
Subcomponent 1.2 Functional Development	22	29	74	28	1996-1998	1998-2002	MAL, VIE	332,100	88,721
Subcomponent 1.3 Educational Resources	11	33	50	32.5	1995-1998	2001-2002	VIE, THA	375,000	107,205
Subcomponent 1.4 MOE's Support Mechanism	12	24	37	21.75	1995-1999	1996-2002	AUS, MAL, VIE, PHI, USA	277,500	66,871
Subcomponent 2.1 School of Foundation Studies	9	20	30	22.5	—	1998-2002	VIE, MAL, SIN, PHI	225,000	135,709
Subcomponent 2.2 Faculty of Economics and Management	5	12	24	15.5	1996-1999	1998-2002	VIE, GER, FRA, USA, PHI	180,000	45,735
Subcomponent 2.3 Faculty of Science	5	55	16	55	1996-2001	1998-2002	AUS, VIE, MAL, SIN, PHI	120,000	193,269
Subcomponent 2.4 Staff Upgrading in Other Faculties	0	30	0	30	—	1998-2002	VIE, CAN, SIN, MAL, PHI, SRI	0	213,000
Total	109	431	397	481.25	1995-2001	1996-2002	PHI, MAL, SIN, PRC, FRA, SRI, THA, VIE, AUS, USA, CAN	2,754,600	1,531,744

AUS = Australia, CAN = Canada, FRA = France, GER = Germany, MAL = Malaysia, MOE = Ministry of Education, PRC = People's Republic of China, PHI = Philippines, SIN = Singapore, SRI = Sri Lanka, THA = Thailand, USA = United States of America, VIE = Viet Nam.

Source: National University of Laos.

Table A4.2: Overseas Long-Term Fellowship Programs
(as of November 2002)

Component	Number of Participants		Total Person-months		Period of Training		Country of Training	Cost of Training (\$'000)	
	Appraisal	Actual	Appraisal	Actual	Appraisal	Actual		Appraisal	Actual
Sub-component 1.1 Management structure	0	1	0	24	—	2001/2002	THA	0	14,838
Sub-component 1.2 Functional development	0	0	0	0	—	—	—	0	0
Sub-component 1.3 Educational resources	0	0	0	0	—	—	—	0	0
Sub-component 1.4 MOE's support mechanism	0	1	0	36	—	1999/2002	THA	0	8,912
Sub-component 2.1 School of Foundation Studies	4	5	120	108	1996/2001	2000/2002	THA, MAL	270,000	65,496
Sub-component 2.2 Faculty of Economics and Management	10	2	336	72	1996/2001	2000/2003	THA	756,000	55,294
Sub-component 2.3 Faculty of Science	8	14	240	339	1996/2001	1998/2003	THA, MAL, FRA	864,000	299,705
Sub-component 2.4 Staff upgrading in other Faculties	8	23	120	397	1996/2001	2000/2003	THA, MAL, AUS, VIE	540,000	464,334
Total	30	46	816	976	1996/2001	1998/2003	THA, MAL, AUS, FRA, VIE	2,430,000	908,579

AUS = Australia, CAN = Canada, FRA = France, MAL = Malaysia, MOE = Ministry of Education, PHI = Philippines, SIN = Singapore, THA = Thailand, VIE = Viet Nam.

Note: Part of Ph. D programs under the long-term fellowship were continued until mid-2003. ADB made arrangements for advance payment by direct payment to universities. In addition, seven participants took master and Ph. D programs by distance mode. Unfortunately one participant died just before completing the program. In total, 45 teaching staff will obtain postgraduate degrees under the Project.

Source: National University of Laos.

NATIONAL UNIVERSITY OF LAOS

Figure A5: Structure of the National University of Laos

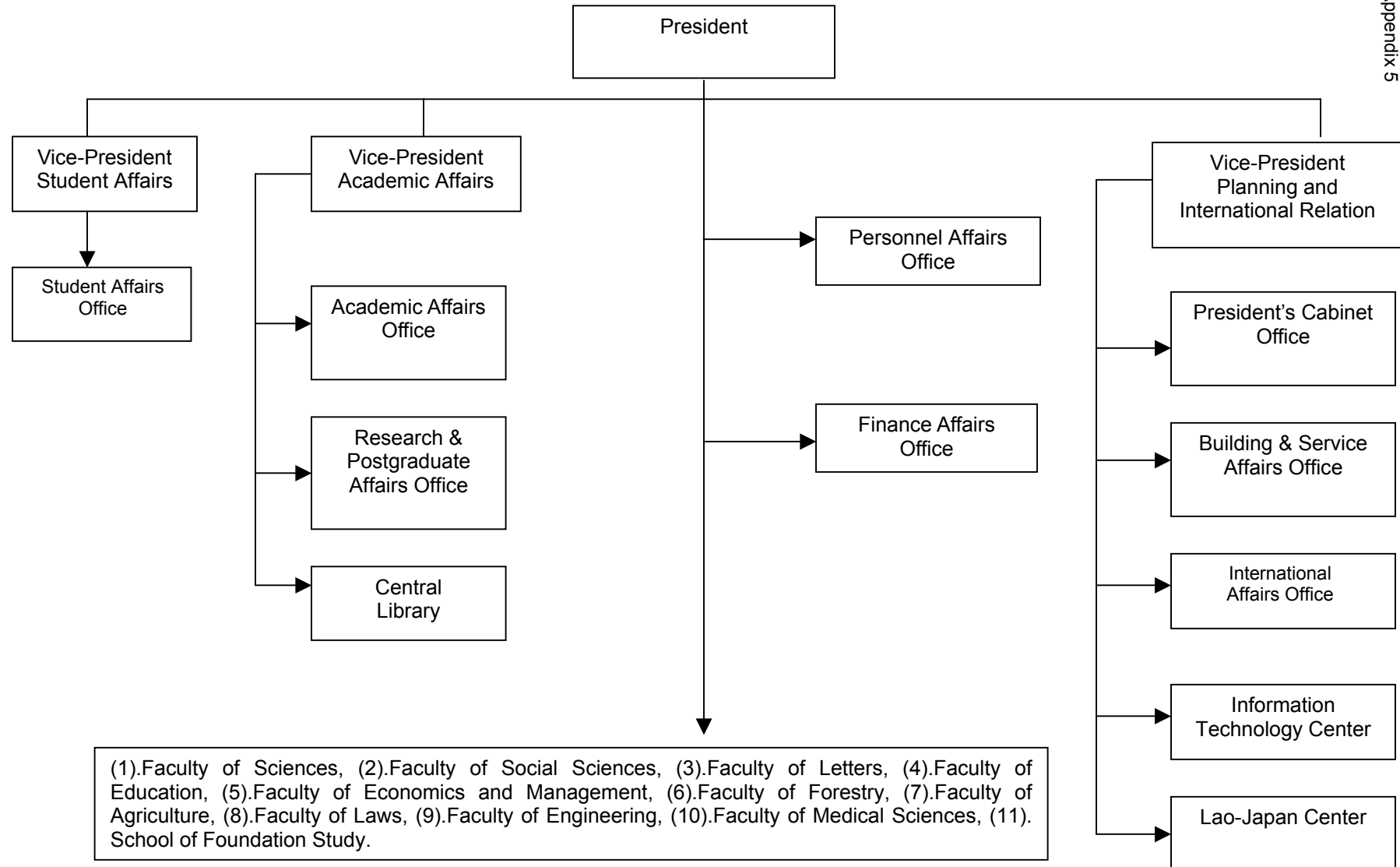


Table A5.1: Number of Staff in the National University of Laos

Faculties

Faculty	Administrative Staff			Teaching Staff					Technical Staff			Total	Donors
	Total No.	Female No.	Percent	Total No.	Female No.	Percent	Postgraduate No.	Percent	Total No.	Female No.	Percent		
1. Foundation Studies	4	1	25	41	16	39	12	29	6	4	67	51	ADB
2. Education	115	112	97	52	17	33	27	52	21	17	81	188	ADB
3. Science	10	6	60	93	31	33	41	44	3	3	100	106	ADB
4. Social Science	7	3	43	47	20	43	10	21	1	1	100	55	—
5. Letters	17	7	41	161	68	42	49	30	9	9	100	187	—
6. Economics and Management	14	5	36	44	20	45	9	20	3	3	100	61	ADB, JICA
7. Forestry	11	3	27	53	8	15	14	26	22	9	41	86	GTZ
8. Agriculture	21	8	38	35	5	14	12	34	21	12	57	77	AFD
9. Medical Science	36	22	61	118	46	39	32	27	29	20	69	183	ADB
10. Engineering and Architecture	48	28	58	245	40	16	55	22	60	28	47	353	JICA
11. Law and Public Administration	8	5	63	40	6	15	5	13	14	5	36	62	Sida
Subtotal	291	200	69	929	277	30	266	29	189	111	59	1,409	

ADB = Asian Development Bank, AFD = Agence Française de Développement, GTZ = German Agency for Technical Cooperation, JICA = Japan International Cooperation Agency, Sida = Swedish International Development Cooperation Agency.
Source: National University of Laos.

Table A5.2: Number of Staff in the National University of Laos

Administration

Divisions	Administrative Staff			Professional Staff					Technical Staff			Total	Donor
	Total No.	Female No.	Percent	Total No.	Female No.	Percent	Postgraduate No.	Percent	Total No.	Female No.	Percent		
1. Student Affairs Office	15	6	40	4	2	50	1	25	22	15	68	41	ADB
2. Academic Office	9	3	33	7	1	14	1	14	1	1	100	17	
3. Personnel Organization Office	13	6	46	4	1	25	0	0	1	0	0	18	
4. Finance Office	9	2	22	2	0	0	1	50	11	4	36	22	
5. President's Office	14	5	36	2	0	0	2	100	6	5	83	22	
6. Building and Service Office	11	1	9	1	0	0	0	0	22	6	27	34	
7. Central Library	17	11	65	13	10	77	1	8	8	6	75	38	
8. Lao-Japan Cooperation Center	5	4	80	2	1	50	1	50	1	0	0	8	
9. Teaching Development Center	13	0	0	2	0	0	1	50	2	1	50	17	
10. International Office	10	3	30	1	1	100	1	100	1	1	100	12	
11. Information Technology Center	4	1	25	6	3	50	3	50	1	1	100	11	
12. Asia Research Center	0	0	—	0	0	—	0	—	1	1	100	1	
13. Human Resources Center	1	1	100	1	0	0	0	0	0	0	—	2	
14. Research and Postgraduate Office	3	1	33	4	0	0	3	75	0	0	—	7	
Subtotal	124	44	35	49	19	39	15	31	77	41	53	250	
Total	415	244	59	978	296	30	281	29	266	152	57	1,659	

ADB = Asian Development Bank
Source: National University of Laos.

Total Number of Staff	Female	
1,659	692	41.7%

Note: Staff who has class is counted as teaching staff to show the number of teachers who are postgraduate degree holders.

Table A5.2: Libraries

Location		Training	Civil Works	Equipment	Books	Faculties	Number of Books	Floor Area (m ²)	Seating Capacity
1.	Dong Dok	√	√	√	√	Central Library	22,470	400	300
						Foundation Studies	3,581	63	20
						Science	698	64	32
		√				Forestry	219,090	357	65
						Social Sciences	350	24	10
						Economics and Management	10,000	72	70
						Letters	5,000	24	10
						Education	2,000	42	20
2.	Tad Thong	√		√		Irrigation	6,000	100	50
3.	KM5	√		√		Architecture	3,000	42	20
4.	Nabong	√		√		Agriculture	8,500	144	60
5.	Sokpaluang	√		√		Engineering	16,000	324	200
6.	Phia Vath	√		√		Medical Science	26,694	80	50
7.	Don NokKhum	√		√		Law	5,000	168	50
Total							328,383	1,904	957

m² = square meter.

Source: National University of Laos, November 2003.

RESPONSIBILITIES AND WORK DIVISIONS BEFORE AND AFTER THE REORGANIZATION UNDER THE PROJECT

Purpose: To transfer authority to educational institutions for academic planning and management, admissions, and financial management as defined in Prime Minister's Decree No. 1500/ED. DOP.02.

Outcome: Educational institutions were given authority to manage their own affairs.

HTVED Responsibilities Before Reorganization		New Responsibilities Given to HTVED After Reorganization		New HTVED Responsibilities Before and After Reorganization		
Responsibilities	Old Division	Responsibilities	New Division	Responsibilities	Old Division	New Division
<ul style="list-style-type: none"> Formulating plans to develop higher education Developing curriculum Managing higher education institutions In-service training related to higher education 	<ul style="list-style-type: none"> Higher Education Division 	<ul style="list-style-type: none"> Formulating plans to develop higher education Post-secondary education projects Developing curriculum Managing higher education institutions In-service training related to higher education 	<ul style="list-style-type: none"> Higher Education Division 	<ul style="list-style-type: none"> Formulating plans to develop higher education Managing curriculum development Ensuring quality of higher education 	<ul style="list-style-type: none"> Higher Education Division 	<ul style="list-style-type: none"> Higher Education Division
<ul style="list-style-type: none"> Developing plans for vocational education Pre-service and in-service vocational education training Developing curriculum Managing vocational and technical institutions 	<ul style="list-style-type: none"> Vocational and Technical Education Division 	<ul style="list-style-type: none"> Developing plans for vocational education Providing in-service vocational education training Managing curriculum development Managing vocational and technical institutions 	<ul style="list-style-type: none"> Vocational and Technical Education Division 	<ul style="list-style-type: none"> Developing plans for vocational education Managing curriculum development Managing vocational and technical education institutions Managing in-service training related to vocational education 	<ul style="list-style-type: none"> Technical and Vocational Education Division 	<ul style="list-style-type: none"> Technical and Vocational Education Division
<ul style="list-style-type: none"> Synthesizing and compiling plans from technical and vocational schools into a single department plan External relations 	<ul style="list-style-type: none"> Statistics and Planning Division 	<ul style="list-style-type: none"> Administration Synthesizing and compiling technical and vocational schools' and divisions' plans into a single department plan Cooperating with DPC in issuing statistical forms and indicators; analyzing and processing data 	<ul style="list-style-type: none"> Planning and Statistics Division 	<ul style="list-style-type: none"> Secretarial work Administration Synthesizing and compiling technical and vocational schools' and divisions' plans into a single department plan Cooperating with DPC in issuing statistical forms and indicators; analyzing and processing data 	<ul style="list-style-type: none"> Statistics and Planning Division 	<ul style="list-style-type: none"> Administration Division
<ul style="list-style-type: none"> Developing plans for admitting students to vocational and technical schools, as well as 	<ul style="list-style-type: none"> Student Selection Division 	<ul style="list-style-type: none"> Sending students and staff selected through quotas to study at vocational and technical 	<ul style="list-style-type: none"> Student Affairs 	<ul style="list-style-type: none"> Sending students and staff selected through quotas to study at vocational and technical 	<ul style="list-style-type: none"> Student selection 	<ul style="list-style-type: none"> Student affairs

universities <ul style="list-style-type: none"> • Awarding overseas scholarships • Sending students and staff selected through quota to study at vocational and technical schools, as well as universities, within the country • Managing overseas scholarships • Managing Lao students studying overseas • Sending graduates from overseas to related institutions 		schools, as well as universities, within the country <ul style="list-style-type: none"> • Managing overseas scholarships • Managing Lao students studying overseas • Sending graduates from overseas to related institutions 		schools, as well as universities, within the country <ul style="list-style-type: none"> • Managing overseas scholarships • Managing Lao students studying overseas • Sending graduates from overseas to related institutions 		
				<ul style="list-style-type: none"> • Working as NTC secretariat • Developing short, medium, and long-term plans • Coordinating with concerned organizations within the country and overseas 		<ul style="list-style-type: none"> • Permanent office of NTC^a

DPC = Department of Planning and Cooperation, HTVED = Higher, Technical, and Vocational Education Department, NTC = National Training Council.

^a NTC was established in July 2002, pursuant to the Prime Minister's Decree No. 209/PM, dated October 1998, on developing vocational and technical education training. In September 2002, the permanent office of NTC was set up and located in HTVED to work as NTC's secretariat.

Reasons for transfer of old or adding new responsibilities: to implement the notification No. 1500/ED. DOP.02, dated 3 October 2002, on "Educational Decentralization."

Source: Higher, Technical, and Vocational Education Department.

ENROLLMENT

Table A7.1: Enrollment During Implementation

Faculties		Academic Year (AY)																				N C	
		AY1996/1997			AY1997/1998			AY1998/1999			AY1999/2000			AY2000/2001			AY2001/2002			AY2002/2003			
		Total	Female		Total	Female		Total	Female		Total	Female		Total	Female		Total	Female		Total	Female		
1.	School of Foundation Studies	1,241	322	26%	2,243	736	33%	2,839	984	35%	3,123	1,114	36%	3,345	1,221	37%	3,845	1,488	39%	4,106	1,701	41%	
2.	Faculty of Education	—	—	—	—	—	—	32	8	25%	192	80	42%	296	120	41%	476	194	41%	694	281	40%	
3.	Faculty of Economics and Management	—	—	—	—	—	—	161	89	55%	291	162	56%	438	238	54%	937	506	54%	1,537	634	41%	
4.	Faculty of Science	291	113	39%	172	68	40%	142	47	33%	133	36	27%	235	66	28%	255	91	36%	270	98	36%	
5.	Faculty of Social Science (and Letters)	2,163	924	43%	2,446	1,045	43%	2,672	1,151	43%	2,349	1,065	45%	3,216	1,347	42%	211	75	36%	237	69	29%	
6.	Faculty of Forestry (and Agriculture)	335	101	30%	555	88	16%	665	125	19%	882	166	19%	871	189	22%	848	171	20%	1,065	201	19%	
7.	Faculty of Medical Science	672	310	46%	530	248	47%	589	253	43%	542	252	46%	537	263	49%	537	267	50%	645	356	55%	
8.	Faculty of Engineering and Architecture	2,090	183	9%	2,585	289	11%	2,809	360	13%	3,180	438	14%	3,199	430	13%	4,944	623	13%	5,602	1,205	22%	
9.	Faculty of Law and Administration	1,345	237	18%	1,359	248	18%	1,259	238	19%	1,048	229	22%	942	198	21%	698	251	36%	451	136	30%	
10.	Faculty of Letters	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,252	1,431	44%	3,067	1,345	44%	
11.	Faculty of Agriculture	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	610	122	20%	692	162	23%	
Total		8,137	2,190	27%	9,890	2,722	28%	11,168	3,255	29%	11,740	3,542	30%	13,079	4,072	31%	16,613	5,219	31%	18,366	6,188	34%	

Source: National University of Laos, November 2003.

Table A7.2: Enrollment Distribution in 2003

Faculty		Student Distribution in AY2002-2003								Graduates with Diplomas	Total for Final Examination	Pass Rate (%)
		Prep. Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total			
Letters	Normal course	—	—	—	168	130	153	82	533	562	571	99
	Special course	530	420	450	654	480	—	—	2,534			
	Subtotal	530	420	450	822	610	153	82	3,067			
Social Sciences	Normal course	—	—	—	52	82	103	—	237	102	103	99
	Special course	—	—	—	—	—	—	—	—			
	Subtotal	—	—	—	52	82	103	—	237			
Education	Normal course	—	—	—	168	199	104	45	516	124	149	83
	Special course	—	178	—	—	—	—	—	178			
	Subtotal	—	178	—	168	199	104	45	694			
Economics and Management	Normal course	—	—	—	107	118	149	—	374	146	149	98
	Special course	—	243	392	528	—	—	—	1,163			
	Subtotal	—	243	392	635	118	149	—	1,537			
Science	Normal course	—	—	—	97	71	102	—	270	102	102	100
	Special course	—	—	—	—	—	—	—	—			
	Subtotal	—	—	—	97	71	102	—	270			
Engineering and Architecture (Vocational Course)	Normal course ^a	—	—	—	299	304	226	68	897	1,054	1,076	92
	Normal course ^b	—	130	112	100	120	—	—	462			
	Special course ^b	620	830	735	670	573	—	—	3,428			
	Normal course ^c	—	120	170	166	—	—	—	456			
	Special course ^c	—	130	80	149	—	—	—	359			
	Subtotal	620	1,210	1,097	1,384	997	226	68	5,602			
Medical Sciences	Normal course	—	—	—	256	130	89	170	645	86	123	70
	Special course	—	—	—	—	—	—	—	—			
	Subtotal	—	—	—	256	130	89	170	645			
Agriculture	Normal course	—	—	—	123	47	57	—	227	173	180	96
	Normal course ^b	—	73	60	38	—	—	—	171			
	Special course ^b	—	135	74	85	—	—	—	294			
	Subtotal	—	208	134	246	47	57	—	692			

Faculty		Student Distribution in AY2002-2003								Graduates with Diplomas	Total for Final Examination	Pass Rate (%)
		Prep. Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total			
Law and Administration	Normal course	—	—	—	167	145	139	—	451	134	136	99
	Special course	—	—	—	—	—	—	—	—			
	Subtotal	—	—	—	167	145	139	—	451			
Forestry	Normal course ^a	—	—	—	41	66	—	—	107	258	260	99
	Normal course ^b	—	58	49	36	—	—	—	143			
	Special course ^b	—	326	254	235	—	—	—	815			
	Subtotal	—	384	303	312	66	—	—	1,065			
All Faculties	Normal course	—	381	391	1,818	1,412	1,122	365	5,489	2,741	2,849	96
	Special course	1,150	2,262	1,985	2,321	1,053	—	—	8,771			
	Subtotal	1,150	2,643	2,376	4,139	2,465	1,122	365	14,260			
School of Foundation Studies	Normal course	—	2,182	1,924	—	—	—	—	4,106			
	Special course	—	—	—	—	—	—	—	—			
	Subtotal	—	2,182	1,924	—	—	—	—	4,106			
National University of Laos	Normal course	—	2,563	2,315	1,818	1,412	1,122	365	9,595			
	Special course	1,150	2,262	1,985	2,321	1,053	—	—	8,771			
	Total	1,150	4,825	4,300	4,139	2,465	1,122	365	18,366			

^a Bachelor course.^b College course.^c Vocational course.

Source: National University of Laos, November 2003.

Table A7.3: Graduate Record of the National University of Laos

Faculties		AY 1996/1997		AY 1997/1998				AY 1998/1999				AY 1999/2000			
		<u>Bachelor</u>	<u>Diploma</u>	<u>Bachelor</u>	<u>Diploma</u>	<u>Bachelor</u>	<u>Diploma</u>	<u>Bachelor</u>	<u>Diploma</u>	<u>Bachelor</u>	<u>Diploma</u>	<u>Bachelor</u>	<u>Diploma</u>		
		TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale	TotalFemale		
1.	School of Foundation Studies														
2.	Education	338	169	346	131							163	75		
3.	Economics and Management														
4.	Science														
5.	Social Science														
6.	Forestry				30	2	135	16				29	2		
7.	Medical Science			138	61		99	48				73	37		
8.	Engineering and Architecture	85	4	186	12	243	15	59	6	308	13	141	14	202	28
9.	Law and Public Administration				255	51	219	30				285	65	31	5
10.	Agriculture				62	11							63	6	
11.	Letters	191	69	234	91		262	119				236	107		
Subtotal		614	242	904	295	590	79	774	219	308	13	927	300	296	39
Total		614		1,494				1,082				1,223			

Faculties	AY 2000/2001				AY 2001/2002				AY 2002/2003			
	<u>Bachelor</u>	<u>Diploma</u>			<u>Bachelor</u>	<u>Diploma</u>			<u>Bachelor</u>	<u>Diploma</u>		
	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female	Total Female
1. School of Foundation Studies												
2. Education	20	1			124	47			124	51		
3. Economics and Management	156	87			130	70			146	76		
4. Science	38	7			73	25			102	27		
5. Social Science	45	12			58	16			95	24		
6. Forestry	46	5	69	18	30	3	145	24	37	10	221	20
7. Medical Science	157	69			158	83			86	44		
8. Engineering and Architecture	272	26	436	76	193	14	535	94	276	44	778	96
9. Law and Public Administration	406	98			405	86			134	23		
10. Agriculture	58	23	84	14	56	12	125	26	39	7	134	36
11. Letters	468	196			927	382			562	193		
Subtotal	1,666	524	589	108	2,154	738	805	144	1,601	499	1,133	152
Total		2,255				2,959				2,734		

Table A7.4: Promotion Rates by Faculty in AY2002-2003

Faculties	Total Number of Students	Number of Students who Left NUOL		Number of Repeaters		Number of Students who were Promoted	
		Percent		Percent		Percent	
School of Foundation Studies	4,106	421	10	195	5	3,490	85
Science	270	3	1	18	7	249	92
Engineering and Architecture	5,602	120	2	89	2	5,393	96
Forestry	1,065	28	3	61	6	976	92
Agriculture	692	12	2	35	5	645	93
Medical Science	645	2	0	31	5	612	95
Letter	3,067	241	8	62	2	2,764	90
Social Science	237	10	4	4	2	223	94
Education	694	57	8	17	2	620	89
Economics and Management	1,537	29	2	36	2	1,472	96
Law	451	5	1	30	7	416	92
Total	18,366	928	5	578	3	16,860	92

NUOL = National University of Laos.

Note: For the pass rate of the final year students for certificate award, see Table A7.2. The promotion rate in this table is an average rate in the school of foundation study and each faculty, respectively.

Source: NUOL.

PROJECT COSTS

Table A8.1: Financing Plan at Appraisal
(\$'000)

Item	Total Cost			ADB			Government		
	FX	LC	Total	FX	LC	Total	FX	LC	Total
Staff Development	5,183	2	5,185	5,183	2	5,185	0	0	0
1. In-Country	0	2	2	0	2	2	0	0	0
2. Overseas	5,183	0	5,183	5,183	0	5,183	0	0	0
a. Short-Term	2,753	0	2,753	2,753	0	2,753	0	0	0
b. Long-Term	2,430	0	2,430	2,430	0	2,430	0	0	0
Specialist and Consultants	3,456	1,002	4,458	3,456	1,002	4,458	0	0	0
1. Civil Works Consultants	256	202	458	256	202	458	0	0	0
2. External Academic Inputs	3,200	800	4,000	3,200	800	4,000	0	0	0
a. Education Management Advisors	1,216	304	1,520	1,216	304	1,520	0	0	0
b. Subject Advisors	1,344	336	1,680	1,344	336	1,680	0	0	0
c. Temporary Lecturers	640	160	800	640	160	800	0	0	0
Facilities Development									
1. Civil Works	2,769	1,845	4,614	2,769	461	3,230	0	1,384	1,384
Equipment and Furniture	2,329	598	2,927	2,329	361	2,690	0	237	237
1. Vehicles	181	10	191	181	0	181	0	10	10
2. Equipment	2,028	107	2,135	2,028	0	2,028	0	107	107
3. Furniture	120	481	601	120	361	481	0	120	120
Instructional Materials	409	22	431	409	0	409	0	22	22
1. Library Books	409	22	431	409	0	409	0	22	22
Project Implementation Costs	0	3,137	3,137	0	156	156	0	2,981	2,981
1. PIU Staff	0	162	162	0	89	89	0	73	73
2. Project Operating Expenses	0	122	122	0	67	67	0	55	55
3. Recurrent Operational Costs	0	2,853	2,853	0	0	0	0	2,853	2,853
Taxes and Duties	0	377	377	0	0	0	0	377	377
Service Charge on the Loan	600	0	600	600	0	600	0	0	0
Unallocated	2,194	1,083	3,277	2,194	1,083	3,277	0	0	0
Imprest Fund	0	0	0	0	0	0	0	0	0
Total	16,940	8,066	25,006	16,940	3,065	20,005	0	5,001	5,001

ADB = Asian Development Bank, FX – foreign currency, LC = local currency.

Source: Staff estimates based on Asian Development Bank loan financial information system, and the Ministry of Education.

Table A8.2: Actual Project Cost as of 14 March 2003
(\$'000)

Item	<u>Total Cost</u>			<u>ADB</u>			<u>Government</u>		
	FX	LC	Total	FX	LC	Total	FX	LC	Total
Staff Development	3,348	219	3,567	3,348	219	3,567	0	0	0
1. In-Country	84	219	303	84	219	303	0	0	0
2. Overseas	—	—	—	—	—	—	—	—	—
a. Short-Term	2,175	0	2,175	2,175	0	2,175	0	0	—
b. Long-Term ^a	1,089	0	1,089	1,089	0	1,089	0	0	—
Specialist and Consultants	4,596	266	4,862	4,596	266	4,862	0	0	0
1. Civil Works Consultants	0	266	266	0	266	266	0	0	0
2. External Academic Inputs	4,330	0	4,330	4,330	0	4,330	0	0	0
a. Education Management Advisors	—	—	—	—	—	—	—	—	—
b. Subject Advisors	—	—	—	—	—	—	—	—	—
c. Temporary Lecturers	—	—	—	—	—	—	—	—	—
Facilities Development									
1. Civil Works	3,220	2,169	5,389	3,220	537	3,757	0	1,632	1,632
Equipment and Furniture	2,827	312	3,139	2,827	158	2,985	0	154	154
1. Vehicles	370	0	370	370	0	370	0	0	0
2. Equipment	1,984	0	1,984	1,984	0	1,984	0	0	0
3. Furniture	473	312	785	473	158	631	0	154	154
Instructional Materials/Library Books	210	0	210	210	0	210	0	0	0
Project Implementation Costs	0	4,105	4,105	0	279	279	0	3,826	3,826
1. PIU Staff	0	4	4	0	0	0	0	4	4
2. Project Operating Expenses	0	10	10	0	00	0	0	10	10
3. Recurrent Operational Costs	0	3,812	3,812	0	0	0	0	3,812	3,812
Taxes and Duties	0	388	388	0	0	0	0	388	388
Service Charge on the Loan	325	0	325	325	0	325	0	0	0
Unallocated	0	0	0	0	0	0	0	0	0
Imprest Fund	0	0	0	0	0	0	0	0	0
Total	14,526	7,459	21,985	14,526	1,459	15,985	0	6,000	6,000

^a Amount for long-term fellowships includes cost of PhD programs taken via distance learning.

Note: Recurrent operational costs include salaries of National University of Laos staff.

Source: Staff estimates based on Asian Development Bank loan financial information system, and the Ministry of Education.

BREAKDOWN OF QUARTERLY DISBURSEMENTS
(in \$ million)

Year	Quarter	ADB		Government		Total
		Amount	Cumulative	Amount	Cumulative	
1996	I	0.500	0.500	0.147	0.147	0.647
	II	0.000	0.500	0.147	0.294	0.147
	III	0.027	0.527	0.148	0.442	0.175
	IV	0.003	0.530	0.143	0.585	0.146
1997	I	0.255	0.785	0.165	0.750	0.420
	II	0.195	0.980	0.142	0.892	0.337
	III	0.443	1.423	0.222	1.114	0.665
	IV	0.106	1.529	0.270	1.384	0.376
1998	I	0.467	1.996	0.103	1.487	0.570
	II	0.656	2.652	0.099	1.586	0.755
	III	0.213	2.865	0.200	1.786	0.413
	IV	0.796	3.661	0.049	1.835	0.845
1999	I	0.256	3.917	0.050	1.885	0.306
	II	0.018	3.935	0.058	1.943	0.076
	III	0.338	4.273	0.091	2.034	0.429
	IV	0.223	4.496	0.130	2.164	0.353
2000	I	0.615	5.111	0.127	2.291	0.742
	II	1.243	6.354	0.129	2.420	1.372
	III	0.764	7.118	0.330	2.750	1.094
	IV	0.783	7.901	0.474	3.224	1.257
2001	I	0.618	8.519	0.376	3.600	0.994
	II	1.204	9.723	0.224	3.824	1.428
	III	1.483	11.206	0.436	4.260	1.919
	IV	1.280	12.486	0.335	4.595	1.615
2002	I	0.293	12.779	0.299	4.894	0.592
	II	0.853	13.632	0.425	5.319	1.278
	III	0.560	14.192	0.466	5.785	1.026
	IV	1.356	15.548	0.215	6.000	1.571
2003	I	0.441	15.985		6.000	0.441
Total		15.985		6.000		21.985

ADB = Asian Development Bank.

Note: Totals may not add up due to rounding off.

PROJECT IMPLEMENTATION SCHEDULE

Component	1995				1996				1997				1998				1999				2000				2001				2002		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III				
1. Management Structure Promulgate Decree		x																				x									
a. Implement Council																															
i. Select Council Members		■						■																							
ii. Appoint Council Members		x																													
iii. Hold Council Meetings			x	x	x	x	x	x	x	x		x		x		x		x	x	x		x		x							
b. Convert National University Planning Committee (NUPC) to National University Establishment Committee (NUEC) NUEC Operational																															
c. Establish NUOL Management Structure																															
Structure																															
i. Select Rector and Vice Rector		x					x																								
ii. Appoint Rector and Vice Rector			x					x																							
iii. Create Administrative Structure			■																												
iv. Identify Staff for NUOL				■	■	■						■																			
v. NUOL Staffing of Relevant Units Completed						x					x																				
d. Functionalize NUOL Management																															
Infrastructure																															
i. Tender Design				■	■	■																			■		■				
ii. Design Structure					■	■	■																			■					
iii. Tender Construction/Renovation							■	■																		■					
iv. Construction/Renovation								■	■	■																					
v. Construction/Renovation Complete											x																				
vi. Specialty Equipment					■	■	■																								
vii. Tender Equipment							■	■																							
viii. Take Delivery of Equipment								■	■	■																					
ix. Equipment Operational											x																				
e. Upgrade Management														x																	
i. Management Development																															
ii. Management Advisor Support																															

Component	1995				1996				1997				1998				1999				2000				2001				2002		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
iv. Install and Commission Equipment												■																			
v. Equipment Operational												x													■						
b. Upgrade Library Staff Skills																									x						
i. Staff Development																															
ii. Advisors' Input for Educational Resources																															
iii. Computerized Catalogue Operational																															
iv. Interlibrary Exchanges Operational																															
c. Establish Lao Text Development Unit																															
i. Specialty Equipment								■																							
ii. Tender Equipment								■																							
iii. Take Delivery of Equipment												■																			
iv. Installation, Commission, and Training on Equipment												■																			
v. Equipment Operational												x																			
d. Upgrade Lao Materials Development Skills																															
i. Staff Development																															
ii. Advisors Input for Materials Development																															
iii. Unit Generates Income																															
4. Ministry of Education's (MOE) Support Mechanism																															
a. Institutional Strengthening; Higher, Technical and Vocational Education (HTVED) (MOE)																															
i. Recognize HTVED																															
ii. Develop Staff																															
b. Establish and Strengthen Project Implementation Unit (PIU)																															
i. Establish PIU																															
ii. Implement Technical Assistance (TA) for Postsecondary Education																															
iii. Management Development																															
iv. Develop New Budgeting System																															
v. Develop Budget																															
vi. Present Budget Using New System																															

Component	1995				1996				1997				1998				1999				2000				2001				2002		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III				
5. School of Foundation Studies																															
a. Develop and Test Curricula																															
Develop Year 1 Curriculums and Syllabuses																															
Conduct Year 1 of Program																															
Year 1 Curriculums and Syllabuses Tested																															
Develop Year 2 Curriculums and Syllabuses																															
Conduct Year 2 of Program																															
Year 2 Curriculums and Syllabuses Tested																															
b. Construct Facilities																															
Design Structure																															
Tender Construction/Renovate																															
Construction/Renovation																															
Construction/Renovation Complete																															
c. Acquire Equipment																															
Specify Equipment																															
Tender Equipment																															
Take Delivery of Equipment																															
Install and Commission Equipment																															
Equipment Operational																															
6. Faculty of Economics and Management																															
a. Establish and Develop Faculty																															
Appoint Dean																															
Select Faculty																															
Faculty Appointments Complete																															
Develop Faculty																															
b. Develop and Test Curricula																															
Develop Outline for 5-Year Program																															
Develop Year 3 Curriculums and Syllabuses																															

Component	1995				1996				1997				1998				1999				2000				2001				2002		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
iii. Conduct Year 3 of Program																															
iv. Year 3 Curriculums and Syllabuses Tested																															
v. Amend 5-Year Program																															
vi. Develop Year 4 Curriculums and Syllabuses																															
vi. Conduct Year 4 of Program																															
vii. Year 4 Curriculums and Syllabuses Tested																															
ix. Amend 5-Year Program																															
x. Develop Year 5 Curriculums and Syllabuses																															
xi. Conduct Year 5 of Program																															
xii. Year 5 Curriculums and Syllabuses Tested																															
xiii. Field Economics Lecturers																															
xiv. Field Management Lecturers																															
7. Improve Faculty of Science																															
a. Construct Facilities																															
i. Design Structure																															
ii. Tender Construction/Renovation																															
iii. Construction/Renovation																															
iv. Construction/Renovation Complete																															
b. Acquire Equipment																															
i. Specialty Equipment																															
ii. Tender Equipment																															
iii. Take Delivery of Equipment																															
iv. Install and Commission Equipment																															
v. Equipment Operational																															
c. Upgrade Staff Skills in Science																															
i. Long-Term and Short-Term Staff Development																															
ii. Advisors' Input in Biology, Physics, Chemistry, Chemistry, and Math																															
8. Staff Upgrading, Humanities, and Education - Long-term Staff Development																															

Legend:
Planned
Actual

LOAN COVENANTS

	Covenants	Reference	Status
1.	The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound administrative, financial, engineering, environmental, and educational practices.	Loan Agreement Section 4.01 (a)	Complied.
2.	The Borrower shall make available, promptly as needed, the funds, facilities, services, land and other resources which are required, in addition to the proceeds of the Loan, for the carrying out of the Project and for the operation and maintenance of the Project facilities.	Loan Agreement Section 4.02	Complied.
3.	In carrying out the Project, the Borrower shall cause competent and qualified consultants and contractors, acceptable to the Borrower and the Asian Development Bank (ADB), to be employed to an extent and upon terms and conditions satisfactory to the Borrower and ADB.	Loan Agreement Section 4.03(a)	Complied.
4.	The Borrower shall cause the Project to be carried out according to plans, design standards, specifications, work schedules, and construction methods acceptable to the Borrower and ADB. The Borrower shall furnish, or cause to be furnished, to ADB, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modifications subsequently made therein, in such detail as ADB shall reasonably request.	Loan Agreement Section 4.03(b)	Complied.
5.	The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.	Loan Agreement Section 4.04	Complied.
6.	The Borrower shall make arrangements satisfactory to the Bank for insurance of Project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.	Loan Agreement Section 4.05(a)	Complied.
7.	Without limiting the generality of the foregoing, the Borrower undertakes to insure, or cause to be insured, the goods to be imported for the Project and to be financed out of the proceeds of the Loan against hazards incident to the acquisition, transportation, and delivery thereof to the place of	Loan Agreement Section 4.05(b)	Complied.

Covenants	Reference	Status
use or installation, and for such insurance any indemnity shall be payable in a currency freely usable to replace or repair such goods.		
8. The Borrower shall maintain, or cause to be maintained, records and accounts adequate to identify the goods and services and other items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, the operations and financial condition of MOE and all other agencies of the Borrower responsible for the carrying out of the Project and operation of the Project facilities, or any part thereof.	Loan Agreement Section 4.06(a)	Complied.
9. The Borrower shall (i) maintain, or cause to be maintained, separate accounts for the Project; (ii) have such accounts and related financial statements audited annually, in accordance with appropriate auditing standards consistently applied, by auditors acceptable to the Bank; (iii) furnish to the Bank, as soon as available but in any event not later than twelve (12) months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto (including the auditor's opinion on the use of the Loan proceeds and compliance with the covenants of this Loan Agreement as well as on the use of the procedures for imprest account and statement of expenditures), all in the English language; and (iv) furnish to the Bank such other information concerning such accounts and financial statements and the audit thereof as the Bank shall from time to time reasonably request.	Loan Agreement Section 4.06(b)	Complied.
10. The Borrower shall enable the Bank, upon the Bank's request, to discuss the Borrower's financial statements for the Project and its financial affairs related to the Project from time to time with the Borrower's auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by the Bank, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Borrower unless the Borrower shall otherwise agree.	Loan Agreement Section 4.06(c)	Complied.
11. The Borrower shall furnish, or cause to be furnished, to the Bank all such reports and information as the Bank shall reasonably request concerning (i) the Loan, and the expenditure of the proceeds and maintenance of the service thereof; (ii) the goods and services and other items of expenditure financed out	Loan Agreement Section 4.07(a)	Complied.

Covenants	Reference	Status
<p>of the proceeds of the Loan; (iii) the Project; (iv) the administration, operations and financial condition of MOE and all other agencies of the Borrower responsible for the carrying out of the Project and operation of the Project facilities, or any part thereof; (v) financial and economic conditions in the territory of the Borrower and the international balance-of-payments position of the Borrower; and (vi) any other matters relating to the purposes of the Loan.</p>		
<p>12. Without limiting the generality of the foregoing, the Borrower shall furnish, or cause to be furnished, to the Bank quarterly reports on the carrying out of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as the Bank shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.</p>	Loan Agreement Section 4.07(b)	Complied.
<p>13. 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 the Loan Agreement and the accomplishment of the purposes of the Loan.</p>	Loan Agreement Section 4.07(c)	Complied.
<p>14. The Borrower shall enable the Bank's representatives to inspect the Project, the goods financed out of the proceeds of the Loan, and any relevant records and documents.</p>	Loan Agreement Section 4.07	Complied.
<p>15. The Borrower shall ensure that the Project facilities are operated, maintained and repaired in accordance with sound administrative, financial, engineering, environmental, educational and maintenance and operational practices.</p>	Loan Agreement Section 4.08	Complied.
<p>16. It is the mutual intention of the Borrower and the Bank that no other external debt owed a creditor other than the Bank shall have any priority over the Loan by way of a lien on the assets of the Borrower. To that end, the Borrower undertakes (i) that, except as the Bank may otherwise agree, if any lien shall be created on any assets of the Borrower as security for any external debt such lien will ipso facto equally and</p>	Loan Agreement Section 4.10(a)	Complied.

Covenants	Reference	Status
<p>ratably secure the payment of the principal of, and service charge and any other charge on, the Loan; and (ii) that the Borrower, in creating or permitting the creation of any such lien, will make express provision to that effect.</p>		
<p>17. The provisions of paragraph (a) of this Section shall not apply to (i) any lien created on property, at the time of purchase thereof, solely as security for payment of the purchase price of such property; or (ii) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.</p>	<p>Loan Agreement Section 4.10(b)</p>	<p>Complied.</p>
<p>18. The term "assets of the Borrower" as used in paragraph (a) of this Section includes assets of any administrative subdivision or any agency of the Borrower and assets of any agency of any such administrative subdivision, including the Bank of Lao People's Democratic Republic and any other institution performing the functions of a central bank for the Borrower.</p>	<p>Loan Agreement Section 4.10(c)</p>	<p>Complied.</p>
<p>19. Except as the Bank may otherwise agree, the Borrower shall establish immediately after the Effective Date, an imprest account at Banque pour le Commerce Extérieur Lao to expedite disbursements of the Loan proceeds. The imprest account shall be established, managed, replenished and liquidated in accordance with the Bank's "Guidelines on Imprest Fund and Statement of Expenditures Procedures" dated November 1986, as amended from time- to time, and detailed arrangements agreed upon between the Borrower and the Bank. The initial amount to be deposited into the imprest account shall not exceed \$500,000.</p>	<p>Loan Agreement Schedule 3, para. 10</p>	<p>Complied.</p>
<p>20. The Borrower, through MOE, shall ensure that the PIU is staffed, on a full-time basis, by an adequate number of qualified and experienced personnel and is provided with adequate technical and support services, facilities and equipment to carry out these responsibilities.</p>	<p>Loan Agreement Schedule 6, para. 4</p>	<p>Complied.</p>
<p>21. At the commencement of the third year of Project implementation, a mid-term review of all aspects of the Project shall be undertaken by the Borrower and the Bank, to assess the Project's progress and achievements against its objectives as well as to identify any difficulties encountered and to recommend remedial measures. Progress in Project implementation shall be assessed against indicators agreed with the Bank.</p>	<p>Loan Agreement Schedule 6, para. 5</p>	<p>Complied. (Midterm Review completed in January 1996)</p>

Covenants	Reference	Status
22. The Borrower shall cause MOE and NUOL to monitor and evaluate Project benefits with respect to (i) the internal efficiency of NUOL; (ii) satisfaction of social demand for postsecondary education; (iii) cost effectiveness; (iv) employment of NUOL graduates; and (v) social impacts, including gender-related aspects, access to postsecondary education of students from lower-income families and those from remote provinces, and the change in the social mobility of NUOL graduates. MOE and NUOL shall utilize the Management Information System (MIS) developed under the Project to carry out such monitoring and evaluation.	Loan Agreement Schedule 6 para. 6:	Being complied.
23. The Borrower shall cause the PIU to establish, through utilization of information obtained from the MIS and from additional data collection activities undertaken by the PIU, a set of baseline indicators for determining realistic, controllable and measurable targets which reflect anticipated Project benefits. Such baseline indicators shall be submitted to the Bank within three months of the Effective Date, and shall include detailed information on Project beneficiaries. The Borrower shall cause MOE and NUOL, at least once every twelve (12) months during Project implementation, to compare actual and projected performance under the Project to such Baseline indicators, and to recommend measures for Corrective actions-as necessary. The Borrower shall, based on such recommendations, consider in consultation with the Bank the adoption of various short-medium- and long-term actions, strategies and policies to improve the efficiency and effectiveness of the Project and the postsecondary education system.	Loan Agreement Schedule 6, para. 7	Complied.
24. The Borrower shall cause the science facilities which are to be rehabilitated and constructed under the Project at the NUOL central campus at IUP, Dong Dok to be adequately equipped, operated and maintained so as to permit the safe and proper disposal of wastes arising from the laboratories and workshops contained in such facilities.	Loan Agreement Schedule 6, para. 8	Complied.
25. The Borrower shall take, and shall cause MOE to take; all necessary actions to accomplish, in accordance with the action plan agreed with the Bank and with due regard to prevailing laws and regulations of the Borrower on civil service and public administration, the transfer of academic and administrative functions and decision-making prerogatives with respect to NUOL from MOE to the University Council of NUOL. Progress made in such transfer of functions and prerogatives shall be reported annually to the Bank.	Loan Agreement Schedule 6, para. 9	Complied.

Covenants	Reference	Status
26. The Borrower shall take, and shall cause MOE to take, all necessary actions to implement the action plan agreed with the Bank for the rationalization of staffing in NUOL through redeployment and attrition. Without limiting the generality of the foregoing, the Borrower shall cause MOE to complete, within twelve months of the Effective Date, a review of the current staffing of postsecondary educational institutions included in the Project. Teaching staff found to be redundant following such staffing review shall be redeployed as appropriate as administrative and technical support staff for NUOL.	Loan Agreement Schedule 6, para. 10	Complied.
27. The Borrower shall cause MOE to deploy teaching staff among postsecondary educational institutions in the Lao People's Democratic Republic with the aim of achieving by the completion of the Project, and maintaining thereafter, a faculty-to-student ratio of one to 10 in science faculties and one to 15 in all other faculties of such postsecondary educational institutions. Progress made in achieving these targets shall be reported annually to the Bank.	Loan Agreement Schedule 6, para. 11	Complied.
28. The Borrower shall take, and cause MOE to take, all necessary actions to implement the action plan agreed with the Bank in regard to the selection and admission of students to NUOL. Without limiting the generality of the foregoing, within one year of the Effective Date, the Borrower shall take, and shall cause MOE to take, all actions necessary to de-link the allocation through quotas of places in postsecondary educational institutions from the provision of scholarships by the Government of the Borrower.	Loan Agreement Schedule 6, para. 12	Complied.
29. In accordance with a timetable agreed with the Bank, the Borrower shall take all actions necessary to reduce the share of quota students admitted to the NUOL to not more than 50 percent of total entrants. By completion of the Project, 50 percent of the quota students admitted to the NUOL shall be female. Progress made in achieving these goals shall be reported annually to the Bank.	Loan Agreement Schedule 6, para. 13	Complied.
30. Commencing with Academic Year 1996 and thereafter, the Borrower shall introduce a national competitive examination for the selection of those students entering NUOL outside the quota system.	Loan Agreement Schedule 6, para. 14	Complied.
31. The Borrower shall take, and shall cause MOE and NUOL to take, all necessary actions to implement the action plan agreed with the Bank in regard to cost recovery from NUOL beneficiaries. Without limiting the generality of the foregoing and except as the	Loan Agreement Schedule 6, para. 15	Complied.

Covenants	Reference	Status
<p>Bank may otherwise agree, the Borrower shall ensure that MOE causes NUOL to charge, commencing with Academic Year 1996 and thereafter, a minimum tuition fee for all NUOL students of KN50,000 per year. The Borrower shall further ensure that MOE causes NUOL to introduce, in accordance with the timetable to be agreed with the Bank, various user charges such as laboratory fees. Such user charges shall be set at amounts sufficient to recover, in conjunction with tuition fees, 50 percent of the operations and maintenance costs of NUOL by Academic Year 2001. The Borrower shall ensure that MOE causes NUOL to recover from NUOL students, in accordance with a timetable to be agreed with the Bank, 100 percent of the costs of board and lodging of such students.</p>		
<p>32. The Borrower shall cause MOE and NUOL to take all necessary administrative and budgetary measures to ensure the proper operation and maintenance of NUOL facilities. The Borrower shall ensure that NUOL shall, prior to the commencement of each fiscal year, calculate its budgetary requirements for such fiscal year for operations and maintenance, including in such calculations appropriate allowance for the depreciation of buildings and equipment. The actual amounts expended for operations and maintenance and the details of such expenditures shall be reported to MOE and the Bank as soon as available but in any event not later than three (3) months after the end of each related fiscal year.</p>	<p>Loan Agreement Schedule 6, para. 16</p>	<p>Complied.</p>
<p>33. The Borrower shall cause MOE and NUOL, in consultation with the Bank, to take appropriate measures to achieve greater participation of women in postsecondary education. In order to give women students an opportunity to acquire a basic knowledge of science and thereby encourage them to enter science-related fields, the Borrower shall ensure that NUOL shall not require entering students to specialize in science until the second year of foundation studies. To the extent practicable, the overseas training and staff development opportunities provided under the Project shall be allocated within NUOL departments receiving such opportunities so as to ensure that the percentage of female staff selected for such opportunities is at least equal to the percentage of eligible female staff within such department.</p>	<p>Loan Agreement Schedule 6, para. 17</p>	<p>Complied.</p>
<p>34. Prior to the commencement of construction of dormitory blocks under the Project, the Borrower shall cause MOE and NUOL to take appropriate measures to relocate teaching staff occupying the existing</p>	<p>Loan Agreement Schedule 6, para. 18</p>	<p>Complied.</p>

Covenants	Reference	Status
student dormitory blocks to other accommodation, in order to vacate such blocks for use by NUOL students. The Borrower shall ensure that NUOL reserves for women students an appropriate number of dormitory places.		
35. Only nationals of the Lao People's Democratic Republic shall be eligible for the overseas fellowships and in-country training under the Project, in accordance with procedures of the Borrower. Such selection criteria and procedures, as well as the individual fellowship and training programs developed under the Project and the names of the background information regarding the persons nominated for such programs, shall be submitted to the Bank for approval.	Loan Agreement Schedule 6, para. 20	Complied.
36. The Borrower shall ensure that MOE and NUOL require recipients of overseas fellowships, upon completion of their overseas fellowship programs, to serve in positions relevant to their training for a period of at least twice the duration of the overseas training received by each such recipient. Prior to the commencement of such overseas fellowship programs, and as a condition of participation, each fellow shall be required to sign an agreement acknowledging and agreeing to such service obligation.	Loan Agreement Schedule 6, para. 21	Complied

FIVE-YEAR FINANCING PLAN FOR POST PROJECT OPERATIONS
(KN million)

Academic Year	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
New Enrollment	4,452	5,479	6,164	6,934	7,801
Graduates	2,959	3,699	4,623	5,779	7,224
Total Enrollment	18,366	18,917	19,484	20,069	20,671
Number of Staff					
Teaching Staff	944	988	998	1,008	1,018
Technical Staff	266	195	197	200	212
Administrative Staff	290	361	370	379	402
Supporting Staff	125	130	135	140	145
Subtotal	1,625	1,674	1,700	1,727	1,777
Total Expenditure	16,766	15,481	18,979	21,058	22,221
Recurrent Expenditures					
Salary	7,938	8,760	9,461	10,218	11,034
Teaching Staff	4,805	5,376	5,806	6,271	6,773
Technical Staff	1,056	1,140	1,232	1,330	1,437
Administrative Staff	1,550	1,674	1,808	1,953	2,109
Supporting Staff	527	569	615	664	715
Operation	3,445	3,721	4,018	4,340	4,687
Library Update	213	230	248	268	290
Laboratory Consumables	332	359	387	418	452
Other Teaching Materials	790	853	921	995	1,075
Other Facilities Expenses	2,110	2,279	2,461	2,658	2,871
Capital Expenditures	5,383	3,000	5,500	6,500	6,500
New Construction	4,351	2,250	4,500	5,400	5,400
Major Repair	250	250	500	600	600
New Equipment	782	500	500	500	500
Total Finance	18,600	19,907	19,839	21,360	23,185
Own Source	5,863	6,332	6,839	7,386	7,977
Registration	173	187	202	218	235
Tuition (Special Courses)	3,540	3,823	4,129	4,459	4,816
User Charges	458	495	534	577	623
Books Sales	125	135	146	157	170
Facility Charges	1,567	1,692	1,828	1,974	2,132
Government Budget	12,737	13,575	13,000	13,974	15,208
Recurrent Budget					
Salary	5,625	6,075	5,000	5,974	7,208
Teaching Staff	2,573	2,779	2,791	3,629	4,716
Technical Staff	670	724	520	572	629
Administrative Staff	1,636	1,767	1,159	1,217	1,278
Supporting Staff	746	806	530	556	585
Operation Budget	1,728	2,500	2,500	2,500	2,500
Capital Budget	5,384	5,000	5,500	5,500	5,500

Note: Savings may be carried forward to the next year as a reserve to future activities.

Source: National University of Laos estimate, November 2003.