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**STAFF APPRAISAL REPORT**

**NEPAL**

**HIGHER EDUCATION PROJECT**

**NOVEMBER 23, 1993**

**Population and Human Resources Division  
Country Department I  
South Asia Region**

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CURRENCY EQUIVALENTS

Currency Unit = Nepalese Rupees (NRs)

US\$1.00 = NRs 49.58

FISCAL YEAR

July 16 - July 15

PRINCIPAL ABBREVIATIONS AND ACRONYMS USED

CDC	-	Curriculum Development Center
CHSE	-	Council for Higher Secondary Education
EMIS	-	Educational Management Information System
GDP	-	Gross Domestic Product
ICB	-	International Competitive Bidding
IDA	-	International Development Association
LCB	-	Local Competitive Bidding
MIS	-	Management Information System
MOEC	-	Ministry of Education and Culture
MOF	-	Ministry of Finance
NEC	-	National Education Commission
PCU	-	Project Coordination Unit
SLC	-	Secondary School Leaving Certificate
TU	-	Tribhuvan University
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development

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Staff Review Arrangements: Messrs./Mmes. A. Hamilton, Director (SA1PH); M. Karcher, Chief, G. Sinclair, Task Manager (SA1PH); Peer Reviewers Messrs/Mmes. Hykin (higher education, ASTHR); Johnston (policy development, EA1PH); Selvaratnam (higher education, ESP).

Mission Members: Messrs./Mmes. Sinclair (leader), Abadzi (education specialist, SA1PH); Johnston (education specialist, ASTHR); Min (educational finance specialist), Coyle (architect), Valdez (management information system specialist), Linklater (librarian), Consultants.

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MAP

IBRD 25032

NEPAL

HIGHER EDUCATION PROJECT

Credit and Project Summary

Borrower: The Kingdom of Nepal

Amount: SDR 14.2 million (US\$20.0 million)

Terms: Standard with 40 years maturity

Project

Description: The six-year project is designed to provide tangible support for the ongoing reform process at Tribhuvan University (TU) by supporting the implementation of a package of policy changes in higher education, including the initiation of much-needed systemic changes in the administrative, financial, and management processes of the university. It would finance activities designed to: (a) assist institutional development, decentralization of management authority and strengthening of campus-level management; (b) improve selected facilities at three key campuses; (c) improve instructional delivery and rationalize the centralized student examination system; (d) assist the Ministry of Education and Culture (MOEC) to prepare for higher secondary education reform; and (e) develop TU's maintenance capacity. Facilities development would give priority to upgrading laboratories and library resource centers plus the rehabilitation of existing facilities at the main Kirtipur campus, and two other lead campuses expected to become the nuclei of regional universities in the future.

Benefits

and Risks: By rationalizing the use of human and physical resources, the project would increase the value of the Government's investment in higher education. Enrollments would be more closely linked to the availability of physical facilities, thereby easing pressure on individual campuses and allowing organizational and management improvements to take place. Significantly increased resource mobilization and cost recovery is expected to help alleviate pressure for scarce resources on central government and improve the prospects for better funding of books, consumables, and maintenance. Institutional strengthening would improve prospects for long-term improvements in instructional delivery and manpower development. Assistance to MOEC to prepare for the introduction of higher secondary education into secondary schools would eventually benefit the university through decongestion of university campuses, and would also help to reduce the unit cost of this educational stage. The project would provide benefits to: (a) university students in the assisted campuses who would study in less congested

conditions, where demonstrated efficiency linked to greater self-management would be rewarded by better equipment, books, and maintenance; and (b) disadvantaged rural school leavers by supporting the development of higher secondary education closer to communities. Among the latter group, women would benefit particularly, in view of reluctance of many families to approve female education away from the community. The project also faces some significant risks. The policy measures facilitated by the project may create levels of student unrest that could be politically difficult to handle. The Government may be unable to resist the demands for admission to the university from the expanding ranks of secondary-school graduates. This could result in expanding enrollments, worsen the already intolerable congestion and management difficulties, and create further strong pressures for re-allocation of scarce funds from other priority areas. The risk of student unrest will be mitigated by TU moving to quickly demonstrate benefits associated with the project in terms of improved educational conditions, particularly while the more sensitive reform measures are being implemented.

Poverty Category: Not applicable.

Project Costs:

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	
	----- (US\$ million) -----			
Institutional Development	4.1	3.6	7.7	
Selected Facilities Improvement	3.8	4.8	8.6	
Instructional Development and Assessment	0.9	1.1	2.0	
Preparation for Higher Secondary Education	0.6	0.7	1.3	
Base Cost	<u>9.4</u>	<u>10.2</u>	<u>19.6</u>	
Physical Contingencies	0.5	0.5	1.0	
Price Contingencies	1.8	0.7	2.5	
Total Project Cost	<u>11.7</u>	<u>11.4</u>	<u>23.1</u>	1/

Financing Plan:

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	
	----- (US\$ million) -----			
Government	3.1	0.0	3.1	
IDA	8.5	11.5	20.0	
Total	<u>11.6</u>	<u>11.5</u>	<u>23.1</u>	

-----  
1/ Includes duties and taxes estimated at US\$1.2 million equivalent.

Estimated IDA  
Disbursements

FY	94	95	96	97	98	99	2000	2001
	----- (US\$ million) -----							
Annual	0.9	2.1	3.5	4.4	4.5	2.6	1.5	0.5
Cumulative	0.9	3.0	6.5	10.9	15.4	18.0	19.5	20.0

Economic Rate  
of Return

Not applicable

Map:

IBRD 25032

NEPAL

HIGHER EDUCATION PROJECT

BASIC DATA

POPULATION: 1/

Official estimate (1991) . . . . .	19.4 million
Average annual rate of pop.growth (1985-90) . . . . .	2.6 %
Adult Literacy Rate (age 15+) . . . . .	36.0 %
Female Adult Literacy Rate (age 15+) . . . . .	13.0 %
GNP per capita (US\$) . . . . .	180

ENROLLMENT, NUMBER OF INSTITUTIONS AND TEACHERS (1991): 2/

PRIMARY AND SECONDARY PROGRAMS	Number of Schools	Enrollments (in '000)			
		Total	Male	Female	%Female
Primary (1-5)	18,694	2884.3	1811.0	1073.3	37.21%
Lower Secondary (6-7)	4,045	378.5	259.5	119.0	31.44%
Secondary (8-10)	2,079	395.3	281.8	113.5	28.71%
Total	24,818	3658.1	2352.3	1305.8	35.70%

	Gross Enrollment Ratios	Girls' Gross Enrollment Ratios
Primary (1-5):	106%	83%
Lower Secondary (6-7)	40%	27%
Secondary (8-10):	32%	20%

Teachers (1991)	<u>Total</u>		<u>Trained Teachers</u>	
	Total	Female	Total	Female
Primary (1-5)	74,495	10,206	31,096	3,758
Lower Secondary (6-7)	13,005	1,485	4,428	583
Secondary (8-10)	11,627	938	5,120	514
Total	99,127	12,629	40,644	4,855 (13%)

SECONDARY SCHOOL LEAVING CERTIFICATE EXAMINATIONS (1992)

	<u>Regular</u>	<u>Exempted</u>	<u>Compartmental</u>	<u>Total</u>
Appeared	94534	35519	29439	159492
Passed	23213	7837	22154	53204
Pass %	25%	22%	75%	33 %



HIGHER EDUCATION (1991) 3/  
Tribhuvan University

	<u>Enrollment</u>	
Non-degree	1656	
Certificate level	69772	
Bachelor's degree	33671	
Master's degree	9673	
Total	114772	
Student:Teacher Ratio		22.51
Teaching Staff		5065
Non-teaching employees		5511

EXPENDITURES: 5/ on education as a proportion of:

	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u>	<u>1990/91</u>	<u>1991/92</u>
GDP	2.2%	2.3%	2.2%	2.1%	2.0%	2.1%
Government Budget	11.2%	11.5%	9.7%	9.1%	8.9%	11.4%

Total Education Budget by Category (NRs million)

Primary	467.3	623.5	698.4	779.2	1003.0	1592.6
Secondary	196.8	215.8	231.0	231.0	293.0	443.3
University	365.8	379.7	381.4	381.4	485.0	902.2
Vocational Education	24.1	28.1	32.0	32.2	34.0	54.0
Adult Education	3.2	4.5	7.8	7.8	8.0	20.0
Other (Adm., etc.)	229.2	348.2	390.0	367.9	256.0	194.0
	-----	-----	-----	-----	-----	-----
Total	1286.4	1599.8	1740.6	1799.5	2079.0	3205.0

% of Total Education Expenditures

Primary	36.3%	39.0%	40.1%	43.3%	48.2%	49.7%
Secondary	15.3%	13.5%	13.3%	12.8%	14.1%	13.8%
University	28.4%	23.7%	21.9%	21.2%	23.3%	28.1%
Vocational Education	1.9%	1.8%	1.8%	1.8%	1.6%	1.7%
Adult Education	0.2%	0.3%	0.4%	0.4%	0.4%	0.6%
Other (Adm., etc.)	17.8%	21.8%	22.4%	20.4%	12.3%	6.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Total Education Budget by Type (NRs million)

Regular Expenditures	242.6	271.5	286.8	319.7	385.0	471.0
Development Expenditures	1043.8	1328.3	1453.8	1479.8	1719.7	2734.0

Notes:

- 1/ Social Indicators of Development, 1993.
- 2/ MOEC, Manpower and Statistics Section, Nepal.
- 3/ Gross Enrollment Ratios: total enrollment regardless of age as percentage of school age population.
- 4/ Planning Department, Tribhuvan University.
- 5/ MOEC (Planning Division), MOF (Budget Speech 1991-92) and Mission estimates.



## NEPAL

### HIGHER EDUCATION PROJECT

#### I. SECTOR CONTEXT

##### A. Background

1.1 Nepal is one of the poorest countries in the world, with a per capita income of only US\$180. Economic growth and development have been hampered by policies which stifle private initiative and by a public administration system that is costly and ill-equipped to serve the public. Nepal's indicators of development are among the lowest in the world: about half the population lives at income levels below that estimated to be required for a minimum caloric intake; average life expectancy (52 years) and infant mortality (115 per 1,000) are similar to levels found in the poorest parts of sub-saharan Africa; and the majority of Nepal's citizens suffer from malnutrition and/or debilitating diseases. The country of about 19.4 million people is also overcrowded relative to its existing resource base; the population is increasing at the rate of 2.6 percent per year and, in the absence of an effective national family planning program, it will double by about 2015.<sup>1/</sup> Only about 36 percent of the Nepalese over 15 years of age are literate (13 percent of females).

1.2 Major educational investments have been made since 1951 to alleviate the serious shortage of trained human resources. Primary education has been a priority area, re-emphasized by the democratic Government that was elected in May 1991. Gross enrollment rates, as a result, have been raised to about 106 percent (83 percent female) for primary education and 32 percent for secondary education (20 percent female). Although progress is encouraging, the scarcity of well trained professionals affects the implementation of all Government programs, particularly outside Kathmandu. A vicious circle has been created whereby the low quality of inputs lowers the quality and efficiency of outputs in all areas, including primary and secondary education. In order to combat poverty, better-trained and more knowledgeable teachers must be made available at all educational levels.

##### B. The Education System

###### Overview

1.3 Formal education through the secondary level spans a total of ten years. Five years of primary education (grades 1-5 for students six to ten years old) are followed by two years of lower secondary (grades 6 and 7 for students eleven to twelve years old), and three years of secondary (grades 8 to 10 for students 13 to 15 years old). Higher education may encompass another six years. Two years at the Certificate level are followed by two years at the Bachelor's and another two years at the Masters' degree level. As a consequence of the 10-year schooling system, (a) the equivalents of grades 11-12 are regarded as higher education and are delivered at the university; (b) Bachelor's degree holders in Nepal have a total of 14 years of education, compared to the 15-16

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<sup>1/</sup> Social Indicators of Development, 1993.

years provided in most countries; and (c) Master's degree holders have the equivalent years of schooling of Bachelor degree holders elsewhere. Thus, Nepalese university students tend to be younger than their counterparts in other parts of the world and they have received fewer years of education.

1.4 Despite recent increases in primary education development and recurrent budgets, overall expenditures for education remain relatively low. They averaged 2.1 percent of GDP in FY88-FY92 compared to three percent for Asian countries and about four percent for developing countries during that period. The education expenditures also averaged close to 10 percent of the total Government expenditures during FY88-FY92, a level somewhat lower than the 12.5 percent average for Asian countries. In view of the high illiteracy levels and the low enrollment rates in Nepal, the figures suggest that the education sector is being under-funded. In terms of the budget allocated to Education, the large and increasing share being given to primary education (36.3 percent in 1986/87, 49.7 percent in 1991/92) reflects Government's priority on this part of the sub-sector and is appropriate. The budgetary share allocated to higher education, 28 percent (1991-92) has begun to rise after dropping to 21.2 percent (1989-90) indicating competition for scarce resources.

1.5 Compared to other sectors, education receives relatively little external aid. In 1990/91, external aid to education amounted to 12.5 percent of the total education development expenditures compared to 32.9 percent for health, 45.3 percent for agriculture, up to 86.3 percent for communications, and 98.6 percent for power.

1.6 The Government hopes to achieve universal primary education by the year 2000 and at the same time to improve the quality of educational delivery and of teacher training. IDA's Basic and Primary Education project is a large multi-donor effort that is supporting these goals (FY93-FY2000: total project cost US\$136.5 million equivalent). Nevertheless, severe institutional capacity limitations are constraining growth and quality improvement at the primary education level.

#### Special Features of Higher Education

1.7 Graduation from secondary school and admission to higher education are determined by a single examination, the Secondary School Leaving Certificate (SLC) examination, which is administered after grade 10. Although only a fraction of students who enter primary school ever complete all ten years and pass the SLC, all who do are automatically eligible to enter Certificate programs at the university. Dropout and repetition rates are high during the first two years of the university (41 percent and 36 percent, respectively), and only about 31 percent of a cohort complete four years on schedule. After obtaining the two-year Certificate (after 12 years of education), many students may not go on to obtain a Bachelor's degree, since the Certificate enables them to teach primary school or become mid-level technicians.

1.8 Prior to the establishment of Tribhuvan University (TU) in 1959, Nepal had only a few small colleges affiliated with Indian universities. Since that date, however, Nepalese higher education has become virtually synonymous with

TU.<sup>2/</sup> By 1992 enrollment in TU had risen to about 155,000 students scattered over 195 campuses (65 public and 130 private) throughout the country. Of this student body, about 61 percent was at the Certificate level, 30 percent was at the Bachelor's degree level, and eight percent was at the Master's degree level<sup>3/</sup> (see Enrollment Growth, Annex 1, Table 1).

1.9 TU enrollments are highly skewed in other respects as well. In 1992, more than 80 percent of the student body was enrolled in humanities, social sciences, management, and law; less than 10 percent was in engineering, agriculture, forestry, or medicine. Only about 24 percent of all students were female, and they accounted for only 15 percent of science-related enrollments. Moreover, a significant number of them attended one large women's multi-faculty campus.

1.10 Thus, as greater numbers of students have completed grade 10 successfully, pressures on the TU system have mounted. Enrollment increases have not been met with commensurate investments in the human, physical or institutional infrastructure of the TU, and the quality of higher education has suffered accordingly. Neither the structure nor the financing of the institution have kept pace with the dramatic growth in enrollments, and the situation has reached crisis proportions. It has become increasingly clear to all parties that reforms must be made if Nepal is to develop and maintain a university system capable of meeting the manpower demands of the twenty-first century. The Government, which has become aware of the higher education problems and is dealing with increasingly articulate body of TU students, is beginning to review its policies regarding all aspects of higher education and has invited IDA to participate in and support these reform efforts.

### C. Main Issues in Higher Education

1.11 Although dilapidated infrastructure and overcrowded classrooms are the most visible evidence of the crisis in higher education, many of the worst problems are structural or managerial, the result of patterns of organization and governance ill-suited to providing responsive and relevant education at the tertiary level. Essentially, these patterns have produced a higher education system that is providing a low quality of education as a result of:

- (a) runaway enrollment growth;
- (b) chronic underfinancing, very low levels of internal resource mobilization, and a high proportion of expenditures on salaries;
- (c) provision of secondary-level education in a tertiary-level system;

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<sup>2/</sup> At this stage, the only other functioning university is Mahendra Sanskrit University (with about 1000 students), which offers the study of Sanskrit to a very restricted group. Another private institution, Kathmandu University, was founded recently and will become functional in the near future.

<sup>3/</sup> The doctoral level, which consists only of dissertation writing, has approximately 400 candidates, mainly professors who are not counted in the student body. Also, about five percent of TU students are "private" candidates and are not enrolled in a specific campus.

- (d) a highly centralized and unwieldy management structure;
- (e) outdated curricula; and
- (f) poor physical facilities conditions, chronic equipment shortages, and very limited maintenance.

#### Problem of Exploding Enrollments

1.12 As the population of Nepal increased and access to primary and secondary education expanded, demographic pressure on the university increased sharply. Enrollments have risen from 22,765 in 1975 to about 155,000 in 1992. The trend implies that there would be about 330,000 university students by the year 2000 if no changes were made (Annex 1, Table 1). Infrastructural investments have been narrowly focused on a few externally aided campuses, so that physical facilities in many other campuses are badly overstretched. Local campus administrations lack authority to limit admissions to available capacity.

1.13 Entrance examinations. Separate entrance examinations to the university would allow the university authorities to resist demands for admission and to limit the number of entrants. However, such a system was abandoned in 1979 following student demonstrations. At present, only certain faculties accounting for 10 percent of enrollments (e.g., medicine, engineering, forestry, agriculture, and animal science) have entrance examinations. The large arts and sciences faculties rely only on the SLC results. The variable percentage of students passing SLC each year makes university authorities unable to plan operations on the basis of a desirable and predictable number of students.

1.14 University admissions each year consist of close to 100 percent of the previous year's SLC passes. The demand for enrollment is thus closely linked to the SLC pass rate. In many countries, when a leaving examination is used as an entrance examination, admissions are controlled by limiting the number of graduates. Students who otherwise may have mastered enough material to graduate from secondary school become dropouts instead, at considerable systemic and social expense. Of the 95,100 candidates who were tested in Nepal in 1992, only 23,213 (24 percent) passed. Despite the large number of failures, admissions are not restricted to tolerable levels commensurate with TU capacity and resource availability. The SLC examination is not developed or scored through psychometric techniques that would set reliable cut-off scores, and the Government cannot predict or control how many students pass it each year. When large percentages of students pass (e.g. 47 percent in 1991), campuses come under intense pressure to admit as many applicants as possible without getting more funds. As a result, campuses are inundated with entrants they cannot adequately accommodate.

1.15 Facilities utilization. The total number of university campuses increased from 79 in 1975 to 198 in 1991. Most of the campuses are small (with an average capacity for 600 students), often offer very similar programs, and sometimes are placed within a few kilometers of each other. Despite the large number of campuses, facilities overall are grossly inadequate for the student body and if operated on a conventional single-shift system, would be able to accommodate only 30,000 to 40,000 students. Enrollment pressures oblige most TU

campuses to operate on three or even four shifts, limiting each instructional period to 40 minutes. The 130 affiliated private campuses of the university operate mainly in secondary schools on early morning or evening shifts, necessitating the reduction of teaching time from an hour per lecture to 30 minutes. The poor, sometimes dangerous state of facilities and equipment contributes to staff dissatisfaction and student unrest.

#### Insufficient Mobilization and Inefficient Management of Resources

1.16 Resource mobilization problems for higher education are diverse and severe. One of the worst problems is the underfinancing of the sub-sector. In 1990, only 2.1 percent and 0.44 percent of GDP was devoted to education and to higher education, respectively. This was much below the international average of 4 percent of GDP for total spending on education and 0.7-1.2 percent for higher education. The proportion of the Government's education budget devoted to higher education has declined, from 35 percent of the total in 1976 to 21 percent in 1991. Annual budget increases have generally fallen behind inflation, which averaged 11.8 percent between 1986 and 1992. Since these declining resources have been spread over an increasingly large student body, the per student allocations have decreased dramatically.

1.17 The sharp per student decline in university budgets has had serious operational consequences. Aside from the faculties receiving external support (such as medicine, engineering, forestry and agriculture), there has been very little capital investment during the past 15 years. For example, during 1990/91, recurrent expenditures absorbed 96 percent of the TU budget, (see Expenditures of Tribhuvan University, Annex 1, Table 2). Moreover, a disproportionate share of recurrent expenditure (82 percent) has been used to pay staff salaries. Yet professors' earnings are considered low; as a result, more than 90 percent of academic staff have supplementary employment, either outside the university or in additional shifts of the private and public campuses at an hourly rate (NRs 50 in 1992). Although professors devote relatively little time to their primary occupation, the high wage bill leaves few resources for non-salary items. The library system (Annex 2) is unable to order many new books or keep up its journal subscriptions. Equipment in the overcrowded laboratories is not only out-of-date but also in short supply and in a bad state of disrepair. Buildings are rarely maintained and some have become dangerous to occupants. Though donor funding to the supported faculties is substantial (US\$9.3 million or 47 percent of the total university budget in 1991/92), it only benefits a small and select group of students, leaving the vast majority in continuously deteriorating conditions.

1.18 Generally speaking, underfinancing by the central Government is not compensated by other sources. Although local governments and communities largely finance secondary education, they have no part in financing higher education. The proportion of private financing of higher education is low. There are twice as many private campuses as there are public ones, but they tend to be small and to operate in secondary schools. Students must be able to afford NRs 150-600 per month to attend, compared to NRs 40 per month for public campuses. As a result, these sites absorb only about one-fifth of the student body, and most students attend the 65 publicly financed campuses. There is very little cost sharing or cost recovery in these public campuses. Students pay very low tuition, while dormitories are heavily subsidized. Many tuition waivers and scholarships are

given, even to students who are able to pay. University authorities are highly conscious of the need for cost recovery and have begun the ultra-sensitive process of increasing charges and reducing or eliminating subsidies. Tuition fees, static for 17 years, were doubled in 1991 from NRs 20 to NRs 40 per month and direct cost subsidies to cafeterias were discontinued in 1992. Even these small increases caused considerable student unrest in certain areas. Given the risk of political protest, the Government is proceeding cautiously with needed reforms.

1.19 Finally, the centralized control of the higher education budget promotes an inefficient utilization of the small pool of funds available. Funds that are provided to the University are allocated to each campus according to rigid norms which are generally based on precedent. Consequently, there are no incentives to generate income or to create greater efficiency in the use of finances at the institutional or campus level; the sizeable land holdings of the university are under-utilized or rented at below-market prices. In fact, there are genuine disincentives to promoting cost-effective behavior, since if savings are realized, the institution may be penalized through a lower budget allocation. For example, the University's many small campuses have high unit costs, and diseconomies of scale alone are estimated to reduce efficiency by about a fifth. However, since rationalizing the use of facilities would not be rewarded in any way, most prefer to maintain the status quo. Weak financial management and a dearth of modern accounting technologies and equipment at the campus level exacerbate the problems of centrally controlled financing.

1.20 Underfinancing and low cost-effectiveness have generated considerable pressure on the Government to increase allocations to higher education. If no policy changes are made and the rate of student growth and cost recovery remains constant, capital and recurrent expenditures will create an unsustainable deficit of NRs 3.2 billion at the university during the Eighth Plan period (see Current Situation and Future Scenarios of Higher Education Finance, Annex 3). Significant policy changes, however, (a reduction in enrollment growth to a yearly average of 5.5 percent, a 20 percent cost-recovery rate, adoption of resource mobilization strategies, and transfer of Certificate-level students to secondary schools) offer the prospect of limiting this additional financing requirement to about NRs 870 million during the Eighth Five-Year Plan period. It is clear that the current direction of university finances will compromise the future financing of the entire sector. If that were allowed to happen, the Government would be forced to shift priority funds to the university, thus potentially endangering priority social-sector programs, such as primary education or public health.

#### Provision of Secondary-Level Education in the University <sup>4/</sup>

1.21 The problems of the university are compounded by the fact that about two-thirds of the undergraduate population do not properly belong to higher education and would be attending secondary school (grades 11 and 12) in most other countries. Their presence in the TU inflates the number of university

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<sup>4/</sup> For more information see South Asia Regional Series Internal Discussion Paper No. IDP-109, Reforming Higher Secondary Education in South Asia: The Case of Nepal.



students. Thus, the higher education enrollment ratio in Nepal (e.g., ratio of students enrolled in higher education vs. the higher-education age cohort in the population) exceeded five percent in 1991, which compared favorably with a median enrollment ratio for other lower-income countries of 3.7 percent. Without the younger students, however, the higher education enrollment ratio would drop to 1.95 percent. Furthermore, if this situation is allowed to persist, the proportion of Certificate-level students in the university will continue to grow.

1.22 As noted earlier, the most obvious consequence of higher-secondary education studies in the university has been the tremendous upsurge in enrollments in the university. Perhaps the most problematic aspect of this system is the low quality of university education for them. The students themselves are less mature intellectually, less knowledgeable, and less ready for the challenges of tertiary education. It may be indicative of the low general level of expectations that faculty members lack advanced training: only 3.8 percent have doctorates, and 23 percent even lack a master's degree.

1.23 In 1989, the Government enacted a law to reassign the first two (Certificate) years of the university to secondary education, thus creating grades 11-12, and to expand undergraduate higher education by one year to three years. The total length of the educational system would then be 15 years. There would be financial and social advantages to this reform particularly if entrance examinations are introduced to control admissions. Long-term pressure on the country's education budget would be reduced; secondary education, which is under community and private control in Nepal, is managed more flexibly than university campuses, has much lower per capita costs, and has the potential to provide students with less costly but higher-quality education. Young students, would study under closer parental and school supervision. They would be more mature when leaving their home towns to attend the university. Since mobility and family investment for female students are often limited, more rural-area women would have access to higher levels of education. Implementation of higher secondary education (also called "10+2" or "+2") would affect nearly all university functions and policies. Students would be fewer and older; the crowded campuses would have space for courses of an additional year.

1.24 However, this reform requires curricular, financing, management, and planning preparation which has not yet taken place (see Implementation Issues in Higher Education, Annex 4). Most secondary schools in the country are already crowded and apparently lack the facilities to house two more grades. The country's secondary level teachers are few, and the professors who teach Certificate-level students are usually tenured university employees. Although Certificate-level courses are mainly general (e.g., Nepali, English, math, basic science), some specialty courses are also taught at that level, such as constitutional law and macroeconomics; at the very least, the order of the courses would have to be rearranged. It is expected to be cheaper to educate Certificate-level students in secondary schools in the long term, but considerable planning and investment will be needed in the short term. Investment and initial recurrent expenditures may be unacceptably high if new human and physical resources are developed solely for this level of education. If TU resources are reallocated to higher secondary education (e.g., buildings, professors, budget) political difficulties may arise. Wary of potential costs,

MOEC plans to finance only the development of the program and to leave funding for its actual implementation to communities. Accordingly, 36 schools opened grades 11-12 in 1992, mainly in districts lacking university campuses. However, care will need to be taken in planning to avoid the formation of a parallel system to the university instead of absorbing Certificate-level students from existing campuses.

1.25 A semi-autonomous body of the MOEC, the Council for Higher Secondary Education (CHSE) has been formed to introduce the reform, develop curricula, conduct examinations, certify students, and monitor the schools. Operating with limited resources and staff, it has been unable to plan for a phased transfer or to provide curricular leadership for grades 11 and 12. It is important that CHSE be strengthened and that joint planning take place between MOEC and the university to develop: (a) an up-to-date curricular philosophy linking secondary and higher education; (b) valid and reliable examinations for the end of grade 12 and entrance to the university; (c) a reassignment strategy that would facilitate the introduction of a three-year Bachelor's degree and alleviate congestion at the university; and (d) a phased plan to prepare for the transfer of grades 11 and 12.

#### Organizational Difficulties

1.26 Central control and low level of managerial effectiveness. Despite its geographic spread, TU has a highly centralized management structure, which except at its highest levels, also has limited participatory involvement. His Majesty the King is the Chancellor, an honorary and symbolic position; the Minister of Education is the Pro-Chancellor and is only indirectly involved in university affairs. There is a 50-member University Council, similar to a central board of trustees, whose effectiveness is limited by its large size. Daily operations are managed by the Executive Council consisting of the Vice-Chancellor, who is assisted by the Rector (chief academic officer) and the Registrar (chief administrative officer). The role of policy-making and funds allocation to a large number of campuses makes the Vice-Chancellor's office function virtually as a Ministry of Higher Education (Annex 5).

1.27 Despite the large topographical obstacles that separate many parts of the country from Kathmandu, individual campuses have extremely limited administrative control of their operations. For example, they do not have the authority to set or modify course content, or even score the examinations of their students. Although technically the campuses are supposed to determine enrollment, TU's central office has in practice set campus enrollment at levels relative to demand pressure. Personnel decisions are made at the central level; although poorly trained, most university employees are permanent, and no monitoring mechanisms are used to assess their performance. As a result, campus chiefs have very limited control over their staff and the quality of education they deliver. Having few opportunities for leadership, the management skills of campus chiefs are weak.

1.28 Decentralized admissions. Although most aspects of TU management are overly centralized, one crucial element--namely, admissions--is inappropriately decentralized. Students often make independent applications to many campuses and wait to be admitted by the campus of their highest choice before turning down

others. This system delays the admission of wait-listed students as well as the commencement and end of the academic year. Students also have the option of enrolling in two campuses and occupying scarce dormitory rooms in each. If campuses had technological support, enrollments could be streamlined through computerized coordination.

1.29 The centralized administration and scoring of annual examinations is another unusual feature of TU (Annex 6). Its original purpose, when the university was much smaller, was to minimize possible corruption and to control the quality of private campuses. Examination questions for all courses in all faculties are decided in Kathmandu and sent to individual campuses. Answer papers are sent to Kathmandu and then redistributed throughout the country to professors who get paid a fee to score them at home. Most results are recorded manually at the Controller of Examinations office and distributed to students. The scoring process, particularly for the humanities faculty, takes about four months as students generate approximately 700,000 answer papers per year. Besides the expense and inefficiency involved in moving and scoring these papers, the process directly affects instructional delivery, because students must take approximately a month off to study, and examinations must be scheduled over several days so that there is no time conflict for students who must still pass courses of previous years.

#### Extremely Low Quality of Education

1.30 Outside the technical institutes, students are usually unable to specialize in a single subject. They must choose at least two that are offered by the same faculty (e.g. faculty of humanities). Although university syllabi list many subjects to choose from, the majority are offered in only one or two campuses. In most campuses, students actually have little if any choice. They may only take courses offered in a specific campus and during a specific shift and cannot develop a course of study that meets their professional goals. University majors and their content are not tailored to labor market needs.

1.31 The curricula for most courses, which are developed by subject committees in Kathmandu, have not been updated regularly, some not since the early 1970s. All professors throughout the country must teach the same curriculum. Consequently, professors with advanced degrees and up-to-date knowledge are forced to teach outdated material for the sake of the uniformity required by the examinations system; thus, the centralized examinations system reinforces utilization of outdated curricula. Large-scale curricular updating is needed in all faculties if the university is to impart usable knowledge to students and to adjust to the three-year Bachelor's degree and implementation of higher secondary education (see Curriculum Development, Annex 7).

1.32 Most university instruction nominally takes place in English, and students are expected to own and be able to read textbooks. However, students (particularly poorer students outside Kathmandu) tend not to have textbooks because books are: (a) not commercially available; (b) too expensive, particularly when more than one must be bought; (c) not helpful for the examinations, which ask for few, concrete pieces of information; and (d) sometimes incomprehensible. (They either do not contain sufficient explanations, or students may not know enough English to read them.) As a

result, many students study from commercially or personally available notes and may only cover 50 pages of disjointed material in a one-year course.

1.33 The consequence of skyrocketing enrollments, few instructional inputs, lack of space, low level of financing, and centralized control is that relatively little teaching actually takes place. Many students find little appeal in attending courses offered at 6:30 a.m. in classrooms that are intolerably cold due to a lack of window panes. Examination questions are highly predictable, student notes of past years are available, and students may prefer to study at home and take the examinations or go to private coaching classes. In some respects, TU is a distance education institution that delivers low-quality and inefficiently managed education at very high cost.

1.34 Limited local authority, combined with Nepal's political past, has resulted in considerable student influence on the resources of the system and a distorted perception of student rights and responsibilities. Too often student expectations center on unlimited access to the university's subsistence-related resources (cafeterias, dormitories, low tuition) rather than on instructional delivery. Without substantive authority to support the decision-making power they have, campus chiefs feel forced to admit large numbers of students for whom they have no space. Encumbered by an administrative structure that discourages local initiative, TU administration has, until recently, been able to accomplish very little against professor and student interest groups.

#### University Self-Study - UNDP Tertiary Education Project

1.35 The university's long-standing problems are the focus of a 21-month study, which is being financed by a United Nations Development Programme (UNDP) grant and executed by IDA (NEP/91/011; US\$599,000; August 1992-May 1994). Its goals are to: (a) assess the long-term trends and needs of the sub-sector and develop a policy framework for the next 10 years in the form of a master plan; and (b) study specific priority issues of the university and prepare recommendations to address short and medium-term problems that could undermine long-term development prospects. The assessment, which takes the format of a self-study, consists of a series of workshops and specific studies, which will be integrated in a final document. Main areas of the study are: (a) organization and structure (internal efficiency, academic staff policies, higher secondary education); (b) management and administration (autonomy-regionalization); (c) planning and financial management (resource mobilization, cost recovery, financial planning); (d) educational quality control (post 10+2 measures to control admissions, curricular revisions and updating, examinations, instructional process); and (e) physical facilities and plant (maintenance, consolidation).

1.36 The priorities set by the self-study have helped formulate the proposed IDA-funded higher-education project. The proposed project will further benefit from the output of the self-study, which is expected to provide valuable technical assistance and consensus-building for viable solutions in the above areas. The activities of the two projects, which overlap by several months, have been coordinated to avoid duplication (see Selected Policy Actions, Annex 8).

#### D. Government Strategy

1.37 The Government's strategy on higher education focuses on cost containment, improvements in educational quality and efficiency, and greater resource mobilization including cost recovery. Accordingly, the National Education Commission has recommended: (a) the transfer of responsibility for the delivery of higher secondary education from the University to MOEC by creating a separate two-year higher secondary education stage; and (b) an increase in the number of universities by regionalizing the TU system and creating private universities. The potential volatility of the university's problems has made university reform a priority issue. The Government, therefore, has been supportive of the recent actions of the TU administration (such as increasing tuition fees and privatizing cafeteria operations). The proposed IDA project and a UNDP Tertiary Education Project are both reflected in the Government's priority investment program for the sector.

#### E. IDA's Country and Sector Assistance Strategy

1.38 IDA's country assistance strategy for Nepal, has four main areas of focus: (a) poverty alleviation through productivity gains in agriculture, expansion in small-scale industries and services, and increased investments in human resources; (b) an improvement of absorption capacity through strengthening the finances and management of sectoral institutions; (c) population and human resources development; and (d) the development of hydropower resources if Nepal's macroeconomic management and institutional capacity improve. The emphasis on human resource development reflects a belief that realization of the country's potential for growth in manufacturing, agriculture, and tourism will require long-term investments in a healthy, educated labor force.

1.39 IDA's sectoral strategy focuses on supporting Government goals for universal primary education, and its main vehicle at present, is the Basic and Primary Education Project (Credit 2357-NEP) which was approved in April 1992. To make this goal achievable, however, the long-term financial state of sub-sectors competing for funds must improve. Also, adequately trained human resources should be available in provincial and rural areas to staff public and private entities, including schools. The proposed higher education project will support the much-needed reforms that will attenuate the long-term financial demands of Tribhuvan University on the Government. At the same time, it will improve the quality of instructional delivery and begin to better relate university graduates training to the labor market.

1.40 World-wide, higher education is in a crisis of skyrocketing enrollments and financial demands. A recent policy study <sup>5/</sup> suggested that IDA and Bank lending in higher education should focus on: (a) institutional development; (b) cost-sharing but also financial support for needy students; (c) reduced reliance on government funding and linking such funding to performance; and (d) increasing quality of instruction, responsiveness, and equity. However, a 1993 OED higher-education study on sub-saharan Africa underlined the difficulties of introducing cost recovery and the importance of

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<sup>5/</sup> Higher Education: Issues and Options for Reform. World Bank, July 19, 1993.

concentrating on curricular changes and institutional development rather than one-sided attention to financial and organizational issues. In South Asia, there has been relatively little IDA lending from which to draw conclusions, but Asian experiences in higher education have been quite productive. The OED audit of a higher-education project in Indonesia, for example (Ln.1904-IND), found that the project had met most of its objectives, particularly civil works, and improved student flows through the system. A long-term perspective was introduced in higher-education planning and the project succeeded in building an administrative, institutional, and personnel framework for a coordinated approach of the subsector. The proposed project includes many of the features considered important world-wide as well as within Asia that are reflected in a recent Bank Paper "Higher Education the Lessons of Experience" (September 30, 1993).

1.41 IDA's initial involvement in the education sector of Nepal was in higher education. To increase the supply of technical manpower, IDA has financed four projects that were implemented in University faculties: Technical Education (Credit 772-NEP); Education II (Engineering Education, Credit 1198-NEP; 1982), Agricultural Manpower Development (Credit 1534-NEP; 1985), and Engineering Education (Credit 2044-NEP; 1989). The four Credits total US\$39.8 million equivalent. Sector work in the early 1980s pointed to the need for improving access to and quality of basic primary education, leading to two projects: the Primary Education Project (Credit 1463-NEP; 1984) and the Basic and Primary and Primary Education Project (Credit 2357-NEP; 1992). After a devastating earthquake in 1988 which extensively damaged primary and secondary schools in eastern Nepal, IDA responded with the Earthquake Schools Rehabilitation Project (Credit 2047-NEP; 1989). A Population and Health Project is currently being appraised.

1.42 The lessons learned from the implementation of higher education projects in Nepal are significant. First, successful implementation is directly tied to (a) adequate and timely budget releases for project components, (b) early recruitment of qualified personnel (including consultants) for project management and implementation activities, and, (c) a stable political climate. Second, in addition to the need for a well-staffed, experienced, and organized project management, project success is linked to an understanding of, and identification with, project objectives by university authorities indicating a need to ensure that this area is adequately addressed during project development. Third, the management of construction programs in Nepal can be difficult and can result in prolonged start-up delays. Care must be taken during the preparation and pre-investment phases to ensure agreement on an implementation plan that would address the need for early selection of consultants and a prompt start to construction and equipment procurement. Fourth, in all four projects substantial implementation time overruns have occurred or can be anticipated given the shortcomings in these areas. Even so, the development impact of these projects has generally been satisfactory.

1.43 Lessons from the four higher-education projects have been taken into account in project design in terms of: early staffing and consultant selection for implementation; and through discussion of changes in budgetary procedures for the project with the Ministry of Finance (MOF). Previous IDA projects in the sector have resorted to the use of project implementation units (PIUs) as an expeditious way of ensuring visibility of the project and capacity for

coordination of project implementation in a generally weak management environment. A longer-term goal is to encourage development of implementation capacity as a part of the regular administrative structures of government, and in this case the university.

#### F. Rationale for IDA Involvement

1.44 Although IDA has provided extensive support to the education sector, including the university since 1978, it has not been involved in higher-education policy issues per se; donor support to the university has tended to target faculties that fulfill specific manpower training objectives. As a result, university development has been very uneven. The drastic funding decline for non-aided faculties and the main campus<sup>6/</sup>, in particular, has created potentially explosive and politically sensitive congestion and resource problems. If unresolved, this situation could result in pressure for the diversion of scarce funds that are urgently required for basic education and for combatting illiteracy in Nepal. The proposed project would initiate and facilitate reforms designed to: regulate the runaway growth in enrollments at the higher level and reduce pressures for increased Government spending on TU. An on-going IDA sector study of secondary education is expected to lead to rationalization of policy in that sub-sector. The development of higher secondary education with its own examinations would provide a window of opportunity to mitigate the problem of runaway enrollment growth in TU by the introduction of tighter university entrance requirements in the interim.

1.45 The political and financial difficulties of the university have discouraged other donors from large-scale involvement in the university. They have limited their activities to the specialist technical faculties of TU. Demonstrated progress in implementing policy reform measures could begin to attract greater interest from donors who have not yet invested in the university system as a whole.

## II. THE PROJECT

### A. Project Origin

2.1 In October 1991, HMG through TU proposed the preparation of a higher education project to assist the University to carry out badly needed upgrading of existing facilities, and support the modest reform process begun by the university during 1991 in the wake of democratization. Project preparation was carried out substantially by the university using preparation funds advanced from Credit 1534-NEP, Nepal Agricultural Manpower Project.

2.2 During preparation, modification of a number of existing policies was identified as being necessary to achieve the required systemic changes in the administrative, financial, and management processes of the university to permit Government and TU gain control over rapidly escalating costs and so improve the low quality of higher education. These were:

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<sup>6/</sup> The main campus of the university is located in Kirtipur, a town on the outskirts of Kathmandu.

- (a) Regulation of Enrollment Growth by: (i) limiting enrollment to the capacity of each campus and department; (ii) devising measures to enroll students on merit basis, and (iii) regulating new campus affiliations;
- (b) Improving Resource Utilization and Mobilization by: (i) developing policies for cost recovery and income generation; (ii) privatizing service units within TU; and (iii) increasing private responsibility for tuition and other fees;
- (c) Preparation for Higher Secondary Education Reform by working jointly with the Ministry of Education and Culture to implement a higher secondary education program in accordance with a 1989 law enabling higher secondary education;
- (d) Improving the Organization, Planning, and Management Capacity of TU by: (i) increasing organizational effectiveness through decentralizing managerial responsibility to institutes, faculties, research centers, and campuses; and (ii) strengthening the central administration to perform policy planning and evaluation functions;
- (e) Improving Quality, Utility, and Responsiveness of Higher Education by: (i) improving the quality and relevance of higher education by establishing three-year Bachelor's degree programs and updating the curricula; and (ii) improving the examination system of TU;
- (f) Improving and Maintaining Physical Facilities by (i) rectifying current serious facilities and equipment deficiencies through a program of renovation, upgrading and maintenance; (ii) developing maintenance plans for facilities and equipment; (iii) establishing capacity within TU's central administration to plan and advise on future facility development and maintenance operations of TU campuses to ensure sustainability.

#### B. Project Design and Objectives

2.3 In designing the project, it was recognized that implementation of the proposed policy reforms would be a long term process and it was decided to phase implementation by way of sequential project support. Thus the objectives of the first (the proposed) project are limited but integrate closely with the objectives of Nepal's Eighth Five-year Plan (FY93-FY97) for the sector which has been given priority for rapid development by Government. The project will support the reform process through financing that would promote much-needed systemic changes in the administrative, financial, and management processes of the university, and make such reforms feasible by improving physical facilities at a limited number of key University campuses. This stage would make use of the outputs from the ongoing UNDP-financed and IDA-executed study which has been revised to take into account the proposed project activities, and avoid duplication (see UNDP Self Study Activities, Annex 8). A policy statement and a detailed action plan for policy implementation were prepared by TU and submitted to IDA. (see Policy Statements, Annex 9).



### C. Project Components

2.4 The project will finance physical and technical assistance activities designed to: (a) assist institutional development, with particular emphasis on provision of a management information system, decentralization of management authority and strengthening of campus-level management; (b) improve selected facilities (particularly libraries and laboratories) at three key campuses and develop institutional maintenance capacity; (c) improve instructional delivery and rationalization of the student examination system; and (d) assist MOEC to prepare for higher secondary education reform.

#### Institutional Development Component (\$7.7 million)

2.5 Organizational Reform (US\$1.1 million). This subcomponent will include a systematic review of the current organization of TU, as well as redefinition and reallocation of responsibilities and authority to the campus level to facilitate decentralization. The project would finance: (a) a systematic review of the current organizational structure of TU; (b) policy studies on decentralization and reallocation of responsibilities to lower levels; (c) central and campus-level managerial staff training; (d) upgrading campus-level technical capacity to process information; (e) development of staff performance standards; and (f) a policy implementation fund (US\$500,000) to provide support to campuses within the TU system (except Kirtipur and cluster campuses being funded under the project) which demonstrate measurable progress in: self-reliance; resource mobilization; improvement in campus operation management; and educational achievements. During negotiation it was agreed that funding will be allocated on the basis of eligibility criteria satisfactory to the Association to be provided by TU.

2.6 Educational Management Information System (EMIS) (US\$1.5 million). The component will cover Kirtipur and at least two regional campuses. The system will be based on stand-alone computer units (rather than a large central computer) and will commence with installations at the central administration level, within the Planning Division, gradually extending to several locations within Kirtipur campus, as well as the Controller of Examinations, and selected regional centers (see Management Information System Needs of Tribhuvan University, Annex 10). It is proposed that the structure of the information system include a series of "modules" of relational data bases linked through common-coded items (campus, student, and teacher identification codes). Financing would include computer hardware, software, staff training, foreign fellowships, technical assistance for system planning, implementation, staff development, vehicles, and supplies.

2.7 Regional Cluster Development (US\$3.6 million). The component will fund the formation of two regional campus clusters to support EMIS development, decentralization, and ultimately, autonomy. Each cluster would consist of a lead campus and up to ~~seven satellite campuses~~ formed into an ~~informal association~~ (cluster). During negotiations it was agreed that by June 30, 1994, guidelines satisfactory to IDA for the establishment of clusters will be issued by TU. The guidelines would specify procedures to be followed and would include provision for IDA's approval of each of the following three stages by cluster:

Stage 1 (US\$0.5 million) upon formation of a cluster in accordance with the guidelines (which would include the name of the main campus and associate satellite campuses), the main campus would become eligible for book provision, equipment, and an allowance for minor essential maintenance. Each satellite campus would be eligible for an initial allowance for books and equipment.

Stage 2 (US\$1.6 million). Preparation of a management plan acceptable to IDA for cluster development covering all campuses in the cluster which would include: decongestion of the lead campus by redistribution of Certificate-level students to participating campuses or +2 schools by progressive reduction leading to elimination of Certificate-level courses in the lead campus, and a timetable to achieve this within a two-year period; an analysis of facilities required at recipient campuses to receive Certificate-level students; maintenance plans including resource mobilization for maintenance and evidence of appointment of suitable personnel. Upon completion of this stage, the lead campus would be eligible for an allowance to upgrade existing facilities, library expansion/upgrading as appropriate, equipment including fax, photocopiers, EMIS computer (from EMIS component), and books. The satellite campuses would be eligible for approved facilities upgrading to accommodate largely or exclusively additional Certificate-level students, equipment including fax, photocopier, books, and an allowance for essential maintenance.

Stage 3 (US\$1.5 million). Financing would be linked to evidence satisfactory to IDA of: (a) operationalization of Certificate-level student disengagement at the lead campus and acceptance of the approach by satellite campuses; and (b) resource mobilization within the individual campuses. Resource mobilization from acceptable sources would include fees, public and private donations, earmarked local taxes, but not from central budget allocations. Funding would be allocated on a campus-by-campus basis with funds allocated for approved investments, including facilities development, equipment, books, and furniture. Matching funds of at least 25 percent would be required from the lead campus and 15 percent from the satellite campuses.

Facilities Improvement (US\$8.6 million)

2.8 Maintenance Capacity Development (US\$0.6 million). Assistance will focus on the organizational structures, staffing and development of preventive maintenance programs for buildings and equipment. The component will include: workshops on preventive maintenance; the development of maintenance centers at each of the three principal campuses; staff training; maintenance and testing equipment.

2.9 Facilities Improvement at Kirtipur (US\$7.9 million). Financing priority is given to expansion and upgrading of science and library facilities. The component also includes upgrading of facilities for the humanities, education, and management faculties. In addition, the proposed component includes: improvement to site services; boundary wall construction; re-alignment of a neighborhood access road to alleviate security problems; female dormitory for 100 students; refurbishment of the students' center; boys dormitory and cafeteria; equipment; furniture; library books; and professional fees.

2.10 Regional cluster development is also expected to include elements of construction estimated at about US\$0.8 million that will be identified for financing only after completion of cluster development Stage 2 (para. 2.7).

Instructional Delivery and Assessment (US\$2.0 million)

2.11 Examinations (US\$0.8 million). Proposed financing includes the provision of new facilities to replace unsuitable premises occupied by the Controller of Examinations, equipment including computers, technical assistance, staff training and fellowships.

2.12 Curriculum Development and Textbook Revision (US\$1.2 million). Curriculum revision will span the duration of the UNDP-funded tertiary-education project (para. 1.35) as well as the IDA-funded project. IDA will finance the revision of undergraduate and graduate curricula in about 20 specialties. In general, these are science and technology, humanities, education, management, law, as well as a new course in environmental science. Financing will include international and local technical assistance, development of teachers' guides, expenditures to conduct dissemination workshops, and expenditures to ensure the availability of affordable and understandable textbooks through the private sector. To manage the multiplicity of specialties, twinning will be encouraged with more advanced institutions from countries in the region (e.g., India, Thailand, Sri Lanka). Although specific labor market assessments are not planned, the curriculum revision process is expected to make the skills of graduates more usable by the labor market.

2.13 The project will strengthen the Curriculum Development Center (CDC) of TU to enable it to undertake a leadership role in the curriculum exercise. The project will finance salaries for additional CDC staff, consultants services, and equipment.

Preparation for Higher Secondary Education Reform (US\$1.75 million)

2.14 Higher Secondary Education (US\$1.2 million). Financing will include: (a) civil works for +2 classes in about 10 selected secondary schools that would facilitate the transfer of Certificate-level students from TU campuses; (b) re-furbishing for about two satellite campuses within regional clusters that would receive exclusively Certificate-level students (under Regional Cluster Development component, para. 2.7); (c) foreign and local technical assistance for curriculum and textbook development in the +2 grades; (d) technical assistance to develop a higher secondary school leaving Certificate; (e) instructional materials and equipment for +2 schools willing to provide matching funds; and, (f) technical assistance to refine and start implementing a plan for the country's transition from university Certificate to higher secondary education. MOEC leadership in developing an effective higher secondary education program is critical to the eventual disengagement of TU from the provision of secondary education within the TU system and the problem can only be solved by a willingness of MOEC and TU to work together on the development of an implementable transition framework for disengagement. An acceptable draft joint MOEC-TU policy statement for transferring the certificate level to higher secondary education was provided to IDA. (see Policy Statements, Annex 9)

2.15 Financing would include the costs of related equipment, furniture, vehicles, architecture/engineering and other consultancy services related to the elements listed above.

2.16 The sum of US\$0.75 million is included for the preparation costs of a follow-on project in the sector.

### III. PROJECT COSTS, FINANCING, PROCUREMENT AND DISBURSEMENTS

#### A. Project Costs

3.1 Cost Summary. The total cost of the project is estimated at US\$23.1 million equivalent, including applicable duties and taxes estimated at US\$1.2 million. Details of foreign exchange costs by category of expenditure, IDA and Government financing, and expenditure by components are shown in Annex 11.

TABLE 3.1: Project Cost Summary

	(NRs Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>A. INSTITUTIONAL DEVELOPMENT</b>								
Organization Reform	31.6	25.0	56.6	0.6	0.5	1.1	44	6
Educational Management Information System	31.9	41.5	73.4	0.6	0.8	1.5	57	8
Regional Cluster Development	83.5	97.3	180.8	1.7	2.0	3.6	54	19
Project Management	57.4	15.2	72.6	1.2	0.3	1.5	21	7
Subtotal	204.4	179.0	383.4	4.1	3.6	7.7	47	40
<b>B. SELECTED FACILITIES IMPROVEMENT</b>								
Facilities Development - Kirtipur	182.1	211.8	393.9	3.7	4.3	7.9	54	41
Maintenance Capacity Development	8.0	24.2	32.2	0.2	0.5	0.6	75	3
Subtotal	190.1	236.0	426.1	3.8	4.8	8.6	55	44
<b>C. INSTRUCTIONAL DEVELOPMENT AND ASSESSMENT</b>								
Curriculum Development	28.3	31.9	60.2	0.6	0.6	1.2	53	6
Examinations	14.4	23.6	38.0	0.3	0.5	0.8	62	4
Subtotal	42.7	55.5	98.2	0.9	1.1	2.0	57	10
<b>D. HIGHER SECONDARY EDUCATION</b>								
	27.5	34.2	61.8	0.6	0.7	1.2	55	6
<b>Total BASELINE COSTS</b>	<b>464.7</b>	<b>504.8</b>	<b>969.5</b>	<b>9.4</b>	<b>10.2</b>	<b>19.6</b>	<b>52</b>	<b>100</b>
Physical Contingencies	26.6	27.0	53.6	0.5	0.5	1.1	50	6
Price Contingencies	87.1	36.9	124.0	1.8	0.7	2.5	30.0	13.0
<b>Total PROJECT COSTS</b>	<b>578.4</b>	<b>568.6</b>	<b>1,147.0</b>	<b>11.7</b>	<b>11.5</b>	<b>23.1</b>	<b>50.0</b>	<b>118.0</b>

3.2 Basis of Cost Estimates. These are mission and TU staff estimates. Civil works costs are based on current market rates and experience with ongoing IDA-assisted projects in Nepal, including tertiary level projects. Costs of vehicles, equipment, furniture, books and supplies are based on lists of items prepared by TU and IDA at prevailing c.i.f. prices or local market rates as applicable. Cost estimates of consultants services for technical assistance reflect a mix of the United Nations rates for foreign (including regional) and local consultants. Overseas fellowship costs are based on TU experience with regional and international placement in ongoing projects. Architectural/Engineering services are costed at the competitive rates generally prevailing in Nepal for the engagement of local consulting services. Costs of salaries and allowances, including training rates, are based on current university scales.

3.3 Customs Duties and Taxes. Goods specifically imported for the project may be admitted free of duties and taxes. Locally procured goods and services, including materials for construction and construction contracts, carry duties and taxes at varying rates. Project costs include import duties and taxes estimated at US\$1.2 million.

3.4 Contingencies and Allowances. Project cost estimates include physical contingencies (US\$1.1 million) averaging 6 percent of base costs (10 percent of civil works, and vehicles and five percent of equipment, furniture, books and periodicals). Price contingencies (US\$2.5 million; 13 percent of base costs) are estimated on the basis of local cost escalation at the following annual rates: 7.5 percent in 1994, 6.5 percent in 1995, 6 percent in 1996, and 5.5 percent thereafter; and, foreign costs as follows: 1.2 percent in 1994, 2.4 percent in 1995, 3.2 percent in 1996, 3.4 percent in 1997, and 3.3 percent thereafter.

3.5 Foreign Exchange Component. As shown in Table 3.1, above, the estimated foreign exchange component (US\$11.5 million), including contingencies, represents 54 percent of total project costs. It has been calculated as follows: (a) civil works 35 percent; (b) equipment and vehicles 90 percent; (c) furniture 40 percent; (d) books and periodicals 90 percent; and (e) foreign consultants and fellowships 90 percent.

## B. Financing

3.6 The IDA Credit of US\$20.0 million (equivalent to SDR 14.2 million) would finance about 90 percent of project costs net of taxes and duties estimated at US\$1.2 million. IDA would finance 100 percent of foreign exchange costs and 73 percent of local costs. His Majesty's Government would contribute US\$3.1 million equivalent (13 percent of total project costs). In the event that donor financing acceptable to IDA can be secured by the borrower for overseas fellowships and external consultant services (estimated at US\$2.2 million total) or for other elements of the project, the amount of the IDA credit may be reduced. During negotiations, an understanding was reached with Government that, in the event that suitable donor financing is not forthcoming by the time such training or expert services are required, IDA funds will be used for external fellowships and consultant services required for the project. During negotiations agreement was also reached with HMG that annual lump sum budgets will be provided to TU within the Government's overall budget framework of

priorities (including TA and fellowships), and the University confirmed that it has adequate flexibility with regard to expenditures against allocated funds.

C. Procurement Arrangements

3.7 The procurement methods are summarized as follows:

**Table 3.2: Procurement Arrangements**  
(US\$ Million)

	Procurement Method				Total
	International Competitive Bidding	Local Competitive Bidding	Local Shopping	N. A.	
1. Civil Works	-	9.3 (7.4)	-	-	9.3 (7.4)
2. Goods					7.8 (7.2)
2.1 Vehicles	0.1 (0.1)	0.1 (0.1)	-	-	
2.2 Equipment and Furniture	3.9 (3.7)	1.9 (1.8)	0.4 (0.3)	-	
2.3 Books and Materials	0.7 (0.6)	0.6 (0.5)	0.1 (0.1)	-	
3. Consultancies and Training a/					4.2 (4.1)
3.1 Institutional Development				2.2 (2.2)	
3.2 Project Preparation and Implementation Support				1.6 (1.5)	
3.3 Training/Study Tours				0.4 (0.4)	
4. Miscellaneous					
4.1 Salaries				0.3	0.3
4.2 Operational Costs b/				1.5 (1.3)	1.5 (1.3)
<b>Total</b>	4.7 (4.4)	11.9 (9.8)	0.5 (0.4)	6.0 (5.4)	23.1 (20.0)

Note: Figures in parenthesis are the respective amounts financed by International Development Association.

a/ Services will be procured in accordance with World Bank Guidelines: Use of Consultants by World Bank Borrowers (August 1981)

b/ Includes \$0.75 million for future project preparation.

3.8 Civil Works (US\$9.3 million) and Architectural/Engineering Services US\$0.4 million. These will consist of: site improvements (including boundary walls, water and electrical services upgrading); repair and renovations of existing buildings; and expansion of selected facilities such as science laboratories and libraries at three principal campuses. Architectural/Engineering (A/E) consultants will be engaged by the university, in accordance with IDA guidelines, to prepare the necessary designs and bidding documents and this work is expected to be carried out by stages during the project period in accordance with an acceptable implementation schedule submitted by TU to IDA. Priority will be given to site improvement works and urgently required repairs and renovations at Kirtipur Campus, with such works expected to begin implementation shortly after Credit Effectiveness. Bid packages for construction works are expected to be small with the largest possibly about US\$2-3 million at Kirtipur. It is unlikely that foreign contractors not already operating within Nepal will be interested, and contracts will be awarded on the basis of locally advertised competitive bidding. This would not exclude interested firms from outside Nepal from bidding. It was agreed that ICB procedures may be used if larger bid packages are practicable. Contractors for construction works greater than \$250,000 will be pre-qualified on the basis of procedures acceptable to IDA. Standard World Bank bidding documents for "Small Works" will be used, amended as appropriate for the project. These were submitted and approved by IDA. Terms of reference for all A/E consultants will be reviewed by IDA and prior review will be carried out by IDA for all A/E consultant contracts exceeding US\$100,000. Civil works exceeding US\$250,000 will be subject to prior review by IDA. This is expected to cover about 75 percent of the value of such contracts.

3.9 Goods (US\$7.8 million). Equipment, vehicles and furniture will be grouped into packages of US\$150,000 or more whenever possible and will be procured through International Competitive Bidding (ICB) in accordance with IDA Guidelines. Furniture suppliers will be pre-qualified. Local manufacturers will be accorded a preference of 15 percent or the applicable rate of duties and taxes whichever is lower. For contract packages of less than US\$150,000, locally advertised competitive bidding procedures acceptable to IDA may be followed except: (a) contracts under US\$50,000 (up to an aggregate of US\$500,000) for urgently needed items, may be procured under prudent local or international shopping with price quotation from at least three suppliers; and (b) books and journals will be procured on the basis of agreed lists with quotations invited directly from bona fide distributors and inviting discounts from publishers' list prices. Standard bid documents for "Goods" have been approved by IDA and will be used for goods procurement. Prior IDA review will be required for contract award in bid packages exceeding US\$100,000. This will cover about 80 percent by value of such contracts.

3.10 Technical Assistance, training, fellowships, and other non A/E consultant services (US\$3.8 million). Financing under this component will include local and foreign technical assistance and training for: (a) institutional development and capacity building, specifically organizational reform, development of an EMIS at Kirtipur plus 2 regional campuses, curriculum and examination improvements, regional cluster development and maintenance capacity development; (b) consultants services for

project implementation; and (c) staff training and limited study tour opportunities in order to promote modernization of the educational and organizational system and improve prospects for longer-term sustainability. Consultants will be selected in accordance with IDA Guidelines. Training financed by IDA will be carried out in accordance with program objectives and procedures to be agreed with TU. Fellowship placement and institutional twinning will be negotiated by TU directly with training institutes in accordance with an overall training program agreed with IDA.

3.11 Procurement Plan. In accordance with IDA requirements for early project start up, TU provided a procurement plan for the first two years of the project period showing commitments expected to be entered into during this period.

#### D. Disbursements

3.12 The proposed credit will finance about 90 percent of total project costs, net of duties and taxes, and will be disbursed at the following percentages: 80 percent of expenditures on civil works; 100 percent of expenditures on professional fees for Architectural/Engineering services and other IDA-financed consultants; 100 percent of foreign and local ex-factory expenditures, and 75 percent of other local purchases of equipment, vehicles, furniture, books and journals, and consumable materials; and 95 percent of agreed local training costs and 80 percent of operating costs of the project unit. The project will be implemented over a six and a half-year period and the Closing Date of the project will be June 30, 2000.

3.13 Disbursements against contracts for goods and consultants services below US\$50,000 and civil works less than US\$100,000 equivalent will be made against itemized statements of expenditure. Documentation supporting these statements will be retained by the university for review by IDA missions. All other expenditures will be fully documented. A special account will be established at the Nepal Rastra Bank to facilitate payment of eligible minor expenditures. This account will be maintained in US Dollars with an authorized allocation of US\$500,000. The account will be used for both local and foreign payments for items costing less than US\$50,000 equivalent each under all categories. All other expenditures will be submitted to IDA for payment.

### IV. IMPLEMENTATION AND SUPERVISION

#### A. Project Organization and Management

4.1 The project will be implemented by TU. A project coordination unit (PCU) will be established under the office of the Vice-Chancellor to coordinate the various project activities. A Project Board comprising representatives of TU, MOEC, Ministry of Finance, National Planning Commission and the PCU will be established to facilitate inter-agency cooperation. The PCU will be headed by a full-time coordinator assisted by deputy coordinators for four major functional sections: finance and administration; physical planning and development; institutional development and educational



development for which terms of reference have been provided by TU. Essential equipment, furniture, two motorcycles, two vehicles, and incremental operating costs will be provided to the unit under the project. TU and IDA are in agreement that the unit will be structured to serve primarily as a coordinating unit and as such would make use of existing operational capacity within TU wherever feasible, except that separate accounting for the project would be carried out by the PCU staff. During negotiations it was agreed with the Borrower that the formal establishment and staffing of the Project Coordination Unit will be a condition of effectiveness.

4.2 TU will create a Physical Facilities Development Division (PFDD) under the PCU. Initially the unit will perform largely a construction development and procurement role for the project but will gradually assume a broader facilities planning and technical assistance role for facilities development within the university system as a whole as the University lacks this capability. The staff will include an architect, an engineer, and a procurement and maintenance expert. TU will also create and develop a Facilities Maintenance Management Unit initially attached to the Facilities Division in the expectation that this unit will also eventually form part of a reorganized TU administrative structure. TU provided an organizational and staffing plan for the maintenance unit. Essential equipment, furniture, vehicles, staff training and incremental operating costs will be financed under the project.

4.3 Project Start-up Activities. A preparation coordination unit assisted by a faculty team was established to carry out preparatory activities identified as part of a strategy for early project start-up, including: (a) a policy implementation matrix; (b) preparation of an overall management and financing plan for the project; (c) selection of architectural consultants for preparation of: a facilities master plan, site development works, and renovations at Kirtipur campus; and building condition assessment reports for regional campuses; (d) terms of reference for the appointment of an EMIS task force, and development of a TU implementation plan for introduction of the EMIS system; (e) an action plan for maintenance at Kirtipur and at regional campuses; (f) workshops for regional cluster formation; (g) criteria for policy implementation fund operation; (h) advance librarian training; and (i) the preparation of standard bidding documents. The unit is expected to evolve into the planned full-time PCU by credit effectiveness.

## B. Monitoring and Supervision

4.4 Project Monitoring and Mid-Term Review. The PCU will send IDA semi-annual reports on project progress that will include: (a) a summary statement on the status of execution of each project activity; and (b) a table showing compliance with project covenants, and progress in implementing agreed policy objectives. TU agreed to provide IDA with the final format for semi-annual reporting by March 31, 1994 together with appropriate monitoring indicators. Quantitative and qualitative data would become available through the project as the EMIS system begins operation.

4.5 Monitoring will be important to measure the effects of the project on assisted campuses and on the system-wide effects of the university's proposed policy actions. Indicators to be developed for reporting will include:

- comparative campus-by-campus enrollments;
- number of days spent in studying for examinations, examining students, and scoring papers;
- measurement of resource mobilization levels and cost recovery rates;
- the rate of implementation of higher secondary education, as well as problems encountered in the transition from university based Certificate-level education;
- faculty performance measurements, including absenteeism and instructional effectiveness, as well as the incidence of disciplinary measures and rewards;
- indicators of decentralization and campus autonomy, including areas of decision-making actually undertaken by campus chiefs and their assistants; and
- indicators showing the state of maintenance of various campuses to monitor improvements following project interventions.

4.6 The information will be collected by campus chiefs and supplied to the project coordination unit for aggregation and reporting. PCU staff will undertake spot visits to confirm the accuracy of the information.

4.7 Supervision. The project would not require special supervision arrangements but in early missions implementation start-up activities will be emphasized. The first full IDA mission would take the form of a project launch workshop, continuing and expanding the working format developed with TU during the project preparation and appraisal process. The workshop should reconfirm annual implementation targets for the various campuses and faculties, and agree on an appropriate format for reporting, including monitoring procedures. The borrower agreed to conduct with IDA a comprehensive mid-term review of the project by March 31, 1997.

#### C. Auditing

4.8 Project accounts will be audited annually by an independent auditor acceptable to IDA, and copies of the audited statements will be sent to IDA within 12 months after the end of the fiscal year. The auditor's report will include an opinion and comment on the project accounts and on methods employed in compiling the statements of expenditures, the operations of the special account, their accuracy, the relevance of supporting documents, their eligibility for financing in terms of the project's credit agreement, the standards of record-keeping and internal controls, and the compliance with

credit covenants including the status of the local contribution to the project. The terms of reference for the audit would specify the size of the sample for vouching of supporting evidence, which should be no less than 70 percent of the total expenditure for the period of the audit. Annual audits will be financed by the Credit if necessary and the inclusion of financing was agreed during negotiations.

## V. PROGRAMS OF SPECIAL EMPHASIS

5.1 Environmental Protection. The project is rated category C as the main emphasis is on renovation, refurbishment and equipping of existing educational structures. New construction would be relatively minor and would be linked to the expansion of library and instructional laboratory facilities at three existing sites. Such buildings would require only minor disturbances of land for foundations.

5.2 Women in Development. While the project does not have specific women's development objectives, the assisted campuses have relatively high female enrollment and refurbishing of existing campuses plus increased female dormitory capacity will improve their educational environment and encourage further growth in female enrollment. The assistance to MOEC to develop higher secondary education will have longer-term benefits for women through the provision of educational opportunity closer to home. This will help to address the additional family reluctance to allow females to study outside the community.

5.3 Poverty. The project does not have a specific poverty focus. However, slowing the growth of Higher Education expenditures will reduce the pressure for re-allocation of scarce funds from basic education, a significant part of the IDA poverty focus for Nepal. Free-ships and scholarships are made available by TU and improved targeting of these to needy scholars is being examined by the university.

## VI. BENEFITS AND RISKS

### A. Benefits

6.1 By rationalizing the use of human and physical resources, the project would increase the value of the Government's investment in higher education. Enrollments would be more closely linked to the availability of physical facilities, thereby easing pressure on individual campuses and allowing organizational and management improvements to take place. Significantly increased resource mobilization and cost recovery will help alleviate pressure for scarce resources on central government and improve the prospects for better funding of books, consumables, and maintenance. Institutional strengthening would improve prospects for long-term improvements in instructional delivery and manpower development. Assistance to MOEC to prepare for the introduction of higher secondary education into secondary schools would eventually benefit the university through decongestion of university campuses. It would also help to reduce the unit cost of this education stage. The project would provide benefits to: (a) university students in the assisted campuses who would study in less congested

conditions, where demonstrated efficiency linked to greater self-management would be rewarded by better equipment, books, and maintenance; and (b) disadvantaged rural school leavers by supporting the development of higher secondary education closer to communities. Among the latter group, women would benefit particularly in view of reluctance of many families to approve female education away from the community.

#### B. Risks

6.2 The project faces some significant risks. The policy reforms supported by the project may create levels of student unrest that could be politically difficult to handle. The Government may be unable to resist the demands for admission to the university from the expanding ranks of SLC graduates. This could result in expanding enrollments, worsen the already intolerable congestion and management difficulties, and create further strong pressures for re-allocation of scarce funds from other priority areas. Specific project risks could be: (a) difficulty in obtaining bilateral donor assistance for fellowships and needed external expert services, and a reluctance by Government to utilize IDA funds for these activities, leading to poor performance or non-fulfillment of important project component objectives where these resources are critical; and (b) inadequate, delayed project budgets and the use of a line-item veto by the MOF. The risk of student unrest will be mitigated by TU moving to quickly demonstrate benefits associated with the project in terms of improved educational conditions, particularly while the more sensitive reform measures are being implemented. The budget problem was raised with Government at various stages including negotiations and it is expected that the University will be given responsibility for budget development and subsequent expenditure. Agreement was reached regarding the use of IDA funds for technical assistance if donor financing is not found within the time frame required by the Project.

#### C. Project Sustainability

6.3 Sustainability will be enhanced by: the preparation of a longer-term business plan, currently being formulated under a UNDP grant (para. 1.35), as a basis for planning TU's future development; improved management practices (including decentralization of authority to campus level and staff performance standards); streamlined admissions and examination procedures; and maintenance programs. Income generation and cost recovery measures currently being undertaken and proposed, would increase resources available to higher education and contribute to significantly improved funding for maintenance, books, and consumables. The close involvement of key University faculty in project preparation and articulation of policy initiatives, will help to ensure a TU commitment to the project. However, the long-term benefits of the project will depend on sustained commitment by the university to the reform process, and the Government's willingness to push through reforms of higher secondary education that would ease the intolerable enrollment pressures on the University.

VII. AGREEMENTS REACHED AND RECOMMENDATION

7.1 During negotiations, the following agreements were reached with Government:

- (a) funding for policy implementation will be based on eligibility criteria acceptable to IDA (para. 2.5);
- (b) by June 30, 1994, guidelines, acceptable to IDA, will be issued by TU for cluster formation (para. 2.7);
- (c) that annual lump-sum budgets will be provided to TU, and that TU will have the authority to allocate the budget for implementation priorities in accordance with the provisions of the Development Credit Agreement (para. 3.6); and,
- (d) that the borrower will conduct with IDA a comprehensive mid-term review of the project by March 31, 1997 (para. 4.1).

7.2 The following is a condition of effectiveness:

the formal establishment and staffing of the project coordination unit (para. 4.2).

7.3 Recommendation. Subject to the above conditions, the project would be suitable for an IDA credit of SDR 14.2 million (US\$20.0 million equivalent) to the Kingdom of Nepal on standard IDA terms with 40 years maturity.

NEPAL  
HIGHER EDUCATION PROJECT

Table 1: Enrollment Growth in Tribhuvan University

Level of Training	Enrollment				Projected Enrollment 1/		
	1975/76	1980/81	1985/86	1990/91	1991/92	1995/96	2000
<b>NON-DEGREE</b>							
First Year	770	873	1,289	1,317	--	--	--
Second Year and Repeaters	425	268	398	339	--	--	--
<b>Total</b>	<b>1,195</b>	<b>1,141</b>	<b>1,687</b>	<b>1,656</b>	<b>1,700</b>	<b>2,100</b>	<b>2,700</b>
<b>CERTIFICATE</b>							
First Year	8,047	14,567	17,453	40,964	65,000	88,500	130,000
Second Year and Repeaters	5,773	11,377	22,543	28,808	41,000	74,500	108,000
<b>Total</b>	<b>14,180</b>	<b>25,944</b>	<b>39,996</b>	<b>69,772</b>	<b>106,000</b>	<b>163,000</b>	<b>238,000</b>
<b>BACHELOR</b>							
First Year	3,045	110	4,826	18,772	20,000	27,000	40,000
Second Year and Repeaters	3,549	5,039	4,960	13,899	16,000	22,500	33,000
<b>Total</b>	<b>6,594</b>	<b>5,149</b>	<b>9,786</b>	<b>33,671</b>	<b>36,000</b>	<b>49,500</b>	<b>73,000</b>
<b>MASTER</b>							
First Year	581	48	1,733	6,999	7,500	10,000	15,000
Second Year and Repeaters	215	1,812	1,434	2,674	4,000	5,500	8,500
<b>Total</b>	<b>796</b>	<b>1,860</b>	<b>3,167</b>	<b>9,673</b>	<b>11,500</b>	<b>15,500</b>	<b>23,500</b>
<b>TOTAL</b>							
First Year	12,803	15,598	25,301	68,052	92,500	125,500	185,000
Second Year and Repeaters	9,962	18,496	29,335	45,720	62,700	104,600	152,200
<b>GRAND TOTAL</b>	<b>22,765</b>	<b>34,094</b>	<b>54,636</b>	<b>114,772</b>	<b>155,200</b>	<b>230,100</b>	<b>337,200</b>

\*Mission estimates

Source: Constructed by the mission according to information from Tribhuvan University, January 1992.

1/ Projected from preliminary 1991-92 data.

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Table 2: Expenditures of Tribhuvan University 1/

Fiscal Year	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
<b>A. Capital Expenditure</b>	33,483	20,753	15,748	9,980	14,316	16,158	10,184	13,037	16,159	45,925
1. Undeveloped Land	210	111	50	770	1,570	--	66	--	--	300
2. Building	20,099	6,249	5,944	1,856	3,880	3,692	3,424	5,509	4,000	23,835
3. Furniture	1,791	2,348	1,466	1,792	1,150	1,474	1,389	997	2,015	3,946
4. Equipment	11,383	12,045	8,288	5,562	7,716	10,992	5,305	6,531	10,144	17,844
<b>B. Recurrent Expenditure</b>	126,272	141,508	181,687	180,487	192,543	224,875	255,041	309,527	395,957	439,707
1. Salaries	93,573	102,501	141,633	137,983	156,025	172,378	195,983	235,605	325,606	350,700
Teachers	58,541	64,826	92,564	92,598	105,565	108,637	129,111	160,535	211,890	216,706
Administrators	35,032	37,675	49,069	45,385	50,460	63,791	66,872	75,070	113,776	133,994
2. Instruction	1,697	2,794	2,589	1,838	5,528	5,766	6,948	8,422	8,592	10,581
3. Student Welfare	6,855	7,872	7,626	9,202	5,617	8,206	7,243	12,374	13,717	17,935
4. Examinations	2,870	3,892	4,298	8,298	677	8,241	12,688	17,012	11,608	15,614
5. Research and Publications	3,636	3,627	4,075	2,502	1,350	2,197	1,938	2,102	4,050	4,926
6. Other Recurrent Expenditures	17,641	20,822	21,466	20,664	23,346	28,107	30,241	34,013	32,384	39,951
<b>TOTAL EXPENDITURE</b>	159,755	162,261	197,435	190,467	206,859	241,033	265,225	322,564	412,116	485,632

1/ Excluding foreign financing of four TU institutes.

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Libraries of Tribhuvan University

1. The Tribhuvan University library system consists of a central library, four regional libraries, and a large number of campus libraries. It is intended that the central library (acting as a regional library for the Central Development region) and the Regional Libraries provide professional leadership, policy and management direction, and a measure of technical support to their respective regions. The Central Library is also meant to provide overall leadership and policy direction to the system.
2. The libraries, however, do not function as a system. The central and regional libraries operate essentially as separate entities and the campus libraries operate under the direction of the campus chief. The central library has managed to provide some training input to the system but this is relatively recent and has been based on a very low level of technical competence. The reasons for the breakdown of the intended system are:
  - (a) shortage of staff, particularly qualified professional librarians, but also trained para-professional, technical staff;
  - (b) under-developed service and management policy;
  - (c) the lack of any technical infrastructure within the libraries or the system.
3. The library system clearly requires systematic and continuing assistance and appropriate technical and financial inputs if it is to function efficiently and effectively as an information provider and an academic service to the University. The inputs to the system should provide for regionalization and decentralization; training in modern information technologies and services; training in internationally accepted computer-based bibliographical data standards; and increase in the number and quality of qualified staff; and for the inculcation of modern service concepts, thereby providing the base for future library coordination and cooperation at the regional, national and international level.
4. The following is a listing of the areas that will upgrade the system so that it can best service the needs of the university as a whole.



### Finance

5. The percentage of the recurrent budget spent on library materials at Kirtipur in 1991 and 1992 compares favorably, though at the low end of the range, with the comparable percentage in many western and Southeast Asian universities but the spread of disciplines and the research emphasis would point to the need for the percentage total to be closer to 3 percent than 2.66 percent in 1991 at the 2.55 percent in 1992. The current percentage, 1.69 percent, is simply not reasonable if the library is to fulfil its role as an information provider. Budget continuity is essential if the library is to maintain periodical subscriptions and course support, and ensures that the library gets a fair and consistent share of funding in good and bad funding years.

6. One possible area of financial assistance might be the establishment of a compulsory academic services (or library) fee on a short, medium or long-term basis. This imposition of a service fee is common in many other countries, but the principle and the relative level of the fees is an issue that can only be resolved in the TU setting.

### Buildings

7. The central library at Kirtipur requires extensive renovations to its power supply, lighting and plumbing. Structural alterations are also needed to allow for more solar warming in winter. Extension of the building by approximately 1122 sq m along with associated furniture, fittings and shelving is also required in order to provide for user space and an expanded collection. The building is very cold in the winter. Heating should be provided for the entire building with the exception of the area housing the Nepal collection which should have a separate air conditioner and dehumidifier for conservation and preservation of nationally important documents.

8. The regional libraries are generally in need of renovation and upgrading for their current roles. Selected campuses may develop into regional universities, and the libraries ought to be able to serve these future autonomous units.

### Books and Periodicals

9. The reference collections at the central library and the regional Libraries require significant upgrading. Modest and selective upgrading of the reference collections in some of the satellite campus libraries in these regions is also needed. This input of library materials and associated shelving should be phased over a three year period to ensure its formal inclusion into the collections.

### Equipment

10. The central library requires a range of microform equipment; a camera for preservation and conservation of unique and/or cultural materials such as local newspapers, Nepal materials, etc; and associated microform readers and a read-printer to access this material. Binding equipment is needed for the central library and the regional libraries.

### Research Support

11. The limited bibliographic research tools available in Nepal and the lack of appropriate automation and communications facilities make contracted external research support a necessity. A service database searches despatched by facsimile and document supply by airmail should be instituted as soon as possible.

### Manpower Requirements

12. There is an urgent need for qualified and trained librarians. There are no professional courses available in Nepal, and training to date has mostly taken place in India. Only paraprofessional (technical) courses are available in Kathmandu and are conducted by the Nepal Library Association with certification by the Council for Technical Education and Vocational Training.

13. It is desirable that subsequent international training be provided in as advanced an institutional setting as possible. The reason for this is the very dated curricula available in the Indian library schools. The technical courses offered in Kathmandu should be supported by the university, and staff should be released to teach and/or attend these short programs.

14. The vacant university librarian position should be advertised at the professorial level and filled. As soon as practicable after appointment, the university librarian should undertake a study tour to Malaysia and Australia for one month with the primary objective of establishing, on return, library policy, standards, service guidelines and management directives for the library system.

### Cataloguing; Regional Purchasing and Processing of Library Materials

15. With the appropriate technical infrastructure, finance, and training, the central library can order, receive, account for, catalogue, and make shelf-ready all library materials for the campus libraries in the Central District. The regional libraries can provide the same service.

16. A large-scale cataloguing project is proposed that would use a team of qualified librarians, appropriately trained technicians and typists, and computerized databases accessed through compact disc technology. The team should also have UNESCO-sponsored CDS/ISIS software and personal computers. This team can catalogue the backlog of usable but uncatalogued material in the three regions, input all cataloguing data into the CDS/ISIS data base and provide for production of listings of library materials across the university

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or regionally in author, title, subject or classified format. The approximate time frame for this project would be one year.

17. The highly skilled staff used in the project would, on completion, provide the core manpower for central technical processing in the regions. A level of local training using local and foreign experts is required as part of the project design, and study tours in library automation and networking should be provided after project completion. This would ensure that full advantage is taken of the data, the computing skills, and the enthusiasm of the staff. Training by local and foreign experts would be required in the cataloguing Project but short-term curricular support by a foreign expert for the library technician program run by the Nepal Library Association would benefit the university.

#### Nepal Collection

18. There are several collections of books related to Nepal within the University system, and also in the parliamentary and national libraries. The collection in the Central Library is extensive and well maintained and the library has commenced entering much of their cataloguing data for this collection into a database (CDS/ISIS). The cataloguing data for Nepal material at the regional libraries should also be incorporated into this database, thereby producing a university listing.

19. The university library should act as the instigator of a cooperative project with other major libraries in Nepal to incorporate listings and holdings into what would ultimately be a national catalogue of great value to scholars. The national library and the parliamentary library are very receptive to this concept and the parliamentary library is also using CDS/ISIS for part of its collection.

NEPAL

HIGHER EDUCATION PROJECT

Current Situation and Future Scenarios  
of Higher Education Finance in Tribhuvan University

1. As indicated in Table 1, the total government education expenditure in Nepal (including foreign aid) has accounted for about 2 percent to 2.5 percent of the country's GDP, which is relatively low by international standards. The average total education expenditure as a percentage of GDP (or GNP for some countries) for the developed countries is about 6 percent, that for developing countries is about 4 percent, and the overall world average for all countries is about 5 percent. Therefore, it seems appropriate to recommend that Nepal increase its expenditure on education as soon as the state of the economy allows.

2. As indicated in Table 1, the higher education expenditure as a percentage of the total education expenditure in Nepal declined from more than 30 percent in early and mid 1980s to about 26 percent in 1991/92. Although this percentage for higher education is not low by international standards, the per student allocation in constant prices from the government was reduced from NRs 2551 in 1981/82 to NRs 1282 in 1991/92, showing the serious financial constraints of TU. This is probably because the overall spending on education is low but also because the enrollment of higher education expanded too quickly. Table 1 also shows a remarkable increase of total TU expenditure in 1991/92, which is mainly due to large foreign-aid programs implemented at the technical institutes of TU. Since foreign aid may fluctuate considerably from year to year, budgets may decline in future years.

3. Table 2 provides information about planned higher education expenditures for the Eighth Plan period (1992/93-1996/97) of Nepal; the total education expenditure as a percentage of GNP is 2.4 percent, and the higher education expenditure as a percentage of total education expenditure is 28.9 percent. The overall pattern of allocation to education and higher education remains unchanged in this period.

4. Table 3 gives a financial scenario of TU if no significant policy changes take place. This means: (a) TU continues the "open-admission" policy and expansion of enrollment based on past experience; (b) no adoption of new strategies for resource mobilization and utilization including new cost-sharing and cost-recovery policies; (c) no implementation of higher secondary education (+2 schools); and (d) no organizational reform for higher level of institutional efficiency and effectiveness. In this case, the higher education enrollment will reach 337,000 by the year 2000. (This figure includes about 30 percent students at the TU private campuses. However, in the projection of financial needs of TU, this proportion of enrollment is excluded.) The financial projection is in 1991/92 constant prices. Recurrent expenditure requirements are estimated by multiplying the enrollment number with the estimated unit recurrent cost of 1992 (though it is considered low).

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The needs for capital expenditure are estimated by additional facilities needed for the increased student enrollment, without taking into account the urgent needs for improve the existing facilities. The current level of cost-recovery (student tuition fees) is taken into account. As the result shows that in the Eighth Plan period (1992/93-1996/97), TU will have a shortage of funds for about NRs 3.2 billion. This scenario should not be acceptable to the Government.

5. Option 1: Table 4 gives a financial scenario of TU with some significant policy changes. This means: (a) TU will regulate enrollment at no more than 7 percent annual increase; (b) TU will adopt new strategies for resource mobilization and utilization including new cost-sharing and cost-recovery policies (recovering 20 percent of the unit recurrent costs from admission fees, tuition fees and registration fees); (c) gradually implementing higher secondary education (+2 schools) to phase out Certificate-level students over more than 10 years; and (d) carrying out organizational reform for higher level of institutional efficiency and effectiveness. In this case, enrollment will be 131,000 by the year 2000. (This figure includes students at the TU private campuses. However, in the projection of financial needs of TU, this proportion of enrollment is excluded.) The financial projection is in 1991/92 constant prices. The needs for recurrent expenditure are estimated by the multiplying the enrollment number with the estimated unit recurrent cost of 1992 (though it is considered low). The needs for capital expenditure are estimated by an annual increase of about 5 percent capital outlay for improving and expanding the existing facilities, which are only suitable for about 40,000 students on a single-shift basis. As the result shows, during the Eighth Plan period (1992/93-1996/97), TU will have a shortage of funds for about NRs 1.6 billion under this scenario, (with an assumption of 15 percent of total government commitment be reallocated to the newly developed +2 schools). The NRs 1.6 billion deficit under this scenario is still going to be problematic for TU and the Government.

6. Option 2: Table 5 gives a financial scenario of TU with significant policy changes. This scenario implies that: (a) TU will regulate enrollment at no more than 4 percent annual increase before 1995/96 and no more than 7 percent from 1996/97 to the year 2000; (b) TU will adopt new strategies for resource mobilization and utilization including new cost-sharing and cost-recovery policies (recovering 20 percent of the unit recurrent costs from admission fees, tuition fees, and registration fees); (c) the Government will implement higher secondary education (+2 schools) to phase out Certificate-level students by the year 2000; and (d) TU will carry out organizational reform for a higher level of institutional efficiency and effectiveness. In this case, the higher education enrollment will be 69,302 by the year 2000. (This figure does not include students at the TU private campuses.) The financial projection is in 1991/92 constant prices. The needs for recurrent expenditure are estimated by the multiplying the enrollment number with the estimated unit recurrent cost of 1992 (though it is considered low). The needs for capital expenditure are estimated by an annual increase of only about two percent capital outlay for improving and expanding the existing facilities because the student enrollment will decrease. As the result shows the during the Eighth Plan period (1992/93-1996/97), TU will have a shortage of funds for about NRs 0.9 billion under this scenario, (with an

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assumption of 10 percent of total government commitment be reallocated to the newly developed +2 schools. This is based on an additional assumption that when Certificate-level students are transferred to +2 schools, the direct private cost for students' families will be increased according to current tuition structure in Nepal, which might reduce the demand for this level education, so the government will only reallocate 10 percent of its commitment to +2 schools). The NRs 0.9 billion shortage might be handled by mobilizing resources through better utilization of the assets, from contribution of local governments, communities and private business, revenues generated from consultation services, and through improved internal efficiency of the TU system.

NEPAL  
HIGHER EDUCATION PROJECT

Table 1: National Financial Situation and Higher Education Expenditure in Nepal (1981-1992)  
(In Million NRs)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDP	30,988	33,761	39,390	44,417	50,428	59,246	68,858	78,259	88,711	100,628	129,975
Government Revenue	2,676	2,835	3,406	3,916	4,644	5,975	7,350	7,776	9,287	9,628	12,057
Government Expenditure	5,361	6,976	7,437	8,394	9,797	11,513	14,105	18,005	19,669	19,792	24,385
Total Education Expenditure	623	821	885	910	1,241	1,286	1,599	1,740	2,078	2,085	3,205
Education Expenditure as % of GDP	2.0	2.4	2.2	2.0	2.5	2.2	2.3	2.2	2.3	2.1	2.5
among which:											
Education Devpt. Expenditure*	412	604	678	644	879	1,036	1,226	1,458	1,480	1,719	2,734
Higher Educ. Expenditure (TU)*	203	352	336	349	459	407	422	383	452	463	859
as % of Educ. Expenditure	32.6	42.6	38.0	38.4	37.0	31.6	26.4	22.0	21.8	22.2	26.8
among which:											
Government Grant	131	144	162	170	212	200	226	234	270	314	369
Foreign Aid	72	208	174	179	247	207	196	149	182	149	490
TU Income	15	15	15	15	15	15	45	32	42	42	49
Total TU Budget*	218	367	351	364	474	422	467	415	494	505	908
TU Student Number	51,356	52,070	48,229	55,332	54,355	61,133	65,168	74,388	79,432	93,753	110,239
Per Student Allocation from Government (in Rs.)											
in current price	2,551	2,766	3,359	3,072	3,900	3,272	3,468	3,146	3,399	3,349	3,347
in 1981 constant price	2,551	2,426	2,776	2,438	2,671	2,152	1,885	1,581	1,559	1,401	1,282
Price Index	100	114	121	126	146	152	184	199	218	239	261
Per Student Total Expenditure* (in Rs.)											
in current price	4,245	7,048	7,278	6,578	8,720	6,903	7,166	5,579	6,219	5,386	8,237
in 1981 constant price	4,245	6,183	6,015	5,221	5,973	4,541	3,895	2,803	2,853	2,254	3,156

\*including foreign aid.

Source: Tribhuvan University Planning Division and mission estimates.

NIPAL  
HIGHER EDUCATION PROJECT

Table 2: Higher Education Expenditures in the Eighth Plan (1992/93-1996/97)  
(In 1991 Constant Prices)  
(In Million NRs)

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	TOTAL PLAN
GDP	121,062	127,296	133,725	140,545	147,713	155,246	704,466
Government Revenues	12,995	14,236	15,638	17,155	18,819	20,645	86,513
Government Expenditures	24,385	26,948	29,560	32,545	35,832	39,451	164,236
Total Education Expenditures		2,827	3,113	3,427	3,773	4,154	17,284
Higher Education (TU) Expenditures		818	901	992	1,092	1,202	5,004
Education Expenditures as % of GDP							2.455
Education Expenditures as % of Government Expenditures							10.530
Higher Education Expenditures as % of Total Education Expenditures							28.935

Source: Tribhuvan University Planning Division and authors estimates.

Table 3: Tribhuvan University Financial Scenario Without Policy Changes  
(NRs '000 in 1991/92 constant prices)

Year	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Enrollment 1/	155,600	170,800	187,600	223,600	245,800	270,000	297,000	337,000
Recurring Expenditures	675,304	741,272	814,184	970,424	1,067,306	1,171,800	1,288,980	1,416,576
Capital Expenditures	622,950	659,680	729,120	1,362,400	967,820	1,045,940	1,171,800	1,275,960
Total Needed	1,298,254	1,400,952	1,543,304	2,332,824	2,035,026	2,217,740	2,460,780	2,692,536

Total Needed in the Eighth Plan Period (1992/93-1996/97):

Absor Cost Recovery from Students:	8,810,360
Government Commitment:	8,281,738
Deficit:	5,000,000
	3,281,738

Source: Million estimates.

1/ Enrollment number includes students at private campuses. However, they are excluded when projecting TU financial needs.



NEPAL  
HIGHER EDUCATION PROJECT

Table 4: Tribhuvan University Financial Scenario with Policy Changes  
(NRs '000 in 1991/92 constant prices)  
Option 1

Year	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Enrollment 1/	155,600	144,300	132,900	145,400	143,300	140,400	136,300	131,000
Recurring Expenditures	675,304	626,262	576,786	631,036	621,922	609,336	591,542	568,540
Capital Expenditures	622,950	654,098	686,802	721,142	757,200	795,060	834,813	876,553
<b>Total Needed</b>	<b>1,298,254</b>	<b>1,280,360</b>	<b>1,263,588</b>	<b>1,352,178</b>	<b>1,379,122</b>	<b>1,404,396</b>	<b>1,426,355</b>	<b>1,445,093</b>
<b>Total Needed in the Eighth Plan Period (1992/93-1996/97):</b>					<b>6,573,502</b>			
<b>After Cost Recovery from Students:</b>					<b>5,916,152</b>			
<b>Government Commitment:</b>					<b>5,000,000</b>			
<b>Re-allocation to +2 Schools:</b>					<b>750,000</b>			
<b>Resource Mobilization Needed:</b>					<b>1,666,152</b>			

1/ Enrollment number includes students at private campuses. However, they are excluded when projecting TU financial needs.

Table 5: Tribhuvan University Financial Scenario with Policy Changes  
(NRs '000 in 1991/92 constant prices)  
Option 2

Year	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Enrollment 1/	115,000	107,166	97,144	91,727	85,713	79,959	74,482	69,302
Recurrent Expenditures	713,000	664,429	602,293	568,705	531,423	495,747	461,790	429,672
Capital Expenditures	622,950	635,409	648,117	661,080	674,301	687,787	701,543	715,574
<b>Total Needed</b>	<b>1,335,950</b>	<b>1,299,838</b>	<b>1,250,410</b>	<b>1,229,784</b>	<b>1,205,724</b>	<b>1,183,535</b>	<b>1,163,333</b>	<b>1,145,246</b>
<b>Total Needed in the Eighth Plan Period (1992/93-1996/97):</b>					<b>6321706</b>			
<b>After Cost Recovery from Students:</b>					<b>5,373,451</b>			
<b>Government Commitment:</b>					<b>5,000,000</b>			
<b>Re-allocation to +2 Schools:</b>					<b>500,000</b>			
<b>Resource Mobilization Needed:</b>					<b>873,451</b>			

1/ Enrollment number does not include students at private campuses.

NEPAL  
HIGHER EDUCATION PROJECT

**Table 6: Comparison of Financial Scenarios for Tribhuvan University for the Eighth Plan Period (1992-97)**

Parameters	No Significant Policy Change	Option 1	Option 2
Annual enrollment increases	Open admissions	7%	4%
Recovery of recurrent costs	9%	20%	20%
Certificate phaseout	No	After 10 years	by year 2000
Organizational reform	No	Yes	Yes
Enrollment (1997/98)	270,000	140,400	79,959
Recurrent expenditures (1997/98)	1,172	609	496
Capital expenditures (1997/98)	1,046	795	688
Total funding required (1997/98)	2,218	1,404	1,184
Total budget need (Eighth Plan Period)	8,810	6,573	6,321
Total after cost recovery (Eighth Plan Period)	8,281	5,916	5,373
Government financial commitment (Eighth Plan Period)	5,000	5,000	5,000
Reallocation of TU funds to +2 schools	0	750	500
Funding Shortfall (Eighth Plan Period)	3,282	1,666	874

Note: Financial figures in NRs million

NEPAL

HIGHER EDUCATION PROJECT

Implementation Issues in Higher Secondary Education  
Relative to Higher Education

1. The implementation of higher secondary education provides a unique opportunity for a positive project impact on Nepalese higher education and on the national budget. However, various important issues need to be addressed during strategy development. These are:

A. Implementation Strategy

2. The Government policy is to replace the two Certificate years offered at TU with higher secondary education; the Certificate-level enrollment in university campuses would gradually increase eventually stop. However, the MOEC plan that was implemented in 1992 could work at cross purposes with that goal. The +2 grades would gradually open in about 125 secondary schools in the country (about seven percent of all secondary schools) which would be willing to self-finance the task. These schools would be mainly located in districts without university campuses in order to serve the local population.

3. The 36 pilot-project schools that offered +2 grades in 1992 met the above criteria. But rather than decreasing enrollment in university campuses, they appear to have succeeded in attracting students from the poorer population who could not afford to live away from home. Although increased access is a worthwhile goal, elimination of Certificate-level courses from TU would require actions focused on specific campuses. These would require plans and investment costs that the Government is now starting to consider.

4. The fact that +2 grades are opened only in schools able to finance the program themselves has created an oversupply of cheaper humanities and commerce courses. In 1992, only three schools opted for the more expensive science courses. Aside from labor-market implications, this issue has socioeconomic consequences. The poorer students, who cannot afford to live away from home at a university campus are more likely to be tracked into cheaper, lower-returns specialties.

5. The thinking in Nepal on 10+2 is still evolving. The complexity of the task and the potential short-term sacrifices have created considerable concern at the university. Various timetables have been proposed for full implementation of higher secondary education, ranging from five to 15 years. Experts who have implemented +2 in India, however, believe that +2 could be implemented in most areas of Nepal during a two-year period if about four years were spent on planning for civil works, curricula, teacher training, and financing. During 1993, the Government and the university are expected to make clear decisions regarding their expectations from higher secondary education and the strategy by which they plan to achieve them.

6. Implementation is most important in light of preliminary projections from the IDA-financed secondary-school sector study which indicate that under a 10-year implementation schedule, investment (US\$69 million equivalent) and recurrent costs would be about US\$123 million if no resource transfer takes place from TU to MOE. IDA will finance regional technical assistance for the development of a phased implementation plan that will take into account lessons from other countries which have implemented +2. The UNDP tertiary education grant is financing studies of secondary-school space, professor availability, and identification of feeder schools to various campuses as well as technical assistance for the initial development of a transition plan.

#### B. Physical Facilities

7. Under the current supply-driven plan, the +2 grades are only opened in schools that have space or can undertake civil works at their own expense. To eliminate Certificate-level courses from campuses, however, alternative schools should be made available to absorb students who would be most likely to attend those campuses. This could be achieved through: (a) reassignment of specific campuses for the exclusive use of Certificate-level students; and (b) additional civil works in strategically located secondary schools that would facilitate the evacuation of specific campuses. School space and feeder school studies would be undertaken through the UNDP tertiary education grant to facilitate this task.

8. Specific campuses, under the prospects of regionalization, have agreed in principle to the campus separation idea if it is accompanied with refurbishment of facilities. The regional cluster development subcomponent is intended to plan and test possible models of +2 implementation in interested campuses. For example, professors could decide as a group how to meet the short- and medium-term teaching needs in the +2 schools or classes.

#### C. Curricular Principles

9. Until about 1991, there was de jure tracking at grade 9 in secondary schools of Nepal into humanities and sciences. Students who did not study science, offered in few schools in the country, entered into the humanities track. Now science is compulsory, but still not taught in the secondary grades of many schools. Tracking prematurely limits student options for university entrance (normally at age 16). To some extent, tracking is a consequence of socioeconomic status; although science was made obligatory through grade 10 in the early 1990s, poorer provincial secondary schools often lack facilities to teach it and their graduates become permanently ineligible to enter science faculties in the university; as a result, the better-off urban students (who can also afford private tutoring for the secondary school leaving examination) are more likely to study sciences than students with fewer family resources. No policy or bridging courses exist to mitigate the inequality. Tracking goes against world trends, which point towards general education up to grade 12 with some language, mathematics, science and social studies for all students. Increasingly, countries also facilitate later decisions on specialization and provide avenues for students to change specialties.

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10. CHSE is intent on providing to +2 students an equal or better quality of education than that provided by university campuses. For the time being, however, the first two years of university curricula have merely been transported to the +2 grades with minor changes. Students are tracked in four specialties in grade 11 (humanities, sciences, education, commerce) and will only be eligible to enter the university in those specialties. The proposed project will encourage the Government and the university to decide on the extent of tracking that should exist in various ages and on the goals which +2 curricula should achieve.

11. Certificate-level students often lack textbooks and may study from bazaar notes, which are frequently available for the more populous lower-level courses. The same problem continues in the existing +2 schools. The proposed project will encourage the provision of affordable and readable textbooks for grades 11 and 12 by identifying suitable textbooks in the international market, making the necessary provisions to make them available, or, if absolutely necessary, develop certain new textbooks.

#### D. Examination Issues

12. CHSE is expected to conduct annual examinations for grade 11 and leaving examinations for grade 12. No policy has been developed yet regarding the use of the future higher secondary education leaving certificate for university entrance. The default is that, as with current secondary school leavers, graduates will freely enroll at the university. It is likely, therefore that failing as many examinees as possible will remain the main strategy to limit entrance to the university.

13. The introduction of the higher secondary education leaving examination would present an opportunity for the Government to institute fair and socio-economically sensitive graduation criteria while installing barriers to limit student admissions to the university. Students should be examined for graduation and certification through criterion-referenced principles (even without the development of sophisticated criterion-referenced tests). This means that graduation per se would be determined by whether students have achieved an acceptable level of mastery of the material. Students meeting rough mastery criteria should be allowed to graduate and enter the labor market. Entrance to the university, on the other hand, should be determined by norm-referenced principles (i.e. only a certain percentage of the highest-scoring students should enter) or by different, norm-referenced tests. The Government is still studying the feasibility of this proposal.

14. CHSE has no capacity at this time to conduct examinations, score them, record, and issue certificates. The project will finance technical assistance, hardware, and software for this purpose.

#### E. Teacher Recruitment and Training

15. Master's-level teachers or experienced teachers with lower credentials will be needed to teach the +2 classes. Sector assessments (e.g., Asian Development Bank) have concluded that there is a shortage of trained teachers at the secondary level. Since Master's degrees in the humanities have expanded their programs, potential teachers may be available in local labor markets for Nepali, English, and possibly mathematics. Science teachers, however, may be less available.

16. Since +2 grades are still community-supported, teachers have been recruited locally. However, they lack teaching experience and they should receive training in the subject matter as well as in instructional methodology. CHSE in conjunction with MOE and the TU faculty of education (which trains secondary-school teachers) should develop and carry out a training program. The project will finance investment and recurrent expenditures for materials development and desktop publishing, salaries of teacher trainers, travel and subsistence allowances for recruited teachers. Professors currently teaching Certificate-level courses could serve as trainers.

17. Use of professors for +2 grades. In very rough terms, removal of all Certificate-level courses from campuses would diminish the need for 65 percent of professors who teach in campuses other than the three exclusively graduate campuses. A third year in the university would utilize some of them. Current dropout rates, however, indicate that third-year students would probably be few, around 15,000. The university might still have a considerable staffing excess. All this professor time may not be usable in the +2 grades, because teacher needs will depend on curricular decisions. If early specialization continues, professors of all courses taught in the Certificate-level would, in theory, be candidates for reassignment. But if the Government follows world trends and develops general curricula for grades 11 and 12, the professors to be reassigned would mainly be those of Nepali, English, math, and science. Specialty professors (e.g., law) would be of little use to +2 schools.

18. It will probably not be necessary for surplus professors to be assigned permanently to schools. They may be asked to cooperate in covering some +2 classes for the short term if necessary and prepare the educational institutions for the transition.

#### F. Long-Term University Strategy

19. University authorities would like, in the long run, to concentrate the university in as few locations as possible within an area. This strategy would be consistent with the reassignment of specific campuses to higher secondary education and with the creation of a smaller, higher-level academic institution. Most or all of Tribhuvan University in Kathmandu could be relocated in Kirtipur, which has much land available for future construction. This strategy would concentrate resources, facilitate the studies and work of professors and students, and lower the high unit costs associated with small multiple campuses (which number about 29 in Kathmandu). The UNDP grant includes a study on facilities rationalization for the Kathmandu valley campuses.

20. The proposed project will finance additions to about 10 schools (US\$0.5 million) office equipment and a vehicle for CHSE, foreign and local technical assistance for textbook development, teacher training development, and a higher secondary school leaving examination (US\$0.2 million). It will also finance instructional equipment as well as reference books for 30 schools willing to share costs.

NEPAL

HIGHER EDUCATION PROJECT

Organizational Structure of Tribhuvan University

1. The organizational structure of Tribhuvan University consist of TU Council, Academic Council, TU Service Commission, institutes, faculties, divisions, constituent campuses, affiliated campuses, research centers, and other bodies.
2. The Chancellor of TU is His Majesty the King of Nepal, who appoints the Vice-Chancellor for a period of four years as the Chief Executive Head of the University, assisted by the Rector (4-year term) and the Registrar (4-year term) in their academic and administrative functions, respectively. The Offices of the Vice-Chancellor, the Rector and the Registrar constitute the Central Administration of the University that executes its Academic and Administrative functions through three main organs: the University Council (50 member highest legislative body), the Academic Council (50 members), and the Executive Council (seven members). The first is headed by the Chancellor; the remaining two are headed by the Vice-Chancellor.
3. The University Council meets twice a year and formulates the basic policies of the university, directing and approving its programs. The Academic Council is concerned with curricular development and approval of academic programs, sanctioning and awarding diplomas, certificates and degrees. The Executive Council deals with the administrative, financial, and examination procedures of the university and is responsible for the execution of the decisions made in the TU Council. The Executive Council also deals with appointments, recruitment and disciplinary measures for approximately 5065 teachers and 5511 administrative staff.
4. The Service Commission of the university is headed by the Chairman, who has a three-year tenure and two members (also with three-year tenure) appointed by the Chancellor. It deals with selection and recommendation of all teachers and staff for appointment and promotion to the university.
5. Directly under the Vice-Chancellor is the Planning Division as well as a Legal Advisor, the Council Secretary, and the Publications Unit. The Rector and the Registrar chair several committees and divisions. The Registrar is responsible for the Examination Committee and the Financial Administration, General Administration, Inspection and Personnel Divisions. The Rector is responsible for the Curriculum Development, National Development, Research, and Coordination Divisions as well as the Central Library and the Student Welfare Unit.
6. TU has five institutes, four faculties, and four research centers. The institutes and faculties are directed by deans with academic as well as administrative functions. The institutes are autonomous in academic and administrative affairs and establish their own minimum requirements for entrance. The research centers are under the Rector of TU and coordinated by the Research Coordination Committee which formulates research policies, evaluates, and monitors research activities.

7. Institutes and Faculties have each a faculty board responsible for the approval of syllabi and instructional programs. In addition to the faculty boards there are Subject Committees responsible for preparation of courses. Campuses have Instructional Committees responsible for individual subjects at campus level. There are 33 Graduate Central Departments under the supervision of the Rector to handle financial and administrative functions, curriculum design and implementation measures for specific courses taught throughout the university.

8. Each campus has its own administration headed by the campus chief appointed for five years by the Executive Council of TU. Under a campus chief there are assistant campus chiefs, instructional committees, and units with several branches: General, Financial, Examination and Property. The populations of the public campuses vary from 400 to 8000 students.

9. In addition to the 65 public campuses there are approximately 130 private campuses run by individuals or by non-profit community organizations. They usually lack buildings and operate as early-morning or as evening shifts in local secondary schools. The proprietors are usually the campus chiefs.



NEPAL

HIGHER EDUCATION PROJECT

Course Examinations

1. Possibly no other country in the world uses a centralized examinations system as extensively as Nepal. The university has approximately 68 examination centers in Kathmandu and 48 outside Kathmandu for Certificate-level students, 36 for Bachelor's degree students, and 7 for Master's degree students. The examination process is expensive, does not accurately assess student knowledge, and is of little value to students as performance feedback. It does, however, serve some quality control functions: (a) all students, including those of private campuses, have to perform to the same standards; (b) undesirable influences on scoring are relatively difficult to achieve; and (c) professors feel protected from student pressure.

2. The examinations system creates a vicious cycle. Since student performance is only measured once a year, there is a premium on passing that examination by any means possible. This tendency forces the university to further tighten and centralize the examinations, making it too expensive and impractical to assess students more often than once a year. Examinations simply promote or fail; they do not provide any feedback to students. Since all campuses must teach and test the same material, curricula cannot easily be updated and remain antiquated. As a result, the system sacrifices instructional effectiveness for centralized control.

3. Since examinations tend to drive the curricula world-wide, a system that forces students to analyze and synthesize the information might result in improved quality of education at the university. The project will finance activities for the development of an examinations system that facilitates quality control and also has the following characteristics:

- (a) To diminish measurement error, assess multiple modes of performance, and make students study throughout the year, there should be multiple examinations, including short tests and grades on field work, research papers, case studies, etc.;
- (b) Tests must measure comprehension, application, analysis, synthesis, and evaluation of information. Currently, they merely measure the recall of unrelated items (e.g., dates, definitions);
- (c) Examinations must be valid (i.e. related to content actually taught) and reliably measure student performance;
- (d) To serve as an instructional tool, feedback must be timely and an integral part of a course. Currently, examinations are not within professors' responsibilities; professors who score examinations are paid extra.

4. University authorities are planning to decentralize scoring of final examinations to each of the country's five regions. Also, encouraging international experience exists on campus- or cluster-based scoring, which could be used in Nepal. With student names hidden, professors of a campus or

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a cluster of closely located clusters could exchange papers and score them. If scoring took place on campus premises (rather in professors' homes, as is currently done) the work might be completed in days rather than months. However, university professors and authorities must decide on possible procedures that meet quality control and instructional effectiveness criteria and pilot-test them. Also, the payment currently given to professors who score papers (NRs 5-6 per paper) needs to be distributed differently and could be combined with the salaries of all professors involved in scoring.

5. The UNDP tertiary education study will conduct a workshop during 1993 to develop an agreement on procedures that will make the system more flexible, less centralized, and more likely to assess desirable course objectives. The recommendations of the workshop will be translated into activities to be financed by the proposed higher education project. The project will also strengthen the Controller of Examinations Office in order to facilitate testing-related research and capability to carry out standardized achievement testing for entrance examination. The project will finance:

- pilot projects to test various decentralization methods;
- civil works for the Controller of Examinations office in Kirtipur;
- a management information system for the Controller of Examinations;
- desktop publishing facilities for the Controller of Examinations office;
- photocopying and faxing equipment for all campuses able to raise matching funds;
- microfilming equipment for controller of examinations archives;
- office furniture;
- foreign fellowships for advanced studies in educational measurement;
- development and maintenance of computerized item banks of good essay and short-answer questions; development of item statistics for such questions;
- computer hardware and software to conduct item analyses, obtain item statistics (on the basis of holistic scoring), measure test validity and reliability, and select test items by computer.

6. The proposed project will finance a new building for the Controller of Examinations, computer hardware and software, office equipment and furniture (US\$0.2 million). It will also finance foreign technical assistance for the development of test items, scoring workshops (US\$0.1 million). There will also be a fund to pilot-test alternative arrangements to the current centralized examination scoring (US\$20,000).

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NEPAL

HIGHER EDUCATION PROJECT

Curriculum Development

1. As a result of prior short schooling (10 years) and obsolete academic policies, Tribhuvan University curricula have the following problems:

- (a) low entry level and need to continue general courses (e.g., Nepali, English) throughout the university years); although English is the official instructional language at the university, many students in poorer areas do not understand it well enough to learn subject matter from English-language textbooks;
- (b) low level of professional attainment in most fields due to general courses and required double majors;
- (c) outdated subject matter, infrequent revisions;
- (d) little actual need for classroom attendance (students are able to pass courses by taking coaching classes and studying the questions of previous years);
- (e) a single examination per course, which allows students to spend much of the academic year without having to study;
- (f) teaching and examination of bits of information rather than comprehension, application, analysis, synthesis, or evaluation;
- (g) limited use of textbooks due to high cost, scarcity, and limited English comprehension; students often study from class or informal circulating notes;
- (h) lack of professorial responsibility for delivering instructional material and helping students pass a course.

2. However, world trends point towards:

- (a) a structure of major, and minor fields of study as well as useful core courses (e.g., computer literacy, expository writing, reading of English textbooks);
- (b) functional mechanisms for periodic curricular revision;
- (c) a single, affordable textbook per course, which actually meets students' instructional needs;
- (d) incentives for classroom attendance through multiple and unannounced tests and emphasis on material to be tested in final examinations;

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- (e) professorial discretion and responsibility to teach material and measure student performance on it.

3. Tribhuvan University would like to update its curricula and add an extra year to its Bachelor's degree, but its academic policies must be reviewed and determined prior to curricular revisions. Some important issues are:

- (a) When should student specialization start? Accordingly, what should the +2 curricula teach?
- (b) Should tracked students enter the university and remain tracked? If not, how should course offerings be structured to maximize flexibility?
- (c) What level of skills should students acquire by the end of each degree? What would be the terminal objectives of each specialty?
- (d) What structure of majors, minors, and prerequisites would achieve the final objectives of each degree? (such issues as well as advanced placement, part-time, interdisciplinary studies, honors program have been resolved elsewhere through systems of academic credits)
- (e) Should professors be responsible, to some extent, for student achievement? Through what mechanisms?
- (f) Which fields of study and courses are more likely to meet the needs of Nepal's labor market and culture? (e.g., environmental studies, communication courses, computer technology, tourism). Which fields of study could be amalgamated or abolished? (if any)
- (g) If the course structure is radically altered, how will new and old curricula be phased in specific campuses and specialties?

4. The UNDP tertiary education study will finance workshops on the above issues during 1993-1994.

#### Curriculum Revision Process

5. The ongoing UNDP study will finance (a) workshops and (b) foreign technical assistance for priority specialties through institutional twinning. On the basis of workshop recommendations, authorities will decide the extent to which academic policies will be modified as well as a timetable for these changes. Specifically, the following activities are expected to take place through the UNDP study in 1993-1994, prior to or in the first year of project effectiveness:

- (a) workshops to review the university's general academic orientation and requirements as well as policies of professors' attendance and performance;
- (b) contacts, communications, decisions regarding twinning institutions that will help various faculties with curricular revisions; 1993;

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- (c) Curriculum conferences to be held for about 20 possible majors. These will bring out the problems that professors have with the subject matter and informal needs assessments. They should involve staff from remote campuses, who often face greater problems. Consultants from the twinned institutions will be present and will develop overall revision proposals on the basis of the conference feedback (1993-94);
- (d) Work of international consultants from twinned institutions with faculty boards for the revision of terminal objectives for three-year degrees and general course breakdown (1993-May 1994). Detailed work with subject committees for the revision of specific course syllabi will also be carried out to the extent allowed by the duration UNDP study.

6. The proposed IDA project will continue the work of the UNDP study. Activities will include:

- (a) Continue work not completed by the UNDP study in activities (c) and (d) above;
- (b) Complete the revision of three-year terminal objectives and general course breakdown for about 20 majors (by mid-1995; feasibility linked to +2 implementation);
- (c) Determine compulsory and elective courses for major and minor fields of study; schedule course sequences in each year of studies on the basis of world trends (1995-1996);
- (d) Develop entrance prerequisites to each course (i.e. what a student should know before entering); develop remedial courses whenever necessary (1995-1996);
- (e) Develop specific course syllabi, identify textbooks for each course; identify reference materials for campus libraries (1994-1999);
- (f) Identify or develop teacher guides; include instructional activities to emphasize (i) application, analysis, synthesis, and evaluation of material and (ii) multiple assessments, particularly field work, projects, student research, case studies for law school; (iii) use of audiovisual techniques where available (1994-1999); (The project will finance development in high-priority courses);
- (g) Revise examination questions to assess material in the new curricula and focus on comprehension, application, analysis, synthesis, and evaluation of material.

7. Since some specialties influence the country's development more than others, curricular development of priority areas (e.g. sciences, education) will take place earlier. It is expected, however, that the curricula of all specialties will be reconstructed to fit the new three-year programs by project completion. The development of syllabi and teacher guides

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would be carried out each year for field-testing and use in the following year. Dissemination workshops will precede implementation.

8. Given the complexity and magnitude of the task, low professor qualifications, and limitations with textbook availability (see below), the new curricula may have to be based, in the short term, on the material presented in suitable textbooks. High-quality but also accessible textbooks could dictate the curricula for the time being. As professor qualifications improve and experience is gained with curricular revisions and textbook distribution, further course development may be more responsive to professional discretion.

#### Textbook Availability

9. Many courses (particularly in non-science subjects) lack specific instructional materials. Professors typically recommend one or more textbooks for a course, but these books are often treated as general reference materials rather than actual study guides that help students pass a course. Many students do not systematically study from them because the textbooks are: (a) not commercially available (particularly in remote areas); (b) too expensive, particularly when more than one must be bought (textbooks above NRs 100 seem unaffordable by many); (c) not helpful for the examinations, which ask for few, concrete pieces of information; (d) incomprehensible (they either do not contain sufficient explanations, or students may not know enough English to read them); or (e) boring. Instead, students may study from informal notes (which are inexpensive but may contain many mistakes) or from photocopies of recirculating class notes. The reading material for a year-long course may amount to as little as 50 pages. Students, therefore, tend to learn a low amount of unconnected information and are particularly weak in comprehension and application of what they learn.

10. The subject committees revising and developing each course under the proposed project would ascertain that a textbook is realistically available. The university would also look into the provision of direction to the printing and distribution industry that effectively sells informal notes all over the country. Subject committees will:

- (a) obtain sample textbooks available in the international market (see below, role of CDC);
- (b) assign to courses books that appear affordable to less affluent students;
- (c) field test proposed textbooks with students, particularly in campuses of less affluent areas.

11. When comprehensible and reasonably published materials cannot be made available to students, the following options will be pursued:

- (a) translate or adapt existing textbooks in collaboration with local publishers, particularly for courses with large enrollments;
- (b) as a last resort, write and publish selected textbooks (e.g., Nepali language);

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- (c) purchase copyrights for limited printing in Nepal;
- (d) for particularly good but relatively expensive textbooks, encourage campuses to develop a mass acquisition and rental scheme of textbooks with depreciation and cost-recovery on a three-year basis; (This scheme would be particularly important in putting high-quality, illustrated science books in the hands of poorer students.)
- (e) facilitate the development of a second-hand book market, possibly through campus libraries.

12. Subject committees must also anticipate and focus on the backup solutions of students who cannot afford, find, or understand the textbooks. These could be:

- (a) identification and recommendation of acceptable foreign-language textbooks, where possible;
- (b) help to the writers and publishers of bazaar notes for the updating and improvement of these materials (CDC will find them and interface);
- (c) desktop publishing or photocopying of class notes and commentaries for courses which lack commercial bazaar notes, for sale at a small profit by campus libraries;
- (d) providing campus libraries with multiple copies of textbooks; and,
- (e) financing photocopy machines in each campus library to run at a small profit.

13. The project will finance the ordering of sample textbooks world-wide for teachers' review. CDC will have the responsibility for placing orders of sample textbooks (which are often free) and paying for them when they are not.

#### Dissemination Workshops and In-service Training

14. The cascade process will be used for in-service training. A team of professors will be trained by international consultants on new course content (about five days of training per course). They will visit various regions and hold workshops in central campuses. Teacher guides will be used during workshops. Professors from nearby campuses will be asked to attend. CDC will coordinate, and travel allowance for professors will be financed by IDA.

15. In-service training for textbooks. In countries with chronic textbook scarcity, teachers themselves have studied from notes and may not consider textbooks necessary. Some professors in Nepal, apparently, do not know how to make effective use of textbooks. They should also be trained in the use of new textbooks and in teaching their students how to use them. In-service training on the new curricula should include this issue.

16. Each course should also be accompanied by a set of reference materials, which will be ordered for campus libraries. CDC (see below) will also have the responsibility for compiling and reconciling these lists by campus and for procuring them for libraries.

#### Improvement of Instructional Delivery

17. Professors teaching the revised courses should have a clear syllabus available, a teacher's guide, and a copy of their own textbook. Due to the separation of testing from instruction and the long delays in examination results, professors generally do not know how many students pass their course and they are not held accountable for results. Accountability for helping students master the course objectives could be reinforced by monitoring pass rates for each subject and providing feedback to the professor. (This task will be much easier when a management information system is installed.) Class activities of professors with particularly low pass rates could be constructively monitored by peers. A pilot project in one campus may be undertaken after an MIS is installed in the office of the Controller of Examinations. The proposed project could monitor whether pass rates improve after constructive feedback.

#### Institutional Strengthening for Curriculum Development

18. Tribhuvan University actually has a well-developed structure for curricular development (campus instruction committees, subject committees, faculty boards, academic council). The problem lies in activating this structure. This would be accomplished by strengthening the Curriculum Development Center (CDC), which was developed to act as a curriculum dissemination agency to the university's many campuses.

19. CDC has the organizational structure to conduct its work, including divisions for: (a) textbooks and curricula; (b) equivalence for foreign diplomas; (c) textbook writing; (d) publication of a journal; (e) administration; and (f) extension (workshops, seminars). It has 15-20 clerical or junior professional staff, computers, photocopying equipment, and a vehicle. The low levels of university funding have enabled CDC to develop and disseminate curricula only for university-wide compulsory courses, i.e. English, Nepali, and Nepal Parichaya. For the duration of the curriculum revision process of the proposed project, CDC should function as a dissemination agency but also as an organizational and coordination body. Given its resources, CDC will organize the curriculum revision process, set up realistic time frames, monitor the activities of various task forces and groups, prepare lists of activities, and provide administrative secretarial, and logistical support.

20. By project completion, faculties should develop sustained curricular leadership, and CDC functions would be again limited to dissemination of updated curricula and syllabi.

21. The proposed project will finance rehabilitation, furniture, a vehicle, and instructional equipment for the Curriculum Development Center (US\$0.1 million), technical assistance in the form of institutional twinning for curriculum development and dissemination activities, books and teacher guides (US\$1.3 million), and additional staff for CDC.



NEPAL

HIGHER EDUCATION PROJECT

Selected Policy Actions, IDA Interventions, and UNDP Self-Study Activities

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Policy Objectives	IDA Project Activities 1994-2000	UNDP Self-Study Activities August 1992-May 1994
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I. Regulate Enrollment  
Growth

- Limit enrollment to the capacity of each campus and department

Enrollment monitoring through EMIS

Workshop on admissions policies and alternatives  
Workshop on academic policies

II. Improve Resource  
Mobilization and  
Utilization

- Examine and decide upon policies for cost recovery and income generation

Workshops, exploration of policies to protect the poorer students

- Examine and decide upon procedures to maximize income from commercially viable assets owned by TU

A financial planning study

A property inventory and appraisal

- Increase student responsibility for tuition and other fees

A study of scholarship awards will be conducted.

- Encourage local governments, communities, and private businesses to become active participants through provision of support to local campuses

Civil works and equipment for campuses that raise matched funds.

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Policy Objectives	IDA Project Activities 1994-2000	UNDP Self-Study Activities August 1992-May 1994
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III. Implement Higher  
Secondary Education

<p>- Initiate preparatory activities</p>	<p>Curriculum, examination, and textbook development assistance for +2 grades</p> <p>Equipment and materials to higher secondary schools providing matching funds</p> <p>Grade 11-12 students separated in cluster campuses to be financed</p>	<p>Space survey for all secondary schools</p> <p>Professor employment survey</p> <p>Feeder schools survey</p>
<p>- Implement a transition plan</p>	<p>Technical assistance to develop a phased plan for TU and MOE</p> <p>A plan and timetable for transition in the regional and clustered campuses</p>	<p>Short-term technical assistance to develop a phased plan for TU and MOE</p>
<p>- Improve facilities at selected secondary schools and campuses devoted to +2 students</p>	<p>Provide civil works to selected schools taking over campus +2 students</p> <p>Refurbish and maintain campuses that will become +2 schools</p>	<p>A facilities rationalization study of the approximately 23 Kathmandu valley campuses.</p>

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Policy Objectives	IDA Project Activities 1994-2000	UNDP Self-Study Activities August 1992-May 1994
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IV. Improve  
Organizational  
Effectiveness

- Decentralize managerial responsibility to institutes, faculties, research centers, and campuses

Formation of two regional clusters of campuses; minor maintenance, books, office and instructional equipment to be financed

Self-study to set standards for achieving autonomy-regionalization

Study to address the long-term development of new universities

Policy studies on decentralization

A policy implementation fund for interested campuses

- Strengthen the central administration to perform policy planning and evaluation functions.

A computerized educational management information system at Kirtipur and at least two regional campuses

Review of organizational structure, policy studies, staff training, study tours

Development of a master plan of the Kirtipur campus site

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Policy Objectives	IDA Project Activities 1994-2000	UNDP Self-Study Activities August 1992-May 1994
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V. Improve Quality,  
Relevance, and  
Responsiveness of Higher  
Education

- Establish three-year  
Bachelor's degree  
programs and update the  
curricula

Technical assistance to  
revise all curricula,  
develop teacher guides,  
conduct dissemination  
workshops, make usable  
textbooks available

Instructional equipment  
and library books to  
regional and clustered  
campuses, also campuses  
that mobilize matching  
funds

Workshop on academic  
staff policies  
(absenteeism,  
instructional  
responsibility,  
promotions dismissals,  
consulting, teaching in  
+2 schools, advanced  
training)

Study of instructional  
processes

Technical assistance for  
curriculum development  
(short-term, general),  
curriculum conferences

- Improve the  
examination system of TU

New Controller of  
Examinations building

Technical assistance,  
equipment, training, and  
fellowships

Workshop to recommend  
simpler scoring and  
testing procedures

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Policy Objectives	IDA Project Actions 1994-2000	UNDP Self-Study Activities August 1992-May 1994
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VI. Improvement and Maintenance of Physical facilities.

- Facilities improvements at Kirtipur campus and the Office of Controller of examinations

Upgrading of selected buildings, protection of the campus

Upgrading of science and library facilities

-Upgrade facilities at two regional cluster centers through core provision and matching fund provision

Workshop on facilities maintenance policy with student participation

- Develop a maintenance plan for facilities and equipment at Kirtipur and regional campuses

Maintenance plans, workshops, and activities, some maintenance equipment

Creation of maintenance centers and Kirtipur and two regional campuses

Provision of maintenance funds to campuses that mobilize matching funds

Staff training, maintenance funding program.

NEPAL

HIGHER EDUCATION PROJECT

Policy Statements

A. Higher Education Policy Objectives

Objective I. Regulate Enrollment Growth

The exploding enrollment during the past decade has far exceeded the rate of increase of available resources and the growth in institutional capacity of TU. This has resulted in serious deterioration of the quality of education. TU is therefore committed during the project period to limit enrollment to the capacity of each campus, introduce entrance examinations to all programs and to enroll students based on merit. TU will cease granting new affiliation for Certificate-level courses, and will seek ways to extend opportunities to the under-served.

Objective II. Options for Resource Mobilization and Utilization

Given the current serious financial constraints, TU is committed to adopting and implementing cost-sharing and cost-recovery policies by increasing tuition fees to 20 percent of TU's recurrent costs and raising examination fees to cover at least 100 percent of examination costs, administering financially optimal use of commercially valuable assets owned by the university, and encouraging local governments, communities and private business to become active participants in financing higher education through support to local campuses.

Objective III. Implementation of Higher Secondary Education

TU is committed to working jointly with the Ministry of Education and Culture to implement a Higher Secondary Education Program in accordance with a 1989 law enabling higher secondary education. TU and MOEC will develop a transition plan acceptable to IDA that will include curriculum strengthening for +2, phasing out of Certificate-level courses from TU, and development of a pilot program to improve physical facilities at selected higher secondary schools.

Objective IV. Improved Organizational Planning and Management Capacity

To improve the organizational effectiveness of the current highly centralized and inefficient higher education system, TU is committed to: (a) decentralize institutional authority and administrative responsibilities to institutes, faculties, research centers and campuses; (b) strengthen the campus level management capacities by providing training to campus chiefs and senior administrative staff; (c) initiate the development of regional clusters of university campuses as a basis for future formation and development of regional universities; and (d) enhance the central administration to perform

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policy formulation, long-term planning and programming, and evaluation functions including establishment of a computer-based education management information system.

Objective V. Improve Quality, Relevance, and Responsiveness of Higher Education

This objective will be achieved through the establishment of three-year Bachelors degree programs and development of appropriate curricula. The examination system of TU will be strengthened through decentralization, enhancement of reliability and validity of examinations, and by improving the linkages between teaching and testing and between curricula and examinations content. In addition computerized data processing will be introduced to streamline the examinations process.

Objective VI. Improvement and Maintenance of Physical Facilities and Equipment

TU policy is to rectify current serious facilities and equipment deficiencies through a program of renovation, upgrading and maintenance, and through development of the financial and managerial capacity necessary to ensure sustainability of investments in the areas of infrastructure and equipment. Sustainability of investments in facilities will be improved through strengthening of construction and equipment maintenance policies and procedures. Facilities Management Plans will be developed and implemented for those campuses receiving civil works and equipment investments under the project. The University is committed to establishing capacity within its central administration to plan and manage future development and operations of TU campuses and facilities.

Note: A Policy Action Matrix has been prepared by TU for implementation of above policy objectives.

B. Joint Policy Statement of Ministry of Education, Culture and Social Welfare and Tribhuvan University

1. Higher Secondary Education is envisaged as a continuation of secondary school. The National Education Commission, too, recommended two more years of secondary education to make it a programme of comparable standards with the schools of South Asia.

2. Higher Secondary Education will be the only vehicle for delivering the programme. The precise timing and modalities of phasing in and phasing out as well as the overlap period will depend on the Transition Plan being developed.

3. All the existing below Proficiency Certificate Level and Proficiency Certificate Level technical courses will be phased out gradually from the university. These programmes and Vocational Training (CTEVT) now empowered to do so under the recently amended Act.

4. The curricula of the Council for Higher Secondary Education (CHSE) will be revised and integrated into a single programme with a limited number of elective courses. The Council's curriculum will have only a core course with additional optional groups. Mathematics and Sciences may eventually be among the core courses.

5. Immediate renaming of Proficiency Certificate Level courses as higher secondary without curricular revision is unlikely to benefit the reform because it might actually slow down the phasing out of the Proficiency Certificate Level programme from the campuses. However, Tribhuvan University will adopt the higher secondary curricula and phase out its Proficiency Certificate level courses once the higher secondary curricula are redesigned and the Transition Plan is formulated and approved by the MOEC, the CHSE and the University.

6. It is the policy of the Government to make higher secondary education accessible, particularly in the disadvantaged areas of the country. The National Education Commission, in its Report to the Government, recommended that the higher secondary schools be encouraged in the districts with no university campuses. It is also the Government policy to encourage urban schools to introduce higher secondary programmes. The Government has also decided to allow to conduct higher secondary programmes in other institutions where minimum requirements have been fulfilled. Both these measures will help decongest the university campuses.

7. Although the current policy of His Majesty's Government is to run the higher secondary schools mainly with community financing, the Government will provide additional funding as capital non-recurrent lumpsum grant by mobilizing both internal and external sources. (The Eighth Five-Year Plan has allocated NRs 100 million to support higher secondary schools. His Majesty's Government has also signed a Secondary Education Development Credit with the Asian Development Bank).

8. The University will share with the CHSE its surplus resources. The modalities of such sharing will be worked out with the Ministry and the Council once the Transition Plan and the Facilities Rationalization Study are finalized and approved.

9. The concern of the private sector to participate constructively in the reforms will be addressed through the following policy initiatives:

- (a) The private campuses will be given options either to run the +2 programmes separately under the ownership of its management committee, or to integrate this programme with any school as mutually agreed upon between the school and campus management committees.
- (b) The private campuses opting for higher secondary programmes will be provided financial incentives in the form of non-recurrent grants-in-aid.



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- (c) The university teachers willing to teach in higher secondary schools on full-time basis will be deputed to such institutions for short and medium term.

(original signed)  
Dr. Ishwor Prasad Upadhyaya  
Secretary  
Ministry of Education, Culture  
and Social Welfare  
His Majesty's Government of Nepal

(original signed)  
Kedar Bhakta Mathema  
Vice Chancellor  
Tribhuvan University  
Kathmandu, Nepal

NEPAL

HIGHER EDUCATION PROJECT

Management Information System Needs of Tribhuvan University

1. There is no lack of data in Tribhuvan University. Most of the information at present required for existing planning practices is available. Data collection and processing procedures are in place and systematic records are kept on most of the data collected. The procedures, though systematic, are at best slow and rudimentary. Data are processed manually in a multiplicity of records and ledgers. Recording is a time-consuming task, and simple queries of the data require tremendous efforts. Due to the slow data collection/processing, there are lengthy delays in the report of results or output of raw data. Up to two years lapse between data collection and output.
2. Data are publicized in an annual statistics book produced by the Division of Planning. It offers highly aggregated data on students, teachers, facilities, finance, and other topics from government administered-campus, institutes, faculties, and centers. Any ad-hoc query of the data requires the physical handling of ledgers and a page by page browse until the desired data are located. Furthermore, reporting and use of data is very inefficient. Not all the data collected are recorded. Not all the data recorded are put to use or reported. Not all the data required for planning are collected. Very few data required for research and development are collected. Questions are frequently raised regarding the reliability of data. Often data are recorded relying on the memory of senior staff members of the Central Administration and/or Campus Chiefs. There is no clear or efficient coding system for items and locations. There is no unique identifier used in personnel records other than name and a rudimentary school coding system. Unique identifiers exist only for students through the registration numbers allotted by the Office of the Controller of Examinations.
3. Data are collected through standard and recurrent instruments that originate from the Office of the Controller of Examination, the Personnel Division, and the Planning Division, who are the main consumers and processors of information. Campuses, faculties, institutes, and centers report data to the Central Administration upon request from the Planning Division and/or Personnel. Ad-hoc data requests are attended to after long delays.
4. The Vice-Chancellor and the Executive Council of the University are the main users of the data, but little analysis is performed on the much delayed information, and few policy recommendations are made on the basis of data. To make the data usable and easy to collect and process, the use of computers should be promoted. The offices of the Controller of Examinations, Personnel Division, and Planning Division, who are the main consumers and processors of information, would be the first targets for computerization.

### Computer Utilization at Tribhuvan University

5. The level of computer literacy in the administration of Tribhuvan University is low. Several computers are scattered throughout the university, but most of the equipment is either outdated and/or of low capacity, and in all cases, under-utilized. Four low-capacity computers are installed under the Registrar's office used basically for word processing and for keeping records in a Dbase III format and some Lotus files. An attempt is being made to build a personnel file with selected information for recording contributions to the pension fund through a Lotus spreadsheet. Also, the Registrar's Office uses word processing services as well as other members of the Central Administration. Lotus is being used for simple spreadsheets as well as Dbase III for some simple tasks.

6. In theory, some technical capacity exists. There is a proper computer training facility with 15 computers at the Engineering Campus in Pokhara. These are low-capacity XT machines with 640K RAM and two 5.25" floppies. Though the training facilities are adequate, there are few resources for maintenance of equipment. In Pokhara, one additional computer is located at the Library of the Faculty of Forestry. This is a high capacity machine with 2MB RAM, 120 MB hard disk, 386 processor, VGA color monitor and battery back-up. The machine was placed at the library by the United States Agency for International Development (USAID), and little or no training was provided to an operator. As a consequence, the machine is only utilized as a word processor. The Office of the Controller of Examinations uses the services of the National Computer Center for the partial processing of examination data at a cost of NRs 17/per student (120,000 students). No expertise is passed from the National Computer Center to the TU.

7. Computer Capabilities in Kathmandu. Kathmandu has the potential for supporting and servicing high-capacity microcomputers. There are over 30 computer dealers, and several offer computer consultancy services in addition to computer sales, software, consumables, service and maintenance contracts at internationally competitive prices. Computer training facilities for computer operators in basic software packages is also available in the local market through several of the computer distribution/sales companies.

### Computerizing the TU Administration

8. Computerization of the major administration and planning procedures will improve administration, planning and decision-making, and can be carried out in a cost-effective and locally sustainable manner.

9. The current generations of personal computer hardware and software (386 or 486 configuration with high disk capacity) would be sufficiently powerful for planning, administration, and most processing and research requirements of TU. A mainframe computer would not be needed by TU. Relational database software should be used. The design and implementation of an information system must emphasize the processes involved, which in the case of TU include computer literacy.

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10. Considerable basic research, codification, needs assessment, and ground work is needed before the installation of the computer equipment. Installation should run parallel to training and utilization. Initial results may be expected after a year, and the system should be fully operational in two or three years. The system will be institutionalized after four or five years of operations. An operation pilot system at central level could set procedures for data collection, processing, and output at a limited number of modules during the first year of project effectiveness.

11. Components of the EMIS will include:

- assessment of data/information requirements;
- selection of equipment and peripherals;
- selection of data items;
- selection of software components;
- codification of data items;
- design of database structures;
- design of data collection instruments;
- design of data collection/validation procedures;
- design of data entry programs and procedures;
- design of application and data query procedures;
- design of data output formats;
- design of data distribution policies and procedures;
- design and implementation of training procedures;
- system development;
- technical support system.

12. The design of database structure along with the codification of items and design of data collection instruments must be performed so as to cover the information requirements of TU while linking a series of relational databases concerning:

- student data;
- professor data;
- examinations data;
- admissions data;
- financial data;
- physical facilities data

13. Estimated Manpower Requirements. Due to the lack of skilled manpower and the low level of computer literacy at present found within TU, the design, implementation and initial operations of the information system will necessarily have to rely on external support in the form of foreign and local technical assistance. The EMIS will require a team of skilled individuals, i.e., a foreign consultant as a long-term technical advisor who will coordinate a team of local experts and contracted personnel. The team will train counterparts from TU permanent staff. A major function of all consultants will be to work themselves out of a job by transferring their skills to TU permanent staff.

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14. Foreign technical assistance. Due to the structure, equipment and software recommended, a systems analyst and programmer is not necessarily the type of personnel required for the design and implementation of the Information System. There are specificities involved in the design of an Information System for an Educational Institution which requires understanding of educational functions and research requirements in addition to management and administration performance. In addition to systems design skills, the EMIS foreign consultant will require research skills, negotiation skills, training skills and coordination skills.

15. A single foreign consultant with the skills mentioned above should be recruited and supported by a team of local consultants and contracted personnel. Experience suggests that it is not practical to divide the tasks and responsibilities of design and implementation among a succession of short term consultants over an extended period of time. Apart from being extremely expensive, shared responsibility reduces, in this case, accountability in the design and implementation of the system.

16. Local technical assistance. Two consultants-programmers will be employed as needed by the foreign technical advisor. At least one of these should be familiar with TU financial and accounting procedures. Both should have basic DBASE IV programming skills. Though the emphasis of the system proposed is not based on programming skills due to the use of already existing relational database software, a certain level of programming will be required to increase the speed and efficiency of certain components related to data entry and data editing. The design of applications is not a complicated task included in most relational database packages such as RBase and others, but the design of data entry screens and data editing procedures can be more efficient using a combination of other packages such as DBASE IV.

17. During the operations of the information system it will be necessary to rely on the services of trained computer operators and will also be necessary to offer the possibility of querying the databases and producing output for non-skilled users. This implies as one of the major tasks, the design of user-friendly applications and Front End screens and programs. This task should be carried out by local consultants under the supervision of the long term technical advisor.

18. As the EMIS expands to several locations such as the Central Administration, the Office of the Controller of Examination, and the proposed regional centers, trouble-shooting and on-site support will become key elements of the system.

19. As mentioned above, training is to be a major component of the system. This is the component that will allow the transfer of skills from external personnel to the permanent staff of TU and will ensure sustainability of the system after the life of the project. The local consultants would play a major role in this task.

20. Once the system begins to grow into several modules (databases) that include budgeting and accounting procedures, it will be necessary to rely

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on the services of an experienced accountant or financial manager for the design of the financial components of the system.

21. Contracted personnel. During the implementation stage and early operation of the system, there will be a multiplicity of tasks that will require the assistance of local contracted personnel. These tasks will include data entry/processing, word processing, equipment installation, transportation of equipment, minor repairs of electrical components and lines, minor maintenance of equipment such as cleaning, relocation, etc., mailing, cataloging of data collection instruments, etc. Three local staff should be contracted for the functions of electrical, maintenance, word processing and supervision functions; data entry personnel can be hired separately on a temporary or on a per task basis.

22. Once data collection instruments begin to come in to the central computer center and to the Office of the Controller of Examinations, data entry would be a monumental task. This task would be expected to be taken over by permanent TU staff. However, in the early stages of operations such personnel for TU would probably not be available and data entry personnel would have to be contracted on a temporary and per task basis according to local market rates. Data entry personnel can be contracted through local computer training institutes placed under the supervision of EMIS contracted personnel and/or the technical advisors.

23. All contracted personnel, consultants, technical advisors, local hire, data entry personnel, maintenance personnel, etc., must have TU permanent staff as counterparts to receive on-the-job training. This will be the only way to guarantee long-term sustainability of the information system.

**NEPAL**  
**HIGHER EDUCATION PROJECT**

Table 1: Expenditure Summary

	(NRs Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>I. Investment Costs</b>								
<b>A. Civil Works</b>								
New	152.8	79.0	231.9	3.1	1.6	4.7	34	24
Rehabilitation	51.9	26.8	78.7	1.0	0.5	1.6	34	8
Site Improvement	33.6	17.4	50.9	0.7	0.4	1.0	34	5
<b>Subtotal Civil Works</b>	<b>238.3</b>	<b>123.2</b>	<b>361.5</b>	<b>4.8</b>	<b>2.5</b>	<b>7.3</b>	<b>34</b>	<b>37</b>
B. Professional Fees	18.4	-	18.4	0.4	-	0.4	-	2
C. Vehicles	1.1	9.6	10.6	0.0	0.2	0.2	90	1
D. Equipment	23.5	205.1	228.6	0.5	4.1	4.6	90	24
E. Furniture	22.7	14.5	37.2	0.5	0.3	0.8	39	4
F. Books and Materials	6.3	55.0	61.3	0.1	1.1	1.2	90	6
<b>G. Technical Assistance</b>								
Foreign Consultants	6.5	56.2	62.8	0.1	1.1	1.3	90	6
Local Consultants	48.6	-	48.6	1.0	-	1.0	-	5
International Fellowships	1.6	13.6	15.2	0.0	0.3	0.3	90	2
Regional Fellowships	0.9	7.4	8.2	0.0	0.1	0.2	90	1
Study Tours	0.5	4.1	4.5	0.0	0.1	0.1	90	-
<b>Subtotal Technical Assistance</b>	<b>58.1</b>	<b>81.4</b>	<b>139.4</b>	<b>1.2</b>	<b>1.6</b>	<b>2.8</b>	<b>58</b>	<b>14</b>
H. Local Training	28.9	-	28.9	0.6	-	0.6	-	3
I. Follow-on Project Preparation	26.0	11.2	37.2	0.5	0.2	0.8	30	4
<b>Total Investment Costs</b>	<b>423.2</b>	<b>499.9</b>	<b>923.2</b>	<b>8.5</b>	<b>10.1</b>	<b>18.6</b>	<b>54</b>	<b>95</b>
<b>II. Recurrent Costs</b>								
A. Incremental Salaries	14.5	-	14.5	0.3	-	0.3	-	1
B. Operations & Maintenance	15.0	4.8	19.9	0.3	0.1	0.4	24	2
C. Travel & Daily Allowance	3.4	-	3.4	0.1	-	0.1	-	-
D. Consumables	8.6	-	8.6	0.2	-	0.2	-	1
<b>Total Recurrent Costs</b>	<b>41.5</b>	<b>4.8</b>	<b>46.3</b>	<b>0.8</b>	<b>0.1</b>	<b>0.9</b>	<b>10</b>	<b>5</b>
<b>Total BASELINE COSTS</b>	<b>464.7</b>	<b>504.8</b>	<b>969.5</b>	<b>9.4</b>	<b>10.2</b>	<b>19.6</b>	<b>52</b>	<b>100</b>
Physical Contingencies	26.6	27.0	53.6	0.5	0.5	1.1	50	6
Price Contingencies	87.1	36.9	124.0	1.8	0.7	2.5	30	13
<b>Total PROJECT COSTS</b>	<b>578.4</b>	<b>568.6</b>	<b>1,147.0</b>	<b>11.7</b>	<b>11.5</b>	<b>23.1</b>	<b>50.0</b>	<b>118.0</b>

**NEPAL  
HIGHER EDUCATION PROJECT**

**Table 2: Expenditure Accounts by Components  
(NRs. Million)**

	INSTITUTIONAL DEVELOPMENT				SELECTED FACILITIES		INSTRUCTIONAL DEVELOPMENT		HIGHER SECONDARY EDUCATION	Total	Physical Contingencies			
	Organi- zation Reform	Educational Management Information System	Regional Cluster Develop- ment	Project Manage- ment	IMPROVEMENT		AND ASSESSMENT				Curriculum Development	Examinations	% Amount	%
					Facilities Development - Kirtipur	Maintenance Capacity Development								
<b>I. Investment Costs</b>														
<b>A. Civil Works</b>														
New	-	-	74.6	-	154.4	2.9	-	-	-	231.9	10.0	23.2		
Rehabilitation	10.2	0.7	12.3	0.5	17.4	-	0.4	9.3	27.9	78.7	10.0	7.9		
Site Improvement	-	-	4.5	-	46.5	-	-	-	-	50.9	10.0	5.1		
<b>Subtotal Civil Works</b>	<b>10.2</b>	<b>0.7</b>	<b>91.3</b>	<b>0.5</b>	<b>218.3</b>	<b>2.9</b>	<b>0.4</b>	<b>9.3</b>	<b>27.9</b>	<b>361.5</b>	<b>10.0</b>	<b>36.2</b>		
<b>B. Professional Fees</b>	-	0.0	4.7	3.1	8.5	0.1	0.0	0.5	1.4	18.4	-	-		
<b>C. Vehicles</b>	-	3.4	1.5	0.0	-	3.0	0.7	0.7	1.2	10.6	10.0	1.1		
<b>D. Equipment</b>	5.0	26.6	44.0	0.5	120.7	9.0	4.8	2.9	15.2	228.6	5.0	11.4		
<b>E. Furniture</b>	2.6	0.7	10.5	1.5	17.4	0.3	0.2	0.9	3.1	37.2	5.0	1.9		
<b>F. Books and Materials</b>	2.5	-	23.2	-	14.2	0.6	2.1	15.0	3.7	61.3	5.0	3.1		
<b>G. Technical Assistance</b>														
Foreign Consultants	7.8	10.0	-	-	2.9	5.3	27.6	3.5	5.7	62.8	-	-		
Local Consultants	1.5	17.4	0.9	-	-	0.6	22.1	4.1	2.2	48.6	-	-		
International Fellowships	2.5	2.5	-	-	6.0	4.2	-	0.0	-	15.2	-	-		
Regional Fellowships	1.8	3.0	-	-	0.4	3.0	-	-	-	8.2	-	-		
Study Tours	3.3	-	-	-	1.3	-	-	-	-	4.5	-	-		
<b>Subtotal Technical Assistance</b>	<b>16.9</b>	<b>32.9</b>	<b>0.9</b>	<b>-</b>	<b>10.6</b>	<b>13.0</b>	<b>49.7</b>	<b>7.6</b>	<b>7.9</b>	<b>139.4</b>	<b>-</b>	<b>-</b>		
<b>H. Local Training</b>	18.7	5.1	0.9	3.4	0.2	0.2	-	0.4	0.1	28.9	-	-		
<b>I. Follow-on Project Preparation</b>	-	-	-	37.2	-	-	-	-	-	37.2	-	-		
<b>Total Investment Costs</b>	<b>55.8</b>	<b>69.4</b>	<b>177.1</b>	<b>46.2</b>	<b>389.8</b>	<b>29.1</b>	<b>57.9</b>	<b>37.3</b>	<b>60.5</b>	<b>923.2</b>	<b>5.8</b>	<b>53.6</b>		
<b>II. Recurrent Costs</b>														
A. Incremental Salaries	-	-	0.8	10.8	1.4	-	1.5	0.0	-	14.5	-	-		
B. Operations & Maintenance	-	0.8	1.8	11.7	0.4	2.4	0.7	0.7	1.2	19.9	-	-		
C. Travel & Daily Allowance	0.8	1.8	-	-	0.1	0.6	-	-	-	3.4	-	-		
D. Consumables	-	1.4	1.2	3.9	2.1	-	-	-	-	8.6	-	-		
<b>Total Recurrent Costs</b>	<b>0.8</b>	<b>4.0</b>	<b>3.7</b>	<b>26.4</b>	<b>4.1</b>	<b>3.0</b>	<b>2.3</b>	<b>0.7</b>	<b>1.2</b>	<b>46.3</b>	<b>-</b>	<b>-</b>		
<b>Total BASELINE COSTS</b>	<b>56.6</b>	<b>73.4</b>	<b>180.8</b>	<b>72.6</b>	<b>393.9</b>	<b>32.2</b>	<b>60.2</b>	<b>38.0</b>	<b>61.8</b>	<b>969.5</b>	<b>5.5</b>	<b>53.6</b>		
Physical Contingencies	1.5	1.8	13.2	0.2	29.4	1.1	0.5	1.9	4.0	53.6	-	-		
Price Contingencies	5.8	8.5	24.9	5.8	56.5	2.1	9.3	4.1	7.1	124.0	5.8	7.2		
<b>Total PROJECT COSTS</b>	<b>63.9</b>	<b>83.6</b>	<b>218.8</b>	<b>78.6</b>	<b>479.9</b>	<b>35.3</b>	<b>70.0</b>	<b>44.0</b>	<b>72.9</b>	<b>1,147.0</b>	<b>5.3</b>	<b>60.8</b>		
Taxes	1.8	1.5	15.4	0.2	34.6	1.0	0.4	2.0	4.6	61.5	8.1	5.0		
Foreign Exchange	27.4	46.1	111.4	15.5	242.8	26.1	34.7	26.3	38.3	568.6	5.1	29.0		



NEPAL  
HIGHER EDUCATION PROJECT

Table 3: IDA Disbursement Schedule

IDA Fiscal Year & Semester	Amounts Disbursed (----- US\$ Million -----)	Cumulative Disbursements	Cumulative	
			Disbursements Percentage	Disbursement Profile
<b>1994</b>				
1st (January 94 - June 94)	0.90	0.90	5%	
<b>1995</b>				
1st (July 94 - December 94)	1.05	1.95	10%	
2nd (January 95 - June 95)	1.05	3.00	15%	3%
<b>1996</b>				
1st (July 95 - December 95)	1.75	4.75	24%	
2nd (January 96 - June 96)	1.75	6.50	33%	8%
<b>1997</b>				
1st (July 96 - December 96)	2.20	8.70	44%	
2nd (January 97 - June 97)	2.20	10.90	55%	22%
<b>1998</b>				
1st (July 97 - December 97)	2.25	13.15	66%	
2nd (January 98 - June 98)	2.25	15.40	77%	42%
<b>1999</b>				
1st (July 98 - December 98)	1.30	16.70	84%	
2nd (January 99 - June 99)	1.30	18.00	90%	67%
<b>2000</b>				
1st (July 99 - December 99)	0.75	18.75	94%	
2nd (January 2000 - June 2000)	0.75	19.50	98%	84%
<b>2001</b>				
1st (July 2000 - December 2000)	0.50	20.00	100%	
2nd (January 2001 - June 2001)	-	-	-	98%
<b>2002</b>				
1st (July 2001 - December 2001)	-	-	-	
2nd (January 2002 - June 2002)	-	-	-	100%

Closing Date: June 30, 2000

Note: The state of project preparation makes it possible to project disbursements in early years that are higher than the country's disbursement profile.

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**NEPAL**  
**HIGHER EDUCATION PROJECT**

**Table 4: Disbursement Accounts by Financiers**  
(US\$ Million)

	International Development Association		Kingdom of Nepal		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%			
A. Civil Works	7.4	80.0	1.9	20.0	9.3	40.2	2.9	5.4	0.9
B. Professional Fees	0.4	100.0	-	-	0.4	1.8	-	0.4	-
C. Equipment and Vehicles	5.3	94.8	0.3	5.2	5.5	24.0	4.9	0.4	0.2
D. Furniture	0.8	87.4	0.1	12.6	0.9	3.7	0.3	0.5	0.1
E. Books and Materials	1.2	88.9	0.2	11.1	1.4	6.0	1.2	0.1	0.0
F. Technical Assistance									
Consultants	2.5	100.0	-	-	2.5	11.0	1.2	1.3	-
Fellowships & Study Tours	0.6	100.0	0.0	-	0.6	2.6	0.5	0.1	-
Subtotal Technical Assistance	3.1	100.0	0.0	-	3.1	13.5	1.7	1.4	-
G. Local Training	0.6	95.0	0.0	5.0	0.7	2.8	-	0.7	-
H. Follow-on Project Preparation	0.8	100.0	-	-	0.8	3.2	0.2	0.5	-
I. Incremental Salaries	-	-	0.3	100.0	0.3	1.5	-	0.3	-
J. Operations & Maintenance	0.4	79.0	0.1	21.0	0.5	2.0	0.1	0.4	-
K. Travel & Daily Allowance	-	-	0.1	100.0	0.1	0.3	-	0.1	-
L. Consumables	-	-	0.2	100.0	0.2	0.9	-	0.2	-
<b>Total</b>	<b>20.0</b>	<b>86.3</b>	<b>3.2</b>	<b>13.7</b>	<b>23.1</b>	<b>100.0</b>	<b>11.5</b>	<b>10.4</b>	<b>1.2</b>

Nepal  
Higher Education Project

Table 1: Implementation Schedule, Physical Facilities

Activities/Time Schedule	YEAR 1					YEAR 2					YEAR 3					YEAR 4					YEAR 5					YEAR 6																																		
	1994					1995					1996					1997					1998					1999																																		
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D												
Prequalification and engagement of consultant for work for Kirtipur and clusters and assessment of maintenance works	Effective Date																														Closing Date 8/30/2000																													
Detail design work for Kirtipur Phase I and assessment of maintenance works	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
Master Plan and conceptual design	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
Essential maintenance works, road. Boundary wall construction	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
Prequalification of contractors (new buildings)	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
Kirtipur Phase I Tender 1/Award	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
Construction Period	[shaded]					[shaded]					[shaded]					[shaded]					WARRANTY					[shaded]					[shaded]																													
Kirtipur Phase II -tender/award	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
-construction	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					WARRANTY					[shaded]																													
Cluster Development A -formation stage 1	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
-management plan, basic upgrading stage 2	A [shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
-resource mobilization	[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													
facilities development	[shaded]					[shaded]					A [shaded]					[shaded]					[shaded]					[shaded]					[shaded]																													

Nepal  
Higher Education Project

Table 1 cont'd: Implementation Schedule, Physical Facilities

Activities/Time Schedule	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6																															
	1994				1995				1996				1997				1998				1999																															
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D				
Cluster Development B																																																				
-formation (stage I)																																																				
-management plan, basic upgrading																																																				
-resource mobilization																																																				
facilities development																																																				
Prequalification of contractor (Rehabilitation work) - Kirtipur																																																				
Tender/award (Rehabilitation Work) - Kirtipur																																																				
Construction (Rehabilitation work) - Kirtipur																																																				
Equipment requirement assessment																																																				
Equipment specification																																																				
Equipment tender																																																				
Equipment award																																																				
Equipment supply stage I																																																				
Select furniture consultant																																																				
Furniture design, specification and tender award																																																				
Furniture supply																																																				

Nepal  
Higher Education Project

Table 2A : Implementation Schedule, Educational Activities  
Examinations

Activities/Time Schedule	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6															
	1994				1995				1996				1997				1998				1999															
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Technical assistance arrangements with qualified institutions																																				
Arrival of consultants																																				
Award of fellowships to study educational measurement																																				
Decision workshop on alternative scoring and reporting schemes																																				
Decision workshop on feasible alternatives to current facts-oriented annual essay examinations																																				
Decision by authorities to adopt pilot schemes for tryouts																																				
Construction, furnishing, equipment of Controller of Examinations building (see Facilities Implementation Plan)																																				
Staff Training and campus preparation for pilot schemes																																				
Implementation of pilot schemes																																				
Data gathering and evaluation of pilot schemes																																				
Selection of best alternatives to current centralized scoring																																				
Selection of best alternative to current annual fact-oriented examinations																																				
Control of Examinations staff training on computer hardware/software																																				
Development of computerized databanks of examination questions																																				
Professor training on scoring and moderation																																				
Implementation of computerized examination preparation and reporting																																				

Effective Date

Closing Date 8/30/2000



Nepal  
Higher Education Project

Table 2C : Implementation Schedule, Educational Activities  
Higher Secondary Education

Activities/Time Schedule	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6															
	1994				1995				1996				1997				1998				1999															
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Preparation of a transition plan under UNDP Self-study																																				
Completion of space, feeder-school and professor studies commissioned by UNDP Self-study																																				
Decisions by MOEC on tracks, pace of implementation, teacher use, examinations teacher use, examinations format related policies																																				
Office equipment, vehicle for CHSE																																				
Consultant or institutional twinning arrangements for curriculum development and examinations of Grades 11-12																																				
Consultants to arrive to work with CHSE																																				
Curriculum development with CHSE specialists in conjunction with university subject committees for development of prerequisites																																				
Textbook selection and acquisition																																				
Development and pretesting of examination item banks																																				
Development of teacher training materials and procedures																																				
Pretesting materials and procedures in teacher training seminars																																				
Plan to construct 10 school additions on the basis of the transition plan and school space study																																				

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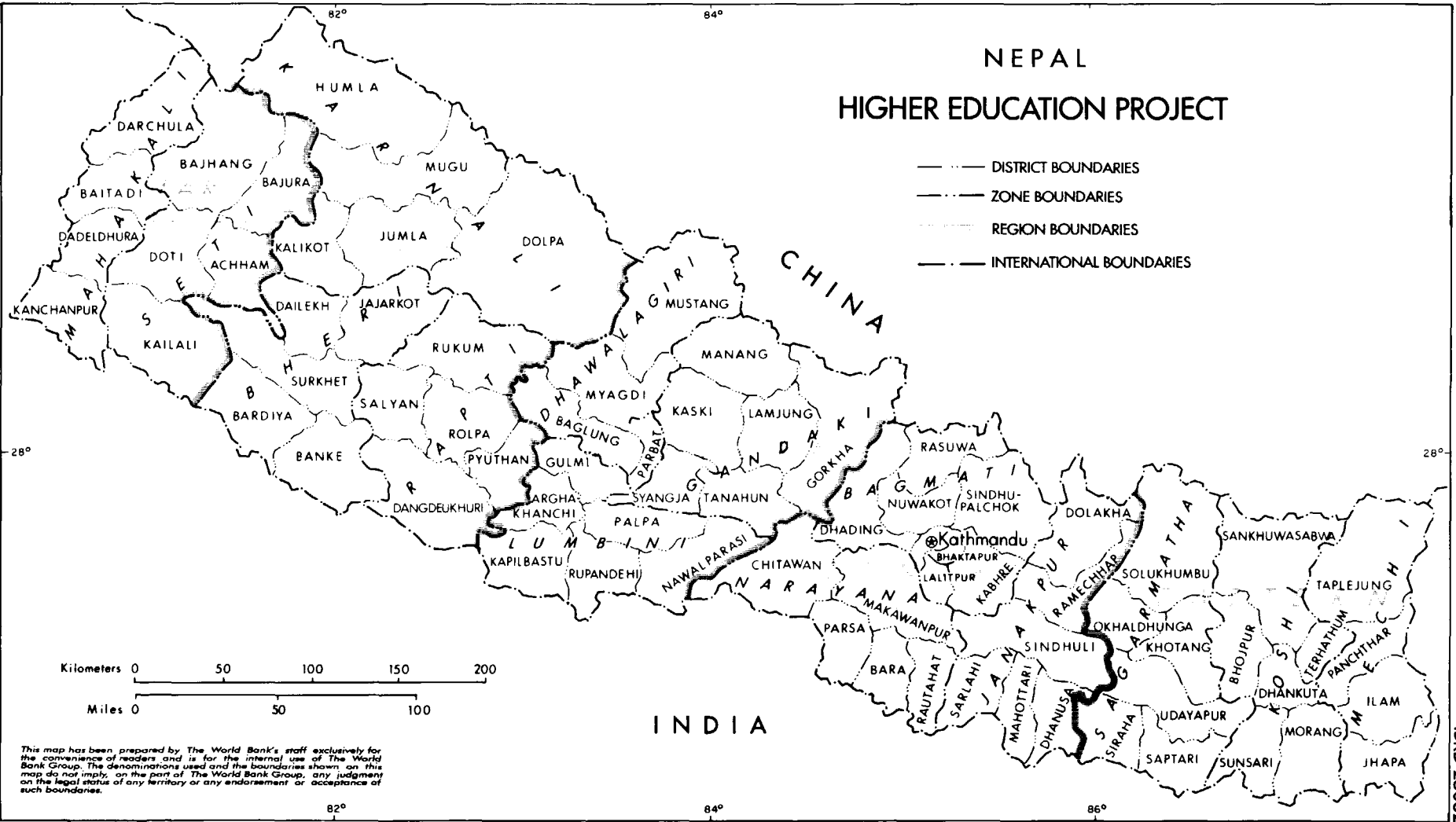
**MAP SECTION**



# NEPAL

## HIGHER EDUCATION PROJECT

- — — DISTRICT BOUNDARIES
- — — ZONE BOUNDARIES
- — — REGION BOUNDARIES
- — — INTERNATIONAL BOUNDARIES



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JULY 1993

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