

## 12.1 First Steps: an Adequate Recurrent Budget for General Education

A great deal of effort and money, both foreign and Lao, has been going into the educational system through the investment budget to improve and expand the educational system. The results so far are not very good. The current education system is often not appropriate to the needs of Lao society. Too much is being invested, too little is being spent on everyday operation of the schools and what is being spent is often wasted or used inefficiently.

One purpose of this report is to propose a prioritized investment program to improve and, where necessary, expand the Lao educational system. We have come to the conclusion, however, that a first step to an investment program is to propose an adequate recurrent budget to meet appropriate educational goals, and only then propose an investment program that complements the recurrent budget and finances needed interventions. Indeed, adoption of an appropriate recurrent budget along the lines spelled out in this section, including a substantial increase in teacher compensation, should be a pre-condition before substantial new investments are made in the Lao PDR educational system.

The educational goal put forth in this report (see section 10 for a summary statement) is to meet the educational needs of the entire population. This would mean a system that assists the entire population, including ethnic minorities and those living in isolated locations, to move toward and attain universal literacy; and, provides appropriate education for entrants into all sectors of the economy, including agriculture and the informal sector as well as the modern developing sectors. The highest priority would be to provide a balanced system of general education appropriate to the needs of the economy. The goal of literacy and the goals of meeting the educational needs of workers in agriculture and the informal sector call for widespread and efficient primary education: access to all children who will then complete five years of primary education. Growth in the civil service and the modern sector will call for graduates with higher levels of education, a mix of persons who have completed lower secondary through university. In quantitative terms, the present size of lower secondary, upper secondary and university is more than enough to meet the needs of growth in the modern sector for the foreseeable future.<sup>1</sup>

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1 At the projected growth rate (Prologue: Table P.1) current yearly outputs from lower secondary through university education are more than enough to meet job growth in the formal sectors of the economy until well in to the next century. Such projections should be redone regularly as directions of development become clearer and information about on-the-job success of graduates from the various levels becomes available.

## 12.2 Financial Model to Estimate an Adequate Recurrent Budget

The financial model in this chapter provides estimates of the yearly recurrent budget needed to put the core system of general education on a sound financial basis. In some areas new investments will be needed to support growth of the core system and to introduce improvements. It is expected then that the planning and implementation of the recurrent budget, along with the recommendations set out in this report, will serve to develop goals and priorities for the forthcoming investment program. The model also permits estimating the financial implications of changes in the basic policies. Results of some such exercises are contained below.

In following this exercise a warning must be issued. The following model, so far at least, deals with the overall system. But there are enormous disparities within the system, between provinces, within provinces, and within districts in the size and operation of schools. One danger of an overall approach to the system is in regard to target setting and measurements about the extent to which that particular target is being met. Differences in size between provinces could very well mean that the overall target could be met, just because it is being met in several of the larger provinces, while absolutely nothing has occurred in others. It is hoped that this financial model can help to set an overall budget context but it can never replace, only complement, information, policies and successful implementation at the village, district, and provincial level.

The financial model calls for:

1. providing higher levels of teacher compensation and more funds to support day-to-day teaching activities;
2. moving toward universal access to primary education;
3. delaying expansion of lower and upper secondary, focusing instead on improvements of quality;
4. making more efficient use of teachers;
5. lowering costs and increasing efficiency, by reducing the number of repeaters and increasing the completion rate (by reductions in the number of dropouts) in each cycle of education, particularly in primary schools.

### Higher Teacher Compensation

The financial model contains a major increase in teacher compensation. As is described more completely elsewhere in this report, teacher salaries are too low and with very little stratification according to qualification, length of service or quality of work. As the economy improves the Government simply will not be able to attract and keep good people in teaching. Already there are problems in filling openings for new students in the teaching faculties.

The target used in the model is an average rate of pay equal to 2.8 times per capita GDP, a rate comparable to other Asian countries at a similar level of development. The target rate of teacher remuneration would come in stages and, according to the financial model, be fully implemented by 2005. To give an idea of the magnitudes involved: the average teacher salary in 1996/97 was 616,000 kip; if price levels following the current crisis return to 1996/97 levels, the new higher teacher salary would average 1,648,000 kip; if prices in 2005 remain at the same

level as now (late 1998), teacher salaries would average 3,466,000 kip. Two-thirds of the increase comes from the increase in the rate of salary; one-third from the projected increases in per capita GDP.

In addition to the raise in the average salary, salaries should be rationalized so as to compensate individuals because of differences in qualifications, experience and performance. The purpose of the rationalization is to provide incentives for capable individuals to make a career out of becoming a good teacher and to steadily improve their teaching abilities. Development of a plan for rationalizing salaries is called for in the investment plan.

Box 12.1  
Overall Budget Choices

If the Government wants a good system of general education, it would seem to have two choices: (1) increase recurrent spending on general education from the current 1.3 percent of GDP to about 2.2 percent of GDP per year and raise teacher salaries to an adequate level; or, (2) maintain current spending at 1.3 percent of GDP, raise teacher salaries to an adequate level and cut the size of the system. It is estimated that 1.3 percent of GDP in 2005 would provide adequate funds for a school system about half the size now projected for that year.

### More Funds for Operations and Maintenance

As indicated in Table 11.13 families and the community are the major source of operations and maintenance funds for schools, far larger than the Government, particularly for general education. At the moment there is only a small amount of funds allocated for maintenance of schools and day-to-day teaching supplies. For primary schools no such funds actually reach individual schools. In other words, there are no government funds going to primary schools for expenditures on items such as water and fuel, books, cleaning equipment, building and equipment maintenance and supplies, first aid supplies, playground equipment, paper, pencils or chalk, everyday teaching and administrative supplies, or any of the other goods and services necessary for effective teaching. Any such items must come from students or the community, if the local citizens can afford it. This report recommends that the Government provide some minimum level of support for everyday teaching supplies to complement family and community funds. The model calls for 5,000 kip per student per year for primary education, 9,400 per student per year for lower secondary, and 11,300 per student per year for upper secondary.

### Increased Access to Primary Education with Fewer Dropouts and Fewer Repeaters

At the present time about 80 percent of Lao children enter primary school, but 24 percent of them repeat a grade and 45 percent drop out before reaching grade 5. The result is a system that misses a significant number of persons who should be going to school and fails for more than half of those who enter; and the cost of each graduate from primary school is much higher than it could and should be.

The financial model incorporates the targets set out in MOE's Education Development Plan 2001-2005: an increase in initial access to 85 percent of Lao children by 2004/05; a reduction of 3 percent per year in dropout rates; and a reduction of 2 percent per year in the repeat rate. The methods for lowering dropout rates and reducing repeaters are spelled out in section 3.

#### Improved Utilization of Teachers

The model incorporates a 20 percent increase in pupil/teacher ratios for primary education, which would bring Lao PDR closer to, but still below, levels found in most other Asian countries at similar levels of development. Large class sizes with well-paid teachers is a system used very successfully in other Asian countries. In the low population density areas, where large classes are not possible, the utilization of teachers can still be improved, particularly with the development of multigrade schools.

In lower secondary and upper secondary the model incorporates increased utilization of teachers. At the present time teachers usually teach about 13 hours a week, far less than the 20 hours called for in education regulations. Increasing class hours of teaching to 85 percent of the expected teaching hours would increase utilization by 20 percent. The increased utilization of teachers offsets a substantial part of the financial impact from higher levels of compensation.

### 12.3 Outcomes from the Financial Model

The financial model is summarized in Table 12.1. The base year is 1996/97 and all financial results are expressed in real terms, that is, in 1996/97 kip.<sup>2</sup> The various changes introduced into the model are summarized in the second column of Table 12.1 and are more fully explained in Table 12.2, Assumptions and Sources. In 1996/97 (first column, Table 12.1) enrollment in primary education totaled 770,700 children. Each year about 174,904 left primary school, 45 percent as dropouts and 55 percent having completed five years of primary education. Of those who completed primary, about 65 percent went on to lower secondary. The system was enrolling about 80 percent of all children (some at age six but mostly at older ages, sometimes as high as age 14). Each year about 24 percent of all students were repeating a grade. And the system was not cost-effective. Because of the high rates of repeating and dropouts, it took, on average, almost 10 years of teaching to produce a graduate who had successfully finished five years of school. The Government budget for general education represented 1.3 percent of GDP.

The third column of Table 12.1 contains projected educational and budget outcomes for the years 2004/05 using the assumptions described above; projections for 2009/10 are presented in column five. Enrollments for primary school in 2004/05 are projected to total 1,052,000 children. Each year about 225,000 will be leaving

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2 The purpose of this exercise is to provide financial projections for the year 2005. It is impossible to predict the purchasing power of the kip for that year. Hence the use of real figures, which are independent of future increases or decreases in the purchasing power of the kip. Final results of the financial projections are then interpreted as proportion of GDP.

primary school, 45 percent as dropouts and 55 percent as having completed primary education. Of those who complete primary education about 41 percent will go on to lower secondary. The system would be enrolling about 85 percent of all children. Each year about 20 percent of all students would be repeating a grade. And the system would be somewhat more cost effective: because of the fall in the rates of repeating and dropping out it would now then take about 8.6 years of teaching to produce a graduate who had successfully finished five years of school. The Government recurrent budget for general education would be 2.2 percent of GDP.

Table 12.3 summarizes the effects on enrollments and the budget of the various assumptions used in the model – how the results in the previous paragraph were obtained:

1. The first row in Table 12.3 contains outcomes in 2004/05 without any changes in the system (beyond the increases in the teacher compensation and operations and maintenance funds described above); that is, enrollments are rising along with population growth with no improvements in repeat or dropout rates or in the utilization of teachers. The results under “business as usual” are a total primary enrollment of 951,000 and a total recurrent budget for general education of 78 billion kip, with no change in the current efficiency level (9.9 years of teaching to produce one graduate with five years of primary of education).
2. The second row contains the effect of increasing access to 85 percent of all children: total enrollment would increase by 61,000 children and the total budget would increase by about 4 billion kip.
3. The third row shows the effects of increased utilization of teachers, a savings of about 9 billion kip per year.
4. The fourth row shows the effect when repeating is decreased. The target set out in Government documents is a reduction of 2 percent per year, or about a 15 percent total decline over the years leading up to 2004/05. This will result in a decline in enrollment of about 36,000 children (fewer repeaters in each classroom); a smaller budget, by about 2 billion kip; and, a small increase in efficiency, to 9.6 years of teaching for each graduate.
5. The fifth row shows the effect when the number of dropouts is reduced. (These are the final results as presented in column three, Table 12.1.) The Government target is a 3 percent reduction per year, or about a 22 percent total decline over the years leading up to 2004/05. This will result in an increase in enrollment of about 76,000 (since they did not drop out there are now more students in the upper grades of primary school). The budget will increase by about 4 billion kip because there are more students, but there will be a substantial increase in output and efficiency: an increase of 21,000 more graduates per year with a substantial decline in the cost per graduate, to 8.6 years of teaching per graduate.

The projections call for a very substantial increase in the recurrent budget to 75 billion kip, about 2.2 percent of GDP, largely because of the very substantial increase in teacher compensation. However, there are substantial savings and efficiencies that are part of the model, in particular decreased repeating, fewer dropouts, and increased utilization of teachers.

Table 12.1  
Summary of Impacts and Outcomes from Quality Enhancing Investments  
Spelled out in Main Report

	1996/97	Changes Introduced
Gross enrollment (number of children)		
Primary	770,702	Higher proportion of children enter primary school. Expansion of multigrade schools and other changes causes fall in dropout rate Hold new entrants to 50,000 per year Hold new entrants to 16,500 per year
Lower Secondary	136,361	
Upper Secondary	47,755	
Total	954,818	
Inputs (million 1996/97 kip)		
Recurrent Budget		
Primary	18,931	Teacher salaries raised to Asia-wide standard; substantial increase in operations and maintenance funds per child; increases in utilization of teachers
Lower Secondary	6,447	
Upper Secondary	2,613	
Outputs		
Primary		
Number who drop-out w/o finishing	95,598	
Number who attend Grade 5	79,306	
Proportion of entrants who attend Grade 5	45%	
Lower Secondary		
Number who drop-out w/o finishing	12,748	
Number attending Grade 8	36,422	
Proportion of entrants who attend Grade 8	74%	
Upper Secondary		
Number who drop-out w/o finishing	2,834	
Number who attend Grade 11	13,556	
Proportion of entrants who attend Grade 11	83%	
Transition rate		
Primary to Lower Secondary	65%	Delay expansion of lower and upper secondary
Lower to Upper Secondary	55%	
Access and Efficiency		
Proportion of children who enter		
Primary	80%	
Lower Secondary	24%	
Upper Secondary	10%	
Repeater rate: proportion of students repeating a grade		
Primary	24%	
Lower Secondary	7%	
Upper Secondary	7%	
Student years to produce one graduate		
Primary	9.9	
Lower Secondary	3.8	
Upper Secondary	3.5	
Approximate Recurrent Budget (million 96/97 kip)		
	28,000	
Percent of GDP		
	1.27%	

2004/05		2009/10
1,052,000	Continued improvements in dropout and repeater rates	1,260,000
143,000		144,000
49,000		49,000
1,244,000		1,453,000
55,000	Salaries rise with increases in per capita GDP	79,000
14,000		17,000
6,000		7,000
102,000		122,000
123,000		145,000
55%		54%
11,000		9,000
39,000		41,000
78%		82%
2,300		1,900
14,200		15,000
86%		89%
41%	Delay expansion of lower and upper secondary	34%
42%		40%
85%		90%
19%		17%
6%		5%
20%		20%
6%		5%
5%		4%
8.6		8.7
3.6		3.5
3.4		3.3
75,000	103,000	40.6%
2.20%		2.18%

Table 12.2  
Assumptions and Sources

Annual population growth	2.4%	after 1995
	2.5%	prior to 1995 (from 1995 Census)
Growth rates real GDP/cap	0.0%	1998, 1999, growth in economy would equal annual population growth
	4.25%	2000 and beyond—economy would get back on growth track existing prior to Asian crisis
Gross Enrollment		From Mingat (1998a)
Primary School	1	
Reduce drop-out rate	3.0%	Per year—government target
Reduce repeater rate first two year	2.0%	Per year—government target
Growth rate for new entrants		
96/97 through 04/05	3.2%	Rate required to meet target that 85% children attend primary school by 2005
04/05 through 09/10	3.5%	Rate required to meet target that 90% children attend primary school by 2010
Lower Secondary		
Limit new entrants to	50,000	per year, the 1996-97 level
Reduction in drop-out rate	20.0%	following quality improvements, beginning 99/00
Reduction in repeat rate	20.0%	following quality improvements, beginning 99/00
Upper secondary		
Limit new entrants to	16,500	per year, the 1996-97 level
Reduction in drop-out rate	20.0%	following quality improvements, beginning 99/00
Reduction in repeat rate	20.0%	following quality improvements, beginning 99/00
Teacher salaries	17.8%	Increase each year for six years; 2000 — 2005
		Objectives are to:
		Raise levels so that teaching can compete for educated workers in developing economy
		Make it possible to raise differentials so that teachers can have meaningful rewards for:
		qualifications
		experience
		good teaching
		Target is based on teaching salaries as related to GDP per capita. At present teacher salaries represent about 1.35 per capita of GDP per capita as compared to 2.8 in Asian countries at similar level of development. With these rates of increase, compounded each year for six years, teacher salaries will reach approximately 2.8 times projected per GDP extant in the year 5.
Operations and Maintenance Funds		
Set government allocation to		
Primary schools at	5,000	Kip per student per year, to complement family contributions and provide a minimum amount where families cannot afford payments
Lower secondary	9,400	
Upper secondary	11,300	
Increased utilization of Teachers		
Primary School	20.0%	Increase pupil/student ratio from 30 to 36 pupils per teacher
Lower Secondary	20.0%	Increase utilization of teachers from 70% to 85% of expected teaching hours
Upper Secondary	20.0%	Increase utilization of teachers from 70% to 85% of expected teaching hours

### More Savings and More Efficiencies are Possible

The financial model summarized in Table 12.1 uses Government targets for reductions in dropouts and repeaters. These targets appear too modest and substantially larger improvements are feasible. One important change is to reduce the repetition rate by 50 percent for primary 1 and 2, where most of it now occurring. Such a change would reduce the overall budget by 1 billion kip and decrease the cost of one graduate from 8.6 to 8.4, a 2 percent increase in efficiency. In terms of dropouts, the elimination of incomplete schools and implementation of multigrade schooling would mean that dropouts could fall by 40 percent by 2004/2005 (instead of the 22 percent decline forecast by Government targets). The additional fall in dropout rates would mean that the number of primary school graduates would increase, from 123,000 to 143,000 and the cost of one graduate would fall to 8.1 years, an additional 4 percent increase in efficiency.

Table 12.3  
Effects of Changes in Assumption on Educational and Budget Outcomes

Assumptions used	Alternative Projections: 2004/05			
	Total primary enrollment	Total budget million kip	Graduates per year	Cost per graduate years of teaching
1. Business as usual: 80% access rate; no improvement in repeat or dropout rates; no change in utilization of teachers	951,000	78,000	96,000	9.9
2. Increase access to 85%	1,012,000	82,000	102,000	9.9
3. Increased utilization of teachers	1,012,000	73,000	102,000	9.9
4. Reduce repeating (2% per year)	976,000	71,000	102,000	9.6
5. Reduce dropout rate (3% per year)	1,052,000	75,000	123,000	8.6

### 12.4 Choices Incorporated in the Model

One of the important choices made in developing the financial model has been the rate at which lower secondary education should expand. On one hand there is social demand for school places from families, so that their children can compete for the limited number of good jobs. On the other hand the more money spent on lower secondary, the less will be available for primary education. Table 12.4 spells out the choices in terms of tradeoffs between access to primary education and expansion of lower secondary, using the assumptions in the model. The first row contains the proposal found in the financial model (as summarized in Table 12.1): devote additional resources to primary education so to expand access to 85 percent of Lao children and delay any increase in the number of new lower secondary students. This would have the effect of reducing the transition rate from primary school to lower secondary in 2004/05 to 41 percent, as compared to the current rate of

Table 12.4  
Illustrative Choices: More Places in Lower Secondary or Improved Access  
to Primary School

Policy choice – entrance into lower secondary	Effective or assumed transition rate, 2004/05 *	Rate of access to primary school—to maintain budget level, 2004/05**
As proposed in financial model		
Delay growth-no increase in the number of entrants	41%	85%
Alternative choices		
Increase enrollments but at reduced transition rate	50%	80%
Maintain current transition rate	65%	76%
Raise transition rate	80%	71%

## Notes:

\* Transition rate is proportion of students leaving primary education who enter lower secondary education.

\*\* Under the assumptions in the model.

about 65 percent. The second row describes the outcomes if increased enrollments are allowed but at a lower, 50 percent, transition rate: the system could continue to handle the same 80 percent of children in primary school but would not be able to expand access. As shown in the third row, if current transition rates (65 percent) are maintained there would only enough funds to provide primary education to 76 percent of Lao children – access would decrease. Even lower levels of access to primary schools would be the effect of an even faster expansions of lower secondary: at an 80 percent transition rate access to primary education would decrease to about 71 percent.

As noted above the model would limit new entrants into lower secondary and upper secondary to the levels of 1996/97. This recommendation is an explicit choice to delay the expansion of lower and upper secondary, until perhaps the next planning period, so as to be able to expand primary education now. The choice is made because we think it is more important that the country move toward universal education for all children, as compared to giving some children an increased opportunity for secondary education. Further reasons for this choice are spelled out in the Prologue.

Given the level of social demand for more places in lower secondary it may be unrealistic for Government to delay all expansion. As a practical matter a reduction in the rate of growth, perhaps to the 50 percent transition rate described above, may be the best that can be obtained. However, if increased enrollments in lower secondary are allowed, increased access to primary schools can be achieved only if additional funds from Government were allocated to the education, and/or further savings or increased efficiencies in the use of educational resources were made beyond those set out in the financial model.

## 12.5 Higher Education, Vocational Education, and Teacher Training

Our focus is on general education, because these are the high priority areas under the goal for the system that we have proposed. However, an entry for the postsecondary part of the educational system is included in the total budget described in the next section. There is only a minor rise in the budget for postsecondary education, for two reasons: higher teacher compensation would have a smaller impact on postsecondary budgets because of the large amount of non-salary items that are part of the unit cost; and, no provision has been made for expansion. Higher education is certainly important for the development of the country. But it is certainly large enough now in quantitative terms to meet the needs of the country. No doubt there is a need to consolidate and make improvements in quality. But the current costs are so much out of line with costs in the rest of the educational system that improvements should be financed internally, through a combination of more efficient use of resources and cost sharing. In the future there should be no consideration of government finance for expansions in particular higher education fields unless there is clear evidence of effective demand for such graduates.

## 12.6 Total Budgets

Projected budgets for the entire government education budget over the next decade are contained in Table 12.5. The first panel contains information on actual and projected educational budget in terms of expenditures as a percent of GDP. The entries for General Education come from the financial model summarized in Tables 12.1 and 12.2. An entry for postsecondary education has been added (based on higher salary levels incorporated into general education but with no growth in the number of students).

Also included in Table 12.5 is an estimated investment budget, for an amount equal to 20 percent of the total educational budget. The 20 percent figure was chosen because it is the rate of investment in effect in most countries in Asia at Lao's level of development (See Table 11.8.). Twenty percent is, of course, an arbitrary figure. Higher amounts of investment spending should perhaps be considered in cases of great need, where there are definite resources to sustain the investments after the project is completed, and when the country has the capacity for implementation.

As shown in Table 12.5, projected budgets call for a government education budget of about 3 percent of GDP, similar to the level of spending in recent years. However, these projections call for significant changes in what the spending is going for, and how it is financed, including:

- a substantial increase in the recurrent budget, almost all of which going into primary education;
- a fall of about half in the investment budget;
- an increase in government funds for education, almost all of which would go to recurrent spending;
- a fall of about half in the amount of foreign funds.

The two right-hand panels of Table 12.5 translate the GDP based figures in the first panel into monetary figures. These amounts will depend on future growth rates of the economy. Because of the uncertainty of the future the figures are presented as possible ranges, results at a 4 percent and at an 8 percent rate of growth in overall GDP. In 2004/05 yearly investments would be \$16 million to \$20 million, out of a total Government educational budget of \$80 million to \$100 million.

Table 12.5  
Projected Budgets in Dollars and Kip Under Two Alternative GDP Growth Rates

	Percent of GDP			US\$ 1000's			Million kip (1097 kip = \$1)		
	Actual	Projected		Actual	Projected		Actual	Projected	
	1996/97	2004/05	2009/10	1996/97	2004/05		1996/97	2004/05	
				GDP Growth Rate			GDP Growth Rate		
			4%		8%	4%		8%	
Recurrent Budget									
General Education									
Primary	0.9%	1.6%	1.7%						
Lower Secondary	0.3%	0.4%	0.4%						
Upper Secondary	0.1%	0.2%	0.1%						
Total-Gen. Educ.	1.3%	2.2%	2.2%	26,083	59,000	74,000	28,613	64,723	81,178
Post-secondary	0.2%	0.2%	0.1%	3,411	5,000	6,000	3,742	5,485	6,582
Total Recurrent Budget	1.5%	2.4%	2.3%	29,494	64,000	80,000	32,355	70,208	87,760
Investment Budget	1.3%	0.6%	0.6%	26,083	16,000	20,000	28,613	17,552	21,940
Total Budget	2.8%	3.0%	2.9%	55,577	80,000	100,000	60,968	87,760	109,700
Division-Total Budget									
Government Funds	1.8%	2.4%	2.4%	36,236	65,000	82,000	39,751	71,305	89,954
Foreign Funds	1.0%	0.5%	0.5%	19,341	14,000	18,000	21,217	15,358	19,746
Total	2.8%	3.0%	2.9%	\$55,577	\$80,000	\$100,000	60,968	87,760	109,700

Notes: Budgets disregard current funds for pre-school and for overall administration

Investment budget has been set at 20% of overall budget, the typical rate for countries at the Lao stage of development. See Table 11.8  
Growth has been estimated as in financial model: 2.4% growth in 1998, 1999. Growth in economy would equal annual population growth. In 2000 the economy would resume a faster growth rate as specified in the table.

## 12.7 Recurrent Funds to Support New Investments

In section 11 the distinction was made between the requirement for recurrent funds to complement investments and to implement investments. The first set of cases refers to the general need for recurrent funds to support investments in regular teaching activities. So, for example, when a new primary school is built there is a need for complementary recurrent funds to provide teachers with adequate compensation, day-to-day teaching supplies, and funds for school maintenance.

The provisions for an adequate recurrent budget contained in this section should satisfy the requirements for a sufficient recurrent budget to complement investments.

The requirement for recurrent funds to implement a new investment is quite another matter. The issue arises when a new stand-alone institution to support the

educational system is established through the investment budget. The TDC is cited as an example. The investment in TDC successfully built up capacity for teacher training and education research to be carried out after the project was over. But the general shortage of recurrent funds means that there is no recurrent budget to implement the new capabilities, and the newly invested in staff and facilities remain unused.

It is sometimes suggested that promises be required that monies be allocated, perhaps 5 percent of project cost, for recurrent costs after such a project is finished. This hardly seems an appropriate answer to a difficult but important issue. In the first place, one size does not all. The amount needed to maintain sustainability will vary according to type and level of project. Secondly, it is unrealistic to expect a government to commit itself to paying for future recurrent costs to maintain a project five or six years hence, after the project has finished. Instead sustainability should be made a part of the planning and evaluation of every project of this kind; and include these two steps: realistic assessment as a part of project development whether project activities can be sustained after the project; and, donors and Government should build the development of sustainability into the project to ensure that the new institution can sustain itself, after the project is completed.

This is a proposal to use normal business operating procedures to ensure that investments will be made in successful sustainable projects, using TDC as example. TDC was designed to provide two important services, teacher training and educational research. First, design of the project should have included a determination of whether there would be effective demand for these services after the investment is completed. The question is not whether there is a need for such services—no one would question that such services would be helpful. The issue is one of effective demand—whether there will be someone, some group, some way that the services will be paid for, at prices and in sufficient quantity that the facility can be sustained. Second, project activities during the life of the project should have include training in self-sustainability—how the services of the new institution can be sold—so as to provide needed recurrent funds after external project funding is completed.

## 12.8 High Priority Investments

Following is a list of high priority investments; the total is summarized in Table 12.6. The list is based on two factors: the agreed upon goals as set out earlier (moving toward universal literacy by getting every child through primary education and meeting the needs of the developing economy); the educational targets set out in MOE's Education Development Plan, 2001-2005, dated February 1999. The latter document generally sets out improvements and expansions in virtually every level and type of education, from pre-primary through general education, vocational education, to higher education. The economic situation in Lao PDR means that the country has a choice from a number of priorities. The country can begin rapid expansion of pre-primary education, or improve and expand vocational education, or set up an additional higher education campus. However, Lao PDR can not expand and improve all levels and institutions of education, at least not at the same time. If some targets are met in the next five years, other targets must wait.

### 12.9 Proposed Schedule for Interventions Identified in the Sector Study

This report prioritizes the list by a system of cross classifying to identify those items on the list of targets that fit with the overall goals of efficient universal primary education and meeting the needs of the growing economy. Moving toward this dual goal will more than exhaust available investment funds for at least the next ten years, probably longer. Other targets may have to wait. For example, expansion of pre-primary education is highly desirable for many reasons. However, at this time getting more children into primary school and reducing the level of dropouts and repeating is assumed to be more important. As to expansion of public vocational education, this is a very expensive undertaking that will draw resources away from the even more important primary school mission. In addition, there is no evidence at the moment that present vocational education is contributing to the growth of the economy. Once lines of development become clearer and there is better evidence from the recommended tracer studies of graduates about the benefits of the ongoing vocational education, further investments may be warranted.

#### Project 1: Improving Primary School Performance

Related Policy Goal : To increase the internal efficiency of primary schools through improved school practices.

Issues : Adequacy of quality of teachers, instructional materials and school management.

Component 1 : Teacher in-service training

Project Objective : To improve the quality of the teaching workforce in order to enhance learning achievement and to improve internal efficiency by reducing dropout and repetition.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Training of 90 school-based trainers	\$135,000	Year 2 – 70,000 Year 3 – 65,000
1	Improve teacher quality through provision of school-based in-service training by specialist trainers including use of text-books, content upgrading, assessment (and for pilot districts, use of learning aids.) Each province to have 5 trainers	\$270,000	Year 2 – 100,000 Year 4 – 100,000 Year 5 – 70,000
1	In-service training for multigrade teaching including pedagogy and management aspects	\$300,000	Year 2 – 100,000 Year 4 – 100,000 Year 5 – 100,000
2	Training of teachers in use of VAC learning kits and life-skills	\$5,000	Year 2 – 5,000

This proposal is in addition to the existing pedagogical advisory system since a longer period of face-to-face interaction is envisaged between teacher and trainer. It is not intended that these trainers are based within a cluster, but rather, that they will spend an extended period of time, one to two weeks, within a single school to ensure that teacher behavior is modified. School-based training should be more extended in time with follow-up rather than short sessions as in previous attempts. Provinces should target two districts per year on average so that all 134 districts are covered over a five-year period. This will require each of the 90 trainers to visit an average of 18 schools per year. Training sessions for trainers to be provided. There are 4,737 incomplete schools in Lao PDR and specific multigrade teaching will be required to some extent in all of these. Sequencing of the development of learning kits, training of trainers and teachers in their use and their distribution to pilot schools should be done carefully.

Activities and priorities for teacher training should build upon the outcomes of the current World Bank supported review of professional support for teachers.

Component 2 : Curriculum development and introduction of student learning aids.

Project Objective : To adapt the curriculum for implementation in multigrade schools and VAC model schools and to develop learning aids that are linked to existing textbooks.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Investigation of the low level of textbook usage in classrooms, including a review of the distribution and auditing systems for textbook provision	\$15,000	Year 1 – 15,000
1	Develop student learning aids for Lao language and mathematics that are consistent with the existing curriculum, textbooks and expected competency levels. Pilot and evaluate its costs and effectiveness in 16 districts in 4 provinces, including multigrade schools.	\$40,000	Year 2 – 40,000
1	Print and distribute student learning aids for a pilot study.	\$200,000	Year 3 – 100,000 Year 4 – 100,000
2	Adapt DNFE materials to develop a learning kit for pilot VAC model schools.	\$50,000	Year 3 – 50,000
2	Provide NRIES with a library of exemplar materials, including access to on-line materials and libraries	\$50,000	Year 1 – 50,000

Student workbooks are an example of a learning aid. These are not a series of questions with a set of answers. Rather, they are exercise books that refer to sections of the textbook and ask relevant questions for students to answer, or they describe activities for students to carry out and report on. Workbooks also include

space for answers or for student writing. Answers are not given to local teachers. In this way, pedagogical advisers and other supervisors can use completion of student workbooks as a measure of teacher performance, particularly relating on the teacher's ability to follow the curriculum. They also act as a catalyst for students to use textbooks. Furthermore, student workbooks enable students in multigrade schools to complete independent work while a teacher attends to a different grade level. Student workbooks will follow the textbooks for the two subject areas of Lao language and mathematics for the first three grades. The above costing is based on 10 schools per district with a print-run of 16,000 per each subject area for each year level, therefore a total of 100,000 student workbooks.

The evaluation study proposed here should focus on the benefits of such learning aids and identify the sustainability of using such learning aids on a wider and ongoing scale. Of particular concern are the costs to families of such materials.

DNFE has developed a range of books and supplementary materials for CLCs. These are relevant to life-skills and could be adapted to suit basic education needs. It is suggested that the adaptation of these materials be a joint effort between DGE and DNFE and be located at the DNFE Curriculum Resource Center at Vientiane Km. 8. The aim would be to produce a learning kit that was based on basic technology and was linked to practical activities for students in the school's garden, pond and stable. These same learning kits would also be relevant to adult education at CLCs. This development should also be linked to activities associated with the Basic Education (Girls) Project.

Component 3 : Investigation of special education needs of children

Project Objective : To identify the scope of special education needs among school-age children and to develop some simple teacher interventions that may assist children in need.

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Investigate special education needs, including extent of needs and development of simple strategies for teachers	\$100,000	Year 4 –100,000

The focus of this investigation should be on simple interventions that teachers can implement without costly equipment and training. There should not be an attempt to cover all disabilities but to focus on disabilities such as hearing and vision. An example of a simple intervention is to show teachers how to identify children with visual impairments and to have these children sit at the front of the classroom closer to the blackboard.

Component 4 : School-based administration, monitoring and supervision

Project Objective : To improve the capacity of school principals to assist teacher development, to supervise teacher performance and to enhance school-community relations.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Develop and test of a self-instructional manual for school principals concerning instructional supervision, staff development, leadership, community-school relations, etc	\$40,000	Year 2 – 40,000
1	Print and distribute of principal's self-instructional manual	\$20,000	Year 3 – 20,000
1	Training of pedagogical advisers to assist principals in the use of self-instructional manuals	\$24,000	Year 2 – 20,000 Year 3 – 14,000 Year 4 – 10,000

Approximately 8,000 school principals need training. In order to provide training for such a large number, the development of self-instructional materials is suggested. Similar materials have been developed by the United Nations Development Programme (UNDP) for Cambodian educators and adaptation of these materials should be possible.

Component 5 : School Improvement Plans

Project Objective : To improve schooling through use of improvement plans.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Initiate annual improvement plans. Such plans can be a simple one-page identification of objectives and targets for the year. After a year-end review and analysis a new plan is reformulated. Includes training of principals in development and use of plans	\$35,000	Year 1 – 20,000 Year 2 – 15,000

Training will be required at provincial and district level to support development of school plans. School clusters may be one model for initiating such improvement plans. This proposed component should also be linked to the Assessment of Student Learning Outcomes project (of EDP) activities concerning school-based assessment.

Component 6 : Localized assessment of school quality

Project Objective : To develop capability of principals to assess school quality.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Building a supporting information base and training program for principals to develop easily quantifiable indicators at the school level.	\$50,000	Year 2 – 10,000 Year 3 – 20,000 Year 5 – 20,000

For example, checklists may be prepared by MOE to reflect the Government's interpretation of the basic requisites for schooling, e.g., adequate facilities, availability of instructional materials, qualification of teachers, etc. These lists may be adapted by school committees, teachers, and community representatives to include local priorities and preferences. Principals would need to be trained in the collection and use of this information.

#### Project 2: Improved Quality of Secondary Education

Related Policy Goal : To improve the quality of teaching and learning in both lower and upper secondary school.

Issues : Adequacy of the quality of teachers, curriculum, and management during rapidly expanding enrollments.

Component 1 : More equitable access to secondary schooling

Project Objective : To ensure that all qualified students of Lao PDR have access to lower and upper secondary schools within the district in which they live.

These districts are in remote regions and a semi-permanent building design should be used since access to these areas will be limited. Although a strategy of capping the size of the secondary system is suggested, equity demands that all districts should have access to secondary schooling. Equitable access to quality secondary schooling is particularly important for ensuring a flow of future local teachers given the quota system in place.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Build new upper secondary schools in the 30 districts that currently do not have any upper secondary schools and one lower secondary school in the remaining district without any lower secondary schools	\$465,000	Year 2 – 115,000 Year 3 – 115,000 Year 4 – 115,000 Year 5 – 120,000

Component 2 : Improve the quality of existing teachers

Project Objective : To strengthen the content knowledge of lower and upper secondary level teachers, particularly as it related to teaching the integrated curriculum.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	In-service training to strengthen content knowledge to be provided by school-based trainers who will spend approximately 2 months at each school.	\$150,000	Year 3 – 40,000 Year 4 – 40,000 Year 5 – 35,000 Year 6 – 35,000
1	Training of 36 school-based trainers, including development of training materials	\$82,000	Year 1 – 30,000 Year 3 – 30,000 Year 4 – 22,000
1	In-service training to improve use of laboratories and supplementary equipment, linked to the curriculum	\$54,000	Year 2 – 27,000 Year 3 – 27,000
1	Training of PES-based trainers for effective use of laboratories in secondary schools	\$36,000	Year 2 – 18,000 Year 3 – 18,000

To be effective, such content strengthening will require a carefully structured two- to three-month program of study rather than a one- or two-week workshop. This will require training to take place in out-of-term time and may require a compensatory payment to offset foregone income during this time. School principals should also be involved. Content upgrading is separate from the current work of pedagogical advisers and is intended to provide a one-time support for teacher upgrading. It is intended that the trainer will spend an extended period of time at a single school. A total of 12 trainers for the integrated lower secondary curriculum and six for the upper secondary curriculum is proposed.

Activities and priorities for teacher training should build upon the outcomes of the current World Bank-supported review of professional support for teachers.

Component 3 : Expand in-service teacher training

Project Objective : To improve lower and upper secondary teachers' knowledge of content and pedagogy

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Provide in-service teacher training by having teachers attend a 3-4 week intensive training session over school vacation periods. Use training materials already developed by TDC and other organizations. Develop additional training materials only when necessary. Focus training on improving content knowledge of teachers with a secondary focus in improving pedagogical skills. Ensure that in-service training strengthens teachers' ability to use instructional materials for their grade level. Training could be offered by pedagogical advisers, TDC staff, international assistance organizations and local consultants as necessary.	\$750,000	Year 3 – 200,000 Year 4 – 150,000 Year 5 – 150,000 Year 6 – 150,000 Year 7 – 100,000

Component 4 : Improve the curriculum of upper secondary schooling

Project Objective : To revise and upgrade the existing curriculum for upper secondary school to ensure continuity from the recently revised integrated curriculum at lower secondary level

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Revise and upgrade upper secondary curriculum.	\$125,000	Year 3 – 50,000 Year 4 – 50,000 Year 5 – 25,000
2	Develop and test new textbooks for upper secondary	\$120,000	Year 3 – 40,000 Year 4 – 40,000 Year 5 – 40,000
2	Print and distribute new upper secondary textbooks	\$570,000	Year 4 – 200,000 Year 5 – 200,000 Year 6 – 170,000

Given other priorities, this revision and upgrading should be limited in scope. The curriculum should be an extension of lower secondary and adaptation of textbooks from other countries should be considered.

Component 5 : Improved planning and management capacity for secondary education

Project Objective : To develop strategic planning for the secondary subsector, particularly in view of the differing economic and social demands for expanded access to secondary education.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Implement a study to identify a mechanism for constraining the size of the secondary subsector while providing equity in access.	\$7,200	Year 1 – 7,200
1	Investigation of low levels of textbook usage in classrooms	\$10,000	Year 1 – 10,000
1	Strengthen capacity of MOE and PES to analyze and use statistics for monitoring and evaluation of policy implementation, applied to specific studies and projects such as internal efficiency monitoring.	\$60,000	Year 2 – 30,000 Year 3 – 30,000
1	In-service training for school principals concerning instructional supervision, staff development, leadership, community-school relations, etc, including development of a simple procedural manual.	\$80,000	Year 2 – 30,000 Year 3 – 30,000 Year 4 – 20,000
1	Initiate annual improvement plans. After a year-end review and analysis a new plan is reformulated. Includes training of principals in development and use of plans	\$35,000	Year 1 – 5,000 Year 2 – 15,000 Year 3 – 15,000
2	Improve annual transition tests used to determine grade promotion	\$14,400	Year 5 – 14,400

Enrollment growth at secondary level is high and is placing great strain on the system. For example, over the last two years the lower secondary system increased student numbers with virtually no increase in the number of teachers. The risk to quality is very high and will have a negative impact on all levels of postsecondary education, including lower quality of future entrants to TTCs. In-service training should be school-based with practical activities. The Assessment of Student Learning Outcomes project is currently investigating the examination process. An extension of this project to localized school level tests is suggested here.

### Project 3: Upgrading of Teacher Training Colleges

Related Policy Goal : To improve the quality of new teachers through improved training programs.

Issues : Receptivity of instructors to teaching in primary or secondary schools and to learning new skills.

Component 1 : Upgrading capacity of TTC staff

Project Objective : To improve both the practical experience of TTC staff and introduce them to new teaching techniques and resources.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Upgrade quality and relevance of training at each TTC	\$444,000	Year 2 – 90,000 Year 3 – 90,000 Year 4 – 90,000 Year 5 – 90,000 Year 6 – 84,000
1	Develop a professional development plan for each TTC staff member.	\$40,000	Year 1 – 20,000 Year 2 – 20,000
1	Train staff in use of textbooks and supplementary materials. This intervention can build on the outputs of the TDC project.	\$20,000	Year 2 – 20,000
2	Provide an opportunity for TTC and NUOL staff to teach for an extended period of time in a primary or secondary school to gain practical experience.	\$10,000	Year 2 – 3,000 Year 3 – 4,000 Year 4 – 3,000
3	Improve library facilities for TTC staff, including internet access.	\$120,000	Year 1 – 40,000 Year 2 – 40,000 Year 3 – 20,000 Year 4 – 20,000

Many TTC and NUOL Faculty of Education staff have never taught at a primary or secondary school. This results in a theoretical approach to teacher preparation. Introduction of a more practical approach needs to be implemented.

Component 2 : Improved facilities for trainee's practicum at TTCs

Project Objective : To improve the practical experience of teacher trainees and introduce them to multigrade and life-skills teaching techniques and resources.

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Develop a model multigrade class in demonstration schools at each TTC.	\$240,000	Year 2 – 50,000 Year 3 – 75,000 Year 4 – 75,000 Year 5 – 40,000
2	Development of textbooks and student learning aids and supervised use of these during practicum and practical teaching opportunities.	\$20,000	Year 2 – 15,000 Year 3 – 5,000
3	Following the pilot implementation of VAC model schools (see endnotes for a description of a VAC school), develop a model VAC school at each TTC for practicum opportunities.	\$240,000	Year 2 – 50,000 Year 3 – 75,000 Year 4 – 75,000 Year 5 – 40,000

Successful implementation will require recruitment of competent teachers, some construction, and provision of supplementary materials.

Component 3 : TTC staff training in multigrade teaching and practical life-skills

Project Objective : To provide TTC staff with first-hand experience of typical teaching challenges and opportunity to develop the relevancy of their teaching style and content.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Teachers with demonstrated best-practice multigrade teaching to provide in-service training for TTC staff.	\$10,000	Year 1 – 10,000
1	Develop a video library of best-practice multigrade teaching.	\$8,000	Year 2 – 8,000
2	TTC staff to be based in a multigrade school for a 3-week period to receive first hand experience of multigrade teaching.	\$20,000	Year 1 – 5,000 Year 2 – 7,500 Year 3 – 7,500
3	Teachers with demonstrated best-practice life-skills teaching to provide in-service training for TTC staff. This intervention should be linked to the piloting of a VAC model school.	\$7,200	Year 2 – 7,200
3	TTC staff to be based in a primary school for a 3-week period to receive first hand experience of life-skills teaching. This intervention should be linked to the piloting of a VAC model school.	\$20,000	Year 1 – 5,000 Year 2 – 7,500 Year 3 – 7,500
3	Develop a video library of best-practice, life-skills teaching. This intervention should be linked to the piloting of a VAC model school.	\$8,000	Year 2 – 8,000

Component 4 : Curriculum packages for graduates of TTCs

Project Objective : To ensure that graduates are well-equipped with teaching resources for their first teaching appointment.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Provide a curriculum package to all teacher-trainees comprising a copy of the curriculum, teacher guides, model lesson plans and student textbooks.	\$350,000	Year 2 – 100,000 Year 3 – 150,000 Year 4 – 100,000

There are approximately 3,500 students currently enrolled in teacher preparation programs.

Project 4: Improved Management of Nonformal Education

Related Policy Goal : To improve the management and provision of nonformal education programs through decentralization of activities.

Issues : Role of nonformal education as the Lao education expands, and articulation of nonformal education with the formal education systems.

Component 1 : Decentralization of management of nonformal education

Project Objective : To move the planning and management of nonformal education programs closer to the grass-roots level by decentralization to provincial and district levels.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Develop a training plan for DNFE staff	\$10,000	Year 1 – 10,000
1	Train local and provincial staff in management and administration.	\$50,000	Year 2 – 12,500 Year 3 – 12,500 Year 4 – 12,500 Year 5 – 12,500
1	Decentralize nonformal management and planning to provincial and district levels.	\$150,000	Year 2 – 30,000 Year 3 – 40,000 Year 4 – 40,000 Year 5 – 40,000

Decentralization will involve a number of steps, the first of which will be staff training and upgrading. Activities cannot be decentralized until local staff have the necessary skills through training activities. Supervision and monitoring will continue to be the responsibility of the DNFE and be implemented by officers at provincial and district levels.

Component 2 : Training of trainers

Project Objective : To improve the efficiency and relevance of trainer upgrading through greater decentralization of training facilities.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Train of regional staff to be responsible for trainer upgrading.	\$150,000	Year 2 – 40,000 Year 3 – 40,000 Year 4 – 40,000 Year 5 – 30,000

Component 3 : Upgrading of materials production at provincial level

Project Objective : To improve the distribution and relevance of nonformal education materials by decentralization of materials development and production to regional centers.

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Capacity building for nonformal materials production to provincial centers including development of longer life-span materials.	\$350,000	Year 2 – 100,000 Year 3 – 100,000 Year 4 – 100,000 Year 5 – 50,000

Transport problems have created difficulty in distribution of materials developed in Vientiane to communities. In addition, paper-based materials used to produce materials have a life-span of less than six months. Silkscreen and other media should be investigated. Relevant equipment not requiring electricity has been implemented in some areas by JSRC and this could be further examined, not only for nonformal education but also for distribution to remote schools in the formal sector.

#### Project 5: Capacity Building for Target-Setting and Integrated Planning

Related Policy Goal : To improve the capacity of staff at DEBs to develop equitable district-based planning targets and to integrate these into an overall provincial and national planning strategy. In addition, to improve at the district level the monitoring and analysis of progress towards these targets.

Issues : Receptivity of the districts to more technical analyses and more transparency in national planning and administrative processes. Acceptance by MOE of a larger planning role for the district.

Component 1 : Further integration of district and provincial planning into a national strategy linked to implementation and monitoring of district level achievements.

Project Objective : To ensure equity by identification of local targets and implementing strategies to meet local planning targets.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Additional training of DEB staff in developing district plans and use of these plans in adjusting village and school level targets.	\$55,000	Year 2 – 15,000 Year 3 – 20,000 Year 4 – 20,000

Current planning focuses on national targets. Disparity in current status among provinces is such that national targets are not meaningful for implementation. Training is required for planning that encourages district level planning leading into provincial plans and then to national plans. For example, the overall number of TTC trainee quotas is appropriate but the distribution of these across provinces is inappropriate.

**Project 6: Capacity Building for Educational Governance, Planning, and Administration**

**Related Policy Goal :** To further develop institutional capacity to plan and monitor the general education subsystem.

**Issues :** Adequacy of supporting educational governance, planning and administration.

**Component 1 :** Developing comprehensive and strategic planning capabilities for MOE and affiliates.

**Project Objective :** To improve the planning and implementation capabilities of MOE, PES and DEB.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Coordinated with capacity building projects in education being carried out by the Government independently or through international assistance. Build long-term program on the results of the proposed skills audit to be undertaken by the EDP.	Pending	Year 1
1	Assist MOE to develop a rationalized system for teacher compensation to reward competence and to encourage career development.	\$50,000	Year 1 Year 2 Year 3 Year 4 Year 5

Capacity building for educational governance, planning, and administration is among the highest priorities. However, planning and budgeting for additional interventions should be based on the most comprehensive and recent needs analyses. It can be anticipated that interventions will cost several million dollars.

### Project 7: Examination of Alternative Models for Delivering Vocational and Technical Education

Related Policy Goal : To ensure that MOE resources are targeted to highest priority needs in the education system.

Issues : Identify the role of Government and the private sector in providing vocational and technical education.

Component 1 : Feasibility study of ways to connect education and training to major employers.

Project Objective : To improve the planning of vocational and technical education within the fiscal constraints faced by MOE.

Priority	Strategic Interventions	Cost	Proposed Schedule
3	Conduct a study of the options linking technical training programs to major employers. The study would look at ways that major employers could collaborate with MOE in sponsoring training programs within specifically targeted to their company needs. These linkages are intended to strengthen the links between training and labor market needs.	\$60,000	Year 1

### Project 8: Developing Infrastructure and Other Support for Proposed Projects

Related Policy Goal : To improve quality of education through greater access, improved efficiency and enhanced planning and management strategies.

Issues : Feasibility of coordinating the achievement of higher quality of education, increased educational access and more effective school management.

Component 1 : Expand through construction and/or refurbishment of school buildings in existing schools where student numbers are small and less than three grade levels are currently offered.

Project Objective : To increase the number of grade levels of primary schooling provided in small schools so that all schools can offer all five grades. This component is related to the wider introduction of multigrade teaching.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Expand incomplete schools to ensure that all schools can offer all grades. Target those schools where this can be achieved through the introduction of multigrade teaching rather than by appointing additional teachers. (An additional classroom with furniture to be provided.)	\$12,100,000	Year 2 – 3,000,000 Year 3 – 3,000,000 Year 4 – 2,100,000 Year 5 – 2,000,000 Year 6 – 2,000,000
1	Provide access to schooling by construction of 2,175 new schools in villages where no schools exist.	\$13,837,000	Year 2 – 3,000,000 Year 3 – 3,000,000 Year 4 – 3,000,000 Year 5 – 2,500,000 Year 6 – 2,337,000
2	Build new multigrade schools.	\$7,225,000	Year 2 – 2,000,000 Year 3 – 2,000,000 Year 4 – 2,000,000 Year 5 – 1,225,000
4	Rehabilitate and refurbish existing schools.	\$14,260,000	Defer due to low priority

Costing is based upon the number of schools now offering less than the five grades and assumes that 33 percent will be semi-permanent and 64 percent will be temporary. See sections 3 and 5 for further detail. The number of new schools is to meet projected enrollments outlined in Table 12.1. A total of 3,000 new schools are required by 2004/05. 425 of these schools are already accounted for in the multigrade interventions included in the same component. 400 schools are currently in the investment pipeline under either Japanese or World Bank support. The costing for this item is shown below:

Cost estimates for primary school buildings				
	Distribution	Number	Unit cost	Sub-total
Permanent	16%	400	\$ 32,000	\$ 12,800,000
Japanese/ World Bank funding				
Semi-permanent	32%	833	\$ 15,000	\$ 12,495,000
Temporary	52%	1,342	\$ 1,000	\$ 1,342,000
Total		2,175		\$ 13,837,000

Construction of new schools will have recurrent cost implications. In addition, the training of additional teachers will need to occur in order to adequately staff these new schools and building or expansion of schools should occur only as adequate teacher supply is achieved. It should be noted that multigrade teaching is the suggested mode of teaching for many of these (small) schools. A total of 375 new multigrade schools are to be constructed as part of the Basic Education (Girls) Project. These schools will be built in 50 districts of all 18 provinces.

The identification of the need for schools to be rehabilitated or refurbished is to bring all schools to a minimum standard and is considered a "one-off" intervention rather than recurrent funding. The type of school and its condition determines maintenance and refurbishment costs. The table below provides this classification:

	Condition				Maintenance				Total Cost
	Good	Poor	Bad	Total	Annual	Periodic	Rehabilitate	Replace	
Permanent	220	136	90	446	\$ 640	\$3,200*	\$12,800	\$32,000	\$ 1,728,000
Semi-permanent	635	1,121	1,113	2,869	\$ 300	\$1,500**	\$ 6,000	\$15,000	\$ 8,550,000
Temporary	621	1,611	2,355	4,587	\$ 20	\$ 100	\$ 400	\$ 1,000	\$ 3,978,420
<b>Total</b>	<b>1,476</b>	<b>2,868</b>	<b>3,558</b>	<b>7,902</b>					<b>\$14,256,420</b>

\*Once every 10 years; \*\*Once every 5 years

Component 2 : Provision of teachers for new schools (under component 1).

Project Objective : To ensure that new schools built or schools expanded under component 1 can be adequately staffed with qualified teachers.

Priority	Strategic Interventions	Cost	Proposed Schedule
4	If the planned study of feasibility of deployment of teachers yields positive results, provide available teachers with an incentive payment of two years salary.	\$700,000	Defer pending outcome of pilot project; low priority

Implementation of this intervention should be deferred until results of a proposed pilot trial are known. Payment should be in the form of a loan that may not be re-payable. For example, one payment of 50 percent is made on redeployment followed by two payments, each of 25 percent, after the first and second years of satisfactory performance at the new school. Receipt of the third payment will convert the loan into a free-grant.

Component 3 : Establishment of CLCs in villages at risk.

Project Objective : To assist villages where low levels of adult literacy, high dropout and large numbers of out-of-school children occur in a self-perpetuating cycle.

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Implement nonformal education through establishment of a CLC at villages where the local school has exceptionally high dropout rates together with low participation rates (includes materials, trainer, etc.).	\$3,000,000	Year 3 – 1,000,000 Year 4 – 1,000,000 Year 5 – 500,000 Year 6 – 500,000

It is proposed to implement CLCs in villages where dropout rates are high, many children are out-of-school and adult literacy is low. This should not duplicate existing CLCs or other interventions already in place. The villages described here represent the worst cases. However, it is in these same villages where formal primary schooling is not working successfully. This intervention is, therefore, a difficult and risky undertaking, although its potential outcome makes it valuable.

Component 4 : Implementation of a trial of VAC model schools.

Project Objective : To improve the relevancy of schooling in ethnic minority and remote rural communities through the introduction of stronger links between formal schooling and practical life-skills.

Priority	Strategic Interventions	Cost	Proposed Schedule
2	Implement and pilot of VAC schools in 20 selected ethnic minority schools where dropout is high and girls have low participation rates.	\$60,000	Year 3 – 30,000 Year 4 – 30,000
2	Reproduce exemplar VAC learning kits (including seeds, basic tools, and money to purchase fish stock, etc.)	\$40,000	Year 4 – 20,000 Year 5 – 20,000

VAC is the Vietnamese acronym for “Stable, Garden, Pond” and refers to schools in ethnic minority areas where schools have a small garden, fishpond and stable for raising small animals. In rural areas of Lao PDR, fruit tree cultivation could be included. The aim is to link academic activities to practical life-skills. A study visit to ethnic minority areas in Vietnam should be included in order to evaluate the relevancy of this type of schooling to Lao PDR. Specific teacher training will be necessary if this model is to be successful.

Component 5 : A system for monitoring labor market outcomes, including tracer studies

Project Objective : To identify relevant information concerning graduates and use this for future planning of secondary and postsecondary education.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	Implement a system for monitoring occupational outcomes for graduates of upper secondary, university, vocational schools and technical colleges, including tracer studies. Included is training for MOE staff to use the results of this study to plan the size and content of the various subsectors	\$66,000	Year 1 – 30,000 Year 2 – 36,000

Component 6 : Feasibility of a system of regional colleges

Project Objective : To re-examine the feasibility of implementing a number of regional colleges linked to NUOL.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	To re-examine the feasibility of implementing a number of regional colleges to further improve equity of access to postsecondary education, particularly tertiary level education.	\$60,000	Year 2 – 60,000

Component 7 : Development of a computerized glossary of educational terms, in Lao and English.

Project Objective : To improve the communication process between international and domestic consultants through improved translation between written and spoken Lao and English languages.

Priority	Strategic Interventions	Cost	Proposed Schedule
1	In collaboration with staff from NUOL develop a Lao-English translation of a comprehensive glossary of educational terms, including educational investment and financing.	\$20,000	Year 1 – 20,000
1	Adapt Lao-English educational glossary to a computerized desktop accessory accessible by a variety of computer software, including word-processing, spreadsheet and graphics programs.	\$4,000	Year 1 – 4,000

Staff from NUOL have received extensive training and professional support through other projects and have the capacity to implement this intervention. In particular, staff from the Faculty of Economics and Management have skills relevant to this intervention.

Table 12.6  
Total and per year Cost of Five-Year Prioritized Investment Plan

Investments: Prioritized Interventions	Priority				Total
	I	II	III	IV	
1. Improving Primary School Performance	\$ 1,129,000	\$ 205,000	0	0	\$ 1,334,000
i. In-service Teacher Training	705,000	5,000			710,000
ii. Curric. Development/Student Learning Aids	255,000	100,000			355,000
iii. Study of Special Education Needs		100,000			100,000
iv. School-based Administration, Monitoring and Supervision	84,000				84,000
v. School Improvement Plans	35,000				35,000
vi. Local Assessment of School Quality	50,000				50,000
2. Improving Quality of Secondary Education	1,729,200	829,400	0	0	2,558,600
i. Build New Schools	465,000				465,000
ii. Improve Quality of Existing Teachers	322,000				322,000
iii. Expand In-service Teacher Training	750,000				750,000
iv. Improve Curriculum		815,000			815,000
v. Improve Planning & Management Capacity	192,200	14,400			206,600
3. Upgrading Teacher Colleges	872,000	290,000	395,200	0	1,557,200
i. Upgrade Capacity of TTC Staff	504,000	10,000	120,000		634,000
ii. Improve Facilities for Practicums		260,000	240,000		500,000
iii. Train Staff in Multigrade Teaching	18,000	20,000	35,200		73,200
iv. Develop Curriculum Packages for Graduates	350,000				350,000
4. Improving Management of Nonformal Education	360,000	350,000	0	0	710,000
i. Decentralize Management	210,000				210,000
ii. Train the Trainers	150,000	350,000			500,000
5. Capacity building for Integrated Planning	55,000	0	0	0	55,000
i. Link Planning to Implementation and Monitoring					
6. Capacity building for Educational Governance, Planning, and Administration	50,000	0	0	0	50,000
i. Develop Planning Capabilities of MOE and Affiliates					
7. Examination of Alternative Models for Delivering Vocational and Technical Education	0	0	60,000	0	60,000
i. Study Ways to Connect Education and Training to Major Employers					
8. Infrastructure and other support for proposed projects	26,087,000	10,325,000	0	14,960,000	51,372,000
ii. Construct/Refurbish Schools as Needed	25,937,000	7,225,000		14,260,000	47,422,000
iii. Provide Teachers for New Schools				700,000	700,000
iv. Establish CLCs in at risk Villages		3,000,000			300,000
v. VAC Model School Trial		100,000			100,000
vi. Monitor Labor Market Outcomes	66,000				66,000
vii. Study Feasibility of NUOL Regional Colleges	60,000				60,000
viii. Computerize Lao-English Educational Glossary	24,000				24,000
<b>Total Five-Year Investment Cost</b>	<b>\$30,282,200</b>	<b>\$11,999,400</b>	<b>\$455,200</b>	<b>\$14,960,000</b>	<b>\$57,696,800</b>
<b>Total Cost Per Year</b>					<b>\$11,539,360</b>