

The VIth Party Congress in 1996 agreed that the national education system be upgraded and gradually modernized to meet the needs of socioeconomic development. The resulting Education Development Plan for 1996-2000 was based on output-based planning; that is, the education system should be directed towards producing human capital outputs with the knowledge and skills required for the achievements of Government goals for national development. With this guidance in mind the following brief analysis of the Lao economy and the stocks and flows of human capital for that economy has been made.

## 11.1 Lao PDR Economy

In 1986, the Lao PDR began a transformation of its economy from a centrally planned to a market-oriented system. The adoption of the New Economic Mechanism changed the state's direct involvement in production and trading towards economic management through macro-economic policy. Since that time structural reforms have taken place so that market forces are now at work in most segments of the economy. The economy has performed quite creditably since the New Economic Mechanism was first introduced growing annually at 5 to 8 percent. However, in 1997 economic conditions began to deteriorate, largely because of the economic crisis in the region, in particular the economic slowdown in Thailand. In 1998, conditions continued to deteriorate: new investments fell drastically, tax receipts declined substantially, and the exchange rate of the kip versus the baht and the dollar, and the purchasing power of the kip fell by more four times. It is not known when the Lao economy will begin to recover.

The following four tables describe the economy at the time when the economy began to deteriorate, and are useful in establishing educational policies. Table 11.1, contains GDP by Industrial Origin in 1997 with real growth rates for the years 1992-97; Table 11.2 describes employment of the civilian work force; Table 11.3, the educational qualifications of the labor force; and Table 11.4, total family income, the amount of that income that is in the form of cash, and the sources of cash income, throughout Lao and by province.

### Gross Domestic Product

The first two columns of Table 11.1 describe the make-up of the Lao economy: the contributions of agriculture, industry, and services (along with important subsectors) to GDP. The third column contains the 1992-97 average rate of growth for each sector, or subsector; and the right hand columns contain the range of growth rates over that six-year period. The Lao economy is largely agricultural. Agriculture

Table 11.1  
GDP by Industrial Origin, with Real Growth Rates, 1992-97

	GDP at factor cost by Industrial Origin		Yearly rate of growth 1992-97		
	General category	Specific category	Overall average	Range of values	
Agriculture	53%		4.5%	2.7%	- 8.3%
Crops		27%	2.3%	-11.0%	- 12.7%
Livestock and Fishery		20%	3.5%	2.4%	- 4.3%
Forestry		6%	30.0%	-4.9%	- 183.7%
Industry	21%		11.5%	9.8%	- 17.3%
Manufacturing		16%	11.3%	7.0%	- 18.1%
Construction		3%	11.1%	3.0%	- 17.2%
Other		2%			
Services	26%		8.4%	5.5%	- 10.2%
Trade		9%	9.1%	7.9%	- 18.5%
Transportation, etc.		6%	11.0%	3.1%	- 18.2%
Other		11%			
Total	100%	100%	6.8%	5.2%	- 8.0%

Notes: Outputs of major commodities are only available in terms of the number of units, not in terms of value. For example in manufacturing there are yearly reports on the amount of kWh in hydropower, the meters of electric cord, the pieces of garments, and the ampoules of vaccines; but not the values of those outputs.

Source: IMF, Lao People's Democratic Republic: Recent Economic Developments, 1998.

Table 11.2  
Type of Employment, Civilian Work Force, 1995

Type of Employment	Persons	Proportion of Work Force
Subsistence Farming	1,807,000	84%
Informal Sector		
Own Account Worker	109,000	5%
Unpaid Family Worker	37,000	2%
Formal Sector		
Paid Employee /Government	109,000	5%
Paid Employee /State Enterprise	19,000	1%
Paid Employee /Joint venture	8,000	0.4%
Paid Employee / Private Employer	51,000	2.4%
Total	2,145,000	100%

Source: 1995 Census, Lao PDR

contributes 53 percent of the GDP and is the occupation for 84 percent of its work force. Up until the financial crisis occurred the economy was growing at an annual rate of 6.8 percent per year. While agriculture showed substantial rates of growth, the recent growth of the Lao economy was led by growth in industry and services. The size of the agricultural sector has provided some stability to the economy during the crisis since its growth, for the most part, depends on the weather and not the

neighboring Thai economy. Services, which contributed 26 percent of total GDP in 1997, had grown at annual rate of 8.4 percent. Industry contributed 21 percent of total GDP in 1997, and at 11.5 percent per year, was the fastest growing sector during 1992-97. Over this period the lowest annual growth rate for industry was 9.8 percent; the highest, 17.3 percent.

### Employment

As indicated in Table 11.2 among the 16 percent of the work force not engaged in subsistence agriculture the largest group were workers in the informal sector, the "own account" and unpaid family workers. The smallest grouping was the formal sector of the economy, the civil service and those working as employees in state enterprises, government/private joint ventures, and the private sector. It is this latter group—formal sector employment outside the civil service—that is expected to grow as further economic development takes place. It is also the group that is usually thought of as the target for education programs designed to provide the knowledge and skills needed for economic development. At the present time this group makes up 4 percent of the total work force, 25 percent of the non-agricultural work force and 43 percent of formal sector employment.

### Stocks of Human Capital

Table 11.3 contains the educational qualifications of the economically active population, those aged 10 and over who were working, plus the 2.4 percent of the total

Table 11.3  
Economically Active Population, by Education, 1995

Educational Attainment	Economically Active		
	Total	With Some Education	
No education	956,275	43%	
Primary			
Not completed	558,767	25%	44%
Completed	315,069	14%	25%
Lower secondary			
Not completed	105,851	5%	8%
Completed	128,959	6%	10%
Upper secondary			
Not completed	20,455	1%	2%
Completed	68,619	3%	5%
Postsecondary	76,177	3%	6%
<b>Total</b>	<b>2,230,172</b>	<b>100%</b>	<b>100%</b>
Summary			
No education	956,275	43%	
Uncompleted education	685,074	31%	54%
Completed education	588,823	26%	46%
<b>Total</b>	<b>2,230,172</b>	<b>100%</b>	<b>100%</b>

Source: Census 1995, Table 5.2

Table 11.4  
Family Income, Lao PDR, by Province, 1997/98

Province	All Expenditures		Cash Expenditures	
	Total million kip	Per capita kip	Total million kip	Per capita kip
Entire country	1,937,061	423,000	1,336,570	292,000
Phongsaly	28,249	185,000	10,069	66,000
LuangNamtha	29,994	261,000	14,712	120,000
Oudomxay	38,800	185,000	14,502	69,000
Bokeo	38,865	342,000	20,300	170,000
Luangprabang	119,737	328,000	79,170	214,000
Houaphan	66,599	272,000	36,090	148,000
Sayaboury	179,057	614,000	127,373	437,000
Vientiane Municipality	446,756	852,000	386,881	738,000
Xiang Khouang	59,640	297,000	26,571	132,000
Vientiane Province	124,095	433,000	82,029	286,000
Bolikhamxay	68,224	417,000	41,011	251,000
Khammouane	104,289	383,000	68,294	251,000
Savannakhet	185,139	276,000	107,231	154,000
Saysomboune SR	12,301	228,000	5,827	108,000
Saravan	89,488	349,000	54,255	212,000
Sekong	20,948	326,000	10,511	164,000
Champassack	289,820	578,000	230,800	460,000
Attapeu	35,060	402,000	20,944	240,000

Source: Lao PDR Expenditure and Consumption Survey, (LECS II), 1997/98.

who were not working but seeking work. Almost everyone over the age of 10 is working, except those going to school (and many of them may well be working also, but were not counted as part of the economically active). Among the population aged 10 and over who were not attending school, 92 percent of the men and 86 percent of the women were economically active.

At the time of the 1995 census, 43 percent of the economically active had no education. Among those with some education most had not finished the cycle of education they had started. Most of those with incomplete education had not finished primary school. However, there were also sizeable proportions of individuals who entered but did not finish lower secondary (45 percent) and upper secondary (23 percent). No information is available whether those who entered postsecondary education completed the course of study they had begun.

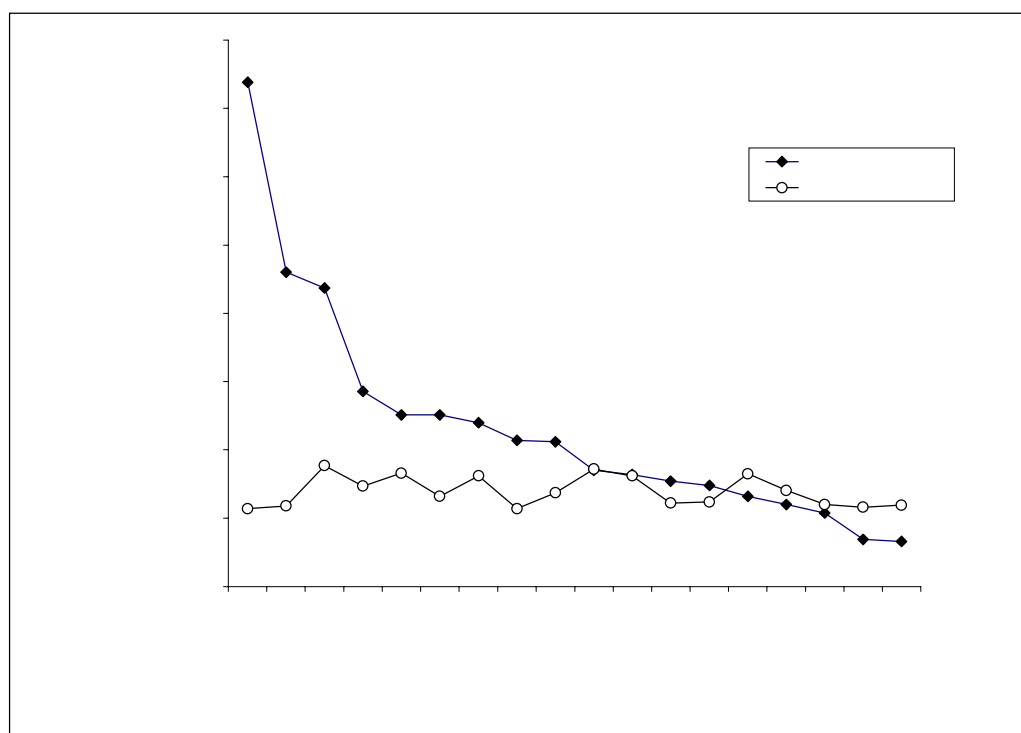
#### Total and per capita Family Income

The data regarding family income in Table 11.4 come from a nationwide survey of family expenditures for the year 1997/98. Expenditures are perhaps the best measure of a family's income, and in this discussion expenditures and income are used

Table 11.4  
Family Income, Lao PDR, by Province, 1997/98 (cont'd.)

Cash as % Total Income	Total Cash Income	Sources of Cash Income				
		Agriculture	Business net Income	Wages & Salaries	Property Income	Transfers (Remittances)
69%	100%	26%	30%	23%	3%	18%
36%	100%	52%	33%	10%	0%	5%
49%	100%	18%	18%	57%	2%	5%
37%	100%	45%	21%	26%	0%	8%
52%	100%	39%	29%	24%	1%	7%
66%	100%	33%	38%	20%	2%	7%
54%	100%	19%	65%	8%	1%	7%
71%	100%	37%	29%	25%	2%	7%
87%	100%	18%	21%	25%	3%	33%
45%	100%	30%	4%	46%	3%	17%
66%	100%	33%	36%	21%	1%	9%
60%	100%	25%	29%	43%	2%	1%
65%	100%	21%	32%	21%	4%	22%
58%	100%	21%	6%	40%	15%	18%
47%	100%	61%	14%	11%	0%	14%
61%	100%	66%	5%	5%	6%	18%
50%	100%	22%	7%	8%	0%	63%
80%	100%	21%	53%	12%	1%	13%
60%	100%	32%	28%	29%	1%	10%

Figure 11.1  
Per capita Income by Province, 1997/98



Source: LECS II Survey

interchangeably. The left panel of the table contains total expenditures and total expenditures per capita, on the left; and cash expenditures plus cash expenditures per capita on the right. The difference between total expenditures and cash expenditures is the large amount of agriculture produced by individual farmers for their own consumption. Total expenditures by all families in the year were 1,937 billion kip; per capita, or per person, yearly expenditures were 423,000 kip. Cash expenditures totaled 1,337 billion for all families; per capita cash expenditures were 292,000 kip. Forty-five percent of total family income is derived from agriculture. Almost 60 percent of the agricultural income represent production for farm family consumption; the rest is sold on the market and represents cash income to the farmers.

The right panel of Table 11.4 describes the sources of cash income for Lao families which helps to clarify the nature of the Lao economy. Agriculture, both production for own consumption and production for the market, is the major source of income into Lao families. Wages and salaries are substantial but still a relatively small source of income, reflecting the small numbers of employees. A surprising finding is the large amount of remittances, almost as large as wages and salaries, as a source of income.

The data in Table 11.4 indicate the wide variation in per capita income between provinces, particularly in regard to per capita cash income. Per capita cash income ranges from 66,000 kip per person in Phongsaly and 69,000 kip in Oudomxay provinces to 460,000 kip in Champassack and 738,000 kip in Vientiane Municipality. The distribution of per capita income across provinces is graphed in Figure 11.1. The income is separated into cash and non-cash income.

Of particular interest is the relationship between education and income. Table 11.5 describes the relationship between per capita income and educational background. This data have been derived by calculating the correlation between average provincial per capita income and the proportion of the provincial population (6+ years) attending school at different levels. As can be seen, non-cash per capita income has no relationship with education while per capita cash income is strongly related with educational attainments.

Table 11.5  
Correlation between Provincial per capita Cash and Non-Cash Income  
and Educational Attainments in that Province

Proportion of Provincial Population	Per capita cash income	Per capita non-cash income
Graduated primary school	0.72**	-0.13
Attended lower secondary school	0.74**	-0.18
Graduated lower secondary	0.73**	-0.20

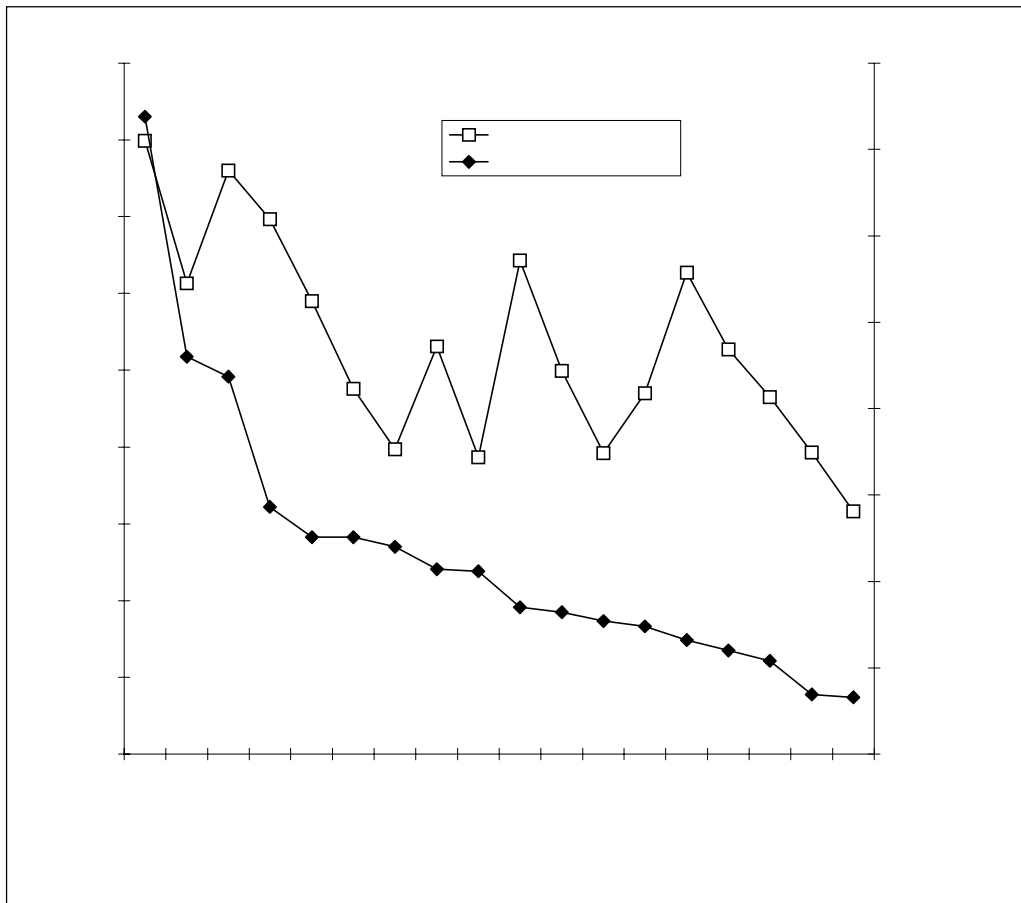
\*\*Significant at a 1% level.

Source: 1995 Census and LECS II Survey

Figure 11.2 and Table 11.6 describe the relationships between per capita income and current performance in school. There is a cost to families in sending their children to school. In addition to foregone earnings families also need to pay fees to schools for maintenance, supplies, uniforms, etc. This cost has been estimated at approximately 56,000 kip per student per year. These costs can represent a significant proportion of per capita cash income, particularly in poorer provinces. It is likely then that some students are unable to continue their schooling due to a shortage of cash income. Figure 11.2 describes this relationship between cash income and survival through primary school and confirms that survival through primary school does indeed decline with decreasing per capita cash income.

This relationship is confirmed by the significant correlation between cash income and survival rates as reported in Table 11.6. There is no relationship between income and repetition. This would be expected since repetition is linked more to ability than income. Also of interest is the finding that no relationship exists between non-cash income and survival.

Figure 11.2  
Cash Income and Survival in Primary School, by Province 1997/98



Source: Analysis of data from MOE Annual Statistical Bulletins and LECS II Survey

Table 11.6  
Correlation between Provincial Educational Performance and  
per capita Cash and Non-Cash Income

Provincial Educational Performance	Per capita cash income	Per capita non-cash income
Survival	0.73**	0.35
Repetition	-0.40	-0.11

\*\*Significant at a 1% level.

Source: Analysis of MOE Annual Statistical Bulletins and LECS II Survey

This analysis would suggest that education could be out of reach of some families due to the cash costs of education through the levying of school fees or the requirement to make contributions toward school expenses. If access and internal efficiency is to be improved, this barrier should be reduced. There is therefore a strong argument for the implementation of a sliding scale of school fees based upon the per-capita cash income of provinces.

## 11.2 Current Levels of Education Spending/Government Budgets

Table 11.7 contains total Government budgets for education over the past five years. The first panel contains the budgets in nominal kip; the second panel in real terms, in 1995 kip; and the third panel contains the yearly distribution of those budgets between recurrent and capital and between domestic and international sources. There was a very substantial increase in the education budget from 1993-94 to 1994-95. International capital increased by three times; there was also a substantial increase in domestic funds, both in recurrent funds and in domestic capital. The increase in domestic recurrent funds came from a large increase in civil service pay. Since that time there have been increases in the education budgets every year, at least in nominal terms. In real terms, however, budgets have fluctuated, falling in 1995/96, rising in 1996/97 and then falling again. At the time of writing the previous year's inflation had been quite drastic causing the size of the education recurrent budget to fall to 1993/94 levels.

In 1993/94, prior to the run up in spending, 36.7 percent of the educational budget was going into capital or development projects. Strictly speaking not all the capital budget goes for true investment. Some of the funds are going into items such as the purchase and distribution of books or maintenance projects, spending that would be better classified as routine or recurrent spending. With the run-up in spending in 1994/95, the proportion of the budget going to capital increased to 46.5 percent and has stayed above 40 percent since then (panel 3, Table 11.7). Since that time about 75-80 percent of the Government capital budget has been financed from international sources; the remainder from internal Government sources. About half of the domestic Government monies going into the capital budget goes for counterpart funds to accompany foreign financed development projects, and half for separate Government-financed projects.

Table 11.7  
Government Education Budget, Nominal and Real Kip and Compared to GDP and  
Overall Government Budgets 1993 - 98

	Fiscal year				
	93/94 billion kip	94/95 billion kip	95/96 billion kip	96/97 billion kip	97/98 billion kip
Nominal kip					
Education Budget	24.3	49.0	46.5	64.	72.1
Recurrent	15.4	26.2	27.7	35.5	40.2
Capital	8.9	22.8	18.8	28.8	31.9
Domestic	2.8	4.6	4.8	6.4	6.7
International	6.1	18.2	14.0	22.4	25.3
Domestic spending (Recurrent + Domestic)	18.2	30.8	32.6	41.9	46.9
Real kip: billion kip December '95 = 100					
Education Budget	30.6	58.5	43.7	57.2	49.7
Recurrent	19.4	31.3	26.0	31.6	27.3
Capital	11.2	27.2	17.7	25.6	22.4
Domestic	3.5	5.5	4.5	5.7	4.7
International	7.7	21.7	13.1	19.9	17.7
Domestic spending (Recurrent + Domestic)	22.9	36.8	30.6	37.3	32.0
Distribution					
Education Budget	100.0	100.0	100.0	100.0	100.0
Recurrent	63.5	53.5	59.6	55.2	55.8
Capital	36.5	46.5	40.4	44.8	44.2
Domestic	11.5	9.4	10.4	10.0	9.3
International	25.2	37.1	30.0	34.8	35.0
Domestic spending (Recurrent + Domestic)	75.0	62.9	70.0	65.2	65.0
Percent					
Education budget as					
Percent of GDP	2.2	3.4	2.7	2.9	2.1
Percent of Gov't budget	9.6	13.9	12.8	15.8	13.3
Domestic recurrent spending as					
Percent of GDP	1.4	1.8	1.6	1.6	1.2
Government budget	252	352	364	408	541
Recurrent	130	163	175	200	250
Capital	122	189	189	208	291
	1994	1995	1996	1997	1998
GDP	1,116	1,430	1,726	2,201	3,400

Sources: Education budgets from Mingat, 1998a

GDP and Consumer's Price Index from National Statistical Centre

The data in the fourth panel of Table 11.7 compare Government funds for education with the size of the GDP and with the size of the Government budget. The education budget for 1996/97 represented about 2.9 percent of GDP and 15.8 percent of the Government budget. These figures have fluctuated over time. Over the fiscal years described in the fourth panel the Government budget for education as a proportion of GDP has ranged from 2.2 percent to 3.4 percent. Much of the change can be attributed to changes, or the lack of them, in civil service salaries in relation to growth in the economy and changes in the rate of inflation. The 3.4 percent is a high figure, compared to other countries in Asia, given the level of GDP per capita; the more recent figures (2.7 percent to 2.9 percent) are more in line with the other Asian countries at a similar level of development. Data on Government expenditures on education in other Asian countries are presented in Table 11.8.

Education as a percent of the Government budget also rose in the 1993/94 to 1994/95 run-up in education spending, from 9.6 percent to 13.9 percent, and has ranged around the latter figure ever since. The 9.6 percent is very low compared with other countries in Asia; the more recent figures are only slightly below average for other countries in Asia.

While education spending as a proportion of GDP is in line with other countries, the distribution of spending between recurrent and capital budgets is quite different elsewhere. Lao PDR has a much larger rate of investment spending as a

Table 11.8  
Public Educational Expenditures, Asian Countries, Various Years

Country	Year of Data	GNP per capita \$	Total Government	
			as % of GNP	as % of Gov't Expenditure
Nepal	1992	170	2.9	13.2
Bangladesh	1992	220	2.3	8.7
Lao PDR	1992	250	2.3	...
Lao PDR	1996-97	366	2.9	15.8
India	1992	310	3.8	11.5
China	1994	530	2.6	...
Sri Lanka	1994	640	3.2	9.4
Philippines	1993	850	2.4	...
Indonesia	1995	980	2.8	15.3
Thailand	1994	2,410	3.8	18.9
Malaysia	1994	3,480	5.3	15.5
Macau	1992	5,500	...	8.9
Korea, Rep.	1993	7,660	4.5	16.0
Singapore	1994	22,500	3.3	24.2
Japan	1991	27,203	4.7	16.6
Myanmar	1994	...	...	14.4
Hong Kong	1993	...	...	17.0
Median			3.1	15.4
Mean			3.3	14.7

Sources: Table from ADB (1998a). Data for Indonesia from that study; data for other countries from UNESCO, Statistical Yearbook, 1996. 1996-97 data for Lao PDR from Table 11.5, and use GDP as a reference point.

proportion of total education spending than found in other countries and a lower rate of domestic recurrent spending on education. Even before the run-up in spending in 1994/95, the proportion of the education budget going into development was quite high compared to other countries in Asia: double the average for the rest of Asia and nine percentage points higher than the next highest country. With the run-up in spending in 1994/95, the proportion of educational spending going into development rose to 46.5 percent and has stayed above 40 percent, again far higher than in the rest of Asia. On the other hand, domestic recurrent spending on education is only 1.6-1.8 percent of GDP. A major cause is the low rate of compensation for teachers, which will be discussed further below. As shown in the right hand columns of Table 11.8, the amounts going to recurrent spending are very low. Except for Bangladesh, which has substantial private education, it is the lowest amount among Asian countries at a similar level of development.

The large amounts of spending on investments in education, largely funded by foreign sources seem so far to have relatively little impact on the educational system for at least two related reasons. One is that externally funded education projects tend to use a relatively high proportion of the resources made available for the construction of school buildings. The second is that there are often insufficient funds in the recurrent budget to support the investments that are made.

Table 11.8  
Public Educational Expenditures, Asian Countries, Various Years (cont'd.)

Educational Expenditures			
Total	Distribution Recurrent	Development	Recurrent Expenditures As percent of GNP
...	...	...	...
100.0%	79.7%	20.3%	1.8
100.0%	75.8%	24.2%	1.7
100.0%	55.2%	44.8%	1.6
100.0%	98.9%	1.1%	3.8
100.0%	89.6%	10.4%	2.3
100.0%	83.9%	16.1%	2.7
...	...	...	...
100.0%	71.8%	28.2%	2.0
100.0%	80.1%	19.9%	3.0
100.0%	83.5%	16.5%	4.4
...	...	...	...
100.0%	79.5%	20.5%	3.6
100.0%	72.8%	27.2%	2.4
...	...	...	...
100.0%	78.0%	22.0%	...
...	...	...	...
	79.6%	20.4%	2.7
	79.1%	20.9%	2.4

Table 11.9  
Per Student Unit Costs by Level of Education, 1996/97

Per Student Unit Costs	Teacher Salaries	Non-teacher Salaries	Operation & Pedagogical	Student Welfare	Total
General Education					
Total	23,531	1,000	1,821	0	26,353
Primary	19,725	916	1,532	0	22,173
Lower Secondary	37,627	1,196	2,883	0	41,706
Upper Secondary	44,728	1,801	3,455	0	49,984
Other					
Total	78,962	39,343	26,394	52,292	196,991
Tech/Voc. Education	93,552	33,818	35,398	81,542	244,310
Teacher Training	97,804	38,922	30,273	62,541	229,540
Higher Education	70,379	40,908	23,042	41,994	176,323

Source: Table 1.14 Mingat (1998a)

To a large extent, the decision to invest large amounts for the construction of school building stems both from the assessments made by the international institutions and from the demands made by the Government. On the side of the international institutions the justification is that such investments will help the system develop and it is relatively easy to make a project using school construction as an important component. On the Government side the desire to incorporate school building construction may stem from the idea that these investments generally incorporate imports of relatively costly items and that it would be difficult to finance them from the national budget. Both sides agree that it is desirable to proceed. One may however have a different view on this matter.

From a macro point of view, this agreement makes the share of investment in the overall spending very large, much larger than in other countries. Second, this large spending has only a limited impact on the system since the number of schools currently constructed on a yearly basis is well below the needs of the country.

From a micro point of view, a key element is the annualized cost of building per student and how this figure compares with the amount of spending for recurrent expenditure per student per year. In primary education, the per student recurrent cost (in 1996/97) was about 22,000 kip per year (Table 11.9). To estimate the annualized cost of building per student for a pupil enrolled in one of the classrooms built recently by international organizations, one can use as a basis that one square meter costs between US\$100 and US\$150 and that one pupil uses between 1.5 and 2 square meters. The amount of capital cost implied per student is, therefore, around US\$220. If we assume a life of 30 years for the building and an opportunity cost of capital of eight percent, the annualized cost of school building per child is around us US\$20. In 1996/97 when the exchange rate of kip was around 1,000 kip for one US dollar, the recurrent unit cost of primary education was around US\$ 20. Thus the annualized cost associated with the school building was about equal to the recurrent cost of educating the students enrolled in those schools. In comparable countries, the annualized cost of school building represents only about 25 to 30 percent of the recurrent cost; this means that the relative cost of using these schools

is about four times larger than what is observed in comparable countries. During the financial crisis the exchange rate of kip is around 4,000 kip per one US dollar. If this exchange rate is maintained, the relative cost of internationally funded buildings would be about ten times larger than what is observed in comparable countries.

These calculations are to be taken only as approximations. However the message is not likely to be much affected by the accuracy of the figures used: utilizing this type of school construction is not to be recommended. It is altogether inefficient (given the level of cost), inequitable (schools will be built in some places but not in others), and probably perverse (as the communities in which a school is built with external financing are less likely to mobilize themselves to build their own school). Obviously classrooms need to be built and some financing may help in this respect; however, some changes are clearly warranted (perhaps to help a community build its own school, either through a cash subsidy or the supply and poles and sheets, as an example) and cost should be taken into consideration; this is likely to remain all the more important as the relative price of imported materials vis-à-vis local ones remains high.

#### Lack of Recurrent Funds to Support New Investments

A second reason explaining why the large amounts of spending on investments in education have relatively little impact on the educational system, as noted above, is that there are often insufficient funds in the recurrent budget. In some cases, there are insufficient recurrent funds to complement the investments; in other cases there are insufficient funds to implement the investments that are made. The first set of cases is caused by the general shortage of recurrent funds. For example, when a new, perhaps expensive, primary school is built, the required complementary recurrent budget is unavailable: the new school is staffed by an underpaid teacher (insufficient funds to pay adequate teacher salaries) who has only those day to day teaching supplies that can be paid for by families or others in the community (no funds at all from Government to buy teaching supplies or to pay for annual school maintenance). The shortage of recurrent funds to implement a new investment is seen when the investment budget is used to build a new stand-alone institution whose role is to support the educational system. The TDC is a good example in which the investment successfully built up capacity for training and research, but there is no recurrent budget to implement the new capabilities, and the newly invested in staff and facilities remain unused.

#### Distribution of Recurrent Spending

The distribution of recurrent spending in the Government budget between different levels is shown in Table 11.10. About 75 percent of the budget goes for general education, the schooling that is administered by the provinces, with the largest amount going for primary education; 4 percent for pre-school education; 11 percent for the upper levels of education administered by MOE—technical and vocational training, teacher training, and higher education; and, 9 percent for overall administration. There have some definitional changes in the upper level group, with some institutions initially classified as technical education being shifted to

Table 11.10  
Distribution of Recurrent Spending by Level and Type of School

Distribution of Recurrent Spending	93/94	94/95	95/96	96/97
Pre-primary	3.8	3.7	3.7	3.7
General Education				
Total	74.7	69.8	71.9	76.6
Primary	47.3	46.7	49.2	52.0
Lower Secondary	19.7	16.2	15.9	17.3
Upper Secondary	7.7	6.9	6.9	7.3
Other	14.8	19.2	15.1	10.9
Total				
Tech/Voc. Education	5.9	8.5	5.9	2.4
Teacher Training	4.3	4.6	3.7	2.1
Higher Education	4.6	6.1	5.5	6.4
Administration	6.7	7.3	9.3	8.8
Total	100%	100%	100%	100%

Source: Table 1.12, Mingat (1998a)

higher education and other shifts between teacher training and higher education; therefore, it is difficult to interpret the changes within the "other" category. Since 1993/94 the largest absolute increases in spending have come in primary education and the largest percentage increase has come in administration.

Table 11.11 contains the distribution of recurrent spending according to its uses. Overall, most of the budget goes for salaries, 83 percent for teachers and 6 percent for non-teaching staff in the various schools, with 8 percent for operations and pedagogical materials and 3 percent for student welfare. There are however very great differences between the different types of schools. For general education (primary, lower secondary, and upper secondary) 89 percent of the budget is going for teacher salaries, another 4 percent for salaries of non-teaching staff, and 7 percent for general operation and pedagogical materials. Textbooks are supplied through the investment budget, usually supported by foreign funds. Indeed, as indicated below, families and other community support are the major sources of non-salary teaching inputs for these levels of education, indeed, the only source for primary schools. For the other levels—technical and vocational training, teacher training, and higher education—teacher salaries represent only 40 percent of the recurrent budget. Compared with general education these schools have many more non-teaching staff and consequently a much larger budget for this purpose. Another difference is that a major part of the budget for these higher levels of education is student welfare. These monies fund the bursaries for quota students, who make up about 50 percent of the total students. In addition to the bursaries most schools provide dormitories, which are heavily subsidized (only nominal fees are charged) and these expenses would show up in the operations budgets. Therefore, total student welfare expenditures are substantial and make up more than 30 percent of the recurrent budget for postsecondary education.

Table 11.11  
Distribution of Recurrent Spending within Each Level of School

Distribution of Recurrent Spending	Teacher Salaries	Non-teacher Salaries	Operation & Pedagogical	Student Welfare	Total Recurrent
Pre-primary	81%	12%	7%	0%	100%
General Education					
Total	89%	4%	7%	0%	100%
Primary	89%	4%	7%	0%	100%
Lower Secondary	90%	3%	7%	0%	100%
Upper Secondary	89%	4%	7%	0%	100%
Other					
Total	40%	20%	13%	27%	100%
Tech/Voc. Education	38%	14%	14%	33%	100%
Teacher Training	43%	17%	13%	27%	100%
Higher Education	40%	23%	13%	24%	100%
Total	83%	6%	8%	3%	100%

Source: Table 1.14, Mingat (1998a) Data do not include general administration

While the largest part of the budget is provided for general education, the largest per student expenditures are for teacher training, technical and vocational training, and higher education, as indicated in Table 11.9. Unit costs per student at the upper level are almost nine times the rate for general education. There are two reasons for the large differences in unit costs: far more resources per student are going into the teaching process at the upper level than is the case for general education; and, the system is providing substantial levels of financial support – cash and subsidized housing – for a large part of the upper level students, as described in the previous paragraph. To illustrate the differences perhaps the best comparison is upper secondary education. The per student cost of higher level education (a weighted average of teacher training, technical and vocational training, and higher education) is almost four times the per student recurrent cost for upper secondary education (close to 197,000 kip per student per year for postsecondary students; almost 50,000 kip per year for upper secondary). This difference is the result of: a ratio of teaching staff to students in postsecondary education about 1.8 times the rate in upper secondary, accounting for 23 percent of the overall difference in unit costs; a ratio of non-teaching staff to students about 20 times the rate in upper secondary, accounting for about 26 percent of the difference; substantially larger per students spending for operations and pedagogical support, accounting for 16 percent of the difference; and, support for the student welfare, a category of spending which does not exist for upper secondary, which makes up 36 percent of the difference.

The differences presented in the previous paragraph are based on average unit costs and do not represent the unit costs of education for different types of students. About 50 percent of university students, for example, are receiving bursaries and the rest are not. The per student costs, paid by Government, in 1996/

97, were about 135,000 kip per student for non-quota students and 314,000 kip for quota students, as compared to almost 50,000 kip for upper secondary. Without bursaries, the cost per year for university students was a little more than 2.5 times the cost of secondary education. However, the bursaries for quota students cost more than the education itself which meant that the government cost for a bursary student was more than twice the cost for a non-bursary university student and six times the cost of an upper secondary student.

### 11.3 Non-Government Resources for Education

The government funds described above, either from the budget or donor funds through the budget, represent most, but not all, of the resources going into education. Local schools receive some assistance from the local community. In addition, recurrent budgets are augmented somewhat by self-generated funds, apparently at every level, but mostly in postsecondary education. Finally, families with children in school pay out significant amounts of money to schools and for out-of-school costs incurred as part of going to school.

Table 11.12 contains rough estimates about additional resources for use by primary and secondary schools at school level and the sources of those resources. The data do not come from a comprehensive survey but are probably accurate enough to present rough orders of magnitude. As indicated in Table 11.12, perhaps 75 percent of the resources available for use at school level come from the Government—to pay salaries of teachers and administrators in the school, plus a small amount for supplies and operations and maintenance. Another 10 percent of resources available come from the government investment budget and 4 percent from donors; these monies would fund particular investment projects.

In addition to the Government and donors some, perhaps most, individual schools raise additional monies through one or more sources. Probably the most frequently used source is contributions from the community. These could come

Table 11.12  
General Education – Estimates for Expenditures at School Level: by Source of Funds

Million kip

	Recurrent		Investment		Estimated Total	
	Amount	Percent	Amount	Percent	Amount	Percent
Government	23,422	95%	3,050	50%	26,470	86%
Donors			1,160	19%	1,160	4%
School Enterprise	150	1%	20	0.3%	170	1.3%
Enterprise			1,400	22.7%	1,400	4.7%
Community	980	4%	490	8%	1,470	5%
Total	24,550	100%	6,120	100%	30,670	100%

Sources: Base data are Government recurrent expenditures for 1996-97. Other amounts are estimates based on Sources of School Revenue reported by World Bank, 1997a and background papers.

both in cash and in kind and include support both from the school's parents' association and from the local village, perhaps organized by the village head. In some cases there are money-raising entertainment activities such as a fun fair. Some of the fund raising is to meet a particular goal—for example a new fence or well; but there is also ongoing support to the school for supplies and maintenance. Some parents' associations raise funds through a regular fee or assessment on each family with a child in the school. These fees or assessments can vary according to ability to pay, as determined by the association. Another source is local enterprises, probably private firms. Requests can come from the parents' association or the village, or, in some cases from the local government for help in funding a particular project. Less frequent, but still done by a few schools, is fund-raising through some kind of school enterprise, perhaps through reimbursements for rentals of school property, e.g., used as a canteen, or overhead costs or by a seller of school supplies.

Total contributions probably represent more than 10 percent of total spending at school level. The contributions perhaps are small but significant. Indeed, if these numbers are roughly correct, local support, community and enterprises, are more important at school level than is donor support.

#### Other Self-Generated Funds

Some postsecondary institutions are beginning to generate income that is returned to the school to support its activities, usually used for operations and maintenance. Activities include consulting, selling services and teaching special or fee-paying students. Some special students are enrolled in separate classes, such as English language training, and do not follow the regular curriculum. Other special students are integrated into regular classes and sit beside quota and non-quota students. Most of the fees generated go to the staff involved in providing services but some overhead, particularly from the income generated by special students, goes to the institution. Income generated by special students is often of 20 percent. The reported amounts of self-generated funds returned to institutions for 1996/97 were 10 million kip for vocational schools and 330 million kip for higher education.

#### Family Expenditures on Education

Data from the 1997/98 Lao PDR Expenditure and Consumption Survey (LECS II) indicate that family expenditures on education totaled 11,894 million kip. About one-third of family expenditures went to schools to support operations and maintenance, the rest were out-of-school expenditures on education, such as uniforms, books, and other school supplies. Almost all of the 11.9 billion kip spent on education were cash expenditures or contributions; very little in-kind expenditures or contributions were reported.

#### 11.4 Total Resources Going into Education

Table 11.13 is a compilation of the total funds going into education from the Government, foreign sources, local communities, income generation activities and

family expenditures on education. Total funds spent on education were about 83 billion kip; 89 percent of total spending went for in-school spending and 11 percent went for out-of-school spending to support students or student learning activities. The Government provided about 81 percent of the resources; families, 14 percent; other community sources, 4 percent; and, the schools, a little less than 1 percent through various money-raising activities.

About 63 percent of the government funds came from domestic sources and 37 percent came from foreign grants and loans. The majority of government funds were spent on schools or in schools; however, the Government did spend 1.1 billion kip on support of students, all of which went to postsecondary students either as bursaries or as subsidies to student dormitories.

As indicated in Table 11.13, families and, to some extent, other members of the community were much larger sources of operations and maintenance funds for schools than was Government. And, as is shown in Table 11.11, most of government funds for operations and maintenance funds are going to postsecondary education. Indeed, as noted elsewhere in this report, primary schools receive absolutely no funds

Table 11.13  
Total Expenditures on Education, Lao PDR 1997/98  
Million Kip

	Expenditures to Support Schools				
	Recurrent				Const. and Repair
	Teacher Salaries	In-school Admin.	Oper. and Mtn.	General Admin.	
Government Education					
Budget					
Recurrent	27,284	1,993	2,440	3,187	
Capital					
International					22,300
Domestic					6,002
Community Support			1,075		1,937
Self-generated funds					
General Education			150		20
Other Education			340		
Family Expenditures			3,866		
Total	27,284	1,993	7,871	3,187	30,260
	33%	2%	9%	4%	36%

Sources:

Government Budget: Investment Plan 1997-98, prepared by SPC, October 1997

Community Support: World Bank 1997a

Self-generated funds: Interviews by project team

Family Expenditures: Unpublished data from LECS II

from the Government to support teaching activities or for everyday maintenance; families and the rest of the community are the only source if a school is to have any such support. It is, of course, a good thing to have families and communities helping to support the local schools. However, as is shown in Table 11.4, there are extremely wide disparities between provinces in the level of per capita cash income. There are probably even wider disparities within provinces. A primary school system that relies solely on local support for all of its teaching supplies would mean that children in poorer areas would have a much lower chance to get an education.

### 11.5 Summary

Overall, the country's educational resources are producing a large number of individuals who have failed to complete one of the cycles of education. The situation has already been summarized in Figure P.1 in the Prologue. Table 11.14 contains more details. Current flows out of the educational system into the economy are as

Table 11.13  
Total Expenditures on Education, Lao PDR 1997/98 (cont'd.)  
Million Kip

Equip.	Investment			Non Formal Educ.	Out of School Spending	Total	
	Projects and Research	Training	Other			\$	%
					1,124	36,029	43%
162	1,147	1,161	450			25,220	30%
	242	68	22	67		6,401	8%
						3,012	4%
		170	0.2%			340	0.4%
					8,028	11,894	14%
162	1,389	1,229	472	67	9,152	83,066	100%
0.2%	2%	1%	1%	0%	11%	100%	

Notes:

Sources of International Capital Funds were as follows:

World Bank (WB)	9,936	39.4%	Redd Barna	60	0.2%
ADB	13,004	51.6%	France	43	0.2%
WB/ADB	147	0.6%	AusAID	123	0.5%
SCF-UK	25	0.1%	SEAMEO	104	0.4%
UNESCO	38	0.1%	Others	1,592	6.3%
Minxai	149	0.6%	TOTAL	25,220	100.0%

Out of school spending from government recurrent budget is from spending on student support in higher education budgets, a total of 1,041 million kip from student welfare (bursaries) plus 83 million kip, the approximate cost of dormitory subsidies contained in the operational and maintenance budget. No attempt has been made to identify costs of dormitories in the capital budget.

follows: 20 percent have no education (having never entered primary school); 40 percent leave having never completed primary school; 14 percent leave having completed five years of primary school; 7 percent leave having entered but never completing lower secondary; 9 percent leave having completed lower secondary education; 2 percent leave having entered but never completed upper secondary; 5 percent leave having completed upper secondary; and 4 percent leave with some type of postsecondary education. Compared with current stocks of education, as shown in Table 11.3, current flows show some improvements, but not much: fewer have no education than has been the case previously, and there are relatively more persons with a completed and relatively fewer with an uncompleted primary education. However, large numbers are coming into the labor force with no education while most of those with some education have not completed the cycle of education they had started.

Completing the cycle of education is important, whether grade 5 for those who enter primary school or lower secondary, or higher levels, once one enters that level. One of the main purposes of the education system is to supply the needs of the economy. While the economy may be in transition, the largest sector is still agriculture; and agriculture will be the largest source of employment growth for the foreseeable future. The people working in subsistence farming, and their children, should be an important target for education. The economic payoff to literacy, which means, at a minimum, completing primary education, is very large, no doubt larger than any other single education investment opportunity open to Lao society. Not only do literate farmers become more productive, but literacy also provides them, and their families, better access and knowledge of modern medical care and child raising, and gives them a better opportunity to join other sectors of the economy if and when it becomes desirable to do so.

Another important requirement of the education system is to supply the needs of the newly emerging market economy. However Lao is still in transition and the types of development and resulting employment growth are far from clear. For the moment it seems best to cater to the general needs of a market economy, namely to supply individuals with cognitive skills – reading, writing and numeracy, and general knowledge of the world around them – combined with a willingness to be trained and to use that training to further the interests of both the employer and individual.

These needs emphasize the importance of completing an educational cycle. Take as an example, the completion of a lower secondary education. If an individual has a lower secondary certificate, it should indicate to an employer that the person has met curriculum goals in terms of reading, writing and numeracy. It should show that an individual has accepted the discipline of regular attendance in school and getting school work done on time, and can adapt to the discipline required in a regular job. This information will assist a potential employer in the hiring process.

Therefore the high level of dropouts, along with high levels of repeating a grade, is an inefficient use of scarce resources. The issue is particularly important for primary education. As shown in section 3, at any one time, 24 percent of primary students are repeating a grade and only 55 percent who enter ever get to grade 5.

To summarize, current information on flows of students out of schools gives a strong signal that the educational system is paying to produce a large number of inadequately educated people rather inefficiently.

Table 11.14  
Current Outputs from the Education System, 1996/97

	Distribution		Student Years of Education per Graduate
	All	Those with Education	
No education	20.0%		
Primary			
Not completed	40.2%	50%	
Completed	13.9%	17%	9.9
Lower secondary			
Not completed	6.7%	8.4%	
Completed	8.6%	11%	3.8
Upper secondary			
Not completed	1.8%	2.5%	
Completed	4.8%	6%	
Postsecondary	4.0%	5.1%	NA
Total	100.0%	100%	
Summary			
No education	20.0%		
Uncompleted education	48.7%	60.9%	
Completed education	31.3%	39.1%	
	100.0%	100%	

