CHAPTER V

SUMMARY FINDINGS AND POLICY IMPLICATIONS

The present problem was undertaken with the basic objectives of doing an in-depth study of the unit per pupil and internal cost-efficiency. It is a case study of 14 government elementary schools situated in the Imphal West District and in the Imphal East District of Manipur. The items of costs included in this study are: salary and allowances of teaching and non-teaching staff and some items of student costs. The unit costs per pupil have been worked out on the basis of these items of costs.

The internal efficiency of the costs has been analysed in terms of certain indicators, such as input-output ratio, the effectiveness of teaching-learning process viewed from teacher-pupil ratio, working days and hours as planned and actually worked, and the wastage arising out of the under-utilization of planned workloads, enrolment capacity and utilization level, and economies of scale. The main findings of the study are summarised and concluded in this chapter. Besides, the policy implications in the light of the present study are discussed.

Before our discussions on the findings of the present study, some observations emerging from chapter II, section I may be briefly summarised here. It is observed from the above data that since the reopening of Johnstone School in 1893 after the end of the Anglo-Manipur War, there has been a remarkable development in the field of primary education in Manipur. By 1993 there were altogether 3031 primary schools having classes I-V and 702 upper primary schools having classes VI-VIII. It indicates that the entire State has been served by primary schooling facilities. Almost all the primary schools are situated within walking distance of children, though 78.7% children of upper primary
schools are compelled to go to schools up to a distance of 3 km. or its beyond. The number of pucca buildings is very low; it is only 9.63% in the case of primary schools and 8.97% in the context of upper primary schools. The total number of teachers in the elementary schools is 21,118, of which 13,749 belong to primary schools and 7,369 to upper primary schools. On an average every school has 6 teachers. The enrolment size for primary schools is 1,51,269 and for upper primary schools 1,08,856 pupils. The teacher-pupil ratio is 1:14 in primary schools and 1:15 in the upper primary schools. As a result, there is high chance of increasing the cost of education, since the schools fail to maintain the optimum ratio. We need to examine this aspect. The number of trained teachers is low. More than half of the total teachers are untrained ones and the academic qualifications of the majority of the teachers are also up to matriculation. The data shows that there is not much educational wastage in the elementary education as the stagnation rate is not high. With regard to the library facilities, about half of the elementary schools are not having library facilities. It is also found that there is no adequate provision for school playground, drinking water, urinal and lavatory facilities. Shortage of blackboards and furniture is also found in the elementary schools. Considering the poor economic condition of the rural people, the number of elementary schools enjoying the free textbooks scheme is low. The costs on salary and allowances of teaching and non-teaching staff constitutes 96.43% of the total recurring costs. The costs incurred on library 0.01% and games and sports 0.09% are very low. In the non-recurring costs, the costs spent on the “other items” 48.82% seem to be much higher than any other costs incurred on other items.

Structure of Schools

It is observed from the above data on the structure of education, Chapter II, Section II, that lack of adequate classroom is a basic problem to most of the schools thereby compelling 9 schools to operate classes in double shifts. There is no problem of lack of teachers. Every school on an average has 13 teachers for classes I-VIII. Regarding the number of trained teachers, 48% of the teachers in the sample schools are untrained ones. The enrolment size almost in all the schools is much less than the created capacity. The teacher-pupil ratio is also small. It is also found that about 50% of the subjects included in the prescribed
curriculum, such as Creative Education, Health and Physical Education, and S.U. P.W. has not been implemented. These subjects are treated as minor subjects because of the fact that they are not included in the matriculation examination scheme. As a result, the schools pay little or no attention to these subjects. It was observed that what the schools paid little more attentions those compulsory subjects included in the matriculation examination, such as languages, mathematics, environmental studies, and sciences. The methods of teaching adopted are the traditional ones in which the entire teaching-learning activity takes place only through books. As no practical approach is adopted in the teaching-learning process, the pupils remain confined within the four walls of the classrooms for hours. 52% of the teachers are trained ones, but the teachers never apply the knowledge and skills acquired from their training to the actual classroom teaching. The attendance of pupil is irregular, whereas the teachers' attendances is regular. Co-curricular activities are hardly carried out. The annual school sports meet is, however, performed. With regard to the examination, no continuous system of evaluation is conducted. Examination is, however, held at the end of six months or course. Inspection and supervision is a rare phenomenon. The headmasters seem to be having no administrative power to control over the teachers. From the administrative point of view, the schools appear to be operating in a very haphazard manner.

Library is almost nonexistent in all the schools. Though the government occasionally provided very few books, they are not so useful to the pupils as these are not text-books. No other teaching aids except the blackboards are used. Non-availability of safe drinking water and lack of maintenance of lavatories and school building are observed in all the schools.

From the above discussion on the structure of schools it may be inferred here that the teaching-learning process in particular and the management of education in general appear to be at a very low ebb. Under-utilization of the available physical and human capacities and lack of facilities are probably a basic problem to all the schools under study.

Analysis of Unit Costs

It is found from Chapter III: Analysis of Unit Costs that the expenditure
on the recurring salary costs has been increasing from year to year. The 14 schools over the period of 8 years spent a total expenditure of Rs. 8,00,39,869 on salary and of Rs. 8,11,59,049 on the total salary and student costs. In this study, 98% of the total costs is spent on the salary and only 2% on student costs. The lowest expenditure on salary during the 8 years period is Rs.33,29,848 in the Thamchet Girls’ Jr. High School, whereas the highest Rs. 91,95,350 in the Moirangkhom Jr. High School. On an average every school spent Rs. 6,98,593 per annum on salary and Rs. 18,399 per annum on student costs. Thus almost all the funds went towards paying salaries to the teaching and non-teaching staff. On other hand, the enrolment size has decreased every year in most of the schools. The lowest actual enrolment size of 828 over the period of 8 years is found in the Thamchet Girls’ Jr. High School and the highest 1995 pupils in the Khwai Jr. High School. There are altogether 18,967 pupils for classes I-VIII during the period for 14 schools. On the average each school has an enrolment size of 169 per annum for classes I-VIII.

It is also found that the pupil unit costs have increased every year. The average unit costs per pupil per annum for each school is Rs. 4,706 on salary alone and Rs. 4,765 on the total salary and student cost. The average lowest unit costs per pupil on salary is Rs. 3,620 and the highest Rs. 6,003, and on the total salary and student costs the lowest Rs. 3,682 and the highest Rs. 6,063. The sudden increase in the unit costs in 1996-97 and 1999-2000 is due to the revision of pay and payment of dearness allowances at the Central Government rate respectively.

The per pupil unit costs on student costs are very nominal in comparisons to the salary costs, which ranged from Rs. 57 to Rs. 67 during the period under review. The average unit costs per pupil per annum for 14 schools is Rs. 18.64 on developmental purpose, Rs. 1.44 on library, Rs. 30.54 on examination, and Rs. 9.63 on games and sports. It may be noted that the examination and games fees are utilized by the schools themselves, but the fees realized for developmental purpose and library are credited to the State Account. If the amount spent by the government on the developmental purpose and library during the period of study happens to be included in the unit costs calculation, the unit costs per pupil would have been increased. But as the data was not available, the
unit costs on the two items have been estimated only on the basis of the fees paid by the pupils, as a result, unit costs become low.

**Input-Output Ratio**

With regard to the input-output ratio, it has been estimated with the help of the Student Flow Diagram: Cohort Analysis. In this analysis, we examine whether the pupils who have admitted to class I in 1992-93, i.e., initial cohort could complete the course or reach a particular class or leave the system. The study is conducted as a case study for every school in the context of the initial cohort. The efficiency level is determined in such a way that if the input-output ratio is exactly 1 and the average number of years per survivor is also exactly 8, i.e., the 8 years normal duration of elementary education, the school may be said to be operating very efficiently. Thus, the higher the ratio, and the higher the average number of years per survivor, the lower the efficiency level. After a school-wise efficiency analysis, a comparative study of the efficiency level amongst the school is made.

**Bheigya Bondhu Jr. High School**

In this school, out of the 35 pupils admitted to class I, only 17 of them could survive. Of the 17 survivors, 7 pupils repeating twice took 8 years to reach class VI, 6 repeating once took a total of 8 years to reach class VII, and eventually only 4 of them could reach class VIII in the normal duration. Accordingly, as per input-output ratio, the efficiency level of this school is 62.50% and 61.55% as per average numbers of years spent in school by each survivor.

**Jai Hindi Jr. High School**

According to the input-output ratio, the efficiency level of this school is 72.46% and the average number of years per survivor 72.73%. Of the 30 pupils enrolled, 17 survived, of which 5 reached class VI after repeating twice, 5 reached class VII after repeating once, and 7 reached class VIII without break.

**Khwai Jr. High School**

The efficiency level of this school is 69.44% as per input-output ratio and 66.67% as per average number of years spent by each survivor. Out of the 45 pupils admitted, 23 survived. Of these survivors, 5 could reach class VI after
repeating twice, 9 class VII after repeating once, and 9 class VIII in the normal duration.

**Lady Earle Girls’ Jr. High School**

Of the 27 enrolled, 11 survived. Of these, 3 reached class VI after repeating twice, 3 class VII after repeating once, and 5 class VII without break. Thus, the efficiency level as per ratio is 61.24% and average number of years per survivor 61.55%

**Laijing Ningthou Jr. High School**

Out of the 26 admitted, 12 survived, of these, 3 reached class VI after repeating twice, 6 class VII after repeating once, and only 3 reached class VIII in the normal duration. So the efficiency level is 63.29% as per ratio and 61.55% as per average number of years per survivor.

**Madan Mohon Jr. High School**

Of the 34 enrolled, 21 survived. Of these, 9 after repeating twice could reached class VI, 7 class VII after repeating once, and 5 class VIII without break. The efficiency level is, therefore, 71.94% as per ratio and 72.73% per survivor year.

**Modern Jr. High School**

Out of the 45 admitted, 24 retained. Of which, 8 stagnating twice could reach class VI, 7 class VII repeating once, and 9 class VIII without break. The efficiency level is 70.42% as per ratio and 72.73% as per survivor year.

**Moirangkhom Jr. High School**

Of the 45 pupils in class I, 18 survived. of these, 7 could reach class VI after repeating twice, 8 class VII after stagnating once, and 3 class VIII in the normal duration. Thus, the efficiency level is estimated at 66.29% as per ratio and 61.55% as per survivor year.

**Naorem Babu Jr. High School**

Out of the 44 enrolled, 22 retained. Of them, 7 reached class VI after stagnating twice, 9 class VII after repeating once, and 6 class VIII without break. The efficiency level is calculated at 69.44% as per ratio 72.73% as per survivor year.
Naoremthong Jr. High School

Of the 38 admitted, 22 survived. Of which, 6 took 8 years to reach class VI, 7 class took 8 years to reach class VII, and 9 reached class VIII in the normal duration. The efficiency level is worked out at 74.07% as per ratio and 72.73% as per survivor year.

New Lambuland Jr. High School

Out of the 27 enrolled, 14 retained. Of these, 5 taking 8 years reached class VI, 4 taking 8 years reached class VII, and only 5 reached class VIII within the normal duration. The efficiency level as per ratio is estimated at 67.57% and as per survivor year 66.67%.

Porompat Sabal Leikai Jr. High School

Of the 28 admitted, 15 survived. Of them, 5 reached class VI after stagnating twice, 3 class VII after repeating once, and 7 class VIII without any break. As per ratio the efficiency level is 68.97% and as per survivor year 66.67%.

Thambalkhong Jr. High School

Out of the 30 pupils enrolled in class I, 15 retained. Of these, 5 reached class VI after stagnating twice, 4 class VII after repeating once, and 6 class VIII in the normal duration. The efficiency level is 68.97% as per ratio and 66.67% as per average number of years per survivor.

Thamchet Girls’ Jr. High School

In this school, of the 26 pupils admitted to class I, 14 could survive. Of the 14 survivors, 4 could reach class VI after stagnating twice, 4 class VII after repeating once, and only 6 of them could reach class VIII in the normal duration. The efficiency level is estimated at 68.97% as per ratio and 66.67% as per average number of years spent in school by each survivor.

From the above data the similarities and differences in the efficiency amongst the schools may be examined. Out of the 14 schools, the most efficient school in relation to be input-output ratio is Naoremthong Jr. High School (74.07%) and the least Lady Earle Girls’ Jr. High School (61.24%). Thus, the efficiency level for the schools as per ratio from the highest to the lowest is respectively 72.46% Jai Hindi School; 71.94% Madan Mohon School; 70.42%
Modern School; 69.44% Khwai School and Naorem Babu Schools; 68.97% Porompat Sabal Leikai, Thambalkhong, and Thamchet Schools; 67.57% New Lambuland School; 66.29% Moirangkhom School; 63.29% Laijing Ningthou School; and 62.50% Bheigya Bondhu School.

In respect of the efficiency level as per the average number of years spent by each survivor, the most efficient (72.73%) schools are: Jai Hindi, Madan Mohon, Modern, Naorem Babu and Naoremthong schools and the least (61.55%) Bheigya Bondhu, Lady Earle, Laijing Ningthou and Moirangkhom Schools. The efficiency level of the remaining schools which are operating at the same level (66.67%) respectively Khwai, New Lambuland, Porompat Sabal Leikai, Thamalkhong and Thamchet Schools.

When estimated the extent of educational wastage due to drop-outs in each school, it is found that the wastage in the case of the Bheigya Bondhu School is 51.43% Jai Hindi School 43.33% Khwai School 48.89% Lady Earle School 59.26% Laijing Ningthou School 53.85% Madan Mohon School 38.24% Modern School 46.67% Moirangkhom School 60% Naorem Babu School 50% Naoremthong School 42.11% New Lambuland School 48.15%; porompat Sabal Leikai School 46.43%; Thambalkhong School 50%; and Thamchet School 46.15%. The average drop-out percentage in each school is 48.96.

The overall input-output index is estimated at 1.46 instead of exactly 1 and the average number of years spent by each survivor at 12 as against exactly 8. Therefore, the efficiency level for each 14 schools is worked out to 63.11% as per ratio and 62.60% as per survivor years. This means every school is operating at an inefficiency level of 36.89% as per input-output ratio and 37.40% as per the average number of years spent by each survivor. The average percentage of drop-out is 48.96.

Considering the efficiency level in relation to the input-output ratio, the average number of years spent in school by each survivor, and the drop-out rate, it may be inferred that almost all the schools seem to be operating at an unoptimal level.

Teacher-Pupil Ratio

The teacher-pupil ratio on an average is 1:14. In such a small ratio, as
closer interaction between teacher and pupil can be established, the teaching-learning output would be good. In this study, considering the results of the input-output ratio analysis, there seems to be a little correlation between small teacher-pupil ratio and output. If so, there would be something wrong either with the input or process or both. Further research to ascertain the fact is called for.

From the viewpoint of interaction between teacher and pupil, the ratio of 1:14 is satisfactory: but from the standpoint of costs, there is every possibility of increasing the costs of education, for this ratio is small as compared to the minimum general norm of 1:30 and the estimated enrolment capacity of 30 pupils per class. From this angle, it may concluded that the school are operating unoptimally in terms of teacher-pupil ratio.

**Working Days and Hours as Planned and Actually Worked**

The study of teacher-pupil ratio has further been extended by analysing the number of contact days and hours between teacher and pupil. If a teacher does not teach the pupils, whatever may be the teacher-pupil ratio, the effectiveness would be almost nil. It has been estimated that every school on an average could work for 175 days per annum out of the 200 prescribed working days for instruction. Accordingly, there is a gap of 25 days. According to the prescribed norms, every school had to work for 12 hours per working day; if so; each of the schools had to work for 2400 hours @ 12 hours for 200 planned working days. But the school could work for 1925 hours @ 11 hours per working day for 175 actual working days thereby causing a gap of 475 hours in an academic session.

The data indicates that the schools are not in a position to utilize the resources fully. The under-utilization of 25 planned working days (12.5%) and of 475 hours (19.79%) in an academic year would help decrease the internal efficiency of the schools. Moreover, certain amount of money could have been saved had the schools fully utilized the planned working days and hours. In this context, every school on an average could have saved Rs. 518 per day per annum over the period of 8 years. The amount which could have been saved if the schools could utilize the planned working hours fully is Rs. 53 per hour.
Potential Economies

The potential economies has been discussed on two aspects: one the utilization of created enrolment capacity and the other the existence of economies of scale.

The data shows that student costs remained almost constant throughout the years in all the schools, whereas the salary of the teaching and non-teaching staff have increased every year due to payment of annual increments and other allowances from time to time. On the other hand, the data on actual enrolment size indicates that the number of pupils on the roll almost in all the schools are found to be decreased every year. The total actual enrolment size for each 14 schools from lowest to highest during the 8 years period is respectively 828, 977, 1043, 1044, 1096, 1163, 1220, 1224, 1260, 1692, 1695, 1695, 1989, and 1995. The average enrolment size in each school per annum for classes I-VIII is 169. Here, the lowest enrolment size of 828 is in the Thamchet Girls’ Jr. High School and the highest 1995 in the Khwai Jr. High School. It will be evident from the data given below that in both the cases the enrolment size decreased every year. In the Thamchet Girls’ Jr. High School, the actual enrolment size in each year during 1992-93 to 1999-2000 is respectively 151, 144, 122, 106, 92, 83, 71, and 59, and in the Khwai Jr. High School 320, 299, 283, 260, 235, 220, and 178. Similarly in most of the school a decreasing figure is found, although there some fluctuations in some schools. It may, therefore, be inferred here that the increase in the salary costs without a proportionate increase in the number of pupils enrolled is probably one of the basic reasons for increase in the unit costs per pupil.

It is found that 9 schools could not utilize the enrolment capacity created to the full. However, in 5 schools both under-utilization and over-utilization of enrolment capacity are found. The 9 schools where the resources wasted due to under-utilization of enrolment capacity are respectively Bheiga Bondhu School in which on an average the unit costs of Rs.1,780 (55%) per pupil per annum average are lost: Jai Hindi School Rs. 1,942 (73%): Lady Earle Girls’ School Rs.1,777 (85%), Laijing Ningthou School Rs. 3,067 (109%): Madan Mohon School Rs. 2,016 (72%), New Lambuland School Rs. 2,311 (77%): Porompat Sabal Leikai School Rs.1,792 (59%): Thambalkhong School Rs. 2,848 (91%):
and Thamchet Girls School Rs. 3,193 (156%). The 5 schools where the wastage resulted from over-utilization and under-utilization of enrolment capacity is respectively Khwai School in which the average wastage is Rs. 265 (0.25%) per pupil per annum: Modern School Rs. 1,620 (24%): Moirangkhom School Rs. 396 (0.81%): Naorem Babu School Rs. 690 (14%): and Naoremthong School Rs. 711 (14%).

The enrolment capacity estimated by this study is around 240 pupils for classes I-VIII in a year. But the enrolment size of 12 schools is much below the capacity created. It is only in two schools that the average enrolment size per annum is 249 pupils each. But in both the schools also the fluctuation in enrolment size from one year to another is found. In this way, all the sample schools suffer from over-utilization and under-utilization of enrolment capacity and hence diseconomies in the working of the schools. If the schools could utilize the created enrolment capacity at an optimum level, the unit costs per pupil per annum could have been reduced from Rs. 4,765 to Rs 3,027 thereby saving Rs. 1,738 per pupil per annum. This means 57.42% of the total costs have been lost.

Economies of Scale

It has been examined whether the economics of scale exist in running the school system. If so, at what size of enrolment is unit cost least? The hypothesis on costs and size relationship has been tested through statistical analysis by employing computer package. The findings emerging from the analysis have been given. (See Table 1-9, Chapter IV). The hypothesis has been tested on the year-wise expenditure data from 1992-93 to 1999-2000 on there aspects: input costs, input cost and student welfare, and total costs. The findings of regression analysis of the optimum enrolment size and the minimum unit costs per pupil in each year have been discussed. It will be on the basis of the regression results shown in Table 9.1, 9.2 and 9.3 that the optimum size of enrolment and the minimum unit costs per pupil will be determined.

As per analysis (Table 9.1), the optimum enrolment size where the unit costs per pupil are estimated as least in 250 pupils and the minimum unit costs per pupil is Rs.2,254 per annum.

Table 9.2 analysis reveal that the optimum size of enrolment is 250 pupils with a minimum unit costs of Rs. 2,256 per pupil. And Table 9.3 analysis suggests
the optimum enrolment size of 240 pupils and minimum unit costs of Rs. 2,389 per pupil per annum.

From the above results it is found that as per the input cost (i.e. Salary costs), the optimum size of enrolment is estimated at 250; as per input cost and student welfare (i.e. salary and games costs) the enrolment is also 250; and as per expected unit cost (i.e. salary + games + other costs) the enrolment is 240 pupils. It may, therefore, be suggested here that the optimum size of enrolment may be between 240 and 250 pupils per annum for classes I-VIII in each school.

Our hypothesis that “per unit operating costs decline as enrolment increases, till the point where created facilities are fully utilized. Unit costs per student increase with the increase in the number of students beyond a certain enrolment size. That is to say, there is a sort of ‘U’-shaped costs curve in providing education services, or there is some sort of relationship between size of enrolment and unit costs per pupil” has been supported by statistical evidence. It can be seen from Table 1-9 that the P-value is found to be significant at 0.01 level.

It has been estimated that the optimum size of enrolment is between 240 and 250 pupils and the minimum unit costs per pupil per annum between Rs. 2,254 and Rs. 2,389. This enrolment size is similar to our estimation of 240 pupils. This optimum size of enrolment and the minimum unit costs per pupil may be safely generalized in the elementary school system in Manipur. That is to say that the elementary school with an enrolment of 240 pupils at the minimum are realizing economies of scale. School with more or less than this number suffer from disconomies of scale. As stated earlier, when the capacity created in the system is fully utilized, the per pupil unit costs of operating the system becomes low. If the enrolment is below the number where facilities could be fully used, the students beyond the optimum level where facilities tend to be fully utilized would also increase unit cost per pupil. This is because the infrastructure and service needed to provide education are not infinitesimally divisible. Therefore, a minimum level of expenditure is always necessary to create additional facilities. This would raise the unit costs until the number of students enrolled increases to a level where additional facilities are fully utilized. Therefore, the unit costs of providing education beyond a certain size of enrolment would always be higher. This has been proved by statistical evidence in this study.
When we examine the economics of scale with reference to the present study, it is found that all the schools are suffering from diseconomies of scale, for all of them are operating with an enrolment size either above or below the optimum size of 240 pupils. As a result, the unit costs per pupil and wastage become high. If these schools could operate by increasing the enrolment to around 240 pupils, a great deal of resources could have been saved and the unit costs per pupil reduced.

Main Findings

The main findings emerging from this study are:

1) Expenditure on education seems to be made without considering the manner in which how the resources are utilizing by the schools.

2) The analysis of cost-benefit analysis of the investment made in education appears to be absent.

3) Management of education is perfunctory.

4) Prescribed curriculum is not fully implemented.

5) Teaching-learning process is at a very low ebb.

6) In case the schools happened to utilize the created enrolment capacity at an optimum level, the average unit costs per pupil per annum would be Rs. 3,027 instead of Rs 4,765 thereby saving Rs 1,738 per pupil per annum. It indicates that 57.42 % of the total costs has been lost. This means 42.58% of the total costs incurred is cost-effective in relation to the optimum utilization of enrolment capacity.

7) If 14 schools could work as per planned working days, the average unit costs per working day could have been reduced from Rs. 4,141 per day to Rs. 3,623 per day which could save Rs. 518 per working day. Had the schools worked as per planned working hours, Rs. 53 per working hour could have been saved.

8) The efficiency level in relation to the input-output ratio is 63.11% and the average number of years spent by each survivor in school 62.60%.

9) The average drop-out percentage in each school with reference to the Cohort Analysis is 48.96%.
10) The average wastage in each school due to over-utilization and under-utilization of the enrolment capacity is Rs. 1,743 per pupil per annum.

11) Regression results suggest that the optimum size of enrolment is between 240 and 250 pupils and minimum unit costs per pupil per annum between Rs. 2,254 and Rs. 2,389. This enrolment size is similar to our estimation of 240 pupils. Therefore, the minimum of 240 pupils may be considered as created enrolment capacity for elementary schools having classes I-VIII in a year.

12) The hypothesis: “There is a ‘U’- shaped cost curve in providing education services” has been supported by statistical evidence. If so, there is need for utilizing the created enrolment capacity fully for realizing the economics of scale.

13) Some of the factors responsible for increase in the unit costs are: under-utilization of created enrolment capacity and of working days and hours as planned, employment of teachers more than the minimum requirements and increase in the salary costs without a proportionate increase in the number of pupils enrolled.

14) Some of the probable factors affecting efficiency are: poor teaching-learning process, lack of supervision and monitoring, inefficient management, under qualified teachers, lack of trained teachers, lack of enthusiasm for hard work amongst the teachers, lack of interest amongst the parents in the education of their children, and unoptimal utilization of the available resources.

Policy Suggestions

In fine, it may be mentioned some of the broad suggestions emerging from the above analysis as follows:

1) Investment should be made wisely, precisely and economically. It is observed from the above data that the costs on salary and allowances of teaching and non-teaching staff constitute 96.43% of the total recurring costs of school education in Manipur. But the costs spent most particularly on library 0.10% and games and sports 0.09% are very low. In case of sample schools, 98% of the total expenditure was made on salary. Thus, the major portion of the state’s expenditure on school education went towards paying the salaries of the teaching and non-teaching staff. We find that crores of rupees had been spent on the 14 schools
under study over the period of 8 years, but the state seems to be ignorant about the way in which how the resources are utilizing by the school. It is in this context that the state needs to pay serious thought to this problem.

2) Rationalization of Staffing Pattern

It has been observed that every school on an average has 13 teachers. If a school having classes I-VIII can be managed by a minimum of 8 teachers, there is a surplus of 5 teachers in every school. The basic reasons for increase in the unit costs per pupil are the employment of more teachers than the minimum requirement on the one hand and increase in the salary costs every year on the other. In case the schools could run with a minimum of 8 teachers, the unit costs per pupil could have been reduced considerably and the wastage resulting from the excess number of teacher saved. It is, therefore, essential to work out the optimal norms for fixing the strength of teachers in schools.

3) Teaching-Learning Process & Input-Output Ratio

The teaching-learning process is the most important factor for production of maximum output. In the present study, the teaching-learning activity taking place in the schools under review appears to be at a very low ebb. Almost half of the prescribed subjects in the curriculum have not been taught properly and effectively. What the schools seem to be giving a little more attention is to the compulsory subjects which are included in the matriculation examination scheme. In this way, curriculum is not fully implemented. On the other hand, every school on an average has the teacher-pupil ratio of 1:14. In such a small ratio, there is always the possibility of establishing a closer interaction between teachers and pupils thereby helping bring about the desired teaching-learning output. More than half of the teachers are trained ones. But the method of teaching adopted is only through books. Appropriate teaching aids are hardly used and there is no place of evaluation in the entire teaching-learning process. Regular co-curricular activities are almost absent. The attendance of pupils is irregular. Inspection is once in a blue moon. Headmaster seems to be a passive administrator. Thus, the schools appear to be operating under such conditions. As indicated by the input-output analysis, the schools are running at an unoptimal level. Moreover, the decline in the enrolment size every year almost in all the schools indicates the
internal inefficiency of the schools. It is also found that the schools are not 
operating at an optimum level in terms of enrolment capacity, working days and 
hours, and teacher-pupil ratio. It may therefore, be inferred here that the basic 
factor responsible for such a state of affairs is probably teaching-learning 
process. Whatever may be the teacher-pupil ratio, if the teacher does not teach 
the pupils, the output would almost be nil. It is suggested that the education 
authorities need to look into this problem before it is too late.

4) Enrolment Needs to be Increased

It has been proved that there is a positive correlation between costs and 
enrolment size. As stated above, if the enrolment is below the capacity created, 
the unit costs per pupil become high and the enrolment, beyond the capacity will 
also increase unit costs. This is what is happening in the sample schools. In this 
study, under-utilization of the created enrolment capacity is one of the most 
important factors for increase in the unit costs. It is, therefore, suggested that 
the actual enrolment strength of the schools should be such as would lead to 
economics of scale which in turn would reduce per pupil unit costs.

5) Management of Education

In this context, it is worth quoting what the Manipur Education 
Commission spelt out:

"Efficiency and effectiveness of the school system depend upon various 
factors such as for how many days schools are actually functioning as against 
the prescribed working days in a year; what is the extent of teacher absenteeism 
in school; to what extent the teachers are punctual and regular in their attendance; 
do they come prepared to teach the lessons they are supposed to teach; to what 
extent they sincerely correct the home and class assignments of the students; 
whether the courses are completed as per schedule; what is the nature of 
performance of the students at the examinations; are the available resources-
physical, human and financial- properly utilized; and whether various co-curricular 
and extra-curricular activities are undertaken in the schools for all-round 
development of the personality of the students. If the answer to these and similar 
other questions either negative or unsatisfactory, it is obvious that the education 
system will be unsuitable; standards of education will be low; there will be wastage
of resources; the product of the education system will be misfits; and there will be considerable frustration amongst the parents, students and the community."

(6) Suggestions for Future Research

There has been over-expansion of education in view of the social demand for education on the one hand and the human resource development on the other, but the rates of return have hardly been taken into consideration. Therefore, future investigations have to take into account this ignored and neglected aspects of benefits of education for purposes of resource allocation. It is in this direction that the present study attempts to move. It may be mentioned here that there are many ways of doing the cost study. Cost study can be made covering various aspects of costs: recurring and non-recurring costs, student costs, and opportunity costs. It can be done both at macro and micro level. Cost study can also be made referring to all the levels of education, such as primary, secondary and higher.

The present problem was undertaken with a view to analysing the unit costs per pupil and internal cost-efficiency as case study in the context of 14 elementary schools run by the Government of Manipur. Such type of unit cost analysis is a technique by which we can measure the internal and external efficiency of an educational institution in terms of productivity and allocation of resources. Although the present study focuses only on internal efficiency, the external efficiency of the cost can also be conducted. In fine, it may be suggested that cost study should be a continuous process so that we can utilize our limited resources wisely, precisely and economically.

NOTES AND REFERENCES:

1. Manipur Education Commission, op.cit., p.47.
Fig. 1. School Building of Bheigya Bondhu Jr. High School

Fig. 2. School Building of Jai Hindi Jr. High School
Fig. 3. School Building of Khwai Jr. High School

Fig. 4. School Building of Lady Earle Girls' Jr. High School
Fig. 5. School Building of Laijing Ningthou Jr. High School

Fig. 6. School Building of Madan Mohon Jr. High School
Fig. 7. School Building of Modern Jr. High School

Fig. 8. School Building of Moirangkhom Jr. High School
Fig. 9. School Building of Naorem Babu Jr. High School

Fig. 10. School Building of Naoremthong Jr. High School
Fig. 11. School Building of New Lambuland Jr. High School

Fig. 12. School Building of Porompat Sabal Leikai Jr. High School
Fig. 13. School Building of Thambalkhong Jr. High School

Fig. 14. School Building of Thamchet Girls’ Jr. High School
Fig. 15 Arrangement of classrooms by using partition walls.

Fig. 16 Classrooms in a kuchcha type school building.
Fig. 17. Kuchcha type building structure of a school.

Fig. 18. Semi-Pucca type building structure of a school.
Fig. 19. A common type of toilet with opposite entrance.

Fig. 20. Separate toilet structure of a school.