CHAPTER 6

COMPOSITION OF EXPENDITURE ON ROADS BY PUNE MUNICIPAL CORPORATION, 1985-86 TO 2008-09

6.1 Introduction

The period selected for this study of expenditure on roads by the Pune Municipal Corporation is 1985-86 to 2008-09. As seen in the previous chapters, the total expenditure on the various items has almost continuously increased over this period. However, in order to find the changes in the composition of this expenditure during the study period, the expenditure has been arranged year-wise in this chapter.

The objective of this chapter is to study the composition of the budget and actual expenditure on roads incurred by the PMC during the period 1985-86 to 2008-09. The composition of the expenditure has been analyzed in two ways, as described below.

A) In the first part of this chapter, the composition of the total expenditure has been shown by the percentage share of each type of expenditure in the total expenditure. Similarly, the composition of the two categories of expenditure, viz., revenue expenditure and capital expenditure has been shown by the percentage shares of each item of expenditure within its own category.

The composition of expenditure naturally differed from year to year, but it was observed from the expenditure figures that there were only minor changes in consecutive years, and major changes took place gradually, over the span of several years. Therefore, in order to simplify the analysis, the entire period of 24 years taken for the study was divided into six sub-periods of four years each. For each sub-period the average of the budget and actual expenditure for each item over the four year period was found. These average budget and average actual expenditure figures for each item of expenditure are presented in Table No.6.1. The percentage shares of the average budget and average actual expenditure on each item within its own category (Revenue Expenditure and Capital Expenditure) as well as out of the total budget and total expenditure were calculated, as shown in Table No.6.2. The analysis in the first part (Section 6.2) of this chapter is made with reference to both these tables.
B) Functional Classification: In the second part of this chapter, the various kinds of expenditure was arranged according to the seven major functions of the Road Department, viz., 1) Provision of roads 2) Repair and maintenance of roads 3) Building and maintenance of bridges. 4) Safety measures. 5) Traffic Regulation 6) Miscellaneous functions and 7) Administrative functions. The relative shares of the expenditure on each of these functions are presented in Table No.6.3 and ranked according to their size.

Finally, these various functions were further clubbed together and divided into just two categories of developmental functions and administrative functions. The expenditure on each of these functions is shown in terms of its relative share in total expenditure in each of the six sub-periods.

Plan of this Chapter: The next section, Section 6.2, gives an analysis of the year-wise composition of the expenditure for each of the six sub-periods, based on Table Nos.6.1 and 6.2. Section 6.3 gives the functional classification of the expenditure on roads, based on Table Nos. 6.3 to 6.6. Section 6.4 describes the major findings of this chapter.

6.2 Year-wise Composition of Expenditure on Roads

The various items of expenditure on roads by the PMC are classified into revenue expenditure and capital expenditure. The composition of this expenditure has been studied by analyzing the following four factors for each sub-period -

a) The relative shares of revenue expenditure and capital expenditure.
b) Composition of revenue expenditure (budget and actual).
c) Composition of capital expenditure (budget and actual).
d) Composition of total expenditure (budget and actual).


Sub-period 1 which included the years 1985-86 to 1988-89 was a time during which expenditure on roads was relatively low, particularly expenditure on capital items. Work had not started on cement-concrete roads, subways and flyovers and the IRDP, and small amounts were being spent on new roads. Hence the major items of expenditure appear to have been repair and resurfacing of roads, street lights and
salaries. The following observations can be made from Column Nos. 2 and 3 of Table No. 6.1 and Column Nos. 2 to 5 of Table No. 6.2.

a) Composition of revenue expenditure: Graph No. 6.1 shows that in the budget for revenue expenditure, the largest item at this time was salaries, for which Rs. 1.78 cr. were allocated on an average in each year during the first sub-period, which was 41.53% of the total planned revenue expenditure. The budget for street lights was Rs. 1.34 cr. per year during this period, which was the next largest at 31.26% of the revenue budget. The other two relatively large items were miscellaneous revenue expenditure for which Rs. 58.98 lakhs (13.72% of the revenue budget) were allocated each year and road and footpath repair, for which Rs. 49.75 lakhs (11.58%) were allocated. These four large items together had a share of 98.09% of the revenue budget. The other four items, viz., bridge repair, road improvement, moving electrical poles and maintenance of machinery together had a share of just 1.91% of the revenue budget.

The actual revenue expenditure had a similar composition with salaries being the largest expenditure, on which an average of Rs. 1.38 cr. was spent each year, which amounted to 38.85% of the total revenue expenditure. This was followed by an average expenditure of Rs. 1.21 cr. on street lights (34.01%), Rs. 51.08 lakhs on miscellaneous revenue expenditure (14.33%) and Rs. 37.70 lakhs (10.57%) on road and footpath repair. These four items together accounted for 97.76% of total revenue expenditure. The remaining four items had allocations of less than Rs. 6 lakhs each and a share of 1% or less. Together these four items had a share of 2.24% of total revenue expenditure.

b) Composition of capital expenditure: (See Graph No. 6.2). The total budget for capital expenditure was Rs. 2.21 cr. per year, of which Rs. 1.37 cr. were actually spent during the period 1985-86 to 1988-89. The largest item in the capital budget was road development, with an allocation of Rs. 72.38 lakhs, which was 32.72% of the capital budget. The next largest allocation was for widening and resurfacing of roads for which Rs. 54.28 lakhs were kept, which was 24.54% of the capital budget. The allocation for building and improvement of new roads, bridge building and capital expenditure on street lighting were quite close at Rs. 23.75 lakhs, Rs. 23.15 lakhs and Rs. 22.30 lakhs. Consequently, they had almost equal shares in the total capital budget of 10.74%, 10.47% and 10.08% respectively. These five items had a combined share
Graph Number-6.1

Revenue Expenditure for Subperiod 1 (1985-86 to 1988-89)

Graph Number-6.2

Capital Expenditure for Subperiod 1 (1985-86 to 1988-89)

Graph Number-6.3

Composition of Budget for Subperiod 1

Graph Number-6.4

Composition of Actual Expenditure for Subperiod 1

Source for Graph Nos. 6.1 to 6.4: Table No.6.2
of 88.55% of the capital budget during this period. The other six items had allocations of less than Rs.10 lakhs each, with the smallest allocation of Rs.12,500 (0.06%) being made for subways. Of these items, four had shares between 1% and 5% and two had shares of less than 1% each. Together they accounted for 11.45% of the capital expenditure budget.

The largest actual expenditure in the first sub-period was on road development. The Road Development Department spent Rs.63.99 lakhs on this head, which amounted to almost half (46.61%) of the total capital expenditure. The expenditure on resurfacing was next with Rs.44.04 cr. (32.08%) being spent on an average during each year of this sub-period. These two items were the only large items of expenditure, together accounting for 78.69% of total capital expenditure. The other items had shares of less than 10% each. Of these, street lighting with an expenditure of Rs.9.38 lakhs (6.84%), bridges with an expenditure of Rs.6.64 lakhs (4.84%) and traffic control with an expenditure of Rs.6.52 lakhs (4.75%) were the largest. Of the remaining six items of capital expenditure, three had shares between 1% and 2% and three had shares of less than 1% each. The smallest item was miscellaneous capital expenditure on which just Rs.7051 (0.05%) was spent.

c) Composition of Total expenditure: During the first sub-period, the Road Department was spending almost Rs.5 cr. per year, out of a budget of just over Rs.6.5 cr. The composition of the total budget for roads shows the predominance of items of revenue expenditure, since, as seen above, revenue budget was over 66% of the total budget. The largest item in the total budget was salaries with a share of 27.41%, followed by street lights with a share of 20.64%. Both these items were from the revenue budget category. Road development from the capital budget category was next with a share of 11.12%. The other two items with a relatively large share were resurfacing (8.34%) and road repair (7.64%). Out of these six items, four were from the revenue budget. The remaining items had very small shares, with five items having shares between 1% and 4% and eight items having shares less than 1% each. The least share, 0.02% was that of the budget for subways.

Out of total actual expenditure also, salaries and street lights (revenue expenditure) had the biggest shares, 28.05% and 24.56% respectively. Thus these two heads of expenditure accounted for over half the expenditure actually incurred by the Road Development Department in the first four years selected for this study. The next important head of expenditure was road development, with a share of
12.96%, followed by miscellaneous revenue expenditure (10.34%), resurfacing (8.92%) and repair of roads (7.63%). These six items together had a share of 92.46%. The remaining 7.54% of expenditure was divided between the other 14 items of expenditure, which therefore, had very small shares. The least expenditure was on road improvement and miscellaneous capital expenditure, with shares of 0.04% and 0.01% respectively.

d) Share of Revenue and Capital Expenditure: The total budget of the Road Development Department was about Rs.6.51 cr. per year during this period, of which Rs.4.30 cr. was allotted to revenue expenditure and Rs.2.21 cr. to capital expenditure on an average in each year. The budget for revenue expenditure was 66.02% of the total budget, which was almost double the share of capital expenditure, which was 33.98%. The share of revenue expenditure was even larger in the actual expenditure, being 72.20% as compared to the 27.80% share of capital expenditure (Graph Nos.6.3 and 6.4). The average revenue expenditure in each year of this period was Rs.3.56 cr. and average capital expenditure was Rs.1.37 cr. Thus, revenue expenditure both planned and actual was twice as much as capital expenditure. This shows that the Road Development Department had given more importance to recurring expenditure during this period.

Conclusion: During the period 1985-86 to 1988-89, revenue expenditure was larger (almost double) than capital expenditure. The capital expenditure was more concentrated than revenue expenditure, with almost 80% expenditure being made on just two items, road development and resurfacing. Maximum expenditure was made on salaries and street lights (revenue expenditure) which together accounted for more than 50% of total expenditure during this period.

6.2.2 Composition of Expenditure in sub-period 2 (1989-90 to 1992-93)

There was a large increase in the total expenditure on roads during this period. The budget doubled from Rs.6.50 cr. in sub-period 1 to Rs.13.11 cr. per year on an average in the second sub-period and actual expenditure increased by 86% from Rs.4.93 cr. in the first sub period to Rs.9.20 cr. per year in the second. Although revenue expenditure grew during this period, capital expenditure registered a much faster growth. This was because during this period the Road Development
Graph Number-6.5

Revenue Expenditure for Subperiod 2 (1989-90 to 1992-93)

- Road Repair
- Bridge Repair
- Improvement
- Road Improvement
- Street Lights
- Electric Poles
- Machinery
- Salaries
- Miscellaneous

% of Total Revenue Expenditure

Budget Amount
Actual Amount

Graph Number-6.6

Capital Expenditure for Subperiod 2 (1989-90 to 1992-93)

- New Roads
- Resurfacing
- Road Development
- Road Development
- Cement-Concrete Roads
- Footpaths
- Bridges
- Poles and Fibres and
- Poles and Fibres
- Traffic
- Street Lighting
- IRDP
- Machinery
- Miscellaneous Capital Expenditure

% of Capital Expenditure

Budget Amount
Actual Amount

Graph Number-6.7

Composition of Budget for Subperiod 2

- Revenue Expenditure: 48%
- Capital Expenditure: 52%

Graph Number-6.8

Composition of Actual Expenditure for Subperiod 2

- Revenue Expenditure: 37%
- Capital Expenditure: 63%

Source for Graph Nos. 6.5 to 6.8: Table No. 6.2
Department took up several activities like resurfacing of existing roads, building new roads according to the new Development Plan adopted in 1987, and replacing ordinary tube lights on the roads with sodium vapour or mercury lamps. Column Nos. 4 and 5 of Table No. 6.1 and Column Nos. 6 to 9 of Table No.6.2 show the expenditure incurred during this sub-period.

a) **Composition of revenue expenditure:** The budget for revenue expenditure showed the same composition as in the previous sub period (Graph No. 6.5) with salaries being the largest item with a budget of Rs.2.34 cr., which was 34.25% of the revenue budget. Street lights with an allocation of Rs.2.26 cr. (33.14%) were close behind. The other two items with a large share were miscellaneous revenue expenditure with a budget of Rs.1.18 cr. (17.31%) and road repair with Rs.87.25 lakhs (12.77%). It may be observed that although the budget for salaries (in rupee terms) was larger in this sub period, its share had fallen from 41.53% to 34.25% of the total revenue budget. These four largest items had a total share of 97.47% and the three smaller items together had a share of 2.53%. There was no budget planned for road improvement throughout this sub-period.

The composition of actual revenue expenditure was different in this sub-period as compared to the first. The actual expenditure on street lights was greater than the actual expenditure on salaries. Therefore the largest item of actual revenue expenditure was street lights on which Rs. 2.16 cr. were spent per year on an average during this period, which was 37.31% of total revenue expenditure. Salaries were the second largest item of expenditure with Rs.1.66 cr. (28.79%) spent on it. The other two large items remained the same, with miscellaneous revenue expenditure of Rs.1.10 cr. (19.13%) and road repair with Rs.71.46 lakhs (12.34%). These four items together accounted for 97.57% of total revenue expenditure, the remaining 2.43% being shared between the other three items. There was no expenditure on road improvement during these four years. The least expenditure was Rs.67, 109 per year on bridge repair, which was 0.12% of total revenue expenditure.

b) **Composition of capital expenditure:** There was a significant change in the budget and actual capital expenditure in the second sub-period as compared to the first as seen in Graph No. 6.6. The budget for capital expenditure reflected the changed priorities of the Road Development Department. During this sub-period, greater importance was given to resurfacing and to building new roads and the budget for road development (which had been the largest item of expenditure in the first sub-
period) was substantially reduced to 4.47%. The new composition of the capital budget showed that the largest allocation was made for resurfacing of Rs.3.05 cr., which were almost half (48.62%) of the total capital budget of Rs.6.27 cr. Consequently, the shares of all other items were quite small, even though there was substantial growth in the allocations for almost all items. The second largest item in the capital budget was building and improvement of new roads for which Rs.1.28 cr. were allotted, which was 20.40% of the capital budget. The next largest allocation of Rs.43.99 lakhs (7.01%) was made for bridges, followed by Rs.34.75 lakhs for street lights (5.54%). The allocations for miscellaneous capital expenditure and traffic control were almost equal, being Rs.32.18 lakhs (5.13%) and Rs.32.15 lakhs (5.12%) respectively. The total share of these six items was 91.82%. The shares of the other items were below 5% each. There was no allocation for subways during this period.

The capital expenditure could not be made as planned, since the composition of the actual capital expenditure was different from that of the budget. Resurfacing was the largest item of expenditure as planned, with a share of 53.63%, which meant that more than half the actual capital expenditure during this sub-period was made only on one item. But whereas the second largest item in the budget was building new roads, actually more expenditure took place on road development. It can be seen from Columns 4 and 5 of Table No.6.1 that actual expenditure on road development was larger than the budget. As a result, road development was the second largest item of expenditure with a share of 12.09% of total expenditure. New roads expenditure was close behind with 11.45% and street lights had a share of 9.91%. There was no expenditure on subways and the remaining items had shares of less than 5% each.

The capital expenditure in this sub-period was concentrated on a few items, with the four large items together taking up 87.08% of the expenditure, and more than half the expenditure being incurred on one item, resurfacing.

c) Composition of Total expenditure: The composition of total expenditure also showed a change from the first sub-period because of the large growth in capital expenditure. During this sub-period, resurfacing replaced salaries as the largest single item in the budget. The budget for roads during this sub-period showed that the largest allocation was made for resurfacing, which was 23.28% of the total budget. This was followed by salaries and street lights which had almost equal shares of 17.85% and 17.27% respectively. The allocation for new roads was fourth with a share of 9.77% followed by miscellaneous revenue expenditure with 9.02% and road
repair with 6.66% of the remaining eleven items, six had shares between 1% and 5% and five had shares of less than 1% each. The combined share of the six large items was 83.78% and the eleven smaller items together had a share of 16.22%. Out of the six large items, four were from revenue budget and two from the capital budget.

The composition of actual total expenditure was quite different from the budget, showing that the plan made by the Road Department had to be modified due to the prevailing circumstances. The largest single expenditure during the second sub-period was street lights (revenue expenditure). This was because although the Road Department had allocated Rs.3.05 cr. for resurfacing, only Rs.1.83 crores could be actually spent per year during this period. On the other hand, the expenditure on street lights on an average was Rs.2.16 cr. per year, out of a budget estimate of Rs.2.26 cr. Similarly, the allocation for new roads was Rs.1.28 cr. (20.40%), but only Rs.39.06 lakhs were actually spent, causing the share of this item in actual total expenditure to fall to 4.25%.

The actual shares of the various items in total expenditure were as follows. As mentioned above, revenue expenditure on street lights had the largest share of 23.47%, followed by resurfacing (19.89%), salaries (18.11%), miscellaneous revenue expenditure (12.04%) and road repair (7.77%). The dominance of revenue expenditure can again be observed here, with four out of the five largest items belonging to the revenue expenditure category.

The remaining items had shares below 5% each, the smallest being footpaths with a share of 0.04%. Of these twelve items, seven had shares less than 1% and five had shares between 1% and 5% each. Together their share was 18.72% and that of the five large items was 81.28%.

d) Shares of revenue expenditure and capital expenditure: The budget for revenue expenditure was increased to an average of Rs.6.83 cr. per year during the second sub-period, a growth of 59% over the first sub period. Actual revenue expenditure was Rs.5.79 cr. per on an average, a growth of 62% over the first sub-period. Capital expenditure planned for this period showed a much larger growth, reaching 6.27 cr. per year from Rs.2.21 cr. in the first sub-period, a growth of 183%. Actual capital expenditure grew 148% from Rs.1.37 cr. per year in the first sub-period to Rs.3.41 cr. per year in the second. However, in spite of the higher growth in capital expenditure, revenue expenditure continued to be larger. The share of revenue expenditure in the budget for this period was 52.12% of the total budget as against a share of 47.88% of planned capital expenditure. The share of actual revenue
expenditure was higher at 62.91% of total actual expenditure, with the share of capital expenditure being 37.09%.

Although the share of revenue expenditure continued to be larger than capital expenditure (both budget and actual), it may be observed from Graph Nos. 6.7 and 6.8 that this share was smaller than that in the earlier sub-period. This meant that even though capital expenditure was lower than revenue expenditure in this sub-period, its share out of total expenditure had started increasing, a trend that continued for the rest of the study period.

**Conclusion** - In the period 1989-90 to 1992-93, capital expenditure grew faster than revenue expenditure, but total revenue expenditure continued to be larger than total capital expenditure, although its share was lower than that in sub-period 1. Within revenue expenditure, the expenditure on street lights exceeded that on salaries. Within capital expenditure, resurfacing replaced road development as the largest expenditure. However, in the overall expenditure, street lights were the largest item followed by resurfacing. In this period, the revenue budget, capital budget and total budget showed a different pattern from the actual revenue, capital and total expenditure, which shows that actual expenditure could not be made according to the plan.

### 6.2.3 Composition of Expenditure in Sub-period 3 (1993-94 to 1996-97)

The four years from 1993-94 to 1996-97 saw a large increase in the expenditure on roads, both in revenue and capital expenditure categories. Expenditure was resumed on bridge repair and road improvement and increased on road repair and moving electrical poles. The Road Development Department started implementing the Development Plan of 1987 due to which expenditure was stepped up on new roads, resurfacing, subways, bridges and road development. The work of replacing tube lights with sodium vapour lamps was accelerated in this period. From 1995-96, capital expenditure exceeded revenue expenditure. The expenditure for this period is shown in Column Nos.6 & 8 of Table No.6.1 and Column Nos.10 to 13 of Table No.6.2.

a) **Composition of Revenue Expenditure:** Graph No. 6.9 shows that the composition of the revenue budget showed a change during this period, with the expenditure planned for street lights becoming the largest item. There was a big
Graph Number-6.9

Revenue Expenditure for Subperiod 3 (1993-94 to 1996-97)

Graph Number-6.10

Capital Expenditure for Subperiod 3 (1993-94 to 1996-97)

Graph Number-6.11

Composition of Budget for Subperiod 3

Graph Number-6.12

Composition of Actual Expenditure for Subperiod 3

Source for Graph Nos. 6.9 to 6.12: Table No. 6.2
increase in the allocations to both street lights and salaries, the two items having allocations of Rs.3.47 cr. and Rs.3.38 cr. which were 29.06% and 28.49% of revenue budget respectively. Miscellaneous revenue expenditure was next with 16.23% and repair of roads with an allocation of Rs.1.54 cr. had a share of 13.02%. The second change that can be seen in the composition of the revenue budget is that the allocations for some of the smaller items of expenditure also started increasing in this sub-period. Thus the allocation for moving electrical poles was increased to Rs.1.12 cr. and had a share of 9.50%. Similarly the budget for maintenance of machinery was over Rs.35 lakhs and had a share of 2.98%, which was larger than in the two earlier sub-periods. The concentration of expenditure on the four large items reduced slightly, their combined share falling to 86.80% and the share of the smaller items increasing to 13.20%.

Street lights had already become the largest actual expenditure in sub-period 2, and this continued throughout the study period. In sub-period 3, Rs.4.13 cr. was spent on street lights and their share went up to 35.46% of revenue expenditure. Salaries were the second largest expenditure, with Rs.3.02 cr. (25.95%), followed by Rs.1.74 cr. for miscellaneous revenue expenditure (14.95%) and Rs.1.21 cr. for road repair (10.44%). These four items had a combined share of 86.80%, the same as that in the budget. The share of expenditure on moving electrical poles and maintenance of machinery in actual revenue expenditure also increased to 9.73% and 2.93%. Actual revenue expenditure also was less concentrated in this period. The two smallest items, however, still had shares of less than 1% each.

b) **Composition of Capital expenditure:** Like revenue expenditure, capital expenditure also showed a tendency to be more spread out among the various items. This can be seen in Graph No. 6.10. In the budget for capital expenditure, resurfacing was the largest item of expenditure with an outlay of Rs.5.62 cr. which was 32.15% of total capital budget. The second largest item was street lights for which Rs.2.91 cr. was allocated (16.64%) and third largest was bridge building with an allocation of Rs.2.22 cr. (12.71%). The budget for new roads was Rs.1.81 cr. (10.36%). These four items together had a share of 71.86%. There were three other items with shares more than 5% each. They were traffic control with 8.40%, cement-concrete lanes with 6.84% and road development with 5.32%. This pattern of expenditure reflects the priorities of the Road Department which, as mentioned above, had planned to implement the Development Plan.
The pattern of actual capital expenditure was almost the same as had been planned, although the amounts and shares were a little different. Resurfacing expenditure was the largest with Rs.3.36 cr. spent, its share in total capital expenditure being 35.91%. Although expenditure on resurfacing had increased, its share of total capital expenditure was lower because the shares of other items had increased. The second largest capital expenditure during this period was Rs.1.91 cr. on street lights, for installing sodium vapour mercury lamps. The share of this item was 20.45%. Bridges was the next largest expenditure with Rs.1.19 cr. (12.72%), followed by new roads on which Rs.84.29 lakhs were spent (9.00%), traffic control with Rs.70.02 lakhs (7.48%) and road development with Rs.64.70 lakhs (6.91%). The remaining five items had shares less than 5% each. The smallest share was that of footpaths (0.12%).

c) Composition of total expenditure: The total budget for roads during this period was Rs.29.36 cr. each year, on an average and actual expenditure was Rs.21.02 cr. per year, on an average. Taking all items of expenditure together, it may be seen that the largest allocation in the budget was made for resurfacing, which had a share of 19.16% of the total budget. Street lights and salaries from the revenue expenditure category were next, with almost equal shares of 11.74% and 11.51% respectively. Capital expenditure on street lights was the fourth largest with a share of 9.92%. This was followed by bridges (7.58%), miscellaneous revenue expenditure (6.56%), new roads (6.18%) and road repair (5.26%). Of the remaining items seven had shares between 1% and 5% and four had shares less than 1% each. From this it can be seen that the budget in the third sub-period 1993-94 to 1996-97 was more evenly distributed among the various items. There were eight items with shares more than 5% and the largest single share was less than 20%. Secondly, out of the eight largest items, four were from revenue expenditure and four from capital expenditure category.

The actual expenditure, however, was somewhat different from what had been planned. Revenue expenditure was larger than capital expenditure; hence the shares of revenue expenditure items in total expenditure were larger. The revenue expenditure on street lights continued to have the highest share which was 19.67% of total expenditure. The second largest share was that of resurfacing (16.00%), followed by salaries (14.39%), street lights (capital expenditure) 9.11% and miscellaneous revenue expenditure (8.29%). The shares of road repair, bridges and moving electrical poles were almost equal, being 5.79%, 5.67% and 5.40% respectively. The combined share of these eight items was 84.32%. The remaining 15.68% of total expenditure was
divided between eleven items, of which five had shares between 1% and 5% and six items had shares of less than 1%. The smallest share was of footpaths (0.05%).

Actual expenditure was also more evenly distributed with eight items having shares more than 5% each and the highest single share being below 20%. However, the dominance of revenue expenditure could still be seen since five out of the eight largest items were from the revenue expenditure category and only three were from the capital expenditure category.

d) **Share of revenue and capital expenditure:** The budget for revenue expenditure increased to Rs.11.86 cr. on an average per year in the third sub period and the budget for capital expenditure increased to Rs.17.50 cr. per year. This meant that for the first time, the budget for capital expenditure exceeded the budget for revenue expenditure, with shares of 59.60% and 40.40% respectively. Actual revenue expenditure increased to Rs.11.65 cr. per year and actual capital expenditure to Rs.9.36 cr. per year, on an average during this period. Thus actual revenue expenditure continued to be larger than actual capital expenditure, with shares of 55.45% and 44.55% respectively. (See Graph Nos. 6.11 and 6.12).

**Conclusion:** The two main features of the period 1992-93 to 1996-97 were firstly, capital expenditure was larger than revenue expenditure for the first time in the budget, but in the actual expenditure, revenue expenditure continued to be the larger category. Secondly, the concentration of the expenditure (both planned and actual) on three or four items started getting reduced and expenditure was more spread out over the various items, particularly items of capital expenditure. This was because the Road Department took up various activities like bridge building, replacing street lights, moving electrical poles, etc., on a larger scale than before. Thus although revenue expenditure on street lights, salaries and resurfacing had the largest shares, these shares were smaller than in the earlier sub-periods.

### 6.2.4 Composition of expenditure in sub-period 4 (1997-98 to 2000-01)

The area of the PMC was expanded in September 1997 to include 38 fringe villages. The budgets from 1998-99 onward showed clearly the effect of this expansion as the Road Development Department gave maximum priority to improving roads in these newly included areas. There was a significant increase in
Graph Number-6.13

Revenue Expenditure for Subperiod 4 (1997-98 to 2000-01)

- Road Repair
- Bridge Repair
- Improvement
- Road Improvement
- Street Lights
- Moving Poles
- Miscellaneous

Budget Amount vs. Actual Amount

% of Total Revenue Expenditure

Graph Number-6.14

Capital Expenditure for Subperiod 4 (1997-98 to 2000-01)

- New Roads
- Resurfacing
- Road Development
- Cement-Concrete Roads
- Footpaths
- Bridges
- Flyovers and Subways
- Traffic Control
- Street Lighting
- IRDP
- Machinery
- Miscellaneous Capital Expenditure

Budget Amount vs. Actual Amount

% of Total Capital Expenditure

Graph Number-6.15

Composition of Budget for Subperiod 4

- Revenue Expenditure: 69%
- Capital Expenditure: 31%

Graph Number-6.16

Composition of Actual Expenditure for Subperiod 4

- Revenue Expenditure: 57%
- Capital Expenditure: 43%

Source for Graph Nos. 6.13 to 6.16.: Table No. 6.2
activities like building new roads, widening and resurfacing existing narrow roads, development of the newly resurfaced roads, putting up street lights and moving electrical poles which were now in the middle of the roads which had been widened. Although the expenditure on electricity for street lights increased due to the inclusion of the new area, it is important to note that there was no extraordinary growth in salaries, from which it can be inferred that there was no increase in the staff of the Road Development Department. The Road Development Department also started building two bridges during this period and the work of building cement concrete roads was taken up from 2000-01 onwards. All these developments are reflected in the composition of the budget and actual expenditure during this period, which is shown in Column Nos.8 and 9 of Table No.6.1 and Column Nos.14 to 18 of Table No.6.2.

a) Composition of Revenue expenditure: The composition of revenue expenditure is shown in Graph No. 6.13. The Road Department had made a revenue budget of Rs.21.83 cr. per year on an average during the fourth sub-period and actual revenue expenditure of Rs.18.79 cr. per year, on an average. In the revenue budget, the largest amounts of funds (Rs.9.89 cr) were allocated for street lights which were 45.30% of the revenue budget. The allocation for salaries was next, which was Rs.4.60 cr. (21.09%). The allocation for street lights was more than double that of salaries, which shows that the budget was concentrated on one item. The third largest allocation of Rs.2.52 cr. was for moving electrical poles which was 11.56% of the revenue budget. This was followed by miscellaneous revenue expenditure with Rs.2.05 cr. (9.39%) and road repair with Rs.1.93 cr. (8.85%). Thus in this sub-period there were five large items, whose total share was 96.19%. The remaining 3.81% was divided between the three smaller items of expenditure, whose individual shares were below 2% each.

The actual revenue expenditure incurred by the Road Department during this period was Rs.18.79 cr. per year, on an average, out of which almost half, Rs.9.07 cr. (48.31%) was spent only on street lights. Salaries continued to be second largest item, with Rs.4.26 cr. being spent, which was 22.71% of the total. During this period, the expenditure on moving electrical poles replaced miscellaneous revenue expenditure at the third place, with an expenditure of Rs.2.58 cr. (13.76%). Repair of roads was again the fourth largest expenditure with Rs.1.40 cr. (7.46%) spent on it. These four items together had a share of 92.24%. The other items were less than 5% each, with a total share of 7.76%. Actual revenue expenditure in this period was a little more
concentrated on the four largest items as compared to the previous sub-period where
the four largest items of revenue expenditure had combined a share of 86.80%.

b) **Composition of capital expenditure:** The capital expenditure showed a huge
increase in this sub-period due to the inclusion of additional area in the jurisdiction of
the PMC, and the budget was raised to carry out the additional work. Actual
expenditure also increased substantially. The shares of the items of capital
expenditure are shown in Graph No. 6.14. The largest item of the budget in this
category continued to be resurfacing with an allocation of Rs.15.36 cr. which was
about one-third (32.31%) of total capital budget. The allocation for new roads was
increased to Rs.6.15 cr. and was the second largest with a share of 17.14%. The third
biggest allocation was made for bridges with Rs.4.90 cr. (10.32%), closely followed
by street lighting with Rs.4.39 cr. (9.24%). The allocations for traffic control and
miscellaneous capital expenditure were almost equal at Rs.3.34 cr. and Rs.3.33 cr.
hence had similar shares of 7.03% and 7.02% respectively. The allocation for cement-concrete roads increased to Rs.3.00 cr. and its share rose to 6.32% of total
expenditure. The other four items had shares of 5% and less, the least allocation being
for purchase of machinery.

Actual capital expenditure was incurred mainly on the same items that had
been given priority in the budget, with some differences in their ranks. The two
largest items of expenditure were the same as in the budget, resurfacing with Rs.8.40
cr. (33.86%) and building new roads with Rs.5.47 cr. (22.08%). But whereas bridges
were third in budget allocations, the third highest actual expenditure in this category
took place on street lighting for which Rs.3.22 cr. (12.99%) were spent. The next
largest share of 7.69% was of cement-concrete roads, followed by traffic control
(7.14%) and bridges (6.97%). The other five items had shares less than 5% each, and
their total share was 9.27%.

c) **Composition of total expenditure:** The total budget during each year of this
sub-period was, on an average, Rs.69.38 cr. and actual expenditure was Rs.43.60 cr.
In the budget, the largest component was resurfacing with a 22.14% share, followed
by revenue expenditure on street lights (14.26%), new roads (11.75%), bridges
(7.07%), salaries (6.64%) and capital expenditure on street lights (6.33%). The
combined share of these six large items was 68.19%. The remaining 31.81% were
divided between the remaining thirteen items. Out of these, eight items had shares
between 1% and 5% and five had shares less than 1% each. It may be observed that
planned expenditure was more spread out over the various items as compared to
previous sub-periods, but the composition of the 3 largest items was still the same
with resurfacing, street lights (revenue expenditure) and salaries accounting for the
major share of expenditure. However, the shares of other items like moving electrical
poles, bridges, street lights (capital expenditure) etc., had started growing.

The composition of total actual expenditure was somewhat different, with the
share of revenue expenditure on street lights being marginally higher than resurfacing,
which had the highest share in the budget. In actual expenditure street lights
accounted for 20.82% and resurfacing for 19.27% of total expenditure. The third
highest expenditure was new roads, as in the budget, with a slightly higher share at
12.56%. This was followed by salaries (9.79%), capital expenditure on street lights
(7.39%) and moving electrical poles (5.93%). The smallest shares were those of
purchase of machinery (0.22%) and bridge repair (0.11%). The combined share of the
six large items was 75.76%, which was higher than the 68.19% share in the budget.
The smaller items together amounted to 24.24% of actual total expenditure. Of these,
eight had shares between 1% and 5% and five had shares less than 1% each.

d) Shares of revenue expenditure and capital expenditure: In this sub-period,
capital expenditure was larger than revenue expenditure in both the budget and actual
expenditure. The relative shares of revenue expenditure and capital expenditure were
31.48% and 68.52% in the budget and 43.09% and 56.91% in actual expenditure as
shown in Graph Nos. 6.15 and 6.16.

Conclusion: In sub-period 4, 1997-98 to 2000-01, capital expenditure was larger than
revenue expenditure in both the budget and actual expenditure categories. The budget
was distributed more evenly over the various items than the actual expenditure. Both
the budget and actual expenditure were more spread out than in the earlier years. The
highest priority in this period was to expenditure on street lights (both revenue and
capital expenditure), resurfacing, salaries, new roads and moving electrical poles. This
was because these activities were required to be carried out in the newly included
areas. The least share of expenditure in this sub-period was given to bridge repair and
purchase of machinery. The share of some of the smaller items of expenditure started
increasing and very few items had shares less than 1%. A majority of the items had
shares between 1% and 5%.
6.2.5 Composition of expenditure in sub-period 5 (2001-02 to 2004-05)

The major features of this period were the starting of the Integrated Road Development Project (IRDP) and stepping up of the work on conversion of several major roads to cement concrete. Almost all other items of capital expenditure also showed a very fast growth, taking the total capital expenditure budget (and total budget) to over Rs.100 cr. for the first time. Both the budget and actual expenditure were reduced on road development and miscellaneous revenue expenditure. The former was reduced because of larger expenditure on resurfacing and building new roads and the latter because the expense of loan repayment was removed from the budget of the Road Department and was centralized in the budget for the Chief Accountant's Office. Expenditure on maintenance of machinery was also lower than in the previous sub-period. The expenditure in this sub-period is shown in Column Nos. 10 and 11 of Table No. 6.1 and Column Nos. 18 to 21 of Table No. 6.2.

a) Composition of Revenue Expenditure: The composition of the revenue budget as shown in Graph No. 6.17 was the same as in the previous period, with the same four items accounting for the major part of the budget. Street lights was again the largest allocation with Rs.16.55 cr. The share of this item in the total revenue budget further increased to 53.63%, i.e. more than half the budget was earmarked for this item alone. As a result, the share of the smaller items was reduced and only three other items had shares of more than 5%. They were salaries with an allocation of Rs.7.55 cr., having a share of almost a quarter (24.47%) of the budget, followed by moving electrical poles (11.75%) and road repair (6.65%). These four items together had a share of 96.49% of the total revenue budget. Miscellaneous revenue expenditure, which had a share of over 10% in all the earlier periods, had a share of just 0.63% of the revenue budget due to the removal of loan repayment and interest payment from the budget of the Road Department.

Actual Revenue Expenditure had the same composition as the budget, with Rs.15.18 cr. (56.50%) being spent on street lights, Rs.6.40 cr. (23.81%) spent on salaries, Rs.3.29 cr. (11.75%) on moving electrical poles and Rs.1.54 cr. (6.64%) on road repair. The total share of these four items was as high as 98.70%. The other four items had negligible shares.
Graph Number-6.17

**Revenue Expenditure for Subperiod 5 (2001-02 to 2004-05)**

- **Road Repair**
- **Bridge Repair**
- **Road Improvement**
- **Street Lights**
- **Mobile Poles**
- **Moving Electric Poles**
- **Machinery Maintenance**
- **Sales**
- **Misc Revenue Expenditure**

% of Total Revenue Expenditure

- **Road Repair**
- **Bridge Repair**
- **Road Improvement**
- **Street Lights**
- **Moving Electric Poles**
- **Machinery Maintenance**
- **Sales**
- **Misc Revenue Expenditure**

**Budget Amount**

**Actual Amount**

Graph Number-6.18

**Capital Expenditure for Subperiod 5 (2001-02 to 2004-05)**

- **New Roads**
- **Resurfacing**
- **Road Development**
- **Cement-Concrete Roads**
- **Footpaths**
- **Bridges**
- **Programs and Subways**
- **Traffic Control**
- **Street Lighting**
- **IRDP**
- **Machinery**
- **Misc Capital Expenditure**

% of Capital Expenditure

- **New Roads**
- **Resurfacing**
- **Road Development**
- **Cement-Concrete Roads**
- **Footpaths**
- **Bridges**
- **Programs and Subways**
- **Traffic Control**
- **Street Lighting**
- **IRDP**
- **Machinery**
- **Misc Capital Expenditure**

**Budget Amount**

**Actual Amount**

Graph Number-6.19

**Composition of Budget for Subperiod 5**

- **Revenue Expenditure**: 76%
- **Capital Expenditure**: 24%

Graph Number-6.20

**Composition of Actual Expenditure for Subperiod 5**

- **Revenue Expenditure**: 71%
- **Capital Expenditure**: 29%

Source for Graph Nos. 6.17 to 6.20.: Table No. 6.2
The composition of both the revenue budget and actual revenue expenditure showed more concentration in this period as compared to the earlier period in the sense that there were only four large items expenditure instead of five as in earlier periods and secondly, the share of these four items was over 96% of the budget and over 98% of actual expenditure.

b) Composition of capital expenditure: Not only was there a huge jump in capital expenditure, its composition changed during this period as seen in Graph No. 6.18, reflecting the changed priorities of the road department. The main activity at this time was the building of cement-concrete roads. This was clearly seen as this head of expenditure was the largest in both the budget and actual expenditure, replacing resurfacing which had been the largest item of capital expenditure in the previous three sub-periods.

Cement-concrete roads were allocated Rs.24.76 cr. which was almost a quarter (24.69%) of the budget. Resurfacing fell to second place with an allocation of Rs.18.46 cr. (18.41%) and new roads were third with an allocation of 17.47 cr. (17.42%). The newly started IRDP was allocated Rs.11.44 cr. on an average in each year in this sub-period and had an average share of 11.40%. The two other major items in this period were street lighting (9.39%) and traffic control (7.76%). These six items together had a share of 89.07%, and the remaining six items together had a share of 10.93%. Bridges, footpaths subways, etc., all had smaller shares than in the earlier period.

Except for one change, the actual expenditure in this sub-period had the same composition as the budget for capital expenditure. Cement-concrete roads with an expenditure of Rs.19.29 cr. were the largest item, with a share of 29.55% of the total capital expenditure. Resurfacing had an expenditure of Rs.15.21 cr. (23.30%), and new roads had an expenditure of Rs.10.45 cr. (16.01%). Street light had a larger share of actual expenditure than in the budget and were next with a share of 11.85%, followed by IRDP (5.97%) and traffic control (5.44%). The combined share of these items was 92.12%. The other items had shares of less than 3% each, together amounting to 7.88%. The smallest outlay took place on purchase of machinery and miscellaneous capital expenditure.

c) Composition of total expenditure: The total budget was Rs.131.17 cr. per year and actual expenditure was Rs.92.19 cr. per year on an average during the period 2001-02 to 2004-05. In the budget for this period, there were eight items out of twenty that had shares of more than 5%. The largest allocation among all the items was for cement-concrete roads which had a share of 18.88%. The next three largest items
were close together, resurfacing with a share of 14.08%, new roads with 13.32% and revenue expenditure on street lights 12.62%. It may be seen that street lights was the largest item in the revenue budget with a share of 53.63%, but out of total budget its share was 12.62% and it ranked fourth. This was the first time that three items of capital expenditure were the highest, ahead of street lights (revenue expenditure). The other important heads in the budget were IDRP (11.40%), capital expenditure on street lights (9.39%) traffic control (5.93%) and salaries (5.76%). The combined share of these items was 86.49% of the total budget. The other items had very small shares, individually; with four items having shares between 1% and 5% and eight having shares less than 1% each. Their total share was 13.51%.

In the actual expenditure, six items has shares of more than 5% each, the largest being the share of cement concrete roads (20.93%). Resurfacing and street lights (revenue expenditure) had almost equal shares of 16.51% and 16.48% respectively. New roads had the fourth largest share at 11.34%, followed by capital expenditure on street lights (8.40%) and salaries (6.94%). IRDP and traffic control which had shares more than five percent each of the budget had lower shares in actual expenditure (4.23% and 3.86% respectively). In all, 6 items had shares between 1% and 5% and 8 had shares below 1% each. The combined share of the six large items was 80.60% and that of the smaller items was 19.40%.

d) Shares of revenue expenditure and capital expenditure: The Revenue budget increased to Rs.30.86 cr., from Rs.21.83 cr. in the earlier period and actual revenue expenditure reached Rs.26.88 cr. from Rs.18.79 cr. in the earlier period, on average. The growth in capital expenditure was much faster, with the budget for capital expenditure more than doubling to Rs.100.31 cr. from Rs.47.54 cr. in the earlier period, and actual capital expenditure increasing more than 2.5 times to Rs.65.31 cr. from Rs.24.81 cr. in the previous period. Consequently, the share of capital expenditure further increased to 76.47% of the budget and 70.84% of total actual expenditure. The share of revenue expenditure fell to 23.53% of the budget and 29.16% of total actual expenditure, as shown in Graph Nos. 6.19 and 6.20.

Conclusion: The expenditure on roads in this period clearly showed the greater importance of the capital expenditure category. Not only was the absolute share of this category larger than revenue expenditure, the three largest items were from the capital expenditure category. Further, out of the eight larger items in the total budget, six were from capital expenditure category and two from revenue expenditure. Out of
the six large items in the total actual expenditure, four were from the capital expenditure category and two from revenue expenditure. This was a change from the first and second sub-periods where most of the expenditure was being made on revenue items i.e., items of recurring expenditure like salaries and electricity charges. This pattern had begun to change from 1997 onwards and in this sub-period (2001-02 to 2004-05) capital expenditure on developmental work was clearly dominating.

Within the capital expenditure category, the largest item of expenditure had been resurfacing in sub-periods 2 to 4, but in these four years, the investment on building cement-concrete roads was larger, thus showing some change in the composition of the capital expenditure category as well. In the revenue expenditure category the expenditure on moving electrical poles replaced miscellaneous revenue expenditure as one of the four large items.

6.2.6 Composition of expenditure in sub-period 6 (2005-06 to 2008-09)

The last four years of the study clearly showed two kinds of changes as compared to earlier years. Firstly, there was a very large increase in the planned and actual expenditure on all items, which took the budget to a higher level than before. The budget and actual expenditure both increased three times as compared to the previous period, showing a clear stepping up of funds allocated for roads by the Corporation. Secondly, these four years show a change in the pattern of expenditure in response to the heavy rain in 2005-06 and 2006-07. Due to the extensive damage to roads, the Road Department made a significant increase in the allocations for several items of capital expenditure and for repair of roads in the revenue expenditure category. Expenditure for this period is shown in Column Nos.12 and 13 of Table 6.1 and its shares in Column Nos.22 to 25 of Table No.6.2.

a) Composition of revenue expenditure: The composition of revenue expenditure was quite different in this sub period as compared to the previous five sub-periods, but the composition of the planned and actual revenue expenditure was the same. As can be seen from Graph No. 6.21, street lights continued to be the largest expenditure in this category at Rs.23.44 cr. with a share of 36.15% of the budget and Rs.23.55 cr. which was 42.27% of actual expenditure. As mentioned above, repair of
Graph Number-6.21

Revenue Expenditure for Subperiod 6 (2005-06 to 2008-09)

- Road Repair
- Bridge Repair
- Road Improvement
- Street Lights
- Moving Poles
- Machinery
- Salaries
- Miscellaneous

% of Total Revenue Expenditure

- Budget Amount
- Actual Amount

Graph Number-6.22

Capital Expenditure for Subperiod 6 (2005-06 to 2008-09)

- New Roads
- Resurfacing
- Road Development
- Concrete Roads
- Footpaths
- Bridges
- Flyovers and Subways
- Traffic Control
- Street Lighting
- IRDP
- Machinery
- Miscellaneous Capital Expenditure

% of Capital Expenditure

- Budget Amount
- Actual Amount

Graph Number-6.23

Composition of Budget for Subperiod 6

- Revenue Expenditure: 83%
- Capital Expenditure: 17%

Graph Number-6.24

Composition of Actual Expenditure for Subperiod 6

- Revenue Expenditure: 80%
- Capital Expenditure: 20%

Source for Graph Nos. 6.21 to 6.24.: Table No. 6.2
roads was an important activity in this period and so the allocation for this purpose was stepped up to Rs.19.42 cr., which was 29.95% of the revenue budget. Of this Rs.15.83 cr. were actually spent, which was 28.41% of total revenue expenditure. This was the first time that such a large percentage of the budget and actual revenue expenditure was used for repair of roads. The third largest item was salaries, with a budget of Rs.9.74 cr. (15.03%) and actual expenditure of Rs.8.54 cr. (15.33%). The next largest item was road improvement, on which such a large amount was spent for the first time. This was required because the Road Department took up the work of cleaning storm drains on a large scale to prevent accumulation of rain water on the streets. Thus the budget for improvement of roads was pushed up to Rs.5.65 cr. (8.72%) and actual expenditure was Rs.3.81 cr. (6.84%). Since several roads were widened, it was required to shift electrical poles out of the way, and the allocation for this work was Rs.3.75 cr. (5.78%) and actual expenditure was Rs.2.29 cr. (4.12%). Since these five items took up 95.63% of the budget and 96.97% of the actual expenditure, the shares of the other three items were very small, below 2% each in both the budget and actual revenue expenditure.

b) Composition of capital expenditure: As seen above, there was a significant increase in capital expenditure during this period. The composition of capital expenditure was slightly different in this sub-period as compared to the earlier one, and the composition of the budget was different from that of the actual expenditure. This composition is shown in Graph No. 6.22.

The largest allocation in the budget was once again made for resurfacing the roads damaged by rain. The allocation for resurfacing alone was over Rs.100 cr., which showed the priority given to this activity. The actual allocation was Rs.112.01 cr., which was 35.68% of the capital budget. The second largest allocation was for the work done under the IRDP, for which Rs.59.69 cr. (19.02%) were kept. The allocation for building new roads of Rs.31.83 cr. (10.14%) was next, followed by Rs.26.47 cr. for traffic control (8.43%). The allocations for development of roads and cement concrete roads were almost equal at Rs.20.96 cr. and Rs.20.55 cr. and their shares were 6.68% and 6.55% respectively. The seventh large item was street lights with a budget of Rs.18.95 cr. (6.04%). Together these seven items accounted for 92.54% of the budget. The other five items had a total share of 7.46%.

The same seven items had large shares of actual expenditure also, but the ranking of these items was somewhat different. Resurfacing was the largest
expenditure with Rs.80.97 cr. (36.50% of actual capital expenditure). The other items, in descending order were IRDP with an expenditure of Rs.29.60 cr. (13.34%), road development with Rs.21.69 cr. (9.78%), new roads with Rs.19.07 cr. (8.60%), cement-concrete roads with Rs.15.59 cr. (7.03%), traffic control with Rs.15.07 cr. (6.79%), street lights with Rs.14.81 cr. (6.68%). In actual expenditure there was one more item with a share more than 5%, which was subways and flyovers with an expenditure of Rs.11.70 cr. (5.28%). These eight items had a combined share of 94.00% and the other four items together had a share of 6%.

It may be observed that capital expenditure was more evenly distributed over the various items in this sub period, with eight out of twelve items having a share of more than 5% of total capital expenditure.

c) Composition of total expenditure: The total budget per year during this period was Rs.378.74 cr. on an average and average annual expenditure was Rs.221.81 cr. The largest allocation was made for resurfacing, which had a share of 29.57% of the total budget, followed by IRDP with a share of 15.76%. There were seven items with shares between 5% and 10%. They were new roads (8.40%), traffic control (6.99%), street lights (revenue expenditure) with 6.19%, and development of roads (5.53%), cement-concrete roads (5.43%), road repair (5.13%) and street lights (capital expenditure) with 5.01%. These items together had a share of 88.01%. The remaining 12% of the budget was divided among eleven items, of which four items had shares between 1% and 5% and seven had very small shares of less than 1% each.

The same items were important in the total actual expenditure also, but the percentage shares were slightly different. The largest share was that of resurfacing with 29.17%, followed by IRDP with a share of 10.66%. Revenue expenditure on street lights was third with 8.49%, followed by road development with 7.82% and new roads with a share of 6.87%. The next four items had very similar shares. They were road repair (5.70%), cement-concrete roads (5.62%), traffic control (5.43%) and capital expenditure on street lights (5.34%). These nine items together constituted 85.10% of the total expenditure, the remaining 15% being distributed over the other eleven items. Out of these smaller items, five had shares between 1% and 5% and six had shares below 1% of total expenditure.

d) Shares of revenue expenditure and capital expenditure: This period was characterized by the lowest share of revenue expenditure in the total expenditure, though in actual terms, both planned and actual revenue expenditure were much
higher than in earlier years. This was because of the much higher growth in capital expenditure. These shares of revenue and capital expenditure are shown in Graph Nos. 6.23 and 6.24. The budget for capital expenditure increased to Rs.313.91 cr. from Rs.100.31 cr. in the previous sub-period and actual capital expenditure increased to Rs.221.85 cr. from Rs.65.31 cr. in the previous sub-period. The budget for revenue expenditure increased to Rs.64.86 cr. from Rs.30.86 cr. and actual revenue increased to Rs.55.73 cr. from Rs.26.88 cr. in the previous sub period. Naturally, the share of capital expenditure in the budget rose to 82.88% and that of revenue expenditure fell to 17.12%. In actual expenditure, the share of capital expenditure was slightly lower at 79.92% and that of revenue expenditure was 20.08%, as seen in Graph No. 6.24.

**Conclusion:** This period was characterized by a huge jump in the expenditure on roads, particularly capital expenditure. The share of capital expenditure reached a high of 80% of total expenditure.

Another important feature of this period was that both revenue and capital expenditure were less concentrated as compared to previous sub-periods. In revenue expenditure, five out of eight items had shares more than 5% each and in capital expenditure, there were eight items out of twelve with shares more than 5% each.

The increased importance of capital expenditure items can be seen not only from the actual expenditure, but also from the fact that out of the nine large items out of total expenditure, seven belonged to the capital expenditure category.

Street lights in the revenue expenditure category and resurfacing in the capital expenditure category continued to be the largest items of expenditure. But whereas resurfacing was also the largest expenditure of all items taken together with a share of almost 30%, street lights (revenue expenditure) was third with a share just over 8%, even though it had a 42% share of total revenue expenditure.

A special mention needs to be made of expenditure on salaries. This expenditure was the largest item out of both revenue expenditure and total expenditure with a share of 28% of total expenditure in the first sub period. Its share continuously reduced till in the last four years of this study, the share of salaries in total expenditure was just above 3%. This was because the expenditure on salaries grew very slowly and the expenditure on other items grew much faster so that the share of salaries was reduced.
6.3 Functional Classification of the Budget and Actual Expenditure on Roads by PMC, 1985-86 to 2008-09

The expenditure of local authorities is usually classified into revenue and capital expenditure, particularly in the budgets of these bodies. The two previous chapters and section 6.1 have used this classification.

The analysis of the expenditures of local authorities can also be done by classifying their expenditure in terms of the functions of these authorities, in such a way as to make the analysis more meaningful.

6.3.1 Systems of Functional Classification: There is no standard system of classification and several methods characterized by logical unity and practicability has been devised. For instance, Mabel Walker classified municipal services in the U.S.A. into four: protective, welfare, public works and general administration. Professor Hicks in the U.K. divided them into education, health, poor-relief, civic services and other services (Bhouraskar 1954: 11).

In India, municipal expenditure is grouped in three ways, as described below:

1) Group 1 - Expenditure on establishment and administration, interest payments, operations and maintenance. This grouping shows the relative proportions of the discretionary and non-discretionary constituents of expenditure and helps in determining the degree of discretion a municipality may be able to exercise in modifying the pattern of expenditure. Wages and Salaries and interest payments are the non-discretionary components of municipal expenditure.

2) Group 2 - Expenditure on the operation and maintenance of core services such as water supply, sewerage & drainage, conservancy and sanitation, municipal roads and street lighting vis-à-vis the non-core components of municipal activities. This system has been used by the Eleventh Finance Commission. Organization of municipal expenditure data in this way helps to assess the adequacy of expenditure on the maintenance of core services.

3) Group 3 - Expenditure on general administration, public health, public works, public instruction, public safety, development and planning and regulatory functions (Mathur 2001: 37).

The most widely used classification in India is based on the Statistical Abstract Model, given in the Annual Abstract of Statistics of the Government of India. Based on this system, expenditure of local bodies may be classified as follows:
1. **Public Health and Sanitation:** a) Water Supply. b) Sanitation and Conservancy. c) Medical Relief.

2. **Public Works:** a) Roads and footpaths. b) Drainage. c) City improvement.

3. **Public Safety:** a) Lighting   b) Fire.

4. **Education**

5. **General Administration:** a) Salaries. b) Revenue collection costs c) Machinery and equipment

6. **Miscellaneous:** a) Interest charges b) Repayment on loans and payments to sinking funds c) Others (Bhouraskar 1954: 14-15).

Although the above classification pertains to all the functions of local authorities, the same logic can be used to classify the functions of the Road Department for the purpose of this study.

### 6.3.2. Functions of the Road Department and Related Departments of PMC:

1) The basic function of Road Department of any urban local government is to provide roads in all parts of the city to make possible the movement of passengers and goods from one area to another. But only providing a road is not enough. Roads must be ‘developed’, i.e. they must be provided with facilities like speed breakers, storm drains, dividers, railings, road signs etc. In order to improve their durability, the roads with high levels of traffic need to be converted to cement-concrete roads.

2) Once the roads are built, they must be repaired as and when required. If only a few potholes are present, they are repaired but if the damage is more extensive, the whole road is resurfaced. Resurfacing is also carried out if narrow roads are widened. The cleaning of roads and storm drains is also a necessary activity.

3) The Road Department is also responsible for building bridges and for repairing, cleaning and maintaining them.

4) Besides, these three basic functions, the Corporation has to provide two essential services, those of traffic control for the smooth flow of traffic and

5) The provision of safety measures such as street lights for the safety of the citizens using the roads. These functions are carried out by the Traffic Regulation Department and Electrical Department respectively. Footpaths are also required for the safety of pedestrians. Electrical poles that are located on the roads, usually as a result of road widening also cause danger to traffic and hence need to be moved to the edge of the road.
6) To carry out this work, the Road Dept has a staff of Engineers and other Administrative Staff for whom the Road Department has to incur expenditure in the form of salaries. Some machinery is required to carry out the work. This machinery needs to be repaired and also needs spares, petrol, diesel, etc. Together these services may be termed as the administrative function of the Road Department.

7) Finally, the Road Department performs certain miscellaneous functions like cleaning statues on the roads, repaying interest on loans, moving service lines for building flyovers, etc.

6.3.3 Classification of expenditure according to functional categories:

In order to classify the expenditure incurred by the Road Development Department according to the seven categories listed above, the percentage share of each item of expenditure out of total expenditure in each sub-period (as given in Table No.6.2) was used.

The various functional categories used in the next section consist of the following heads of expenditure.

1. **Provision of Roads:** Includes expenditure on new roads, road development, cement-concrete roads and IRDP.

2. **Repair and Maintenance:** Under this category, the expenditure on road repair, road improvement and resurfacing has been included.

3. **Bridges:** Includes expenditure on bridge building and bridge repair.

4. **Traffic Regulation:** Consists of the expenditure on Traffic regulation and on Subways and Flyovers.

5. **Safety:** This function includes expenditure on street lights (both revenue and capital), footpaths and moving electrical poles all of which contribute to the safety of drivers and pedestrians.

6. **Administration:** The expenditure on salaries, purchase of machinery and maintenance of machinery has been included under this head.

7. **Miscellaneous:** Expenditure on miscellaneous revenue items and miscellaneous capital items is clubbed under this category.
6.3.4 Relative shares of various functions:

The shares of the expenditure on the various functions as listed above are shown in Table No. 6.3. A comparison of the relative shares of the various functions of the Road Department shows that in the first sub-period, 1985-86 to 1988-89, the largest share in the budget was that of Administration with an average share of 27.97% of the budget and 28.05% of the actual expenditure followed closely by safety measures with shares of 25.40% of the budget and 27.95% of actual expenditure. Repair and maintenance of roads had the next largest shares of 16.10% and 16.69% and provision of roads had shares of 15.97% and 13.77% of the budget and actual expenditure. In this period, miscellaneous functions had a larger share of 9.53% and 10.35% than bridges whose share was 3.74% and 1.60% and the smallest share was of the expenditure on traffic control which was 1.26% and 1.37% of the budget and actual expenditure.

In the sub-period 1989-90 to 1992-93, the composition changed and the largest share of the budget was allocated to repair and maintenance of roads (29.94%). Safety and administration had almost equal shares of 20.49% and 19.92% respectively. Provision of roads had an average share of 12.31% and miscellaneous functions 11.47% of the total budget. Bridges with 3.42% share and traffic control with 2.18% share were the smallest allocations. The pattern for actual expenditure was slightly different in the same time period. The largest average share of actual expenditure was that of safety (27.69%), followed by road repair and maintenance which was almost equal at (27.66%), Administration (20.70%), Miscellaneous functions (12.64%), provision of roads (8.89%), traffic control (1.60%) and bridges (0.82%). It can be seen that from this period, the share of expenditure on administrative functions started falling.

In the sub-period 1993-94 to 1996-97, the average shares in the budget for that period show that the largest shares were of safety and road repair and maintenance at about 25% each, which means that half the budget was allocated to these two functions. The remaining 50% of the budget was divided between provision of roads (13.43%), administration (12.75%), and miscellaneous functions (8.44%), bridges (7.81%) and traffic control (7.51%). The actual expenditure in this sub-period had given higher priority to safety measures (34.23%), followed by road repair and
maintenance (21.85%), administration 16.61%, miscellaneous functions 8.96%, provision of roads 8.72%, bridges 5.91% and traffic control 3.72%. Here it is seen that of the two essential functions of safety and traffic control, the former had the largest and the latter the smallest share of actual expenditure.

Between 1997-98 and 2000-01, the budget allocated an average of 25.12% of the funds for road repair and maintenance and safety was the second largest allocation with an almost equal share of 25.02%. The share of provision of roads was next at 19.50% as the Road Department had planned to build roads in the newly included areas of the PMC. Administration expenditure had a much smaller share of 8.13%. The remaining three functions of miscellaneous activities, traffic control and bridges had very similar shares of 7.77%, 7.28% and 7.18% respectively. Although the highest share of the budget was kept for road repair and maintenance, actual expenditure continued to give priority to the safety function, which had a share of 35.18%. Road repair and maintenance had the next largest share at 22.75%, followed by 19.04% share spent on provision of roads. Administrative expenditure had a share of 10.94%, traffic control had 5.16%, bridges 4.08% and miscellaneous functions had a share of 2.85%.

The fifth sub-period from 2001-02 to 2004-05 had a different composition of expenditure. In the budget, the largest share was 41.79% allocated to provision of roads. The share of this function was high due to the building of cement-concrete roads. Safety was again at second place with an average share of 23.33%. These two functions together accounted for over 65% of the budget. The share of road repair and maintenance was 16.15%. The increasing share of funds allocated for traffic control brought it to fourth place with an average share of 8.58%. Administration was allotted 6.07% of the funds, bridges were given 3.08% and the smallest share was 1.00% for miscellaneous functions. In the budgets for this period, the share of administration was reducing and the share of traffic control was increasing. The actual expenditure also had a similar composition with provision of roads having the largest share of 37.45%, safety having 29.20%, road repair and maintenance having 18.43%, administration having 7.34%, traffic control 4.92%, bridges 2.07% and miscellaneous functions 0.59%. The share of provision of roads was large because of the high expenditure on cement-concrete roads and because work under IRDP started in 2001-02.
In the last sub-period, 2005-06 to 2008-09, there was a big increase in the average share of road repair and maintenance since repairing and resurfacing the roads damaged by rain was the main priority in this period. The budgets in this period had planned to spend an average of 36.24% on repair and maintenance and had kept 35.12% of funds, on an average, for provision of roads. Actual expenditure was made in the same way so that an average of 36.24% of the funds were actually spent on resurfacing and repairing roads and a slightly smaller share of 30.97% was spent on provision of roads. Because these two functions were given a larger share of expenditure (67.21%), the share of the expenditure on safety fell to 14.26% of the budget and 17.45% of actual expenditure. Traffic regulation received a 7.50% share of the budget and 9.65% share of the actual expenditure during this period. Administrative functions were allocated 3.22%, bridges 2.72% and miscellaneous functions 0.94% of the total budget. Out of actual expenditure, administration, bridges and miscellaneous functions had average shares of 3.63%, 1.42% and 0.64% respectively.

**Conclusion:** From the analysis of the functional classification of the expenditure on roads, it may be concluded that the shares of the various functions changed over the period studied. The share of expenditure on provision of roads, on the whole, showed an increasing trend, whereas the share of repair and maintenance of roads, though quite high throughout this period, showed some fluctuation. The share of bridge building and repair was quite low throughout, with a slight increase in the period between 1993-94 and 2000-01 but fell again towards the end of the study period. The average share of the traffic control function increased steadily all through the 24 years. The average share of the safety function was consistently high, between 25% and 35% of total expenditure. Administrative expenditure, however, showed a continuously falling average share. This was a favorable factor since it meant that more funds were available for developmental purposes. Lastly, the share of miscellaneous functions was fairly high for the first 12 years and quite low in the remaining 12 years.
6.3.5 Comparison of the Relative Shares of the various Functions:

As shown in Table No. 6.4, the highest priority in the budget was given to the repair and maintenance function since its average share of total expenditure was the highest.

Table No.6.4

Ranking of various Functions of the Road Department according to their Average Share in the Total Budget

<table>
<thead>
<tr>
<th>Rank</th>
<th>Sub-Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administration</td>
</tr>
<tr>
<td>2</td>
<td>Safety</td>
</tr>
<tr>
<td>3</td>
<td>Repair and Maintenance</td>
</tr>
<tr>
<td>4</td>
<td>Provision of Roads</td>
</tr>
<tr>
<td>5</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>6</td>
<td>Bridges</td>
</tr>
<tr>
<td>7</td>
<td>Traffic Control</td>
</tr>
</tbody>
</table>

Source: Table No.6.3

Table No.6.5

Ranking of various Functions of the Road Department according to their Average Share in the Total Actual Expenditure

<table>
<thead>
<tr>
<th>Rank</th>
<th>Sub-Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administration</td>
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<tr>
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<td>6</td>
<td>Bridges</td>
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<tr>
<td>7</td>
<td>Traffic Control</td>
</tr>
</tbody>
</table>

Source: Table No.6.3
highest in 3 sub-periods, second highest in one and third highest in two sub-periods. Safety appears to be the next most important function since its share was the highest in one sub-period, second highest in four sub-periods and third highest in one sub-period. Provision of roads was given the highest priority in one sub-period, and in the remaining duration it ranked second in one sub-period third in two and fourth in two sub-periods. The share of administration as a function of the Road Department was allocated progressively smaller shares of the total expenditure over this 24-year period, falling from the largest share in the first sub-period to fifth in the last two sub-periods. On the other hand, the traffic control function which was given the lowest priority in the first three sub-periods grew in importance in the remaining three sub-periods. Building and maintenance of bridges and the various miscellaneous functions had been allocated a relatively small share of total expenditure throughout the study period.

Comparing the relative shares of the various functions in the actual expenditure (as shown in Table No.6.5) it appears that safety was the highest priority of the Road Department during the period 1985-86 to 2008-09 since its average share in total expenditure was the highest in three sub-periods, second highest in two and third highest in one sub-period. However, this was mainly because of the large payments for usage of electricity. The second priority appears to have been given to repair of roads since its average share of the total expenditure was highest in one sub-period, second highest in three sub-periods and third highest in one sub-period. Building of roads and their development and traffic control seem to have been relatively less important in the first three sub-periods and more important in the last three sub-periods, but traffic control appears to be a lower priority than provision of roads, repair of roads and safety. Miscellaneous functions were fairly important in the first 3 sub-periods and least important in the remaining sub-periods. Bridges were given the same, but quite low priority throughout this period. Administration was the function with the largest share of expenditure in the first sub-period, but its share became progressively smaller throughout the study period.

6.3.6 Relative Shares of Developmental and Administrative Expenditure: The various functions of the Road Department can be further classified into Developmental and Administrative categories. The functions of provision of roads
functions can be grouped together under the heading of administrative functions. By classifying the functions in this way, it becomes possible to compare the share of the planned and actual expenditure on these two types of broad functional categories. The relative shares of the planned and actual expenditure on developmental and administrative functions are shown in the table below.

As can be observed from Table No.6.6, the average share of the developmental functions in the total budget increased from 62.50% in the first sub-period to 95.84% in the last sub-period, whereas the share of the administrative functions fell from 37.50% to 4.16%.
Similarly, out of the total actual expenditure incurred on roads, the share of developmental functions grew from 61.60% in the first sub-period to 95.73% in the last sub-period. During the same time, the share of the administrative functions of the Road Department fell from 38.40% to 4.27%.

6.4 Major Findings:

The major findings about the composition of the expenditure on roads by the Pune Municipal Corporation during the period 1985-86 to 2008-09 are as follows:

1. **Change in the composition of expenditure:** The total expenditure on roads is broadly of two types, revenue expenditure and capital expenditure. The composition of the expenditure in terms of the relative shares of these two categories has clearly changed over the 24 years taken for this study. During the first half of this period, i.e. the twelve years from 1985-86 to 1996-97, revenue expenditure was larger than capital expenditure. However, the share of actual revenue expenditure was continuously falling, from 72.20% in the first sub-period to 62.91% in the second to 55.45% in the third. On the other hand, the share of actual capital expenditure was gradually increasing from 27.80% to 37.09% to 44.55% during the same period. From the fourth sub-period i.e. 1997-98 onwards, capital expenditure exceeded revenue expenditure. Its share continuously increased till it reached 80% at the end of the study period i.e. in 2008-09. (See Graph Nos. 6.25 and 6.26).

2. **Important items of revenue expenditure:** Within the revenue expenditure category, various types of expenditure were classified into 8 items. Of these salaries were the largest item of expenditure in the first sub-period but after that, revenue expenditure on street lights was the largest item in both the budget and actual
expenditure throughout the rest of the study period. Street lights, salaries and road repair were the larger items in all sub-periods. Initially, miscellaneous revenue expenditure was the fourth important item, then for some time moving electrical poles
and finally road improvement was given priority. Bridge repair and maintenance of machinery were the smallest items throughout this period.

3. **Important items of capital expenditure:** The most important activity in this category was definitely resurfacing of roads. Priority was also given to building & improvement of new roads, road development and street lights, on which expenditure was high throughout the study period. In the later half of this period, cement-concrete roads, traffic control, bridges and IRDP were important items of expenditure. The least allocations always were for subways and flyovers, miscellaneous capital expenditure, purchase of machinery and footpaths.

4. **Variation in composition:** The composition of revenue expenditure remained more or less the same throughout the selected period. In comparison, the composition of capital expenditure showed more variation, with different items being given priority at different points in time, according to the need. This was because revenue expenditure included fixed costs like salaries & electricity charges, whereas the items in the capital expenditure category could be varied by the Road Department according to the situation.

5. **Difference in the composition of budget and actual expenditure:** In most years, the composition of the actual expenditure incurred was not the same as the budget. For some items, the Road Department spent a larger share of funds on particular items than had been planned and for some items the share of the planned expenditure was more than that of the actual expenditure.

6. **Priorities of expenditure:** When the expenditure on roads was classified according to the various functions of the Road Department, it was found that in the budget, the highest priority was given to the repair and maintenance function and the second priority was to the functions related to the safety of vehicles and pedestrians. On the other hand, in the actual expenditure this order was reversed, with safety measures clearly being given more priority than repair and maintenance of roads.

7. **Shares of Developmental and Administrative expenditure:** Dividing the various kinds of expenditure into developmental and administrative categories, it was found that in both the budget and actual expenditure, the share of the developmental functions in the total expenditure continuously increased whereas the share of administrative expenditure consistently declined over the 24 year period of this study.
6.5 Conclusion

It can be seen from the analysis of the various kinds of expenditure on roads that the composition of this expenditure, in terms of the relative shares of different items and relative shares of different functions, has changed over the period of the study. The developmental functions on which capital expenditure is made became increasingly more important as shown by their growing share of total expenditure. The share of administrative expenditure which is of a recurring nature has continuously declined over the study period.

References