

RAILWAY CONVENTION COMMITTEE 1971

SECOND REPORT

Suburban Services



LOK SABHA SECRETARIAT
NEW DELHI

February 1973/Magha 1894 (S)

Price: Rs. 2.50

385-13A
L1

**LIST OF AUTHORISED AGENTS FOR THE SALE OF LOK
SABHA SECRETARIAT PUBLICATIONS**

Sl. No.	Name of Agent	Agency No.	Sl. No.	Name of Agent	Agency No.
ANDHRA PRADESH					
1.	Andhra University General Cooperative Stores Ltd., Waltair (Visakhapatnam)	8	12.	Charles Lambert & Company, 101, Mahatma Gandhi Road, Opposite Clock Tower, Fort, Bombay.	30
2.	G.R. Lakshmiopathy Chetty and Sons, General Merchants and News Agents, Newpet, Chandragiri, Chittoor District.	94	13.	The Current Book House, Maruti Lane, Raghunath Dadaji Street, Bombay-1.	60
ASSAM					
3.	Western Book Depot, Pan Bazar, Gauhati.	7	14.	Deccan Book Stall, Ferguson College Road, Poona-4.	65
BIHAR					
4.	Amar Kitab Ghar, Post Box 78, Diagonal Road, Jamshedpur.	37	15.	M/s. Usha Book Depot, 585/A, Chitra Bazar, Khan House, Girigaum Road, Bombay-2 B.R.	5
GUJARAT					
5.	'Vijay Stores', Station Road, Anand.	35	MYSORE		
6.	The New Order Book Company, Billis Bridge, Ahmedabad-6.	63	16.	M/s. Peoples Book House, Opp. Jaganmohan Palace, Mysore-1.	16
HARYANA					
7.	M/s. Prabhu Book Service, Nai Subzmandi, Gurgaon, (Haryana).	14	RAJASTHAN		
MADHYA PRADESH					
8.	Modern Book House, Shiv Vilas Palace, Indore City.	13	17.	Information Centre, Government of Rajasthan, Tripolia, Jaipur City.	38
MAHARASHTRA					
9.	M/s. Sunderdas Gianchand, 601, Girgaum Road, Near Princess Street, Bombay-2.	6	UTTAR PRADESH		
10.	The International Book House (Private) Limited, 9, Ash Lane, Mahatma Gandhi Road, Bombay-1.	22	18.	Swastik Industrial Works, 59, Holi Street, Meerut City.	2
11.	The International Book Service, Deccan Gymkhana, Poona-4.	26	19.	Law Book Company, Sardar Patel Marg, Allahabad-1.	48
WEST BENGAL					
MAHARASHTRA					
12.	The International Book Service, Deccan Gymkhana, Poona-4.	26	20.	Granthaloka, 5/1, Ambica Mookherjee Road, Belgharia, 24 Parganas.	10
WEST BENGAL					
MAHARASHTRA					
13.	The International Book Service, Deccan Gymkhana, Poona-4.	26	21.	W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.	44
WEST BENGAL					
MAHARASHTRA					
14.	The International Book Service, Deccan Gymkhana, Poona-4.	26	22.	Firma K.L. Mukhopadhyay, 6/1A, Banchharam Akru Lane, Calcutta-12.	82
WEST BENGAL					
MAHARASHTRA					
15.	The International Book Service, Deccan Gymkhana, Poona-4.	26	23.	M/s. Mukherji Book House, 8-B, Duff Lane, Calcutta-6.	4

C O R R E C T I O N S

SECOND REPORT OF THE RAILWAY CONVENTION COMMITTEE, 1971 (Presented on 22.2.1973).

Page	Para	Line	For	Read
11	(B) Heading	1	'line'	'line'
16	2.20	5	'plants'	'Plans'
16	2.20	10	'car'	'year'
16	2.21	16	'ew'	'few'
18	2.27	6	'quesation'	'question'
20	2.33	3	'lFC'	'ICF'
20	2.34	8	'Harwar'	'Hardwar'
24	2.45	9	'Graduaity'	'Gradually'
30	3.15	5	'rom'	'room'
49	5.21	4,5	'recommended'	'recommend'
53	6.10	8	'of s'	'of Rs.'
53	6.11	2	<u>Add the word 'but' after the word 'complete'</u>	

54-56

After para 6.14, next para may be numbered as 6.15 and subsequent paras numbered as 6.16-6.21.

PARLIAMENT LIBRARY
(Library & Information Service)
Central Library

3798703
Date 2.2.23

CONTENTS

	PAGE
COMPOSITION OF THE RAILWAY CONVENTION COMMITTEE (1971)	(iii)
INTRODUCTION	
I. INTRODUCTORY	1
II. GROWTH OF SUBURBAN TRAFFIC AND DEVELOPMENT OF SUBURBAN SERVICES IN THE METROPOLITAN CITIES OF BOMBAY, CALCUTTA AND MADRAS	10
A. Growth of Suburban traffic and the number of trains run	10
B. Additions and improvements in line capacity, Locomotives etc.	11
C. Terminal Facilities	13
D. Composition of Suburban Trains	16
E. Frequency of running of suburban trains	22
F. Traction Power used	26
III. CLASSES OF ACCOMMODATION AND OVERCROWDING IN SUBURBAN TRAINS	28
IV. SUBURBAN FARES, EARNINGS AND LOSSES	33
A. Suburban Fares	33
B. Earnings and Losses	37
V. TICKETLESS TRAVEL	44
VI. A. Mass Rapid Transit System	50
B. Plan Allocation and Expenditure	56
C. Metropolitan Transport Project Organisation	57
D. Consultancy	59
E. Separate Authority for Mass Transit Systems	67

APPENDICES

I. Additions and improvements made in the line capacity, locomotives etc since 1951-52 by the Railways for the transport of Suburban traffic in each of the cities of Bombay, Calcutta and Madras (A to E)	71
II. Additions and improvements proposed to be made in the line capacity, locomotives etc. during the Fourth Plan period	81
III. The Suburban Section in the three metropolitan cities and the traction power used	83

38513R

21

IV. Statement indicating the classes of travel provided, carrying capacity of each class and the maximum occupation during peak and non-peak hours on the Suburban trains services in the three cities of Bombay, Calcutta and Madras	85
V. Statement showing daily average number of season ticket holders and ordinary ticket holders and ordinary ticket holders travelling by different classes in the three cities	87
VI. Statement indicating the number of officers and other employees employed in the Headquarters and other Railway establishment at Bombay, Calcutta and Madras and their suburbs	89
VII. Broad details of the Dum-Dum—Tollyganj Underground Railway Project	90
VIII. List of individuals/organisations who have furnished memoranda to the Railway Convention Committee	91
IX. Summary of Recommendations/Conclusions in the Report	94

RAILWAY CONVENTION COMMITTEE

(1971)

Shri R. K. Sinha—*Chairman*

MEMBERS

2. Shri Y. B. Chavan
3. Shri S. R. Damani
4. Shri M. Deiveekan
5. Shri K. Hanumanthaiya
6. Shri M. Kalyanasundaram
7. Shri M. K. Krishnan
8. Shri Mohd. Shafi Qureshi*
9. Shri N. K. P. Salve
10. Shri Nawal Kishore Sinha
11. Shri Maddi Sudarsanam
12. Shri Atal Bihari Vajpayee
13. Shri T. V. Anandan
14. Shri Harsh Deo Malaviya**
15. Shri Pitambar Das
16. Shri Nageshwar Prasad Shahi
17. Shri Chakrapani Shukla
18. Shri M. P. Shukla

SECRETARIAT

Shri Avtar Singh Rikhy—*Joint Secretary.*

Shri G. D. Sharma—*Under Secretary.*

*Nominated to be a Member of the Committee w.e.f. 18th August, 1972 vice Shri S. M. Krishna, resigned from the membership of Lok Sabha.

**Nominated to be a Member of the Committee w.e.f. 24th May, 1972 vice Shri Mahitosh Purkayastha resigned from the membership of Rajya Sabha.

INTRODUCTION

1. the Chairman of the Railway Convention Committee, 1971, having been authorised by the Committee to present this Second Report on their behalf, present this Report on "Suburban Services".

2. The Railway Convention Committee took the evidence of the representatives of the Ministry of Railways on "Suburban Services" on the 23rd and 24th October, 1972. The Committee wish to express their thanks to the Chairman and Members of the Railway Board and the Financial Commissioner for Railways for placing before the Committee the material and information that they wanted in connection with the examination of the subject.

3. The Committee also wish to thank the Members of Parliament, Railwaymen's Unions, Chambers of Commerce and Industry, Professional Organisations, retired Railway Officers, Public Undertakings, State Governments and other individuals, who have furnished memoranda to the Committee and given valuable suggestions on the working of the Indian Railways. (vide Appendix VIII).

4. The Committee also wish to thank the Federation of Indian Chambers of Commerce and Industry, New Delhi; the Federation of Associations Chambers of Commerce and Industry, Calcutta; National Institute for Training in Industrial Engineering, Bombay; National Federation of Indian Railwaymen, New Delhi and Sarvasbri D. D. Desai, M.P., R. P. Srivastava G. D. Khandelwal, K. B. Mathur and D. V. Reddy for appearing before the Committee and making valuable suggestions.

6. The Report was considered and adopted by the Committee at their sitting held on 25th January, 1973.

7. The summary of recommendations/conclusions contained in the Report is appended to the Report (Appendix IX).

NEW DELHI;
February 9, 1973.
Magha 20, 1894 (Saka).

R. K. SINHA,
Chairman,
Railway Convention Committee.

CHAPTER I INTRODUCTORY

The Indian Railways are the nation's largest undertaking with an investment of about Rs. 4100 crores and staff strength of over 17 lakhs including casual employees. Besides carrying over 200 million tonnes of originating freight traffic every year, the Railways carry over 2400 million passengers in a year, over 50 per cent of whom are suburban passengers.

Suburban Services are those shuttle services which serve the population of large cities with reference to working hours in the offices, industrial establishments, educational institutions etc. These services perform a unique function for the country, providing a very cheap and convenient way for moving people in and out of the working areas. No other form of transport has yet been devised to replace the function of the suburban rail services.

1.2. Suburban services on the Indian Railways are running in several important cities but for historical reasons, only the trains serving the suburbs of Bombay, Calcutta, Madras and Secunderabad are termed as "Suburban" trains. It has been stated by the Ministry of Railways (Railway Board) that the term 'Suburban' has a special connotation with reference to the season ticket fares charged. In this sense 'suburban' season ticket fares are in force over certain sections in Bombay, Calcutta and Madras only. These fares are lower than the season ticket fares charged on the rest of the Indian Railway System. The specially low scale of suburban season ticket fares were introduced by the Company Railways originally operating in these cities, viz., Bombay, Calcutta and Madras. When the Company Railway was taken over by the Government this facility was continued in consideration of the fact that any attempt to bring these suburban scales of fares on par with the season ticket fares in other areas would involve steep increase in the low 'suburban' fares to which the local population had long been accustomed.

1.3. The historical background leading to the introduction of the 'suburban' services in the cities of Bombay, Calcutta, Madras and Secunderabad is given below:—

BOMBAY

1.4. The first train in India steamed out from Bombay's Bori Bunder to Thane, a distance of 21 miles, on the 16th April, 1853. One year later the line was extended to Kalyan upto which the residential area then extended. With the passage of time, the suburban areas of the city increased in importance necessitating improvement to the

existing Railway system. Bombay-Kalyan, which was a double-line section was quadrupled in stages and the work was completed in 1917. During this period the suburban trains were run with steam engines.

1.5. The end of the first world war saw the rapid growth of the suburban service. The first suburban line opened to electric traction was the Harbour Branch line from Victoria Terminus to Kurla on the 3rd February, 1925. The section between Ravli Jn. and Bandra was opened for suburban service in 1926. By 1929-30, the number of passengers making use of suburban service on the Harbour Branch had increased to 48.45 lakhs. The electric suburban service on the main-line between Bombay V.T. and Thana was opened in November, 1926. The section on the Western Railway then BB & CI, between Bombay and Borivili was electrified and opened to suburban traffic in 1928 and the electrification was extended to Virar in 1936.

1.6. The concentration of industrial and economic development in and around Bombay during the past two decades has been phenomenal. Greater Bombay covers an area of about 439 Square Kms. with a population of about 59 lakhs according to the 1971 census. This phenomenal increase in the population has resulted in heavy pressure on commuter service on Central as well as Western Railways which run suburban trains at Bombay.

1.7. The growth of commuter traffic availing suburban train services on the Western and Central Railway systems can be judged by the fact that on these Railways, 1243 suburban trains are being run daily from 1st May, 1972 as compared to a total number of 741 daily trains during 1950-51, indicating an increase of 68 per cent.

CALCUTTA

1.8. The first passenger train from Calcutta, the then Capital of India and centre of the Jute, coal and tea trade was run in 1854 when the first section of the then East India Railway from Howrah to Hooghly was opened and was extended to Burdwan the next year. Like Burdwan, there were other district towns and famous historical localities or centres of learning, religion and culture from where educated people had to be brought to the capital city for office and allied work. Krishnanagar, Midnapore, Nabadwip and Katwa are such places and to these points Railway services were taken from Calcutta. The last of the main trunk routes radiating out of Calcutta to be constructed was the Howrah-Kharagpur line which was completed in 1907, suburban trains being introduced here in 1911.

1.9. Three divisions of the Indian Railways now serve the suburbs of Calcutta viz., the Howrah and Sealdah Divisions of the Eastern Railway and the Kharagpur Division of the South Eastern Railway.

After partition of the country, Sealdah Division, mostly comprising of suburban areas of the old Bengal-Assam Railway, was merged was the East India Railway and now forms part of the Eastern Railway.

1.10. The first suburban electric train was run over the Howrah Division in 1957 when the first leg of 3000 volts D.C. electrification of Howrah-Burdwan section was inaugurated. The electrification was then rapidly extended and the new 25,000 volts A.C. electric traction introduced. At present, most of the suburban trains serving Calcutta area are run with electric multiple units although on the Bandel-Katwa, Ranaghat-Bongaon and Ranaghat-Bagula sections suburban train services under steam traction are still being maintained. At present suburban trains at Calcutta are run by Eastern Railway and South Eastern Railway.

1.11. The growth of suburban services at Calcutta can be judged from the fact that during the last two decades or so, i.e., from 1950-51, the total number of suburban train services has risen from 300 to 660 as on 1st May, 1972 on the combined Eastern and South Eastern Railway systems.

MADRAS

1.12. The first train in South India was run by the Madras Railway Company in 1856 from Veysarpadi to Walajah Road, a distance of 63 miles.

1.13. With the growth of industries and consequent influx of people from rural areas to the Madras urban centre, in the period of development after the first world war, the city of Madras began expanding along the main route of transportation viz., Madras Beach to Tambaram. New Metre Gauge tracks were built between Madras Beach and Tambaram, a distance of 18 miles, to introduce electric suburban trains and the line was opened for electric suburban traffic in 1930 in order to meet the needs of the progressive industrialisation and expansion of the city requiring speedy suburban transport. The suburban traffic during the last two decades in Madras area has risen from 258 trains during 1950-51 to 321 trains in May 1972, indicating an increase of 25 per cent.

SECUNDERABAD

1.14. The first suburban service in the Secunderabad area was introduced in 1916 between Medchal and Hussain Sagar stations on the Metre Gauge with 18 suburban trains. In October, 1920, the broad gauge and metre gauge sections in Secunderabad and Hyderabad areas were isolated and the Metre Gauge services were confined to Medchal-Secunderabad and Secunderabad-Umdanagar sections. In the intervening years between 1920 and 1950 the Broad Gauge

suburban service had ceased to run. In 1920, the Metre Gauge suburban services were increased to 24 and during 1961 the services further increased to 46. At present 47 Metre Gauge suburban trains are running in the Secunderabad area.

1.15. The Chairman Railway Board stated during evidence that the reason for introduction of suburban services in the three Stations viz., Bombay, Calcutta and Madras was historical. In the days of colonial rule, the main ports that were developed for export and import were Calcutta, Madras and Bombay. In the case of Bombay since the area was developed by filling in the swampy land only for the purpose of business, right from the beginning, the old G.I.P. Railway encouraged suburban services. Some time in 1865, they had actually issued yearly season tickets for first class passengers from Kalyan. The pattern of fares for the suburban services was to give them a very cheap mode of travel—the longer the distance, the cheaper the fare.

1.16. It has been stated that while in the Bombay area, suburban traffic is carried entirely by electric multiple unit trains and in the Secunderabad area entirely by steam trains, in the Calcutta area, the traffic is carried partly by steam services and partly by electric multiple Unit trains and push and pull trains, hauled by electric locomotives. In the Madras area, on the broad gauge section, this is moved by steam traction and on the metre gauge section largely by electric multiple unit trains, with some trains of conventional coaches hauled by electric and steam engines.

1.17. The Committee are informed that suburban season ticket fares which are lower than the season ticket fares charged on the rest of the Indian Railway System, are in force in Bombay, Calcutta and Madras only. The reduced fares for season tickets are not available in the Secunderabad area. The scale of concession in fares varies generally for a month from 9 single fares for longer distance to 15 to 16 single fares for the shortest distance as against 15 to 20 times single journey fares for non-suburban season ticket-holders.

1.18. It has been stated during evidence that Railways have not been able to extend suburban services beyond what is already there because the losses are high and increasing and the financial position of the Railways is not very good. The present policy is that even though the Suburban limits of a town may be redefined, the Railways do not propose to extend the cheap suburban fares.

1.19. Asked about the reason for including Secunderabad among metropolitan cities having suburban traffic, viz., Bombay, Calcutta and Madras, where special concessional fares in the case of season tickets are available, it was stated during evidence that this was

really historical. When the Nizam State Railways was taken over in 1951 and merged into the Indian Railway System, their statistics, their presentation etc., were also taken over and since they were calling it suburban system of Secunderabad, the Indian Railways also carried it over in their statistical reports, appreciation reports etc.

1.20. The Committee note that in Railway parlance 'Suburban Services' have a special connotation indicating train services where season ticket fares are lower than the season ticket fares generally charged by the Railways on their system. The concessional fares in suburban trains varies generally from 9 to 15 times single fares depending on the length of the journey as compared to 15 to 20 times single fares generally charged from all other season ticket holders. The Committee are rather surprised that Secunderabad area where reduced season ticket fares are not available, should have been included by the Railways in their statistics of 'Suburban Services'. The Committee hope that in future the Railways would present a correct picture of the statistics of their 'Suburban Services' and would include only those cities/sections in their statistics where special season ticket fares are applicable. They would also like the Railways to spell out specifically the connotation of Suburban Services in such Railway statistics.

Suburban Services for other Metropolitan Cities:

1.21. The Committee enquired whether there were other city areas which fell within the definition of Metropolitan Cities, for the provision of Suburban Services. It has been stated by the Railway Board that though there is no such principle that a metropolitan city will have a suburban rail service, the Planning Commission is accepting an urban agglomeration containing a city and having a population of more than one million as a metropolitan city for the purpose of solving its urban transport problems. Delhi has been recognised as one of the metropolitan cities in India and metropolitan area or region surrounding it has been defined by the Government in the way it has been done in the case of Calcutta, Bombay and Madras. Ahmedabad, Bangalore, Secunderabad, Kanpur and Poona are the other cities so selected but there is no scheme to introduce suburban rail services for these.

1.22. During evidence the Committee enquired about the concrete measures taken to introduce suburban trains for the Delhi area as was done in the case of other cities, the representative of the Ministry stated that the question of extending the suburban fares as much as they were applicable to Bombay, Calcutta and Madras did not arise, because it was not their policy to extend these cheap fares.

As regards running of suburban services in Delhi area, they were already running a number of trains on Delhi/Ghaziabad, Delhi/Faridabad, Delhi/Palwal, Delhi/Safdarjung, Delhi/Rohtak, Delhi/Bahadurgarh sections etc., on which commuters were coming to Delhi and going back, but they were not suburban trains of the nature that they were running in Bombay, Calcutta and Madras because the sections had not yet been electrified.

1.23. Asked if they had made any study of the problem of the commuters in Delhi area, the Chairman, Railway Board stated that a survey about the needs of the suburban travel in Delhi was in progress and they expected the report sometime next year.

1.24. The Committee then enquired about the action taken so far by the Government to solve the transport problems of the cities of Ahmedabad, Bangalore, Kanpur and Poona. The representative of the Ministry stated that in these cities they were running train services, but they were not at concessional fares as in Bombay, Calcutta and Madras. Bangalore is connected by about 36 trains in various directions, Kanpur by 15 trains, Poona by 22 trains and Ahmedabad by 26 trains. It was their policy not to extend the fare concession as in Bombay, Calcutta and Madras to other cities.

1.25. Explaining the position further the Chairman, Railway Board stated during evidence that "Suburban travel is never a paying proposition anywhere in the world. It is not considered to be a direct responsibility of the mainline railways. The suburban services are provided by an organisation in which there is capital participation by Government as well as by the local authority. The losses also are borne on a basis which takes into consideration the fact that mainline services are not responsible for running the suburban services. We have not been able to extend the suburban services beyond what is already there because the losses are high and increasing and our financial position is not very good. Up to the time when our financial position was good, we were able to provide some increase and some improvement in the suburban services. But at the present stage of our financial position, we will not be able to extend the suburban services beyond what we are doing at present. We have been suggesting to the Planning Commission and the Finance Ministry that any future extension of suburban services must be on the basis that the investment required must be completely free of the dividend liability and that the operating losses will have to be borne by some other authority and not by the mainline railways. This has not been finally decided yet. We are awaiting a detailed discussion with the Planning Commission in detail."

1.26. Asked if they had made a study of how the suburban traffic problems of metropolitan cities would be solved, the representatives

of the Planning Commission informed the Committee that the Planning Commission had constituted a study team on 'Metropolitan Transport' in October, 1965, which carried out comprehensive traffic and transport studies in the four metropolitan cities viz., Bombay, Calcutta, Madras and Delhi. They identified all the Rapid Transport corridors which should be taken up for techno-economic feasibility study by the Railways. The scope of these studies was now being enlarged to include another 5 towns—Ahmedabad, Bangalore, Hyderabad, Kanpur and Poona. Based on the recommendations of these studies, the Rapid Transit System for Calcutta underground railway had been approved by Government.

1.27. In reply to a question, the representative of the Planning Commission stated during evidence that the Rapid Transit System is mainly for intra-city transport.

1.28. The Committee regret to note that till 1965 no detailed study of the traffic and transport requirements of metropolitan cities was undertaken by Government. It was only in October, 1965 that the Planning Commission constituted a Study Team on Metropolitan Transport to undertake comprehensive traffic and transport studies in the 4 metropolitan cities of Bombay, Calcutta, Madras and Delhi. The scope of these studies is being enlarged to include 5 other cities viz., Ahmedabad, Bangalore, Hyderabad, Kanpur and Poona. The Committee note that these studies are meant to provide Rapid Transit System in these cities for intra-city transport. The Committee like to emphasise that the problems of intra-city traffic in these over-populated cities which are spread over wide areas, are very acute and need to be solved with the utmost expedition so as to provide quick means of transport to the harassed citizens of these cities. It is common knowledge that in these cities considerable time is expended by the general public and younger generation in travelling to and from work, going to Schools/Universities/Colleges etc. Frequent incidents involving law and order problems arise on account of inadequacy and lack of punctuality and regularity in the running of these services. The Committee cannot therefore stress too strongly the need for providing reliable, punctual and efficient transport services at reasonable costs in these metropolitan cities.

1.29. The Committee further consider that the problem of providing suburban inter-city transport services between cities having a population of 10 lakhs and over and neighbouring towns is equally serious and needs to be tackled on an urgent basis as the absence of cheap, swift and sure means of transport from outlying towns to places of work in the bigger cities tends to force the working popu-

lation to settle in these cities and create slum conditions and unhealthy environments etc., apart from causing serious strain on social utility services like water, electricity, housing, transport etc., in these already over-saturated cities. The Committee feel that a comprehensive integrated plan, on long term and short term basis, should be prepared by Government in consultation with the State Governments not only to arrest the drifting of population to central areas in metropolitan cities but also to disperse the existing population from these big cities and to attract them to settle in satellite and ring towns where proper arrangements should be made for their housing, sanitation, water supply, educational facilities for children etc. These plans can be successful only if adequate provision of mass transport is made from such towns and suburban areas to the metropolitan cities and back. The plans for the metropolitan cities and the peripheral towns have to be integrated for this purpose. The intention is that persons working in bigger cities, particularly those with low incomes, can commute to their places of work and go back to the smaller towns where proper housing and healthy environments, sanitation, sewerage, educational facilities for children etc., may be provided to them. The object should be to keep the population in the bigger cities within the specified limits. The optimum size of these cities may be fixed by Government taking into account the prospects of providing necessary social services like water, electricity, transport etc., for them at reasonable costs. It is well known that the big cities are outgrowing their physical boundaries and have become oversaturated with population. Moreover the social and economic costs of providing utilities and services to large populations in these cities are becoming prohibitive. The above objects can be fulfilled only by developing the satellite towns and providing swift, cheap and sure means of transport between metropolitan cities and the satellite towns. The Committee trust that the problems confronted in Bombay, Calcutta, Madras and Delhi etc., would provide proper lessons to the planners to prepare such integrated perspective plans in respect of all big metropolitan centres having a population of 5—10 lakhs and above. As provision of quick and cheap transport to link the satellite towns with metropolitan cities is one of the key factors to the solution of this problem, the Committee have no doubt that the Railways with their infra-structure and long past experience in providing inter-city suburban services would play a dominant part in this regard and would provide the necessary swift and sure suburban rail transport at reasonable cost at all these centres.

1.30. The Committee note that Railways have suggested to the Planning Commission and the Finance Ministry that investment on any future extension of suburban services should be free from divi-

dend liability and that the operating losses on such services should be borne by some other authority and not by the Railways. The Committee have already stressed the need for expeditious preparation of integrated plans for provision of suburban services etc., in consultation with the State Governments. They urge that the question of financing these services and the authority to manage the same should be decided at the earliest so that there is no delay in the provision of these services in all metropolitan cities, the absence of which is creating numerous problems.

1.31. The Committee trust that all necessary arrangements to implement these plans successfully particularly the acquisition of land etc., at reasonable costs, keeping adequate margin for future growth, should be made in a planned manner in advance. Land for rail transport should be an integrated part of the developmental plans of metropolitan cities. The Committee urge that time-bound and action oriented programmes in this regard should be prepared with the utmost expedition.

CHAPTER II

GROWTH OF SUBURBAN TRAFFIC AND DEVELOPMENT OF SUBURBAN SERVICES IN THE METROPOLITAN CITIES OF BOMBAY, CALCUTTA AND MADRAS

(A) Growth of Suburban traffic and the number of trains run:

The growth of suburban traffic in the metropolitan cities of Bombay, Calcutta and Madras in 1950-51, 1955-56, 1960-61, 1965-66 and 1970-71 was as under:—

(Total traffic in thousands)						
	1950-51	1955-56	1960-61	1965-66	1970-71	% increase as compared to 1950-51
Bombay area	290,953	321,958	420,304	684,498	850,340	292%
Calcutta „	81,013	132,231	199,572	252,594	270,363	333%
Madras „	40,182	41,166	60,394	81,216	98,860	246%

2.2. The number of train services run in the cities of Bombay, Calcutta and Madras in 1950-51 and in May 1972 were as follows:—

	1950-51	1st May, 1972	% increase as compared to 1950-51
	No. of trains	No. of trains	
Bombay area.	741	1243	167%
Calcutta area	300	660	220%
Madras area	258	321	124%

2.3. The Committee enquired why the increase in the number of trains had not kept pace with the increase in the passenger traffic in these cities, the representative of the Railway Board stated that it was true that the increase in the number of trains had not kept pace with the increase in passenger traffic. But in many cases the nine coach rakes were now running in place of old six coach rakes. So there was an increase in the capacity by one half in these trains. Similarly, four coach rakes had been replaced by eight coach rakes in other sections. Also the new coaches were wider and they carried more passengers. Moreover, because of the development in

Bombay and other metropolitan cities, there was now a reverse traffic. The morning trains which used to run empty back from Victoria Terminus and Churchgate previously, were now going with reverse traffic.

2.4. Asked about their proposals for provision of more trains on suburban sections in Bombay and other cities, the representative of the Railway Board explained that they were trying to tackle this by producing more stock of coaches. They were trying that production in the Integral Coach Factory and M/s. Jessops increased. Further it has to be seen that terminal capacity in Howrah and Bombay Victoria Terminus etc., is increased to receive and despatch more trains. In some centres, particularly Howrah, this has been an important limiting factor. In Madras the difficulty is level crossings which are being attended to. They were spending money on improvement facilities for signals and power supplies. They were trying to see how best they could optimise the existing services. They had ordered some more coaches which were expected in two or three years.

2.5. The Committee note that during the 20 years from 1950-51 to 1970-71 while the suburban traffic increased by 292 per cent at Bombay, 333 per cent at Calcutta and 246 per cent at Madras, the number of trains has increased only by 167 per cent at Bombay, 220 per cent at Calcutta and 124 per cent at Madras during the same period. It is regrettable that the addition to train services in these cities has not been in proportion to the increase in suburban traffic resulting in the deterioration of travel conditions of suburban passengers in these cities.

(B) Additions and improvements in line capacity, locomotives etc.

2.6. The additions and improvements made in the line capacity, locomotives, etc., since 1950-51 by the Railways for the transport of the suburban traffic in each of the cities of Bombay, Calcutta and Madras and the addition and improvements proposed to be made during the Fourth Plan period are given at Appendices I and II. It has been stated that some of these works were not executed exclusively for suburban traffic alone as even other mainline passengers and goods traffic is also carried on these routes.

2.7. It would be seen from the Appendices that the Railways have carried out certain additions and improvements, in line capacity, locomotives etc., on the suburban railways in Bombay, Calcutta and Madras since 1950-51 to augment the carrying capacity. These include provision of automatic block signalling, route-relay

interlocking at various points, construction and extension of platforms, provision of reversal facilities, augmentation of EMU stock, remodelling of yard, electrification of sections, doubling and quadrupling of track etc.

2.8. During evidence, the Committee enquired whether any plans were prepared by the Railways to increase proportionately the line capacity for running more suburban trains. The representative of the Ministry stated that they were trying to tackle this by trying to produce more stock of EMU coaches, locomotives etc., but there were production problems with M/s. Jessops. Further for electrical equipments also they were depending upon HEIL, Bhopal where production had to be increased. It had also to be seen that terminal capacity in Howrah, Madras and Bombay Victoria Terminus etc., was increased to receive and despatch more trains. In Madras the difficulty was regarding level crossings. One level crossing work was completed and another was in advance stage. Four more level crossings had to be sanctioned by the State Government, Madras—Gummidipundi would be electrified and steam traction would be replaced in these sections. There was also a proposal for electrification of Basin-bridge to Trivellore on Bombay line. The Railways had also spent money on improvement facilities for signals and power supplies for which they had selected various areas.

2.9. In regard to Bombay, they were trying to see how best they could have the optimisation of existing services. They had ordered for more coaches which were expected during the next two or three years. The Overhead electric line (OHE) also needed substantial improvements to haul all the EMU coaches. They were also quadrupling the line between Grant Road and Churchgate.

2.10. Asked whether the question of switching over to 25 KVAC traction power had been considered in the Bombay area, the Chairman, Railway Board stated during evidence that "for Bombay, I would like to say this. We have had DC supply there right from inception. Voltage there is 1500 V DC. There is some limitation in trying to make any change for various reasons. In the very nature of the suburban traffic we have to deal with it, any change is to be done, it has to be under traffic conditions; there is great overcrowding; we cannot manage with reduced or lower level of service. So, this is one point. The DC section goes right up to the top of the Ghats. For AC we shall have to widen tunnels and this will have to be done under traffic working conditions. It is time-consuming and difficult problem. There is inadequate capacity for movement of goods traffic on the Ghats. There could therefore not be any voltage change. Otherwise the cost would have been prohibitive for change of the existing equipments. All the locomotives have to

be changed and this would have meant a lot of money." He further added that it could have been done, if the Railways had started AC electrification 20 years ago but it was not possible at present.

2.11. The Committee regret to observe that the additions and improvements in suburban services made by the Railways, have not been adequate to meet the demands of suburban traffic. The growth in the suburban traffic has greatly outstripped whatever improvements and additional facilities have been provided so far by the Railways. It seems to the Committee that the problems of suburban traffic did not receive the attention that they deserved as the Railways considered it to be a losing activity. This is unfortunate. In the opinion of the Committee, the provision of adequate suburban services in the interest of planned development of metropolitan cities, should have received serious attention of the Government from the very First Plan so that integrated plans for the development of these essential transport services, were drawn up and implemented by Government in consultation with Planning Commission, State Governments and all others concerned.

2.12. The Committee note that it was only in October 1965 that the Planning Commission constituted a Study Team to carry out comprehensive traffic and transport studies in the four metropolitan cities of Bombay, Calcutta, Madras and Delhi and that so far the scheme for Rapid Transit System for Calcutta Underground Railway only has been finalised and approved by Government. The Committee regret to point out that the schemes of Rapid Transit Systems for Bombay, Delhi and Madras have not yet been finalised despite a lapse of over seven years. The Committee have dealt with this matter in greater detail in Chapter VI of this Report.

2.13. The Committee urge that pending the introduction of Rapid Transit Systems in these metropolitan cities which is bound to take a long time, the Railways should take crash measures to bring about improvements in the existing suburban facilities in these cities to ameliorate the travelling conditions of the suburban passengers. Concerted efforts should also be made by Railway to reduce losses in Suburban Services.

(C) Terminal Facilities

The Committee enquired whether the terminal facilities at the metropolitan cities of Bombay, Calcutta and Madras were adequate to meet the traffic requirements. The Ministry have stated the position as indicated below:—

Bombay

Central Railway: The terminal facilities available at Victoria Terminus, Bombay are not adequate. A Survey Team has been appointed to study the scope for improving the terminal facilities at Victoria Terminus and other suburban terminals in Bombay area. It was stated during evidence that the report was expected within the next four months.

Western Railway: The terminal facilities at Churchgate are being augmented to meet with the requirements of providing 2-minute service likely to be completed by the end of 1973. Proposals for additional terminal facilities under the Optimisation Scheme are also under examination for Borivili-Andheri and Andheri-Bandra sections.

Calcutta

South-Eastern Railway: Terminal facilities at Howrah are inadequate. The Eastern Railway is already conducting a survey for augmenting the same.

In view of the inadequacy of facilities at Howrah and in the context of the Second bridge, the construction of which has been sanctioned between Shalimar and Princep Ghat, the Railway is considering proposals for survey to study an alternative/supplementary terminal.

Eastern Railway: The examination of the requirement of terminal and other ancillary facilities for services during the Fifth and subsequent plan periods has been remitted to a Techno-Economic Survey Team for investigation and report. Report is awaited.

Madras

Southern Railway: An Engineering-cum-Traffic survey is under way to assess the requirements of the terminal facilities in Madras area.

2.15. The Committee also enquired whether there are any proposals for having separate terminal facilities for suburban and non-suburban traffic at these places. The Ministry have stated as under:

Bombay

Central Railway: The suburban and non-suburban terminals are generally separate, though at certain places, like Bombay VT they are adjacent to each other. The scope for expansion and remodeling for both the terminals at VT and other suburban terminals and

the non-suburban subsidiary terminals at Dadar is being investigated by a Survey Team, the report of which is awaited.

Western Railway: A Survey has already been sanctioned to examine the proposal of a common terminal for Western and Central Railways covering the suburban, non-suburban and goods services at Dharavi.

Calcutta

South-Eastern and Eastern Railways: The Report of the Techno-Economic Survey Team appointed to examine the terminal and ancillary facilities at Howrah for catering to the requirements during the Fifth Plan and subsequent Plan periods is awaited.

Madras

Southern Railway: An Engineering-cum-Traffic Survey is under way to assess the requirements of the terminal facilities.

2.16. The Ministry have also stated that keeping in view the changed circumstances, all the Railways were instructed as late as 18th February, 1971 to conduct necessary studies particularly in the large metropolitan towns to optimise the existing facilities and recommend measures that may be necessary to meet the increasing long distance as well as suburban traffic. These studies were required to cover all important terminals.

2.17. It has been added by the Railways that the Bombay Victoria Terminus, Churchgate, Howrah and Sealdah and Madras Stations are already space bound due to which any development of facilities at these terminals will be difficult. The Railways may, therefore, have to plan for suitable alternate terminals.

2.18. During evidence the Committee enquired about the reasons for not planning better terminal facilities for suburban services. The Chairman, Railway Board stated, "It is a continuing process. Now in the cities, we have come to a stage where minor improvements etc., that were possible, have all been done. We have had to spend a lot of money."

2.19. The Committee are constrained to observe that the terminal facilities at Bombay, Calcutta and Madras have not been adequate to cater to the needs of the passenger traffic and that it was only in February, 1971, that the Railway Board instructed the Zonal Railways to conduct necessary studies to optimise these facilities. They note that necessary surveys for improvement and augmenting these facilities are at various stages of progress. The Committee regret the delay in the undertaking of these studies by the Railways

and feel that these should have been taken up at least a decade earlier, so that a perspective plan in this behalf was kept ready for implementation in the light of developments. The Committee cannot too strongly emphasise the urgency of providing adequate terminal facilities in these cities and recommend that the surveys already being undertaken in this regard, should be expedited and necessary steps taken to provide these facilities at the earliest. At the stations where there is difficulty in providing improvements to the existing terminal facilities due to shortage of space etc., alternative terminals should be planned and constructed at suitable locations on top priority basis.

2.20 The Committee further recommend that a survey of the transport facilities at all the metropolitan cities for meeting the requirements of suburban traffic, having a population of 10 lakhs and over, should be undertaken by the Railways and integrated perspective plans for their development should be prepared in consultation with Planning Commission, State Governments and local authorities to avoid the problems that have arisen at Bombay and Calcutta. The long term plans which should include land requirements for developing these facilities should be broken up into Five year Plans and Annual Plans. Close watch should be kept to ensure the implementation of these plans in time.

D. Composition of Suburban Trains

2.21. The composition of suburban trains in the metropolitan cities of Bombay, Calcutta and Madras is as follows:

City	Railway	Section	Composition
	2	3	4
Bombay	Central	1. Bombay VT-Kalyan Karjat.	9 EMU coaches. Some trains on Kalyan-Kasara/Karjat run with 6 coaches.
		2. Kalyan-Kasara	
		3. Bombay VT-Mahim (Kurla Harbour Branch).	
		4. Kurla-Mankhurd.	
	Western	Churchgate-Virar.	9 EMU coaches.
Calcutta	Eastern	Electrified Sections of Sealdah & Howrah Divisions.	The great majority of the trains have 8 EMU Coaches and a few trains run with 4 or 6 coaches. On Sealdah Division some 8 EMU coaches push-pull trains operate.

1	2	3	4
	South-Eastern	Ranaghat-Bongaon Ranaghat-Bagula Bandel-Katwa Howrah-Ballichuk S intragachi-Shalimar	8 conventional coaches. 10 conventional coaches. 8 EMU coaches. 2 conventional coaches.
Madras	Southern	B.G. Madras Central-Madras Beach. Central-Trivellore. Madras-Central Gummidipundi.	9 conventional coaches.
		M. G. Madras Beach - Tambaram.	8 EMU coaches and 4 EMU coaches and 10 conventional coach trains.
	2.22	Tambaram-Guduvancheri	8 EMU coaches & 4 EMU coaches. 10/5 conventional coaches.
		Guduvancheri- Chingleput.	10/5 conventional coaches.

2.22. It would be seen that electric multiple unit trains are used for the transport of suburban traffic entirely in the Bombay area and partly in Calcutta and Madras areas. The number and composition of EMU coaches at these places is given below:

Railway		EMU Coaches	
1		2	
<i>Bombay</i>			
(i)	Central	9 rakes of 6 coaches	
		2 " " 8 "	
		43 " " 9 "	
(ii)	Western	33 " " 9 "	
		4 " " 8 "	

1	2
<i>Calcutta</i>	
	26 rakes of 3 coaches
(i) Eastern	154 " " 4 "
(ii) South-East	3 " " 3 "
	32 " " 4 "
<i>Madras</i>	
Southern	Motor coach 45
	Trailer " 48

2.23. Asked about the holdings of overaged EMU stock, the Committee were informed that 2 rakes of 8 coach each were overaged on the Central Railway and 4-1/4 rakes were overaged on the Western Railway. It has also been stated that the rakes belonged to 1928 old rolling stock.

2.24. During evidence, the representative of the Ministry informed the Committee that the Railways were running nine coach rakes in many sections and had replaced the old six coach rakes. There was thus an increase in the capacity by one-half in these trains. Similarly four coach rakes had been replaced by eight coach rakes in other sections.

2.25. The Committee pointed out that even now in many sections train services were run with six coaches and four coaches. The representative of the Ministry stated that the proportion of 9 coaches had increased. Previously they were all six coaches trains.

2.26 Asked why the Railway had not provided 9 coaches trains in all the sections, the representative of the Ministry stated that it depended upon the replacement of the old stock. The old stock that they had, were all coaches with less capacity and they were in two units of three coaches each. The new rakes were three units of three coaches each. As the new EMU units would become available, they would be able to put in nine coach trains throughout.

2.27. The Committee enquired whether the question of increasing the number of coaches from 9 to 12 on the busy sections had been considered. The representative of the Ministry stated that that would involve many other works e.g., expansion of platforms, shifting of signals, shifting of track connections, strengthening of substations etc. Still the Central Railway went into the question and brought out a Report and it was found that in actual practice it would cause disruption of traffic. The British Consultants also had the same view.

2.28. The Committee enquired if any difficulties were experienced by the Railways in the procurement of EMU coaches for the suburban services, the Ministry have stated that as regards MG EMUs. and BG AC EMUs, these are manufactured only by Integral Coach Factory and no difficulty is being experienced in the procurement.

2.29. As regards BG DC EMUs, which are required for the Bombay suburban area, these are at present two sources of procurement namely, M|s. Jessop and Co., Calcutta and the Integral Coach Factory, Perambur. While no difficulty is being experienced for the procurement of these from ICF, of late, difficulty has arisen with respect to M|S. Jessop & Co. due to non-agreement on prices despite repeated negotiations. The prices quoted by Jessop include a disproportionately high element of labour cost as compared to ICF and also a higher element of profit as compared to the previous contracts. Further negotiations are proposed to be held at the top management level as a final attempt to persuade M|s. Jessop & Co. to come to an agreement on price. In the event of these efforts failing, it is proposed to increase ICF's production of DC EMUs. suitably to meet our requirements.

2.30. The overall output of both BG and MG and DC and ACEMU coaches are restricted in the numbers of balanced electrical equipment that are produced|delivered by HEIL, Bhopal. Discussions are held for improving deliveries from Bhopal periodically.

2.31. The representative of the Ministry stated during evidence that on Central Railway they proposed to replace 112 EMU coaches during the Fourth Plan. All these coaches were manufactured in 1928. They had replaced 94 and 18 were yet to be replaced. They expected to replace them by the end of the Fourth Plan. Regarding addition of EMU coaches, the picture was not satisfactory. They had actually ordered 228 coaches and placed an advance order also for Fifth Plan period for 240 EMUs. They had procured 33 coaches and out of the balance they hoped to get 94 during the Fourth Plan. There would be shortfall of 101 coaches. On the Western Railway, they had since replaced one more rake, leaving a balance of 4 rakes. Moreover 27 additional rakes would be needed to make 64 rakes to run the two-minutes service during peak periods. There would be some shortfall in that also. This was because of shortfall in supplies from M|s. Jessops & Co. They were depending mainly on I.C.F. The ICF had been fulfilling their targets, but not Jessops. They had discussed the matter with M|s. Jessops and sorted out various problems. They wanted a much higher price than what Railways were paying to Integral Coach Factory. They had however reached with them an agreement regarding price.

2.32. As regards the addition of coaches on the Eastern Railway and South Eastern Railway, the representative of the Ministry informed the Committee that it depended on getting more EMU stock. They were pursuing the matter and stepping up production with the Integral Coach Factory.

2.33. Asked what were the reasons for not developing the capacity of the Integral Coach Factory, the representative of the Ministry stated that they had already increased the capacity of IFC from 350 to 750 coaches per year.

2.34. It has been stated during evidence that the shortfall in the production of EMU coaches have also been due to the shortage of electric equipment from HEIL, Bhopal. The problem with Bhopal is that they have to manufacture equipment for all diesel and DC electrical locomotives for Broad and meter gauge plus electric equipment for electric multiple units. They have reached the limit of their capacity at Bhopal. They have said that for meter gauge, they will transfer electrical equipment to their Harwar factory which they are in the process of doing. The first set of 6 sets of metre gauge electrical equipment is expected from Hardwar this year.

2.35. The Committee note that the Railways have introduced 9 coach rakes on certain sections of the Central and Western Railways at Bombay replacing the old 6 coach rakes thereby increasing the capacity by 50 per cent.. They regret that it has not been possible for the Railways to provide 9 coach rakes on all the sections due mainly to non-availability of EMU stock.

2.36. The Committee are unable to appreciate why the Railways, with all their resources, advance planning and implementation could not ensure that adequate number of 9 coach rakes were available for introduction on all busy sections in time to provide much needed relief to the suburban passengers. The Committee stress that Railways should ensure that 9 coach rakes are introduced on all busy sections in the three cities of Bombay, Calcutta and Madras, without further delay so as to relieve congestion and overcrowding at these places. . .

2.37. The Committee further recommend that the requirements of such coaches for other metropolitan cities, where the traffic so requires, should be assessed in advance and plans prepared for production and procurement of the requisite number of coaches for introduction in these cities well in time.

2.38. The Committee learnt during their study tour to Bombay that it would be possible to further relieve overcrowding by introducing 12 coach rakes. They note that the Railways have dropped the proposal to run 12 coach rakes on account of technical difficulties. The Committee would like the Railways to have this matter investigated thoroughly keeping in view the practice followed in other countries, and the technical developments in the field so that if it is found feasible to operate 12 coach rakes on busy sections on suburban lines at a later date, those could be pressed into service to relieve overcrowding.

2.39. The Committee are concerned to note that a number of EMU rakes of 1928 vintage are still being used on the Central and Western Railways, Bombay. It is obvious that in spite of continuous and extensive repairs required by this old EMU stock, these coaches would be having frequent failures affecting punctuality of the trains and causing great inconvenience to the commuters. It is, therefore, necessary that earnest efforts are made to expedite the procurement of EMU stock by augmenting the manufacturing capacity of the Integral Coach Factory and putting the working of M/s. Jessops on a sound footing.

2.40. The Committee are perturbed to note that the manufacture of electric equipment for EMU coaches, particularly for meter gauge coaches, constituted a constrain on the production programme of such coaches at the Integral Coach Factory. The Committee see no reason why Government could not plan a production programme for electric equipment for EMU coaches at HEIL Bhopal and Hardwar to ensure that the requirements of EMU coaches for such equipment were met in full. The Committee stress that effective measures should urgently be taken by Government to ensure that the electric equipment for EMU coaches, particularly for meter gauge coaches, is supplied to the Integral Coach Factory to meet the full requirements of such coaches by the Railways.

2.41. In this connection the Committee would also invite attention to the recommendations made by them in Paragraphs 2.107, 2.108 and 2.109 of their First Report on "Accounting Matters" wherein they have stressed the need for accelerating the production programme of EMU coaches by the Railways.

(E) Frequency of running of Suburban Trains

2.42. The following are the details of the frequency of running of suburban trains during peak and non-peak hours at present as compared to 1950-51:—

City Rly.	Year.	Peak Hours	Non-peak Hours.	Total
Bombay. Western	1950-51	50	166	216
	1-5-1972	105	396	501
Bombay. Central	1950-51	62	463	525
	1-5-72	127	615	742
Calcutta Eastern	1950-51	79	191	270
	1-5-72	126	468	594
Calcutta S. Eastern	1950-51	14	19	33
	1-5-72	18	48	66
Madras Southern	1950-51	132	126	258
	1-5-72	145	176	321

2.43. The Committee enquired about the improvements made in reducing the minimum headway between trains at each of the three metropolitan cities. The Ministry have stated as follows:

BOMBAY

Central Railway: With the improvement in the line capacity and availability of more stock for suburban operation, the average headway between the trains in the peak period improved as indicated below:

Year	(in minutes)			
	Local Line.		Through Line.	
	Morning Peak	Evening Peak	Morning Peak	Evening Peak
1951	10	10.6	25	25.7
1972	6.8	7.5	9.4	9.5

Western Railway: On the Churchgate-Andheri-Borivili section and Borivili-Virar section, the headway has been brought down from 7 minutes to 4 minutes on the former and from 12 minutes to 8 minutes on the latter.

CALCUTTA

South-Eastern Railway: Beginning with a headway of 18 minutes in the morning peak and 27 minutes in the evening peak in 1950-51, the same has been progressively reduced to 12 minutes in the morning peak and 19 minutes in the evening peak.

Eastern Railway: The headway between the services originating from Sealdah station continues to remain 5 minutes. In respect of Howrah Division, the headway has been reduced from 8 minutes in 1951 on the Howrah-Bandel section to 5 minutes as on 31-3-1972.

MADRAS

Broad Gauge-Trains being steam hauled, there is not much improvement in the headway. There is also no separate exclusive suburban section. Meter gauge—the headway has been brought down from about 10 minutes in 1960-61 to 5 minutes in 1972.

2.44. The Committee enquired whether there are any further possibilities of reducing the minimum headway between trains at these places. The Ministry have stated as below:

BOMBAY

Central Railway: The survey team entrusted with the study of Optimisation of suburban services has also been entrusted to study the minimum headway attainable and recommend measures.

Western Railway: With the quadrupling of track between Grant Road and Churchgate, the headway is likely to be brought down to four minutes on each of the corridors i.e. 2 minutes on the average. The possibility of improving the headway further is under examination by a Study Team, the report of which is awaited.

CALCUTTA

South-Eastern Railway: Possibility of any further reduction in the headway is limited due to lack of separate suburban platform at Howrah station as well as separate running line for EMU trains.

Eastern Railway: There appears no possibility of reducing the headway any further with the existing arrangements.

However, to augment the existing rail suburban transport, the construction of the underground railway from Dum Dum—Tollyganj has already been sanctioned on 1-6-1972 at an approximate cost of Rs. 140.27 crores.

MADRAS

The Tamil Nadu Government has been addressed to undertake more replacements of level crossings by overbridges on many of the sub-sections, without which any further reduction is not considered feasible.

2.45. During evidence the Committee enquired about the time when the Western Railway and the Central Railway will be able to run two minutes service during the Peak periods. The representative of the Ministry stated that so far as the two minutes service in the Western Railway was concerned, the quadrupling work would be completed by December, 1973. They would also get the required number of EMU stock in the next few years. They would achieve the two minutes service by 1975-76. Frequency increase would be progressive. It would not be all at one time. Gradually it would be reduced from the present four-minutes service.

2.46. Regarding the problem of level crossing and construction of over bridges, the Chairman, Railway Board informed the Committee that actually this was a very serious problem which was affecting all the metropolitan towns and they had reached a stage that unless these level crossing were eliminated, running of suburban trains would not be possible to the level it was required as it was causing great hardships to the road travellers, buses and cars. Also if the level crossing was opened once until it is closed, the trains would not be able to go fast. Unless over-bridges were constructed they would never be able to make a real break-through in their suburban transport problem. The cost of the over-bridges had to be equally shared by the Railways and the State Governments. The State Governments faced two difficulties—one was the question of land acquisition and other funds. A few years ago, a separate fund was formed called the 'Railway Safety Works Fund' to which every year Railways allocated revenues and that fund was utilised for this purpose. They had unspent amount of Rs. 10 crores on this account. Now the Railway and the State Governments had to spent 50.50 on this expenditure. The States were not able to find all the money for this purpose.

Asked if they had discussed this matter with the Ministry of Transport, the Chairman, Railway Board stated that this required the support of the Planning Commission to whom they would write in this connection.

The representative of the Planning Commission stated that in the Fourth Plan for the National highway plan the fund allotted was Rs. 418 crores and for the State roads it was about Rs. 455 crores. The allotment of about Rs. 10 crores or so for the purpose in view should not be a problem.

The Chairman, Railway Board further stated that about Rs. 50 crores might be required for the next plan for this purpose, and they had written to the Ministry of Transport. They had suggested to the Planning Commission to allot Rs. 50 crores specially for construction of over-bridges and under-bridges.

The representative of the Planning Commission further stated that out of the allotment of Rs. 418 crores for National Highways it might not be possible to spend the full amount in the Fourth Plan. They had not earmarked any specific amount for the over-bridges which form a small part of the overall plan.

2.51. The Chairman, Railway Board pointed out that they had suggested that these projects should be constructed, must be identified in the same way as missing links were identified in the road programme in the First and Second Plans. If something like that was done, there would be real progress.

2.52. The Committee note that there has been improvement in the average headway between the trains in the peak period at Bombay, Calcutta and Madras and that the 2—minute service would progressively be run on the Western Railway, Bombay by 1975-76 subject to the availability of requisite number of EMU stock and the work of quadrupling of lines would be completed by December 1973. They also note that the question of reducing the headway further is under study by the Survey Teams at Bombay and Calcutta. The possibility of reduction of headway at Calcutta and Madras is limited due to lack of separate suburban platform at Howrah and level crossings at Madras. The Committee hope that with the completion of the studies already undertaken at Bombay and Calcutta, every endeavour would be made by the Railways to reduce to the minimum the headway in these cities consistent with safety and the need for introducing more trains.

2.53. As regards Madras, the Committee would like the Railway Administration to take initiative in consultation with the Planning Commission, Ministry of Transport and State Government to draw up a plan for construction of under/overbridges at important and busy level crossings so as to increase the frequency of suburban trains in that area.

2.54. The Committee have already suggested various measures to expedite the construction of over and under-bridges in Paragraphs 3.51 to 3.56 of their First Report on "Accounting Matters". They hope that with the implementation of the various suggestions made by them, it would be possible to expedite the work of construction of under and over-bridges and remove bottlenecks in the smooth running of the trains.

2.55. The Committee would further recommend that the Ministry of Railways in consultation with Ministry of Transport State Govts. should identify the missing links in providing under and over-bridges on level crossings which are hampering the smooth movement of traffic in busy areas. The Committee stress that time-bound programme should be prepared to provide these missing links at the earliest.

(F) Traction Power used

2.56. The suburban section in the three metropolitan cities and the traction power used are given at Appendix III.

2.57. While in Bombay area the suburban traffic is carried entirely by electrical multiple unit trains and Secunderabad area entirely steam trains, in the Calcutta area the traffic is carried partly by steam services and partly by electric multiple trains and push and pull trains hauled by electric locomotives. In Madras area, on the broad gauge section, suburban traffic is moved by steam traction and on the meter gauge section largely by electrical multiple units trains, with some trains of conventional coaches hauled by electric and steam engines.

2.58. During evidence the Committee enquired why steam services are still being used for the carriage of suburban traffic in Calcutta area, the representative of the Ministry stated that there were three sections in Calcutta which had not been electrified. They were running steam services in those sections. They would not get a reasonable return if they invested money on electrifying those sections. As regards using diesel engines on these sections, the witness informed the Committee that they were using diesel engines only on long distance mail and express services. They also did not have sufficient diesel engines to use in suburban trains.

2.59. In reply to another question as to why in the Madras area BG section, suburban traffic is moved by steam traction and not by diesel engines, the representative of the Ministry stated that the reasons for using steam traction instead of diesel traction in the suburban trains was that they did not have sufficient diesel locomotives.

2.60. The Committee note that steam traction is used in some sections of Calcutta and Madras for suburban traffic as electrification of those sections would not yield a reasonable return to the Railways. They also note that diesel engines are not used on these sections due to their non-availability. The Committee consider that in deciding the type of traction to be used the Railway should take into account the needs of traffic, both passenger and goods. In regard to the

suburban traffic, the Committee have already recommended in Paragraph 1.28 that Government should aim at providing quick, cheap and sure means of transport to the commuters to metropolitan cities and that the question whether financial cost and the losses, if any, incurred on providing such services should be borne by the Railways or some other authority, should be decided by the Government separately. The Committee would like the Railways to study the requirements of traffic on these sections with a view to determine the traction needed to haul that traffic and provide the same to cope with the growing traffic to relieve congestion and overcrowding. In the meantime the Committee recommend that Railway should put diesel engines on these section, on a priority basis, particularly during peak hours to meet the needs of suburban traffic.

CHAPTER III

CLASSES OF ACCOMMODATION AND OVERCROWDING IN SUBURBAN TRAINS

A statement indicating the classes of travel provided, carrying capacity of each class and the maximum occupation during peak and non-peak hours on the suburban train services in the metropolitan cities of Bombay, Calcutta and Madras is at Appendix IV.

3.2. It will be noticed that at present First and Third Class travel is provided in the suburban services at Bombay, Calcutta and Madras. The maximum occupation during peak hours on the suburban trains services in third class at Bombay varies from 170 per cent to 200 per cent, at Calcutta from 114 per cent to 179 per cent and at Madras from 200 per cent to 349 per cent.

3.3. The Ministry have informed the Committee that during peak hours there is heavy overcrowding in Bombay and Calcutta suburban services despite large investments undertaken to augment the carrying capacity on these suburban routes right from the First Plan period.

3.4. A statement showing the daily average number of season ticket holders and ordinary ticket holders travelling by different classes in the cities of Bombay, Calcutta and Madras during the years 1968-69 to 1970-71 is at Appendix V.

3.5. It will be seen from Appendix V that out of total of 24 lakh passengers travelling daily on season and ordinary tickets in the three cities of Bombay, Calcutta and Madras during 1970-71, 22.9 lakh passengers of both categories travelled in third class. It will further be seen that the number of ordinary first class passengers is insignificant at the three places. As regards first class season ticket holders while their number is insignificant at Calcutta and Madras, it is less than 1/9th of the third class season ticket holders at Bombay.

3.6. During evidence the Committee enquired whether the Railways had devised and implemented any short term plans to reduce overcrowding in the suburban trains. The representative of the Ministry stated that apart from the Rapid Transit System, they had been taking various measures to relieve the overcrowding. But whatever measure they had taken, had been inadequate because the city population had been increasing disproportionately more than the measures which they had taken. They had increased the

number of trains and the number of coaches. In Bombay area they had now nine coaches instead of eight coaches. They had also accelerated the speed of trains with the newer stocks which had been put in replacement of the old ones. Because of acceleration in speed there had been increase in the number of trips of each rake. They had been thinking in terms of modifying the existing coach designs so that seating could be on the periphery and the central portion could be used only for standing. When the new rakes were ready from Integral Coach Factory and Messrs. Jessops, they would be able to increase the number of suburban trains during peak hours from about 45 to 80 on the Western Railway, as a result of quadrupling between Grant Road and Churchgate.

3.7. When asked whether there was a proposal to design some coaches which could be used only for standing passengers, the representative of the Ministry replied that condition today were that whether you take the first class or the third class, they will go jam packed. They were interested in more train services and more capacity. They did not think any change in design would make any difference at this stage.

3.8. The Chairman, Railway Board further explained that the difficulty was that the same rakes made trips all over the section. They would be used not only for the peak periods but also for off-peak periods. Again if they removed the seats entirely, it would not be a very popular move. In fact even the proposal of seats on the periphery and aisle for standing was not accepted by the Suburban Users Committee in Bombay of the two Railways. They were trying to experiment with coaches which would enable more people to travel.

3.9. The Committee enquired about the number of first class and third class bogies on the suburban trains and the reasons for having two classes of travel and what would be the increase in the passenger capacity if the existing first class bogies were converted into third class bogies.

3.10. The representative of the Ministry stated during evidence that on the Central Railway they had 362 third class and 133 composite first and third class coaches on the Western Railway, they had 228 first class and 95 composite first and third class coaches in Calcutta area on the Eastern Railway, they had 514 third class and 180 composite first and third class coaches on the South Eastern Railway, they had 102 first class and 34 composite first and third class coaches. It has further been stated that in a 4-bogie train there is one first class compartment carrying 52 passengers. The other compartments of this 4-bogie train are entirely for third class passengers. The third class compartments carried 760 passengers.

3.11. Asked what would be the addition in accommodation if the first class is converted into third class, the Chairman Railway Board stated during evidence that "if that is converted into third class, the additional number of passengers to be accommodated would be marginal. It would be about 10 to 20 per cent more."

3.12. The Committee further enquired if some trains during peak hours could consist only of third class compartments whether that would lessen overcrowding. The Chairman, Railway Board stated that they could not have different composition for different trains on the suburban services. The same rake runs on various sections according to a system of rotation before it went for periodical overhaul in the workshop. There should be a standard unit and that must apply to all trains.

3.13. Asked if it was possible to have some Janta trains during peak hours so that more passengers could be accommodated, the Chairman, Railway Board stated that it would not be possible to have some Janta Trains and some with first class. Either the first class should be completely abolished in suburban trains or it should be reduced to the very minimum.

3.14. The representative of the Ministry further explained that each coach must have the same type of accommodation because they were rotating very fast otherwise it might happen that a first class ticket holder might come to the station and may not find first class in the train. Every train must have that accommodation.

3.15. In a written note the Ministry of Railways have furnished the following further information:—

"The carrying capacity of suburban coaches used in the cities of Bombay, Calcutta and Madras is mostly in standing room. Seats provided even as per present layouts provide for a small fraction of the total carrying capacity of the coaches.

The number of seats provided is more or less same in the first and third class compartments for the same area. By conversion of first class to third class, therefore, additional seating capacity will not be available and standing room in the two classes would not be substantially improved.

The question of providing increased standing accommodation and seats only on the alongside of the coaches is under the consideration of the Railways Design and Standards Organisation. This involves strengthening of the underframe, springs and suspension arrangements and the details are being worked out."

3.16. The Committee desired to know class|classes of travel available on suburban trains in foreign countries like U.K., France, Germany, Japan, Canada, USSR etc. They have been informed that no information is readily available with regard to the class of accommodation in other *countries.

3.17. The Committee regret to note that there is heavy overcrowding in suburban trains in Bombay, Calcutta and Madras particularly during peak hours. They note that studies have been undertaken for providing Mass Transit Systems in these cities and that Mass Transit System for Calcutta has already been sanctioned. The Committee are aware of the limitations in increasing the train services and reducing headways of the suburban trains in these cities. In the earlier Chapter they have urged the Railways to take effective measures to provide more suburban services for carrying suburban traffic to the extent possible.

3.18. The Committee are however concerned to note that the number of suburban trains on the Section between Grant Road and Churchgate in Bombay would be increased during peak hours from 45 to 80 by the Western Railways, only when new EMU rakes become available from Integral Coach Factory and M/s. Jessops which will take time. The Committee are surprised that no advance planning was done by the Railways to order the manufacture of EMU coaches and to ensure their availability for running additional number of trains on this Section well in time of the completion of quadrupling of the lines on this Section. The delay in running the additional number of trains, for want of adequate number of EMU stock, would result in non-utilisation of line capacity which has been created at heavy capital cost, apart from causing delay in providing relief from overcrowding to the suburban passengers on this Section. The Committee recommend that effective measures should be taken by the Railways urgently to ensure that sufficient EMU coaches are made available by the Integral Coach Factory and M/s. Jessops by stepping up their production, to run the additional trains by the end of 1973.

*At the time of factual verification it has been stated by the Ministry of Railways that "In most foreign countries, there are two classes of travel in Suburban services, for instance, U. K., France, Canada, U. S. A., Germany, Italy and Japan. Metro Transport Systems, however, have only one class, except the Metro in Paris, which has two classes. It may be mentioned that the proposed Metro in Calcutta will also have only one class."

3.19. The Committee note that at present two classes of travel—first and third—are provided on suburban trains in the three cities of Bombay, Calcutta and Madras. They find that out of a total of 24 lakhs daily suburban passengers in Bombay, Calcutta and Madras during 1970-71, about 23 lakhs are third class passengers. The Committee feel that suburban travel, which is for short duration, and is mostly utilised by third class passengers, should be mass-oriented and should provide one class of travel only. Apart from marginal increase in capacity in the suburban trains, the abolition of first class travel, would also result in less expenditure on construction and maintenance of first class coaches on these trains.

3.20. The Committee need hardly point out that while introducing one uniform class on suburban trains, due care should be exercised to see that ladies and children under 12, are provided adequate accommodation by continuing to earmark separate compartments for them.

3.21. The Committee note that the question of providing increased standing accommodation in suburban trains has been under consideration of the Railway Design and Standard Organisation for a considerable time. They are constrained to observe that the R.D. S.O. has not taken up this problem on a priority basis, which it deserved. The Committee recommend that the RDSO should examine without delay how best accommodation in the existing EMU coaches could be optimised and evolve a new design suited to requirements for future EMU coaches. While increasing the capacity of these coaches particular attention should be paid to the problem of adequate ventilation and safety. The Committee have no doubt that in evolving the new lay out of EMU coaches for suburban services R.D.S.O. Railways would keep in view that latest technological developments and lay-outs of similar rail coaches in foreign countries.

3.22. The Committee have no doubt that before introducing coaches with the new lay-out on an intensive scale, they would be tried on pilot basis so as to ascertain the passengers' reactions as also to ensure that they subserve the purpose of providing maximum comfort, safety and optimum utilisation of space.

CHAPTER IV SUBURBAN FARES, EARNINGS AND LOSSES

(A) Suburban Fares

The term 'suburban fares' refers to the lower scale of season ticket fares applicable in Bombay, Calcutta and Madras areas. These specially low season ticket fares were introduced by the Company Railways originally operating in these areas. The suburban season ticket fares in Bombay, Calcutta and Madras were not only different from the season ticket fares charged elsewhere but also *inter se*. When the Company Railways were taken over by the Government, these special scales of fares were allowed to continue considering that any attempt to bring them on par with the season ticket fares for other sections would involve a steep increase in the suburban fares to which the local population had long been accustomed. Hence, without touching the basis of charge, these suburban season ticket fares were increased from 1.4.1948 onwards by *ad hoc* percentages.

4.2. As stated above, the suburban season ticket fares in these three cities also were not uniform. This diversity was ended in 1969 in respect of first class season tickets by prescribing a uniform scale applicable in the three cities. The third class season ticket fares still remained different. Among these, the third class suburban season ticket fares in force in the Bombay area were about the cheapest and those in the Madras area the highest. With effect from 15.4.1972 the fares in the Bombay and Calcutta suburban areas have also been revised and now the fares in the three cities are uniform upto 48 kms., beyond which they still differ to some extent.

4.3. Given below is a comparison of the suburban monthly season ticket fares with the non-suburban season ticket fares:

(i) 1st Class Fares:

Distance (Kms.)	Suburan Monthly Season Ticket Fares in Bombay, Calcutta and Madras.	Non-suburban Mon- thly season Ticket Fares
	Rs.	Rs.
1	10.00	10.00
3	10.00	10.00
5	10.00	10.00
8	14.50	14.50
10	17.50	17.50
15	23.00	24.00
20	27.00	29.00
25	31.00	33.50
30	34.50	37.50
40	41.50	46.00
50	49.00	54.00
60	55.00	62.00
70	60.00	69.00
80	66.00	77.00

(ii) THIRD CLASS

Distance (Kms)	Suburban Monthly Season Ticket Fares in			Non-Suburban Monthly Season Ticket Fares.
	Bombay	Calcutta	Madras	
	Rs.	Rs.	Rs.	
1	2.45	2.45	2.45	2.70
3	2.45	2.25	2.45	2.70
5	3.65	3.65	3.65	3.65
8	4.40	4.40	4.40	5.25
10	5.65	5.65	5.65	5.70
15	7.00	7.00	7.00	7.85
20	8.25	8.25	8.25	9.45
25	9.45	9.45	9.45	11.20
30	10.65	10.65	10.65	12.40
35	11.75	11.75	11.75	14.2
40	12.90	12.90	12.90	15.40
45	14.00	14.00	14.00	17.45
50	15.30	15.50	15.50	18.65
60	16.70	17.70	17.70	21.65
70	18.25	19.45	..	24.65
80	19.65	21.15	..	27.65

Note:—(1) The fares shown above do not include the element of passenger fare tax in force from 15-11-1971.

(2) There are only two classes of travel in the suburban trains viz. First and Third. Hence the above comparison in respect of these classes only.

(3) Non-suburban season tickets are normally issued for distances upto 80 kms. only. Hence, the above comparison upto this distance only. In Madras, the suburban section extends upto 63 kms. only.

4.4 During evidence the Committee enquired about the extent of concessions in fares given to the Suburban passengers in the Metropolitan cities. The representative of the Ministry stated that the non-suburban season ticket fares were usually 15 to 20 times of the single journey fares, and since a season ticket holder used it at least for 50 times a month, he paid only 15 to 20 single journey fares as against 50 single journey fares which he would have to pay otherwise. But in the case of Bombay, Calcutta and Madras, the Suburban season ticket holder paid only for 9 to 15 single journey fare for performing 50 journeys in a month. In non-suburban case, as in Delhi and other Metropolitan cities, Season ticket-holders were getting a concession which was more than 50 per cent, but in the case of Bombay, Calcutta and Madras, the concession was much more. The question of extending the suburban fares as applicable to Bombay, Calcutta and Madras did not arise to other places because it was not the policy of Railways to extend these cheap fares.

4.5. The representative of the Ministry further informed the Committee that it was the revenue from the Third Class passengers that formed 86 per cent of the Passenger revenues of the Railways, mostly in non-metropolitan areas. It was either they who paid for the loss on Suburban Services or the loss was subsidised by increase in the freight rates of goods for which everybody in the country had to pay. It was, therefore, for consideration whether it was fair that the travel by the comparatively better economically placed and comparatively more affluent people in the Metropolitan areas should be subsidised by taxing the other 95 per cent of the population, that is, by increasing the freight rates of goods or the third class fares.

4.6. To a question whether any scientific cost study of suburban fares had been made, the representative of the Ministry stated that the studies made so far, had not been too detailed because they were concentrating on the freight cost studies which was given priority. In the course of the next 18 months, they would have detailed cost studies made.

4.7. The representative of the Ministry also informed the Committee that passenger fares for the whole of India rose from 100 in 1950-51 to 173 in 1971-72, whereas the Suburban fares increased by 31 per cent only. Moreover, the increase in passenger fares and freight had not kept up with the increase in the cost of staff, steel and other things. The increases in suburban fares had lagged far behind. The cost of staff increased by 182 per cent in 1971-72 whereas the passenger fares had gone up by 73 per cent. The Suburban fares had not even gone up by 73 per cent. They had gone up by 31 per cent only.

4.8. The Committee enquired about the reasons for difference in third class Suburban season ticket fares beyond 48 Kms. in the three cities of Bombay, Calcutta and Madras. The representative of the Ministry stated that it had a historical background. When the suburban fares were quoted, in the beginning, in Bombay, Calcutta and Madras areas, each of the company quoted different fares. Therefore the disparity was there. Later on in 1948, the Railways standardised the fare structure, but they could not do so in the case of Season ticket fares. In the First Class fares, the Season ticket fares were made uniform in all the three areas in 1969. In regard to the Third Class, they made an attempt in 1970-71 but they had to withdraw it, when it was being discussed in Parliament. In 1972-73, Budget proposals again, they made an attempt and did it in the case of distance upto 48 Kms. As a result there was an increase of Rs. 2.15 in Bombay, and in the Calcutta area, there was an increase of Rs. 1.15. They had not gone beyond that.

4.9. The Committee note that the season ticket fares charged from the suburban passengers in the three cities of Bombay, Calcutta and Madras are lower than those charged from non-suburban season ticket holders in other cities. These fares generally range from 9 to 15 single journey fares for performing 50 journeys in a month in these cities, compared to 15 to 20 single journey fares charged from non-suburban season ticket holders. The Committee are surprised to note that the suburban season ticket fares in the three cities were not also uniform. While these fares, in respect of first class season tickets, were made uniform for all distances in the three cities in 1969, the third class suburban season ticket fares were made uniform in April 1972 upto 48 Kms. only, beyond which the fares still differ to some extent. The Committee feel that the diversity in the suburban season ticket fares in the three cities should not have been allowed to continue indefinitely after the Companies Railways were taken over by Government. They recommend that the diversity still existing in the third class suburban season ticket fares, should be removed and uniform fares should be prescribed in the three cities.

4.10. The Committee note that no scientific cost study of the suburban fares has been made by the Railways so far and that the detailed cost studies, undertaken by the Railways, would be completed in the next 18 months. The Committee recommend that earnest efforts should be made to complete the cost studies of passenger fares expeditiously. At the same time, they would like the Railways to determine the cost of suburban services separately from those of other passenger services in view of the fact that the assets on the suburban services i.e., line capacity, locomotives, coaches etc., are used very intensively and, therefore the operating ratio of the suburban services may well be lower than other passenger services. After the study has been completed, the Railways may examine to what extent it would be possible to adjust the fare structure of the suburban services, keeping in view the desirability of providing cheaper travel to suburban passengers.

4.11. The Committee have pointed elsewhere in the Report that they attach highest importance to the provision of adequate transport facilities in the metropolitan areas in the interest of planned development. The Committee have no doubt that if Government on consideration of all aspects, feel that fares should be kept lower than the cost, a suitable decision would be taken in consultation with concerned authorities, particularly, the Planning Commission, Ministry of Finance and State Governments. The Committee would also like the Govt. to make a study as to the extent to which other railway

systems in foreign countries provide suburban travel facilities at a rate lower than their cost and how their deficits are met.

(B) Earnings and Losses

4.12. The results of working of the Suburban services during the last 5 years are given below:

		(in crores of rupees)				
		1966-67	1967-68	1968-69	1969-70	1970-71
Bombay area .	.	(-) 0.79	(-) 1.72	(-) 2.06	(-) 2.17	(-) 1.0
Calcutta	.	(-) 6.83	(-) 6.55	(-) 4.82	(-) 7.37	(-) 9.35
Madras	.	(-) 0.95	(-) 1.06	(-) 1.27	(-) 1.51	(-) 1.19
TOTAL	.	(-) 8.57	(-) 9.33	(-) 8.15	(-) 11.05	(-) 11.55

4.13. The Ministry have stated in a note that separate accounts of income and expenditure of the Suburban services for each of the three cities were not maintained. Since a number of items of expenditure were common to both suburban and non-suburban traffic, it would not be possible to completely segregate the expenditure for suburban services alone, except on a broad approximation. Further, the labour involved in such an exercise would not be commensurate with the results achieved. However, a procedure had been devised to work out, proforma, the income and expenditure of these services and the information thus obtained was considered broadly sufficient for making an analysis of the economics of these services for managerial purposes.

4.14. Explaining the procedure followed for working out proforma, the income and expenditure of suburban Services, it has been stated by the Ministry that Suburban Services in the Metropolitan areas consist of two different models—Electric Multiple Unit Services (EMU) and other services (run in these notified areas as Suburban Services) by Conventional Coaches (Non-EMU) Methods used in making the Profit and Loss Analysis are described below in brief:

(a) EMU SERVICES

(i) *Ordinary Working Expenses*—For evaluation of the cost of operation of the EMU services, direct costs such as the entire expenditure on a station or section served only by EMU Services, including cost of staff working solely for the EMU Services and cost of repairs and maintenance of the EMU stock, are allocated to these services. Where the services are confined to a particular Division,

the expenditure of the Division only is taken into account for working out the costs instead of the total expenditure on the entire Railway. In respect of repairs and maintenance of Civil Engineering assets including track, the allocation is made between EMU, other coaching and goods services on the basis of the respective gross tonne kilometres multiplied by the average speeds of the respective trains. In the case of joint staff common to EMU services as well as other coaching services, the pay and allowances of such staff are apportioned in the ratio of number of respective trains run. On the Electrical side, the cost of electric energy consumed is apportioned in the ratio of power consumption of EMU Services to the total power consumption by all services under electric traction. The expenses under repairs and maintenance of overhead equipment, etc. are apportioned in the ratio of train kilometres of EMU Services to the total train kilometres and shunting kilometres of all services under electric traction. General overheads are then allocated on *pro-rata* basis, *viz.*, in the ratio of the expenses apportioned to EMU Services to the total expenses of the Division.

(ii) *Depreciation*—Depreciation charges are calculated for EMU stock on the present-day cost on straight line basis, taking normal life of the assets as 25 years. For other assets, the amount of depreciation is calculated on the basis of the booked cost, as the present-day costs are not susceptible of suitable assessment. The depreciation charges, so distributed, aggregate to the booked amount.

(iii) *Dividend*—Interest charges for EMU Services are first calculated on the booked value of the assets charged to the capital to the end of the year, at the rates prescribed for calculating dividend to the General Revenues. These are then adjusted *pro-rata* to the actual dividend payments to the General Revenues.

(b) *NON-EMU SERVICES—SUBURBAN*—Expenses of non-EMU coaching services are not available at present separately for suburban and non-suburban services. So, the average cost of hauling a coaching train one kilometre is calculated from which the cost of EMU Services is excluded and a revised cost per train kilometre for non-EMU coaching services is obtained. To this general cost of non-EMU coaching services, certain correction factors are applied to accord with the intensive use of rolling stock and other assets and on the suburban services, *viz.*:

(i) Increased fuel consumption on the suburban services.

- (ii) Increase in cost of repairs and maintenance, depreciation and interest charges due to intensive utilisation of coaches.

The correction factors have been decided based on *ad hoc* studies. The total costs are then obtained by multiplying the average cost per train kilometre as arrived at above by the booked time-table train kilometres of the concerned Railway.

EARNINGS

4.15. Passenger earnings accounted through season and ordinary tickets, as are identifiable to suburban services, are taken into account.

4.16. The Committee enquired about the broad details of income and expenditure on the Suburban Service in the three metropolitan area of Bombay, Calcutta and Madras during the year 1970-71. The Ministry have furnished the following information:—

	Bombay area	Calcutta area	Madras area	Total
I. EXPENDITURE				
(a) Ordinary working expenses	15.18	12.91	2.50	30.59
(b) Depreciation charges	2.50	2.46	0.34	5.30
(c) Dividend charges	2.43	2.66	0.37	5.46
II. EARNINGS	19.10	8.68	2.02	29.80
III. NET DEFICIT SURPLUS	(—) 1.01	(—) 9.35	(—) 1.19	(—) 11.55

NOTE : Ordinary working expenses include appropriation to Pension Fund.

4.17. During the evidence the Committee enquired about the steps taken by the Railways for avoiding losses on Suburban Services. The Chairman, Railway Board stated that it depended upon the extent of overcrowding and the extent of occupation for the return journey. In Bombay, in the initial stages when the fares compared to the cost of living were high, the return trains were running more or less empty, but with the dispersal of the industry and increase in overcrowding, the losses on account of increased costs had been controlled to some extent. If they tried to remove the overcrowding and provided services to an extent where overcrowding was eliminated, then they, might have to increase monthly fares to something like twice or thrice.

4.10. Asked about the reasons for decline in earnings in Calcutta area from season ticket holders in 1970-71, the representative

of the Ministry stated that the conditions were so disturbed in that area that some of the industries had closed down and the activities were not normal and therefore it affected the Railway traffic. As soon as the law and order became normal, the Railway earnings had also gone up.

4.19. With the improvements in the conditions there had been increase in traffic in 1971-72 and it further increased in 1972-73. The number of passengers from 1st April to 20th September which was 114 millions in 1971-72 increased to 131 millions in 1972-73 during the same period. In 1971-72 the earnings were Rs. 377 lakhs which increased to Rs. 499 lakhs in 1972-73 during the same period.

The representative of the Ministry added that the reasons for higher losses in the Calcutta area were that in the Eastern region the suburban services were spread out. The utilisation of the tracks and rolling stock etc. was much better in Bombay than in Calcutta. The number of passengers and also the occupancy of coaches in Calcutta area was less and worked out only to 40 per cent, compared with the intense occupation and utilisations in Bombay. Another factor was that in Bombay, there was plenty of return traffic and greater spread of peak hours, whereas in Calcutta it was not so. The cost of electric energy in Eastern region was almost double that in the Bombay area. Further law and order problem which led to ticketless travelling was also important in this area. They had brought the monthly season ticket in Bombay and in Calcutta to the level that prevailed in Madras from 15th April, 1972. There had been some upward revision of the fares in Calcutta and Bombay. They thought that the collections would improve in this area. But the losses would not come down very much because there was comparatively low rate of utilisation of track and rolling stock.

4.21. Asked what measures they would suggest for effecting economy in the working expenses of the Calcutta area, the representative of the Ministry stated that any measures that could have been taken, would certainly had been taken by them. This matter was always under constant review. There was more maintenance expenditure, increased fuel consumption due to frequent stoppages at short distances etc. There were various checks, counter-checks and balances and financial scrutiny at various levels. They had exercised all kinds of cuts on unnecessary expenditure, reducing contingencies and so on. But necessary maintenance expenditure had to be incurred in the interest of safety.

4.22. In reply to a question whether the present system of accounting of suburban services was satisfactory particularly when losses on this account were stated to be of the order of over Rs. 12

crores and whether they had employed any specialised agency to advise in working out a system of maintenance of accounts of Suburban Services. The representative of the Ministry stated that a meticulous system of accounting for receipt and expenditure and costing of suburban services might not be possible because many items were common to both suburban and non-suburban services like the station staff, track maintenance, signalling etc. So they estimated and apportioned the cost approximately. They had not engaged special agency for this purpose. A World Bank Team of consultants went into the matter in some detail and said that they were proceeding on the correct lines. They wanted the Railways to increase the costing staff and the number of costing cells. As it involved expenditure and the Railways were in the red, they were going a little slow. They had recently sanctioned the staff and the costing cells would be in full position.

4.23. It was stated that the figure of Rs. 12 crores loss was a rough and ready figure. Some of the assumptions made, were too broad. They would break them into details and go by apportionment.

Residential Card Passes and Concessional Season Tickets

4.24. The Committee enquired about the number of Railway employees allowed duty passes to travel on suburban trains in these cities and their approximate population in these cities. The Chairman, Railway Board stated that the pass holders were of two types. One was the person who travelled on duty and the second one was the category where people were given this concession to enable them to go to office and return home and to send their children to schools and back. All these passes were issued by a very large number of offices and they had not been able to get the exact figures. The approximate figure was about 95,000, in all.

4.25. A statement indicating the number of officers and other employees employed in the Headquarters and other Railway establishment at Bombay, Calcutta and Madras and their suburbs as on 1st April, 1970, 1st April, 1971 and 1st April 1972 is at Appendix VI.

4.26. It will be seen from the Appendix VI that the total number of persons employed (excluding casual labour) as on st April 1972 at Bombay, Calcutta and Madras was as follows:—

Bombay

Central — 41,108

Western — 27,249

Calcutta

Eastern—66,884

South-Eastern—(Information Not received).

Madras

Southern—34,366

4.27. The Ministry have also informed that all the officers and railway employees in the above cities are issued residential card passes and concessional season tickets at 1/3rd the public rate to enable them to travel daily between their place of work and residence over the sections where it was enjoyed by the staff prior to 14.12.1953. No employee working in the sections where this was in vogue on 14.12.1953, is excluded from this privilege.

4.28. Dependents of railway employees are not entitled to residential card passes. Casual labour are not issued such passes and ticket orders except a few by the Southern Railway. Such passes or ticket orders are also not issued to dependents on all Railways except the South Eastern Railway where a few concessional ticket orders are issued.

4.29. The Committee are concerned to note that losses on suburban services in the three cities of Bombay, Calcutta and Madras are increasing year after year and that in 1970-71 these losses were assessed at about Rs. 12 crores. The losses in Calcutta area have been the highest and amounted to over Rs. 9 crores in 1970-71. The Committee are perturbed at the high incidence of losses on suburban services in the Calcutta area. The Committee would like the Railways to analyse the causes of these abnormal losses and to reduce the same by effecting utmost economy in expenditure and increasing revenue earnings by plugging leakages like ticketless travel etc., in that area. They hope that with the improvement in the law and order situation in the Eastern Sector, it would be possible for the Railways to show better results in future.

4.30. The Committee note that the figures of losses on 'Suburban Services' assessed by the Railways are a 'rough and ready figure' and indicate 'broad approximation' only and that no separate accounts of income and expenditure on 'Suburban Services' are maintained by the Railways. The Committee further note that the Railways are setting up costing cells as a result of the recommendations by World Bank Team of Consultants to improve cost accounting on the Railways. The Committee hope that with the setting up of these

cells, it would be possible for the Railways to review their methodology of costing of 'Suburban Services' with a view to introduce refinements and accuracy in the method of costing. The Committee have already suggested that the costing of suburban services should be done separately so that the real losses on running of these services could be determined with accuracy.

4.31. The Committee find that free residential card passes and concessional season tickets at 1/3rd of public rate, are issued to Railway officers and employees at Bombay, Calcutta and Madras and that the number of such passes and concessional tickets in 1971 was over 1 lakh. The Committee suggest that while assessing the losses on 'Suburban Services' the cost of free residential card passes and concessional season tickets issued to the railway officers and employees at these places should also be taken into account before arriving at the figure of losses so as to present a correct picture of the operational results of these services.

CHAPTER V

TICKETLESS TRAVEL

The Committee enquired about the extent of ticketless travel on "Suburban" trains in metropolitan cities and the annual monetary loss on account of such travel. The Ministry have stated that in the survey conducted in 1967-68, it was assessed that the extent of ticketless travel over the Indian Railways was about 5.2 per cent. Subsequently, massive raids were conducted with important stations as bases. Large number of ticket checking staff and Police and R.P.F. Staff with Magistrates to try cases on the spot were employed in these checks and stations were completely cordoned off. These checks disclosed that the incidence of ticketless travel was much higher than 5.2 per cent. In order to combat this growing feature, an Ordinance was passed in 1969 enhancing the penalties for ticketless travel. After the passing of the Ordinance and the simultaneous intensifying of checks, the number of passengers detected travelling without tickets fell from 85 lakhs in 1968-69 to about 17 lakhs in 1970-71. It is estimated that the extent of ticketless travel would be of the order of 2-3 per cent. The monetary loss on this account on the suburban sections of the metropolitan areas is estimated to be approximately Rs. 60 lakhs to Rs. 90 lakhs based on the actual earnings of 1970-71.

5.2. Separate statistics of ticketless travel for suburban sections are not maintained.

5.3. The normal method of assessing the extent of ticketless travel is to compare the number of passengers detected without tickets with the number of passengers travelling with tickets on the trains checked. The last assessment was made in 1967-68.

5.4. The percentage of suburban trains checked by the ticket examiners and the number of ticket examiners on the suburban trains in the metropolitan cities during the last three years were as follows:—

BOMBAY			
	1969-70	1970-71	1971-72
<hr/>			
A. Central Railway			
(i) Percentage of suburban trains checked daily			Average for three years 14%
(ii) No. of TTEs. provided			70 TTEs are posted to work suburban section's daily (Average for three years)

		BOMBAY		
		1969-70	1970-71	1971-72
B. Western Railway				
(i) Percentage of suburban trains checked daily	checked	Average for three years—50%.		
(ii) No. of TTEs provided		100 TTEs are posted to work suburban sections daily (Average for three years)		
CALCUTTA				
A. Eastern Railway				
(i) Percentage of suburban trains checked daily	checked	Average for three years—49%.		
(ii) No. of TTEs provided.		On average, 33 TTEs are provided daily on different suburban sections of Howrah Division and 108 TTEs on Sealdah Division (Average for three years)		
B. South Eastern Railway				
(i) Percentage of suburban trains checked daily	checked	Average for three years—60%.		
(ii) No. of TTEs provided		51 TTEs are posted to work suburban sections daily (Average for three years).		
MADRAS				
Southern Railway				
(i) Percentage of suburban trains checked daily	checked	Average for three years—MG-61%, BG-50%.		
(ii) No. of TTEs provided.		23 TTEs are posted to work suburban sections daily (Average for three years).		

5.5. The amount of fare and penalty *collected on suburban sections of Bombay, Calcutta and Madras during three years 1969-70, 1970-71 and 1971-72 were as follows:—

		BOMBAY		
		1969-70	1970-71	1971-72
		Rs.	Rs.	Rs.
1. Central Railway**	Fare & Penalty	6,56,006	6,96,068	8,02,212
2. Western Railway	Fare	2,39,074	1,18,005	1,58,554
	Penalty	4,23,678	3,10,884	4,65,870
CALCUTTA				
1. Eastern Railway				
(i) Howrah Division	Fare	21,626	19,361	16,133
	Penalty	1,40,870	2,26,900	1,80,070
(ii) Sealdah Division	Fare	86,017	16,350	40,412
	Penalty	1,58,645	1,38,390	4,32,020
2. South Eastern Railway				
	Fare	68,696	21,192	38,400
	Penalty	40,396	32,275	45,650
MADRAS				
Southern Railway**	Fare & Penalty	1,57,209	1,45,739	1,35,443

*Figures for fare and penalty only are available.

**For the Central and Southern Railways, break up of fare and penalty is not available.

5.6. It has been stated by the Ministry that the checking of tickets of passengers in suburban trains during peak hours is very difficult. However frequent concentrated checks are arranged at terminals and stations on vulnerable sections by Railways by deploying a large number of Ticket Examiners assisted by Government Railway Police and Railway Protection Force personnel and accompanied by Railway Magistrates to try cases of irregular travel on the spot.

5.7. Railways have also been asked to tighten up arrangements at stations so that passengers are checked while passing through entry and exit gates and ticketless passengers are not able to escape detection. Railway Administration have also been instructed to strengthen the machinery provided for ticket checking on Railways wherever necessary.

5.8. The position is under constant watch and the results are reviewed from time to time.

5.9. During evidence, the representative of the Ministry stated that they had an idea of the extent of ticketless travel in suburban sections but the extent during peak periods, the flow and pressure was so much that it was impossible to hold up the crowd for checking individually the season ticket or ordinary ticket. However in the suburban sections the areas of escape were less. But there was no doubt that compared to peak period and non-peak period, there would be more people slipping away in peak period. While the census was not possible, they had gangs of ticket examiners standing on the platform and they made spot checks and they apprehended the people who might be ticketless. In certain areas, the Railway officials were afraid of dealing with ticketless travellers like students. They did not do hundred per cent checking in suburban travel. As far as Bombay area was concerned, in the suburban section, the ticketless travel was not very much. The reason was that the bulk of passengers went on work day after day and they knew that the risk of having been caught one day, might mean a fine of about Rs. 10 whereas the cost of the monthly season ticket was much less.

5.10. The Committee enquired about the effectiveness of ticket checking on suburban trains. The representative of the Ministry stated that on different sections there was a different manner of checking. If lesser number of trains were checked, they were more concentrated checks. Lesser number of T.T.Es. on more coaches gave greater percentage.

5.11. Asked if the percentage of trains checked and the number of ticket examiners were in any way related to the quantum of ticketless travel on the different lines, the representative of the Ministry stated that it might give a representative indication of the extent of ticketless travel. There might be sections where full train could be checked—where TTEs. went to each compartment and checked every passenger—whereas in the suburban areas it was not possible.

Booking Windows

5.12. The Committee enquired about the adequacy of the number of booking windows at the suburban stations to cope with increasing traffic. The Ministry have stated in a written note that the Booking Windows are adequate to meet the normal requirements of traffic. The question of providing adequate booking facilities at suburban stations in Bombay, Calcutta and Madras areas has been receiving constant attention of the Railway Administrations. Inspections by officers and inspectors are made during peak hours to see whether the booking facilities provided at each station are adequate and passengers are not required to wait for an unduly long period in the queues which build up fairly fast during such periods. The facilities provided are regularly reviewed and additional booking windows opened when found necessary.

5.13. The rush of traffic at suburban stations is particularly heavy during the morning and evening hours when queues are formed in front of the booking counters. Some of the measures adopted for reducing the service time to the passengers in the queues are indicated below:—

- (i) Rearrangement of booking work at existing counters in accordance with streams of traffic.
- (ii) Opening of additional booking counters during peak periods and on special occasions when there is heavy pressure at the booking counters.
- (iii) Provision of self-printing ticket machines at busy stations.
- (iv) Adoption of work study methods to streamline the procedure for issue of tickets so that the waiting time in the queue may be reduced to the maximum extent possible.
- (v) Utilisation of volunteers from amongst office clerks and other suitable railway personnel and student, sons|daughters|relatives of railway employees at certain stations as mobile booking clerks to work outside their duty|college hours on payment of an honorarium of Re. 1 per hour during short rush periods.

5.14. It was stated during evidence that mobile booking clerks with tickets and necessary change were posted who went round the queues and issued tickets to the passengers where they were waiting. They were part-time employees whom the Railways used for one or two hours and on holidays and Sundays. This had proved successful on the Western Railway.

5.15. The Committee was also informed that the self-printing machines which were installed on busy sections where the rush was very heavy, were manufactured in the country. When the passenger asked for a ticket, the button was pressed and a paper ticket was printed and issued immediately. This had been successful and they were increasing the manufacture of these machines.

Token System

5.16. To a question whether the feasibility of introducing token system as in the Western countries for suburban passenger had been considered. The Chairman, Railway Board stated that recently they had seen a report that the P. & T., were going to introduce the token system for the public telephones and they would make enquiries to see whether they could get a token system of correct dimension and such metal content that the value of the token was not likely to be higher than its actual value.

Photographs on Season Tickets

5.17. The Committee enquired whether the Railways affixed photographs on the monthly/season tickets of the passengers. The representative of the Ministry stated during evidence that they did not do that since the cost would be more and secondly they would be holding up a large number of people. At present they had a simpler system. Every month the ticket holder would have to sign his monthly ticket and a person holding his monthly ticket without his signature, was treated as ticketless traveller.

5.18. The representative of the Ministry added, "I am personally in favour of a system of photograph." It is my personal view that in suburban sections, if the cost factor can be overcome, and if people could be persuaded to bear the cost of photograph, there is nothing otherwise against it. I think we would go in for that.

5.19. The Committee note that the monetary loss on ticketless travel on the suburban sections of the metropolitan cities as estimated by the Railways was between Rs. 60 lakhs to Rs. 90 lakhs in 1970-71. They further note that the amount of fare and penalty collected from ticketless travellers in these cities has been increasing year after year which indicates that the extent of suburban ticketless travel in these areas is quite heavy. The Committee find that the

percentage of suburban trains checked varies from 14 by the Central Railway at Bombay to 61 on Metre Gauge section in Madras. This underlines the need of intensifying checking of the suburban trains particularly by the Central Railway. The Committee trust that necessary steps would be taken by the Railways in this regard.

5.20. The Committee further note that the adequacy of the number of booking windows for issue of tickets to suburban travellers is constantly under review and that the Railways, apart from additional windows, have installed self-printing machines at busy stations and have also utilised the services of part-time volunteers from among the sons and daughters of the Railway employees to issue tickets at certain Stations. The Committee need hardly stress that one of the reasons of ticketless travel is the difficulty in getting tickets and long time spent in the queues before the booking windows. The Committee would like the Railways to increase the number of self-printing machines at busy stations to facilitate easy availability of tickets. They would also like that the experiment of employing part-time employees during rush periods for issue of tickets which had proved successful on the Western Railways should be tried on other Railways also.

5.21. The Committee find that at present the suburban season tickets issued to suburban travellers contain the signature of the holder. As it is very difficult to check the signatures of suburban travellers particularly during peak hours, the Committee recommended that photographs of the season ticket holders should be affixed to the season tickets which would facilitate checking and would eliminate misuse of suburban season tickets. The affixing of photographs should be so arranged that the same photograph could be used on season tickets for a year at least.

CHAPTER VI

(A) Mass Rapid Transit System

It has already been stated in Chapter I that the Planning Commission constituted a Study Team on Metropolitan Transport in October 1965 which carried out comprehensive traffic and transport studies in four metropolitan cities of Bombay, Calcutta, Madras and Delhi. They identified all Rapid Transit Corridors which should be taken up for techno-economic feasibility study by the Railways. Based on the recommendation of the studies by the Planning Commission Team the Railways agreed to undertake techno-economic feasibility studies for Mass Rapid Transit Systems in Bombay, Calcutta, Delhi and Madras. It has been stated by the Ministry that over the past two years, techno-economic studies and surveys were conducted for the project in Calcutta and Bombay. Techno-economic studies, surveys and preparation of detailed designs and estimates for Mass Transit Systems for Delhi and Madras would commence shortly.

6.2. The city-wise position of providing Mass Rapid Transit facilities in the metropolitan cities of Bombay, Calcutta, Madras and Delhi is as under:

Calcutta:

6.3. Railways Metropolitan Transport Project (MTP) Organisation at Calcutta was set up in July, 1969. It was entrusted with the responsibility of conducting—

- (i) Final location survey of suburban dispersal line from Dum-Dum to Princep Ghat;
- (ii) Techno-economic feasibility studies of the Mass Rapid Transit system along North-South and East-West corridors linking Dum-Dum to Tollyganj and Howrah to Sealdah respectively.

While above studies were in progress, the assistance of the Soviet technical experts was also availed in two spells—from mid-November, 1970 to mid-January, 1971, and mid-November 1971 to end of January 1972. The Soviet team did not recommend construction of the suburban dispersal line as it would give only relief to the suburban traffic and will not provide any substantial relief to the intra-city traffic which constitutes major portion of the traffic in the city

as a whole. Instead, they strongly recommended the construction of a Mass Rapid Transit System which would besides catering to the intra-city traffic, also meet the requirements of suburban traffic that would interchange at Dum-Dum station. Taking advantage of the Soviet teams' advice, the scheme for suburban dispersal line was dropped and a Project Report for the north-south Underground Railway Project, linking Dum-Dum with Tollyganj, was compiled by M.T.P., in October 1971. The Project was approved by the Government in March 1972. While the residual techno-economic feasibility studies are in progress, design and construction work of the north-south corridor has been taken up in 1972-73, having an outlay of Rs. 2.97 crores. This construction is expected to take seven years and would cost about Rs. 140 crores, with a foreign exchange of Rs. 23.7 crores. This Underground Project would carry 1.3 million passengers per day in the initial stages.

Tenders regarding the main construction work were invited in September, 1972, whereas tenders regarding the ancillary works, like sub-soil boring, construction depot etc., were invited earlier by M.T.P., Calcutta. It has been stated that contracts are about to be awarded in these cases.

6.4. Broad details of Dum-Dum Tollyganj Underground Railway Project are given at Appendix VII.

6.5. It has been stated by the Chairman, Railway Board during evidence that the techno-economic survey for East-West line, that is, from Sealdah to Howrah, was in progress.

Bombay:

6.6. Railway's Metropolitan Transport Project (MTP) Organisation at Bombay was set up in July, 1969 and was entrusted with the following jobs:—

- (i) Preliminary engineering survey for a third terminal at Ballard Estate with approach line;
- (ii) Techno-economic feasibility studies of a Mass Rapid Transit System.

Studies regarding job (i) above were completed and report submitted to the Railway Board in December, 1970 by M.T.P., Bombay, who also observed therein that the implementation of this scheme should await the overall completion of the techno-economic feasibility studies of the Mass Rapid Transit Scheme with a view to have an overall assignment of traffic for the different traffic corridors which

would finally be selected for implementation. Studies regarding job (ii) above are in progress and are expected to be completed in 1972. During the survey and studies of the above mentioned job (ii), technical consultancy services of a team of Experts from London Transport Executive, arranged through U.K. Government, were availed of by M.T.P., Bombay, from mid-April 1972 to first week of June 1972. The U.K., consultants, after reviewing the earlier studies and taking into account the present and future plans of development and traffic projection, made following important recommendations, which are now under consideration of the Railway Board:—

- (i) Optimisation of the existing suburban services with 9 car rake and without going in for 12-car rakes scheme;
- (ii) Construction of the Fort Market line or 'eastern corridor' along with additional pair of tracks along the Western Railway from Bandra to Goregaon and along the Central Railway from Kurla to Bhandup. The notional cost for this work is Rs. 88 crores and it will take four to five years for completion.
- (iii) Construction of rapid transit corridor in 1970's and early in 1980's, running from Colaba *via* Backbay, Churchgate, Victoria Terminus, By-culla, Mahalaxmi, Worli and Mahim to Bandra, then turning east to Kurla, with a branch to Kalina and Santa Cruz Airport. This line could be built in separately authorised stages, the first stage being from Colaba to Mahalaxmi. The notional cost of the first stage (Colaba-Mahalaxmi) is Rs. 100 crores and second stage (Mahalaxmi-Kurla) Rs. 95 crores and the branch of Rapid Transit to Santa Cruz would cost Rs. 27 crores. This project is expected to take a total of 12 years.

Delhi and Madras:

6.7. Railways' Metropolitan Transport Project Organisations at Delhi and Madras were set up in July 1971 in these cities. Those Organisations were entrusted with the responsibility of conducting techno-economic feasibility studies of the Mass Rapid Transit System in these two cities. M.T.P., Delhi, was also asked to conduct preliminary engineering survey for a third terminal in Delhi. Above said studies by the M.T.P. Organisations in these two cities are expected to be completed in 1973, after which the detailed proposals will be known.

6.8. The Committee were informed during the evidence by the representative of the Planning Commission that on the basis of techno-economic feasibility study of the Rapid Transit System for

Calcutta, the North South Rapid Transport Corridor had been identified and Rs. 140 crores programme had been approved for the underground railway for which work was proceeding. The target date for opening the line was 1978-79.

6.9. The Committee note that the construction of Dum Dum-Tollyganj Rapid Transit line was inaugurated by the Prime Minister on December 29, 1972 and that this project is expected to be completed in 1979.

6.10. As regards Bombay it was stated during evidence that some concrete measures had been taken for the development of transport in Bombay. The techno-economic feasibility study there was also at a fairly advanced stage. The Chairman of the Railway Board added that the report for Bombay was likely to be with them within the next two months. The recommendation for Bombay was that they should consider 4 more metropolitan suburban lines at a cost of Rs. 90—100 crores. In addition there should be an underground railway constructed in two phases—the first half costing Rs. 100 crores and second half costing another Rs. 100 crores. The suburban expansion in Bombay was also tied up with the decision in regard to the Railways' responsibility and their plea that the Railways should not be saddled with further losses.

6.11. As regards Delhi and Madras, it was stated during evidence that traffic surveys were complete techno-economic studies were in progress and they expected the detailed report within one year. The Chairman of the Railway Board added that the techno-economic studies for Delhi and Madras would also come up gradually during the 4th Plan itself. The representative of the Planning Commission stated that in Delhi and Madras the corridors only, had been roughly identified. A comprehensive techno-economic feasibility study was in progress. In order to justify a rapid transit system, 30 to 40,000 commuter trips per hour was the basic minimum requirements. Unless the traffic intensity reached that level the Rapid Transit System was generally not justified.

6.12. The Committee enquired about the expenditure incurred on the survey work and the techno-economic feasibility study in respect of the Suburban Dispersal Line in Calcutta which has been dropped on the advice of a Soviet Team. The Chairman, Railway Board stated during evidence that the Railways had spent Rs. 26.30 lakhs for survey of the Suburban Dispersal Line. The Suburban Dispersal Line and the Rapid Transit System were identified by the Metropolitan Transport Team to give relief to the suburban and city

commuters. The Suburban Dispersal Line was given higher priority because it was within the indigenous capacity to build and would take less time compared to the other thing. Accordingly, Rs. 20 crores were provided for the Suburban Dispersal Line in the 4th Plan. The Soviet Team opined that Suburban Dispersal Line would take 5 years as against 7 years for the other scheme. The Chairman, Railway Board further added that the Railways did not want to take the responsibility for the Underground Scheme till the financial aspects had been fully considered and the Railways were given some sort of understanding that any loss and liability on that would not come on the Railways. That was one of the reasons why the Calcutta Underground Scheme was not making any progress. Now that the Railways had taken up the work on Underground Railway, the Government had decided to drop the Suburban Dispersal Scheme. The expenditure on this scheme had now become infructuous.

6.13. Asked if the period of 7 years for the construction of the Dum Dum-Tollyganj line would not be too long, the Chairman, Railway Board stated during evidence that this work was to be done in a built up area. The movement of material in a heavily built up area where diversion of traffic was necessary, would take time. The estimate of the time required had been considered reasonable by the Soviet Consultants but they would try to do it as early as possible.

6.14. The Committee have already commented upon the delay in undertaking a detailed study of the traffic and transport requirements of metropolitan cities by Government which initiated these studies in 1965 only. Long range transport planning for metropolitan regions requires comprehensive studies and collection of data regarding traffic flows etc. The Committee deplore that these studies were not undertaken by Government till the traffic situation in the metropolitan cities, particularly Calcutta and Bombay had reached a critical stage and had created serious problems in the implementation of long range comprehensive transportation plans. The Committee have stressed that integrated plans for the development of adequate suburban services in the metropolitan cities should have been prepared and implemented by the Government from the very first Plan.

The Committee note that construction of the Dum Dum-Tollyganj underground railways at Calcutta is being undertaken by Government and is expected to be completed by 1979. The Committee would like to point out that the construction of an underground railway system which is a new technological venture in the country, particularly in congested city like Calcutta, is a challenging task

and would pose numerous problems. They would therefore like to emphasise that the Metropolitan Transport Authorities, incharge of the Calcutta Project, should plan the time schedules of the various stages of construction of the underground railway in a realistic manner and keep a close watch on the progress of construction so as to ensure that it is completed within time, if not earlier. It is also necessary that the cost of construction is kept under constant review to ensure that the expenditure incurred in no case exceeds the estimates.

6.15. The Committee need hardly stress that Government should make earnest efforts to provide facilities for suburban travel at the most competitive and reasonable rates.

6.16. The Committee note that the techno-economic survey for the East-West line i.e., from Sealdah to Howrah is in progress. The Committee would urge the Railways to complete the survey expeditiously so that further action to provide rapid transport system on this line could also be taken up at an early date.

6.17. The Committee note that the techno-economic feasibility studies for the Mass Rapid Transit System at Bombay is at a fairly advanced stage. Considering the acute congestion and overcrowding in the suburban trains at Bombay, the Committee cannot help feeling that there have been considerable delays in taking up traffic surveys and techno-economic feasibility studies for solving the suburban traffic problems of Bombay, which should have been undertaken from the 1st Plan itself. It is regretted that these studies have not yet been completed. The Committee cannot too strongly emphasise the need for expeditious completion of the techno-economic feasibility studies in these cases. The Committee urge that the Government should take an early decision on the results of these studies in consultation with the Planning Commission and State Governments so that effective measures could be taken to start the construction of Rapid Transit System at Bombay at an early date.

6.18. The Committee feel that the period of 12 years for the completion of the project is too long. They would like the Government to make earnest efforts to reduce this period to the extent possible.

6.19. The Committee note that the Metropolitan Transport Organisations at Delhi and Madras were set up by the Railways in July, 1971 only. They deplore the delay in undertaking techno-economic feasibility studies for Mass Transit Systems in these metropolitan cities. The Committee would urge the Government to expedite the techno-economic feasibility studies for Delhi and Madras so that the

traffic problems of these cities could also be taken up for solution at an early date to provide relief to the commuters in these cities.

6.20. The Committee would like to point out that the population of Delhi which is the Capital of the country, has grown at a phenomenal rate since Independence. There is an urgent need to provide efficient, dependable and cheap transport for the growing population of Delhi and the large number of passengers who commute daily to the city. The Committee consider that the suburban transport in Delhi should provide a model for other metropolitan cities in the country. It is a happy feature that for the planned development of this city, Government have already set up the Delhi Development Authority which has vast lands at its disposal. There would therefore be no difficulty in meeting the land requirements for the Metropolitan Rapid Transit System here. The Committee recommend that perspective plan for the development of the suburban transport at Delhi for the next 20 to 25 years should be prepared so as to avoid congestion in the central area of Delhi. This plan should include the development of the satellite towns around Delhi and should be implemented in stages according to a phased programme.

(B) Plan Allocation and Expenditure

6.22. It has been stated by the Ministry that originally, Rs. 50 crores were allotted for Metropolitan Transport Project in Fourth Plan for the cities of Calcutta, Bombay, Delhi and Madras. During mid term appraisal of the Fourth Plan in 1971, the total allocation was reduced from Rs. 50 crores to Rs. 20 crores. Rs. 30 crores was reduced as the scheme of suburban dispersal line for Calcutta was dropped. This scheme had a specific provision of Rs. 30 crores in the original allotment of Rs. 50 crores.

6.23. Regarding the progress of expenditure, it has been stated during evidence that an expenditure of Rs. 1.45 crores has been incurred so far against a requirement of Rs. 3.11 crores for carrying out feasibility studies. Expenditure of Rs. 20 crores should be possible in the 4th Plan period according to the forecast of expenditure received for the last year of the Plan.

6.24. The Committee note that the allocation for Metropolitan Transport Project, which was originally fixed at Rs. 50 crores during the 4th Plan, has been reduced to Rs. 20 crores at the time of mid term appraisal on account of dropping of the scheme of suburban

Dispersal Line at Calcutta. Out of this reduced allocation of Rs. 29 crores, an expenditure of Rs. 1.45 crores only, has been incurred so far.

6.25. The low expenditure indicates that the metropolitan transport projects which have already been greatly delayed, are not being proceeded with urgency and the speed that they deserve. The Committee feel that it is not lack of finances which is hampering the progress of these projects but the implementation thereof. As already valuable time has been lost, the Committee would like the Government to speed up the pace of implementation of these projects so that the Rapid Transport Systems become a reality before the beginning of the 6th Plan. The Committee urge that effective measures should be taken by Government to ensure that maximum progress is made in the execution of these projects during the present Plan period itself.

(C) Metropolitan Transport Project Organisation

6.26. The Railways have set up Metropolitan Transport Projects Organisations at Bombay, Calcutta, Madras and Delhi to deal with the problems of providing mass transit facilities in these cities. There is also a Metropolitan Transport Directorate in the Headquarters of the Railway Board.

6.27. The broad details together with financial implications of the organisational set up of the Railway Metropolitan Transport Projects Organisations at the Headquarters and in each of the cities of Calcutta, Bombay, Delhi and Madras are as follows:—

In the Railway Board—The Member incharge is the Member Engineering (Chairman, Railway Board now). Due to the intricacies of financial problems to be solved, the Financial Commissioner is very closely associated with the subject. The other members of the Board are also actively associated with the subject.

There is a metropolitan transport directorate headed by a Director who is assisted by a Deputy Director. This directorate coordinates with the Planning Commission and other Ministries involved and directs the activities of the M.T.P. Organisations set up.

In the four cities—During the feasibility study stage, the organisation is headed by a Chief Administrative Officer of a senior Director's rank with powers of a General Manager. He is supported by a Chief Engineer and a Dy. F.A., a Dy. C.E.E., a Dy. C.S.T.E. a

Dy. C.O.P.S. A Dy. C.M.E. has been given to Calcutta and Delhi Organisations. The administrative set up controls executive organisations composed of senior scale and assistant officers and subordinate staff in each department in adequate strength.

For Calcutta, a G.M. is now heading the Organisation and senior administrative heads have been sanctioned in civil, Electrical, Signal & Tele-communication, Stores and Finance Departments. A Chief Project Engineer in senior Director's grade is in charge of the planning, design and construction activities and a legal Adviser in Administrative Grade has been sanctioned.

In addition to the above, two Cells created under the RDSO organisation at Lucknow are assisting the Calcutta Project in Rolling Stock and Architectural designs.

The year-wise break up of expenditure so far incurred, city-wise for these Organisations is as under:—

		(Rs. lakhs)		
		Expenditure		
S. No.	City.	1969-70	1970-71	1971-72
1.	Calcutta	5.13	25.99	37.90
2.	Bombay	1.34	11.36	24.04
3.	Delhi	Nil	Nil	10.61
4.	Madras	Nil	Nil	7.90
5.	M.T.P. Cell, Railway Board, New Delhi	—	—	—

The expenditure on M.T. Projects in the cities for S. Nos. 1 to 4 given above is charged to Misc. Advances (Capital). Expenditure regarding S. No. 5 above is, however, chargeable to the Railway Revenue and is included in the Railway Board's budget.

6.28. The Committee enquired about the changes, if any, made in the heads of these Organisations since these were set up. The Ministry have furnished the following information:—

Calcutta

- (i) Shri S. S. Gohel, Chief Administrative Officer, from 1969-July, 1971.
- (ii) Shri J. N. Roy, G. A. O. (R), from July 1971 to September 1972.
- (iii) Shri S. S. Mukherjee as General Manager from September 1972 and Shri J. N. Roy continuing in the administration as Chief Project Engineer.

Bombay

- (i) Shri Hari Sinha, C. A. O. (R) from 1969 to July 1971.
- (ii) Shri Gohel, C. A. O. (R) from July 1971 to July 1972.

- (iii) Shri Komleswaran, who was Chief Engineer of M. T. P. Madras since July 1971, as C. A. O. (R) from October, 1972.

Delhi

- (i) Shri T. R. Vachha, C. A. O. (R), from July 1971 to October 1972
- (ii) Shri H. K. D. Kapur as C. A. O. (R) from October 1972.

Madras

Shri Hari Sinha as C. A. O. (R) from July 1971.

6.29. The Committee note that the Railways have set up Metropolitan Transport Organisations at Bombay, Calcutta, Madras and Delhi to deal with the problems of Mass Transit Systems in these cities. They note that there have been changes in the head of these organisations at Calcutta, Bombay and Delhi. The Committee expect that the Government should have appointed heads for these Organisations not only for the completion of surveys most expeditiously, but for the execution of the projects also. The Committee consider that there is need for the most efficient and competent organisations to carry out surveys and techno-economic feasibility studies for these projects expeditiously but also to undertake the implementation of the projects for the metropolitan cities.

6.30. The Committee cannot emphasise too strongly the need for continuity in the personnel of these technical organisations which are handling an entirely new task. They suggest that while posting senior officer to these organisations the question of retaining them there for sufficiently long periods, should be given due consideration as frequent changes affect the progress of work in such organisations.

(D) Consultancy

6.31. The Committee enquired whether the help of any foreign consultants would be required in respect of techno-economic feasibility of the Mass Rapid Transit Systems (MRTS) at Delhi and Madras. The Chairman, Railway Board stated during evidence that the need for taking foreign consultancy assistance for metropolitan transport project at Madras and Delhi had not arisen so far. If special problems were encountered, the need for having foreign consultancy might have to be considered.

6.32. The Committee further enquired whether the Railway had adequate number of trained engineers for planning, designing etc. of RT System in the country. The Chairman, Railway Board stated that they had adequate number of trained officers for initial planning. Use of limited foreign consultancy was being made for specified problems. Regarding design and construction, proposals had been processed for availing of limited foreign consultancy. For MRT projects Railway engineers would be sent abroad for being trained in design and construction methods specially signalling and traction technology of underground RTS in other countries. For traffic engineering, Central and State Governments had recently set up Institutes like School of Planning and Architecture, Delhi College of Engineering, Guindy and Warrangal. In due course of time, these institutes would be adequately equipped to undertake the job. Much of the techniques involved in the design and construction of MRTS line was common with normal railway design and construction. There were special institutions under the Railway Board to train officers in advanced Permanent Way and Signalling subjects and the RDSO was in a position to develop research facilities in new RTS techniques in due course. The Chairman Railway Board added that limited foreign consultancy in certain fields initially and full consultancy in engineering and developments which were new, were likely to be required. For example in the field of design of MRTS coaches and in cut and cover construction upto a limited extent, in tunneling for which the Railways would have to procure some special machinery like tunneling shield etc., they would be needing some consultancy till their people were trained and developed sufficient confidence.

6.33. Asked whether they had set up any Central Research Organisation to handle the problems of Metropolitan Transit Projects, the Chairman Railway Board stated that the RDSO was the only Central Organisation entrusted with the task of rolling stock design for the MRT Projects. Besides, the RDSO would handle problems relating to instrumentation, work relating to the soil studies for construction work. For civil engineering, signalling and electrical engineering problems assistance would have to be taken not only from the RDSO to the extent possible but also from certain National Research Laboratories and Engineering colleges. Eminent scientists in the country would form a special Advisory Committee to advise the MRTP which might have to deal with all the problems that might arise in Calcutta. A special cell would be created in the Calcutta MTP Organisation for coordinated action on researches, experiments and investigations. In due course expertise developed in the MRTP, could be transferred to existing Central Organisation of the Railways or to any Central Organisation which would be created for

Metro-Systems. A decision would be taken in this regard in due course.

6.34. The Committee note that the assistance of Soviet Consultants was taken for the Metropolitan Transport Project at Calcutta and of British Consultants for the Bombay Project. They are glad that the technical problems of metropolitan transport projects are being dealt with by the Railway Design and Standard Organisation at Lucknow and that maximum use would be made of the talent available in the country to solve the problems of design and construction of these systems in future. Foreign consultancy would be availed of for limited purposes only. The Committee cannot too strongly emphasise the need of self-reliance in this technical field, particularly when the Railways have already got a good and experienced Central Design Organisation.

6.35. The Committee would like to stress that full use should be made of the foreign consultancy at Calcutta and Bombay to train personnel so that they can take up this work with confidence in other cities.

6.36. The Committee trust that with the completion of the Metropolitan Transport Project at Calcutta, the Railway engineers would acquire the requisite confidence and develop the necessary technology and knowhow to construct rapid transit systems in other major cities in the country.

6.37. The Committee would also like the Government to prepare a manufacturing programme for the rolling stock required for Mass Transit Systems in the country indigenously so that the same is available to be put in operation as soon as the projects are completed.

(E) Separate Authority for Mass Transit Systems

6.38. The Committee enquired whether any decision had been taken by Government for creating a separate transport authority for dealing with suburban traffic as recommended by the Administrative Reforms Commission in their report submitted in January, 1970. The Ministry have stated that the Administrative Reforms Commission in their report on 'Railways' made the following recommendations:

"29. The question of developing underground and/or elevated Railways for dealing with the suburban traffic may be considered. A separate transport authority specifically created for this purpose may be entrusted with this work."

6.39. According to the procedure prescribed by the Administrative Reforms Commission, Railway Ministry's views on the above recommendation were to be considered by the Committee of Secretaries. Accordingly a memorandum, containing the following views of the Ministry of Railways on the above recommendation, was submitted for the consideration of the Committee of Secretaries:—

“Accepted.

- (i) The need for developing a suitable mass rapid transit system (MRTS) for tackling the intra-city traffic in metropolitan cities like Bombay, Calcutta, Delhi and Madras is recognised and accepted. The type and scope of the transport systems required in each case would depend on the results of traffic and engineering surveys and techno-economic studies. A start has already been made for conducting suitable surveys and necessary studies in all the four cities.
- (ii) Administrative Reforms Commission's recommendation regarding the desirability of setting up a separate agency for the execution of the MRTS projects and running of the transport systems is also accepted in principle. However, since the development of MRTSs in the four cities was an urgent necessity and no alternative agency was available immediately to take on the responsibilities in this connection, the railways were asked to undertake the work for the present. A decision regarding the stage at which the railways may hand over the responsibility for the MRTSs to suitable separate agencies to be created for this purpose has to be arrived at on the basis of experience. Organisations which have already been set up at Bombay and Calcutta and those which are proposed to be set up at Delhi and Madras for dealing with the project work would be suitable to form the nuclei of the final organisations to take charge of the transport systems when they are formed.
- (iii) As regards financial arrangements, it is necessary that:
 - (a) the funds for investments on MRTS projects should be made available outside the railways' plans;
 - (b) the investment should be free of “dividend liability”; and
 - (c) the operational losses, if any, should not be the railways' liability.
- (iv) These financial arrangements would be applicable even during the interim period when the railways would be in charge of work of MRTS projects. To enable a smooth take-over of the MRTSs by the metropolitan transport

organisations at a suitable later date, the 'finances' and 'book-keeping' should be and are being kept separate from that of the Indian Railways.

- (v) An allied matter is required to be finalised while on the subject of the MRTS. Since the commissioning of MRTS would take a few years, the railways are required to provide 'suburban dispersal lines' which will include extensions and large scale improvements to the existing suburban systems mainly to cater to the intra-city traffic now carried by the suburban services. As these lines are meant essentially to meet the demands of the intra-city traffic, the same financial terms, as have been proposed above for the MRTS, should govern construction as well as later maintenance of the suburban dispersal lines."

6.40. The Committee of Secretaries have since considered the views submitted by the Railway Ministry and their decision on this recommendation reads as follows:—

"The Committee noted that studies were under way for evolving suitable mass rapid transit systems in metropolitan cities like Bombay, Calcutta, Delhi and Madras. They therefore felt that the first part of the A.B.C. recommendation was already being implemented.

"The Committee also noted that a separate unit in the Ministry of Railways is undertaking these traffic studies in the metropolitan cities and separate agencies under the Ministry of Railways were already functioning in Bombay and Calcutta to develop these plans. The Committee felt that the time for setting up a separate authority would arise only after some progress had been made in these studies and decisions taken on the setting up of these mass rapid transit systems."

6.41. In this connection, it may be mentioned that the Cabinet have since approved of the following proposals:—

- (i) Mass rapid transport system project for Calcutta at an estimated cost of Rs. 140 crores may be taken up.
- (ii) Separate Plan allocation would be made to the Railways for this project till a separate authority is constituted. Till such time, the Railways would maintain separate accounts for the construction and operation of the project. The Planning Commission will discuss with the concerned

authorities including Government of West Bengal and advise at an early date on the method of financing the capital cost of the project and also the manner in which the losses, if any, in operating the system will be shared.

- (iii) The possibility of setting up a separate metropolitan transport authority for Calcutta, should be investigated. The Planning Commission will initiate discussion with the State Government and the Ministry of Finance, Ministry of Railways, Ministry of Transport & Shipping and Ministry of Works and Housing with a view to reach a consensus about the composition and other organisational aspects, the functions and responsibilities of this authority, its relationship with the State Government and the Central Ministry responsible for the coordination of Metropolitan Transport of various cities.

6.42. It would be observed that in principle the decision to constitute a separate Metropolitan Transport Authority for the mass rapid transport system for Calcutta to begin with, has been approved of.

6.43. It has been stated that the decision of the Cabinet was taken on the 24th March, 1972 and was communicated to the Planning Commission in April, 1972.

6.44. In regard to the investment required for Metropolitan Rapid Transit System, the representative of the Planning Commission stated during evidence that it had been decided that investments likely to be made for the development of metropolitan rail transport should be kept separate from Railway finance. This had been done in the Fourth Plan. This was being followed in the annual plans also. Secondly, on the basis of the previous recommendations of the Railway Convention Committee, the new constructions of the Railways in Metropolitan towns would also enjoy certain concessions, such as during the period of construction they would not pay any dividend and even when the line was open to the traffic, there was no dividend liability for the first five years. Elucidating it he stated that the Rapid Transit System in Calcutta was likely to be opened to traffic in 1978-79. The Railways would have the dividend liability concession upto 1983-84. There should therefore be no difficulty in proceeding with the work of the Metropolitan Rapid Transit System.

6.45. The representative of the Planning Commission added that the question of dividend liability and the problems as to how the projects should be financed, bristled with numerous difficulties. First of all one should have a clear idea as to whether rapid transit system

will be running at a loss, and if so, to what extent. Hence the financing of rapid transit system needed a very careful study of the results of several rapid transit systems before one could come to a reasonable conclusion. The Planning Commission was trying to tackle the financial problems as quickly as possible. In the meantime the Planning Commission in consultation with the other Ministries observed that in view of the agreements already made the progress of the rapid transit project should not be held up pending this decision.

6.46. Asked about the administration and organisational aspects of the metropolitan Rapid Transit System, the representative of the Planning Commission stated that construction of Rapid Transit System would be with the Railways. They felt that the management of the Metropolitan Rapid Transit System should be somewhat different from what was for the suburban services. These metropolitan systems would depend on other modes of transport, particularly in two respects—firstly parity of fare structure prevailing in the metropolitan cities and secondly dispersal of passengers who would be travelling by the Rapid Transit System of the Railways and feeder services. It was a sensitive subject and they had to take into confidence the State Governments and local agencies. The details were being worked out by the Planning Commission in consultation with other agencies.

6.47. The representative of the Railway Board pointed out that in their views, the concessions on new lines would not suffice for meeting the losses on suburban services. At the request of the Planning Commission they furnished them the practice in almost all developed countries. There the responsibility for the losses was borne either by the Federal, State and local authorities or a combination of two or more of them. The losses were not borne by the Railways. The other thing was the increase in the cost of operation. They had requested the Planning Commission that this question of financing should be decided early. The witness further added that they were prepared to run the metropolitan Railways and they had undertaken the construction of the Calcutta Metropolitan Project. They were only pleading that the accounts should be kept separate.

6.48. The representative of the Planning Commission added that they really appreciated the problems posed by the Ministry of Railway. They were anxious that this type of project should not prove to be a drag on the Railway finances. The fares should be fixed at such a level that operating losses at least should be avoided. It should be possible to evolve a financial arrangement in such a way that the whole rapid transport system ran efficiently. At the moment the

Plan funds were being allocated separately. The dividend liability would strictly arise from 1983-84 onwards.

6.49. The question of how the capital would be made available had not yet been decided. They would take decision in the matter in consultation with State Governments and the Finance Ministry and other Ministries concerned.

6.50. The Chairman, Railway Board stated during evidence that their suggestion to the Planning Commission was that the independent authority to deal with Metropolitan city problems should be under the Minister of Railways as a sort of separate Board. It would be a separate Board for Metropolitan Transport problems and possibly the Financial Commissioner for Railway would also be the Financial Commissioner dealing with these problems. The coordinating Ministry had obviously to be the Railway Ministry.

6.51. The representative of the Planning Commission added that the organisation for the management of Rapid Transit System would be a new creature in India. Neither the State nor the Centre had operated this kind of services so far. As for suburban services, the Railways were already operating them. As regards type of authority for management of the Rapid Transit System, the Planning Commission had not yet taken a view.

6.52. The Committee note that the construction of the Rapid Transit Systems in the country has been entrusted to the Railways but the question of the administrative authority for managing the system and the manner of financing it, has not yet been decided by Government. The Committee further note that, as an ad hoc measure, funds for the Rapid Transit System have been provided in the 4th Five Year Plan, outside the Railway plan and that no dividend liability would accrue during the Period of construction of these projects and first five years thereafter. The Committee deplore the delay in taking a decision in this important matter which is pending with the Government since January 1970. The Committee realise that the whole matter regarding the financing and management of the metropolitan transport systems is a sensitive subject and would require consultations and coordination with the State Governments, and other agencies. The Committee understand that such systems are worked by separate organisations in other countries. They also note that the Administrative Reforms Commission had also recommended for the creation of a separate transport authority for the purpose. The Committee have no doubt that before a decision is taken in this matter, the working of the organisations managing such systems in foreign countries, would be studied by Government. The

Committee consider the Rapid Transit System to be an essential service for the benefit of Common man, particularly the workers. The Committee urge that Government should take a decision in this matter without further loss of time in consultation with State Governments, local authorities etc., so that necessary authority to manage the systems may be organised on proper lines and associated with these projects during the period of their construction. What the Committee would like to stress is that there is need for a most efficient organisation to manage these systems which should provide suburban travel to the common man at the most competitive rates. It should also be ensured that the overhead expenses of this organisation are kept to the minimum in the interest of efficiency and economy.

R. K. SINHA

Chairman,

Railway Convention Committee.

February 9, 1973

Magha 20, 1894 (S).

APPENDICES

Appendix I (A)

(*Vide* para 2.6)

CENTRAL RAILWAY—BOMBAY

Additions and improvements in the line capacity, locomotives etc. along with their costs during each of the three Plan periods and 1966 to 1969.

First Plan period (1951-52 to 1955-56)	Second Plan period (1956-57 to 1960-61)	Third Plan period (1961-62 to 1965-66)	Inter Plan period (1966 to 1969)
1	2	3	4
Provision of automatic block signalling between (1) Byculla & Sion (2) Kuria-Chembur.	Kuria—Provision of Route Relay Interlocking covering Sion-Kuria area (Cost Rs. 36.0 lakhs)	Provision of automatic block signalling between Bhandup & Thana (Cost Rs. 41.0 lakhs)	Provision of automatic block signalling between Thana & Kalyan and provision of Route Relay Interlocking at Dombivli-Mumb. Kalyan—Provision of route relay interlocking.
	Provision of automatic block signalling between Kuria & Bhandup. (Cost Rs. 13.5 lakhs)	Provision of automatic signalling between Kalyan & Ambernath. (Cost Rs. 11 lakhs)	(Cost Rs. 47 lakhs)
	Ambernath—Provision of reversal facilities. (Cost Rs. 6.80 lakhs)	Doubling of Chembur-Kuria section and automatic signalling between Chembur and Mankhurd. (Cost Rs. 15 lakhs)	Bombay VT—Provision of route relay interlocking. (Cost Rs. 46 lakhs)

1	2	3	4
<p>Kurda—Provision of independent platform for Kurda-Manikhard locals. (Cost Rs. 7.25 lakhs)</p>	<p>Ghatkopar—Provision of reversal facilities and panel interlocking. (Cost Rs. 14 lakhs)</p>	<p>Provision of automatic block signalling between Kalyan and Staffed. (Cost Rs. 16 lakhs)</p>	
<p>Vikhroli—Provision of cross-overs from Dn local to Dn thro. line and Up thro. to Up local line. (Cost Rs. 2.35 lakhs)</p>	<p>Extension of platforms on main line for 9-car rakes. (Cost Rs. 2.35 lakhs)</p>	<p>Extension of passenger platforms for 9-car rakes on Harbour Branch. (Cost Rs. 6.90 lakhs)</p>	
<p>Kalyan—Additional passenger platform & X-over facilities. (Cost Rs. 22 lakhs)</p>	<p>Titwala—Provision of reversal facilities. (Cost Rs. 7.52 lakhs)</p>	<p>Asansol—Reversal facilities. (Cost Rs. 1.76 lakhs)</p>	

Appendix I (B)

(Vide para 2.6)

WESTERN RAILWAY—BOMBAY

Additions and improvements in the line capacity, locomotives etc. along with their costs during each of the three Plan periods and 1966 to 1969

First Plan period (1951-53 to 1955-56)	Second Plan period (1956-57 to 1960-61)	Third Plan period (1961-62 to 1965-66)	Inter Plan period (1966 to 1969)
1	2	3	4
Added 11 EMU rakes of 8 coaches each.	Remodelling of Churchgate Yard. (Cost Rs. 62.10 lakhs)	Mahim to Bandra separate line for C. Rly. Harbour Branch. (Cost Rs. 77.70 lakhs)	
		Kandivli—Providing an additional island platform (Cost Rs. 11 lakhs)	Bandra Yard—Remodelling (Rs. 10 lakhs)
		Quadrupling of tracks between Grant Road & Churchgate. (Cost Rs. 94 lakhs)	66-67 Rs. 17 lakhs 67-68 Rs. 15 lakhs 68-69 Rs. 24 lakhs

1	2	3	4
		Panel interlocking at Andheri, Santa-cruz and Dadar at a cost of Rs. 54 lakhs.	Providing panel interlocking at Borivli
		Borivli-Vandri section—providing automatic block signalling.	(Cost Rs. 27 lakhs)
		Added 2 rakes of 9 coaches and replaced 7 old rakes of 8 coaches each.	
		(Cost Rs. 17 lakhs)	
		(Works proposed & sanctioned in 3rd plan but provided in IV Plan)	
		Andheri-Borivli section—providing automatic block signalling.	
		(Cost Rs. 47 lakhs)	
		Added 4 Rakes of 9 coaches and replaced 2 old rakes of 8 coaches each.	

APPENDIX (C)

(Vide para 2.6)

SOUTH EASTERN RAILWAY—CALCUTTA

Additions and improvements in the line capacity, locomotives etc. along with their costs during each of the three plan periods and 1966 to 1969

First Plan period 1951-52 to 1955-56	Second Plan period 1956-57 to 1960-61	Third Plan period 1961-62 to 1965-66	Inter Plan period 1966 to 1969
1	2	3	4
Machoda yard remodelling (Cost Rs. 2.39 lakhs)	Extension of loops at 14 stations (Cost Rs. 303.67)	Tikiapara Coaching yard (Cost Rs. 215.1 lakhs)	Provision of route relay interlocking at Kharagpur. (Cost Rs. 48.03 lakhs)
	Santragachi-Tikiapara automatic signalling (Cost Rs. 5.76 lakhs)	Howrah-Kharagpur electrification (Cost Rs. 1131 lakhs)	
		3 Tikiapara-Panskura third line (Cost Rs. 934.2 lakhs)	
		4 Automatic signalling with reversible working on the third line between Tikiapara-Ullubaria	
		5 Tokenless working on the middle line between Ullubaria and Panskura	Cost Rs. 150.3 lakhs.
		6 Provision of panel interlocking on 6 stations on Tikiapara-Panskura section	

1	2	3	4
7	Santragachi-Ulhasnagar automatic signalling (Cost Rs. 98.68 lakhs)		
8	Ulhasnagar-Khar automatic signalling (Cost Rs. 44.9 lakhs)		
9	Phuleshwar additional loop (Cost Rs. 2.65 lakhs)		
10	Provision of flyover at Andal (Cost Rs. 50.99 lakhs)		
11	Santragachi yard remodelling (Cost Rs. 106.36)		

APPENDIX I (D)

(Vide para 2-6)

EASTERN RAILWAY CALCUTTA

Additions and improvements in the line capacity, locomotives etc. along with their costs during each of the Plan periods and 1966 to 1969

First Plan period (1951-52 to 1955-56)	Second Plan period (1956-57 to 1960-61)	Third Plan period (1961-62 to 1965-66)	Inter Plan period (1966 to 1969)
<p>1</p> <p>Electrification on Howrah-Sheoraphute, Sheoraphute-Bandel, Bandel-Burdwan and Sheoraphute-Tarakeswar sections</p>	<p>2</p> <p>Signalling—Increasing standard of interlocking on Sheoraphute Tarakeswar branch.</p>	<p>3</p> <p>Electrification on Beandel-Naihati, Howrah-Burdwan chord of Howrah division, Sealdah-Ranghat, Shantipur-Krishan Nagar, Sealdah-Bongaon, Sealdah-Ballyganj, Ballyganj-Baruipur sections.</p>	<p>4</p> <p>Electrification of Sonarpur-Canning Sec. Baruipur-Lakshmikantpur-Ballyganj sec. Signalling & route relay interlocking at Howrah, Sealdah, Belur, Lituah. Remodelling of Sealdah and Howrah yard. Fly-over at Howrah over the SE line at Howrah.</p>
<p>Additional crossing station on the Base Bridge</p> <p>Additional crossing stations on Bongaon sec. (2 additional stations)</p>	<p>Signalling & route relay interlocking at Kakurgachi-Dum Dum Jn. yard and Serampur</p>	<p>Raising strength of interlocking in Bandel-Katwa, Bongaon-Dum Dum, Kabinarayampur-Krishan Nagar, Baruipur-Lakshmikantpur-Diamond Harbour.</p>	

1	2	3	4
		Additional crossing station at Lakhimpur. Remodelling & construction of Barasat-Hasnabad sec. Remodelling of Ballyganj station.	

APPENDIX I (E)

(Vide para 2—6)

SOUTHERN RAILWAY—MADRAS

Additions and improvements in the line capacity, locomotives, etc. along with their costs during each of the three Plan periods and 1966 to 1969

First Plan period (1951-52 to 1955-56)	Second Plan period (1956-57 to 1960-61)	Third Plan period (1961-62 to 1965-66)	Inter Plan period (1966 to 1969)
1			
2			
Extension of second loop to hold 80 vehicles and second rail level platforms at Ennore. Cost : Rs. 3,00,000	Conversion into Block station Korattur.	Remodelling of station at Madras Central (Phase III & IV) Cost : Rs. 12,60,000	Provision of an additional line with terminal facilities at Ambattur. Cost : Rs. 8, 51, 000
3			
4			
Extension of loop to hold 80 vehicles—Provision of second platform and new station building at Attipattu. Cost : Rs. 4,96,868	Provision of loop line south of Down Main line at Tiruminarur. Cost : Rs. 1,14,000	Doubling between Tiruvottiyur and Gummidiipundi. Cost : Rs. 1,82,56,000	Provision of 2 addl. loops and improvement to terminal facilities at Avadi. Cost : Rs. 7,17,000
Extension of loop to hold 80 vehicles—Provision of second platform and new station building at Anupambattu. Cost : Rs. 3,45,000	Provision of a cross over connecting the Up suburban line at Madras Egmore. Cost : Rs. 1,33,000	Provision of an automatic signalling between Perambur and Villivakkam. Cost : Rs. 13,68,000	Provision of direct connection between 3rd feet line and Electric suburban lines at Madras Egmore. Cost : Rs. 3,38,071
Extension of loop to hold 80 vehicles—Provisions of High level platform at Kavaraispettal. Cost : Rs. 4,18,000	Remodelling of yard and provision of Mechanical Signalling at Chingleput. Cost : Rs. 14,73,000	Provision of an automatic signalling between Villivakkam and Avadi. Cost : Rs. 30,49,000	Provision of Automatic block with colour light signalling between Avadi & Trivellore. Cost : Rs. 79,82,000

1	2	3	4
Opening of new station Mungambakkam. Cost : Rs. 3,47,000	Remodelling of station (Phase II) at Madras Central. Cost : Rs. 22,99,000	Development of Auxiliary Coaching Yard at Tondiarpet. Cost : Rs. 6,00,000	Provision of automatic block with colour signalling between Korukkupetta and Ennore. Cost : Rs. 4,34,000
Total Cost : Rs. 19,06,868	Provision of Up & Down loops at Tiruvottiyur. Cost : Rs. 2,30,000 Total Cost : Rs. 1,41,19,000	Total Cost : Rs. 2,49,08,000	Provision of Centralised Traffic Control between Madras Ennore & Tambaram. Cost : Rs. 2,00,000
			Provision of Absolute Permissive block between Tambaram & Chingleput. Cost : Rs. 19,80,000
			Provision of fifth running line at Ennore. Cost : Rs. 6,37,000
			Total Cost : Rs. 1,22,39,071

APPENDIX II

(Vide para 2.6)

Additions and improvements proposed to be made in the line capacity, locomotive etc. during the Fourth Plan period.

The particulars of works for improving and augmenting the track, rolling stock, traction power, etc. during the IV Plan along with the progress, as readily available, are indicated below:—

No.	Item of work	Progress
BOMBAY CENTRAL RAILWAY		
1	Provision of intermediate block signalling between Shahad and Tirwala.	Completed
2	Mulund-Panel interlocking	In progress
3	Pune Route Relay Interlocking	-do-
4	Provision of automatic signalling between Ambernath and Badlapur.	-do-
5	Byculla Route Relay Interlocking	-do-
6	Raoli Junction Panel Interlocking	-do-
7	<i>Kurla</i> —Provision of cross-overs from through line (Down) to Down local line and from Up local line to Up through line.	-do-
8	<i>Kurla</i> —Provision of separate platform for EMU locals.	Completed
9	Route Relay Interlocking at Diva.	In progress
10	<i>Kurla</i> —Reversal facilities for starting locals towards Thana / Kalyan.	Completed
11	<i>Thana</i> —Reversal facilities for starting trains from Platform No. 3.	In progress
12	Replacement of EMU coaches and provision of additional EMU coaches.	-do-
WESTERN RAILWAY		
(1)	Quadrupling of track between Grant Road and Churchgate.	Likely to be opened by end of 1973
(2)	Replacement of 1938 old stock and adding to the total holding of rakes to come up to 64 rakes to run the two minutes service during peak periods.	Six rakes out of 11 rakes already replaced. The total number of train services which were about 461 in 1969-70 has increased to 501.

No.	Item of work	Progress
(3)	Proposal to augment traction power by providing additional sub-stations etc.	Additional sub-stations at Ville Parle, Mira Road and Matunga Road are already provided. New sub-stations at Goregaon and Mahalaxmi planned and are under progress. First phase of re-modelling of Bombay Central Car Shed is also completed. Second phase is under way. Work of Mahalaxmi Expansion Phase I costing about Rs. 1.2 crores is also started.

CALCUTTA SOUTH EASTERN RAILWAY

- | | |
|---|---------------------------------------|
| 1 Up to the end of the 4th Plan, there are proposals for introducing 42 pairs of suburban trains. These are planned on EMU coaches. | So far 33 pairs have been introduced. |
|---|---------------------------------------|

EASTERN RAILWAY

- | | |
|---|--|
| 1 A total of 248 suburban services were envisaged on Sealdah Division and 118 in Howrah Division. | Suburban services running in August, 1973:- |
| | Sealdah Division : 213 |
| | Howrah Division : 113 |
| 2 Provision of suburban dispersal line from Dum Dum to Princep Ghat. | Dropped as not justified. |
| 3 Mass Rapid Transit System. | Since sanctioned at an approximate cost of Rs. 140 crores. |

MADRAS SOUTHERN RAILWAY

- | | |
|---|--|
| 1 Madras-Gumudipundi electrification as a part of Madras-Vijayawada Scheme. | Work already commenced. |
| 2 Proposals for improving and augmenting rolling stock, power on the MG side. | |
| (a) Replacement of 72 Overaged Elec. Multiple Unit Coaches. | Delivery Schedule
8 in 1972-73
16 in 1973-74
24 in 1974-75
24 already replaced |
| (b) Conversion of Breda EMU coaches suitable for operation with ICF MG AC EMUs. | Already done. |
| (c) Obtaining additional six motor coaches. | Will be delivered in 1974-75- |

APPENDIX III

(Vide para 2.56)

List of Suburban sections and traction power used.

Railway	Sections	Gauge	Traction power
A. Bombay.			
Central	(1) Bombay VT-Kalyan-Karjat.	B.G.	Electric DC
	(2) Kalyan-Kasara	”	”
	(3) Bombay VT-Mahim/Kurla (Harbour Branch)	”	”
	(4) Kurla-Mankhurd	”	”
Western	(1) Churchgate-Virar	”	”
B. Calcutta			
Eastern	(1) Howrah-Burdwan (Via Main Line)	”	Electric AC
	(2) Howrah-Burdwan (Via HB Chord)	”	”
	(3) Seoraphuli-Tarakeshwar. . . .	”	”
	(4) Bandel-Naihati	”	”
	(5) Bandel-Katwa	”	Steam
	(6) Sealdah-Ranaghat	”	Electric AC
	(7) Sealdah-Bongaon	”	”
	(8) Ranaghat-Krishnanagar City	”	”
	(9) Ranaghat-Shantipur	”	”
	(10) Sealdah-Dankuni	”	”
	(11) Sealdah-Budge/Budge Dia- mond Harbour/Lakshmi- kantapur/Canning. . . .	”	”
	(12) Ranaghat/Bongaon	”	Steam
	(13) Ranaghat/Bagula	”	”
South-Eastern	(1) Howrah/Baltichais (incl.)	”	Electric AC
	(2) Santragachi-Shalimar	”	Steam

Railway	Sections	Gauge	Traction power
<i>C. Madras.</i>			
Southern	(1) Madras Central— Madras Beach . . .	B.G.	Steam
	(2) Madras Central— Trivellore . . .	„	„
	(3) Madras Central— Gummidipundi . . .	„	„
	(4) Madras Beach— Tambaram-Vandalur . . .	M.G.	Electric AC
	(5) Tambaram-Chingleput . . .	„	Electric AC & Steam.

APPENDIX IV

(Vide para 3.1)

Statement indicating classes of travel provided Carrying capacity of each class and the maximum occupation during peak and non-peak hours on the Suburban train Services

Name of city	Railway	Class of travel provided	Carrying capacity in each class						Maximum occupant (at any one point)		
			1	2	3	4	5	6	During peak hours	During non-peak hours	
Bombay	Central	First				313 passengers per E.M.U. train.				170%	80%
		Third				1476 passengers per E.M.U. train				170%	80%
Bombay	Western	First				310 passengers per E.W.M.U. train				200%	100%
		Third				1408 passengers per E.M.U. train				200%	100%
Howrah/Calcutta	Eastern	First				52 passengers per 4 bogie EMU train				146%	42%
						52 passengers per 6 bogie EMU train				25%	14%
						104 passengers per 8 bogie EMU train				120%	106%
						15 passengers per conventional train				200%	157%

	Third	760 passengers per 4 bogie EMU train	179%	119%
		1004 passengers per 6 bogie EMU train	114%	90%
		1496 passengers per 8 bogie EMU train	153%	144%
		650/539 passengers per conventional train	165%	156%
Howrah/Calcutta	First	104 passengers per E.M.U. train	140%	83%
	Third	1472 passengers per E.M.U. train	140%	83%
Madras	First	40 passengers per B.G. conventional train	65%	40%
		68 passengers per M.G. D.M.U. train	107%	27%
	Third	520 passengers per B.G. conventional train	200%	120%
		544 passengers per M.G. E.M.U. train	349%	110%

NOTE.— 1. The figures given under columns 5 and 6 are of maximum occupation at any one point. These will vary from section to section and also from train to train.

2. Carrying capacity of EMU trains, except Southern Railway (M.G.) is inclusive of Marked standing capacity in the coaches, on the Southern Railway, M.G. portion (EMU) and equal number will have to be taken as accommodation for standing passengers as the marked carrying capacity indicates only the seating capacity.

APPENDIX V

(Vide para 3.4)

Daily average number of passengers travelling on season and ordinary tickets on the Suburban Sections

	1968-69		1969-70		1970-71	
	Season ticket holders	Ordinary ticket holders	Season ticket holders	Ordinary ticket holders	Season ticket holders	Ordinary ticket holders
Bombay Area						
I	101,227	9,049	117,165	9,710	109,044	6,564
III	773,070	526,440	831,652	566,481	943,859	592,308
TOTAL	874,297	535,489	948,817	576,191	1,052,903	598,872
Calcutta Area						
I	4,441	1,290	4,410	1,236	4,167	1,110
II	148	..	148	..	131
III	288,472	269,246	294,251	280,106	281,415	270,057
TOTAL	292,913	270,684	298,661	281,490	285,582	1,271,291

APPENDIX VI

(Vide para 4.26)

Number of Officers and other Employees including casual Labour employed in Bombay, Calcutta, Madras and their Suburbs

Region/Railway	Class I	Class II	Class III	Class IV	Casual Labour
<i>As on 1-4-1970</i>					
<i>Bombay</i>	Central	455 (Cl. I & II)	23,491	17,712	..
	Western	145	180	14,291	2,301
<i>Calcutta</i>	Eastern	208	287	34,210	4,067
	South Eastern	NOT AVAILABLE—WILL FOLLOW			
<i>Madras</i>	Southern	141	148	19,521	6,273
<i>As on 1-4-1971</i>					
<i>Bombay</i>	Central	476 (Cl. I & II)	23,350	17,598	..
	Western	156	188	14,314	3,468
<i>Calcutta</i>	Eastern	207	307	34,853	6,610
	South Eastern	NOT AVAILABLE—WILL FOLLOW			
<i>Madras</i>	Southern	142	144	16,890	6,732
<i>As on 1.4.1972.</i>					
<i>Bombay</i>	Central	526 (Cl. I & II)	23,867	16,715	..
	Western	167	195	14,499	2,722
<i>Calcutta</i>	Eastern	210	304	35,013	5,664
	South Eastern	NOT AVAILABLE—WILL FOLLOW			
<i>Madras</i>	Southern	149	168	20,039	4,925

APPENDIX VII

(vide para 6.4)

Broad details of the Calcutta—Dum-Dum—Tollyganj underground Railway Project

- (i) Alignment—Dum-Dum to Tollyganj in the north-south direction.
- (ii) Length—16.5 Km.
- (iii) Estimated cost—Rs. 140 crores.
- (iv) Foreign Exchange—Rs. 23.7 crores.
- (v) Time for construction—7 years.
- (vi) Break-up of foreign exchange—
 - (a) Construction equipment—Rs. 3.0 crores.
 - (b) Structural steel and sheet piles—Rs. 9.1 crores.
 - (c) Rolling stock and electrical equipment—Rs. 6.5 crores.
 - (d) Tele-communication and signalling equipment — Rs. 4.5 crores.
 - (e) Consultancy etc.—Rs. 0.2 crores.
 - (f) Other miscellaneous items—Rs. 0.4 crores.
- (vii) With average alternative fares of 20 Paise, 25 Paise, and 30 Paise, the following financial appraisal by discounted cash flow method is indicated with reference to a 6 per cent annual dividend on investments:—
 - (a) Annual subsidy of Rs. 68.33 million for 20 Paise fare;
 - (b) Annual subsidy of Rs. 39.09 million for 25 Paise fare;
 - (c) Annual subsidy of Rs. 9.85 million for 30 Paise fare.
- (viii) The fare structure has not yet been decided;
- (ix) Average length of trip—6.8 Km.

APPENDIX VIII

(Vide para 3 of Introduction)

List of individuals|organisations who have furnished memoranda to the Railway Convention Committee

(1) Members of Parliament

1. Shri D. D. Desai
2. Shri D.C. Goswami
3. Shri S. Jaipuria
4. Shri Kalyan Chand
5. Shri E. R. Krishnan
6. Shri N. N. Pandey
7. Shri Ramavatar Shastri

(2) State Governments

1. Government of Andhra Pradesh
2. Government of Gujarat
3. Government of Kerala
4. Government of Madhya Pradesh
5. Government of Manipur
6. Government of Orissa
7. Government of Pondicherry
8. Government of Tripura
9. Government of Uttar Pradesh
10. Delhi Administration

(3) Railwaymen's Unions

1. National Federation of Indian Railwaymen, New Delhi.
2. National Railway Mazdoor Union, Bombay.
3. Northern Railwaymen's Union, New Delhi.
4. N. E. Railway Mazdoor Union, Gorakhpur.
5. South Eastern Railwaymen's Union Kharagpur.
6. S. E. Railway Class II Officers Association, Calcutta.
7. Western Railway Employees' Union, Bombay.

(4) Chambers of Commerce and Industry, etc.

1. The Ahmedabad Mill Owners' Association, Ahmedabad.
2. The All India Federation of Transport Users' Association, Bombay.

3. The All India Manufacturers' Organisation, Bombay.
4. The Associated Chambers of Commerce & Industry of India, Calcutta.
5. Belgo-Indian & Chamber of Commerce & Industry, Bombay.
6. Bharat Jute Sellers Association, Calcutta.
7. Bombay Commuters Council, Bombay.
8. Eastern Bihar Divisional Chamber of Commerce and Industries, Bhagalpur.
9. Federation of Indian Chamber of Commerce & Industry, New Delhi.
10. Federation of Associations of Small Industries, New Delhi.
11. The Hyderabad Karnatak Chamber of Commerce & Industry, Gulbarga.
12. Indian Chamber of Commerce, Calcutta.
13. The Indian Chamber of Commerce, Cochin.
14. Karnatak Chamber of Commerce & Industry, Hubli.
15. The Madras Chamber of Commerce & Industry, Madras.
16. North Bihar Chambers of Commerce & Industry, Muzaffarpur.
17. Northern India Chamber of Commerce & Industry, Chandigarh.
18. Punjab, Haryana and Delhi Chamber of Commerce & Industry, New Delhi.
19. The Southern Gujarat Chamber of Commerce & Industry, Surat.

(5) Professional Organisations

1. Indian Institute of Management, Calcutta.
2. Indian Institute of Public Opinion (P) Ltd., New Delhi.
3. Indian Railways Electrical Engineers Association, Calcutta.
4. National Institute for Training in Industrial Engineering, Bombay.

(6) Retired Railway Officers

1. Shri D. N. Chopra, Ex. General Manager, S. C. Railway.
2. Shri G. D. Khandelwal, Chairman, Railway Board (Retd.)
3. Shri K. B. Mathur, Ex. Chairman, Railway Board.

4. Shri K. K. Mukerjee, Ex. General Manager, Eastern Railway.
5. Shri P. N. Murthy, Ex. General Manager, Railway Electrification, Calcutta.
6. Shri V. T. Narayanan, Ex. General Manager, Southern Railway.
7. Shri L. A. Natesan, Economic Adviser (Retd.), Ministry of Railways.
8. Shri J. B. Rao, Ex. General Manager, North Eastern Railway.
9. Shri D.V. Reddy, Ex. General Manager, North East Frontier, Railway.
10. Shri N. S. Swaminathan, Ex. Member (Traffic) Railway Board.
11. Shri S. P. Tonse, Ex. Director, Electrical Engineering.

(7) *Public Undertakings*

1. Bureau of Public Enterprises, New Delhi.
2. Cement Corporation of India, Ltd., New Delhi.
3. Fertilizers Corporation of India, Ltd., New Delhi.
4. Food Corporation of India Ltd., New Delhi.
5. Hindustan Salts Ltd., Jaipur.
6. Hindustan Steel Ltd., Ranchi.
7. The Minerals and Metals Trading Corporation of India Ltd., New Delhi.
8. National Mineral Development Corporation Ltd., New Delhi.
9. Oil India Ltd., New Delhi.

(8) *Other Individuals*

L

1. Shri Rishab Das Jain, Sri Ganga Nagar, Rajasthan.
2. Shri R. P. Srivastava, 7/179 Swarup Nagar, Kanpur.
3. Shri B. L. Joshi C/o Dharmyug, Weekly, Bombay.
4. Shri Rajendra Pal Sharma, P. O. Mohakampur, Distt. Etah.

APPENDIX IX

(Vide Para 7 of Introduction)

Summary of Recommendations|conclusions contained in the Report

S. No	Reference to para No. of the Report	Summary of Recommendations/ Conclusions
1	2	3
1.	1.20	<p>The Committee note that in Railway parlance 'Suburban Services' have a special connotation indicating train services where season ticket fares are lower than the season ticket fares generally charged by the Railways on their system. The concessional fares in suburban trains varies generally from 9 to 15 times single fares depending on the length of the journey as compared to 15 to 20 times single fares generally charged from all other season ticket holders. The Committee are rather surprised that Secunderabad area where reduced season ticket fares are not available, should have been included by the Railways in their statistics of 'Suburban Services'. The Committee hope that in future the Railways would present a correct picture of the statistics of their 'Suburban Services' and would include only those cities sections in their statistics where special season ticket fares are applicable. They would also like the Railways to spell out specifically the connotation of Suburban Services in such Railway statistics.</p>
2.	1.28	<p>The Committee regret to note that till 1965 no detailed study of the traffic and transport requirements of metropolitan cities was undertaken by Government. It was only in October, 1965 that the Planning Commission constituted</p>

1

2

3

a Study Team on Metropolitan Transport to undertake comprehensive traffic and transport studies in the 4 metropolitan cities of Bombay, Calcutta, Madras and Delhi. The scope of these studies is being enlarged to include 5 other cities viz., Ahmedabad, Bangalore, Hyderabad, Kanpur and Poona. The Committee note that these studies are meant to provide Rapid Transit System in these cities for intra-city transport. The Committee like to emphasise that the problems of intra-city traffic in these over-populated cities which are spread over wide areas, are very acute and need to be solved with the utmost expedition so as to provide quick means of transport to the harassed citizens of these cities. It is common knowledge that in these cities considerable time is expended by the general public and younger generation in travelling to and from work, going to Schools|University|Colleges etc. Frequent incidents involving law and order problems arise on account of inadequacy and lack of punctuality and regularity in the running of these services. The Committee cannot therefore stress too strongly the need for providing reliable, punctual and efficient transport services at reasonable costs in these metropolitan cities.

3. 1.29

The Committee further consider that the problem of providing suburban inter-city transport services between cities having a population of 10 lakhs and over and neighbouring towns is equally serious and needs to be tackled on an urgent basis as the absence of cheap, swift and sure means of transport from outlying towns to places of work in the bigger cities tends to force the working population to settle in these cities and create slum conditions and unhealthy environments etc., apart from causing serious strain on social utility services like water, electricity, housing, transport etc., in these already over-saturated cities. The Committee feel that a

1

2

3

comprehensive integrated plan, on long term and short term basis, should be prepared by Government in consultation with the State Governments not only to arrest the drifting of population to central areas in metropolitan cities but also to disperse the existing population from these big cities and to attract them to settle in satellite and ring towns where proper arrangements should be made for their housing, sanitation, water supply, educational facilities for children etc. These plans can be successful only if adequate provision of mass transport is made from such towns and suburban areas to the metropolitan cities and back.

The plans for the metropolitan cities and the peripheral towns have to be integrated for this purpose. The intention is that persons working in bigger cities, particularly those with low incomes, can commute to their places of work and go back to the smaller towns where proper housing and healthy environments, sanitation, sewerage, educational facilities for children etc., may be provided to them. The object should be to keep the population in the bigger cities within the specified limits. The optimum size of these cities may be fixed by Government taking into account the prospects of providing necessary social services like water, electricity, transport etc., for them at reasonable costs. It is well known that the big cities are outgrowing their physical boundaries and have become over-saturated with population. Moreover the social and economic costs of providing utilities and services to large populations in these cities are becoming prohibitive. The above objects can be fulfilled only by developing the satellite towns and providing swift, cheap and sure means of transport between metropolitan cities and the satellite towns. The Committee trust that the problems confronted in Bombay, Calcutta, Madras

1

2

3

and Delhi etc., would provide proper lessons to the planners to prepare such integrated perspective plans in respect of all big metropolitan centres having a population of 5—10 lakhs and above. As provision of quick and cheap transport to link the satellite towns with metropolitan cities is one of the key factors to the solution of this problem, the Committee have no doubt that the Railways with their infra-structure and long past experience in providing inter-city suburban services would play a dominant part in this regard and would provide the necessary swift and sure suburban rail transport at reasonable cost at all these centres.

4.

1.30

The Committee note that Railways have suggested to the Planning Commission and the Finance Ministry that investment on any future extension of suburban services should be free from dividend liability and that the operating losses on such services should be borne by some other authority and not by the Railways. The Committee have already stressed the need for expeditious preparation of integrated plans for provision of suburban services etc., in consultation with the State Governments. They urge that the question of financing these services and the authority to manage the same should be decided at the earliest so that there is no delay in the provision of these services in all metropolitan cities, the absence of which is creating numerous problems.

5.

1.31

The Committee trust that all necessary arrangements to implement these plans successfully particularly the acquisition of land etc., at reasonable costs, keeping adequate margin for future growth, should be made in a planned manner in advance. Land for rail transport should be an integrated part of the developmental plans of metropolitan cities. The Committee urge that time-bound and action oriented

1

2

3

programmes in this regard should be prepared with the utmost expedition.

6. 2.5 The Committee note that during the 20 years from 1950-51 to 1970-71 while the suburban traffic increased by 292 per cent at Bombay, 333 per cent at Calcutta and 246 per cent at Madras, the number of trains has increased only by 167 per cent at Bombay, 220 per cent at Calcutta and 124 per cent at Madras during the same period. It is regrettable that the addition to train services in these cities has not been in proportion to the increase in suburban traffic resulting in the deterioration of travel conditions of suburban passengers in these cities.
7. 2.11 The Committee regret to observe that the additions and improvements in suburban services made by the Railways, have not been adequate to meet the demands of suburban traffic. The growth in the suburban traffic has greatly outstripped whatever improvements and additional facilities have been provided so far by the Railways. It seems to the Committee that the problems of suburban traffic did not receive the attention that they deserved as the Railways considered it to be a losing activity. This is unfortunate. In the opinion of the Committee, the provision of adequate suburban services in the interest of planned development of metropolitan cities, should have received serious attention of the Government from the very First Plan so that integrated plans for the development of these essential transport services, were drawn up and implemented by Government in consultation with Planning Commission, State Governments and all others concerned.
8. 2.12 The Committee note that it was only in October, 1965 that the Planning Commission constituted a Study Team to carry out comprehensive traffic and transport studies in the four

1

2

3

metropolitan cities of Bombay, Calcutta, Madras and Delhi and that so far the scheme for Rapid Transit System for Calcutta Underground Railway only has been finalised and approved by Government. The Committee regret to point out that the schemes of Rapid Transit Systems for Bombay, Delhi and Madras have not yet been finalised despite a lapse of over seven years. The Committee have dealt with this matter in greater detail in Chapter VI of this Report.

9. 2.18

The Committee urge that pending the introduction of Rapid Transit Systems in these metropolitan cities which is bound to take a long time, the Railways should take crash measures to bring about improvements in the existing suburban facilities in these cities to ameliorate the travelling conditions of the suburban passengers. Concerted efforts should also be made by Railway to reduce losses in suburban services.

10. 2.19

The Committee are constrained to observe that the terminal facilities at Bombay, Calcutta and Madras have not been adequate to cater to the needs of the passenger traffic and that it was only in February, 1971, that the Railway Board instructed the Zonal Railways to conduct necessary studies to optimise these facilities. They note that necessary surveys for improvement and augmenting these facilities are at various stages of progress. The Committee regret the delay in the undertaking of these studies by the Railways and feel that these should have been taken up at least a decade earlier, so that a perspective plan in this behalf was kept ready for implementation in the light of developments. The Committee cannot too strongly emphasise the urgency of providing adequate terminal facilities in these cities and recommend that the surveys already being undertaken in this regard, should

1

2

3

be expedited and necessary steps taken to provide these facilities at the earliest. At the stations where there is difficulty in providing improvements to the existing terminal facilities due to shortage of space etc., alternative terminals should be planned and constructed at suitable locations on top priority basis.

11. 2.20 The Committee further recommend that a survey of the transport facilities at all the metropolitan cities for meeting the requirements of suburban traffic, having a population of 10 lakhs and over, should be undertaken by the Railways and integrated perspective plans for their development should be prepared in consultation with Planning Commission, State Governments and local authorities to avoid the problems that have arisen at Bombay and Calcutta. These long term plans which should include land requirements for developing these facilities should be broken up into Five Year Plans and Annual Plans. Close watch should be kept to ensure the implementation of these plans in time.
12. 2.35 The Committee note that the Railways have introduced 9 coach rakes on certain sections of the Central and Western Railways at Bombay replacing the old 6 coach rakes thereby increasing the capacity by 50 per cent. They regret that it has not been possible for the Railways to provide 9 coach rakes on all the sections due mainly to non-availability of EMU stock.
13. 2.36 The Committee are unable to appreciate why the Railways, with all their resources, advance planning and implementation could not ensure that adequate number of 9 coach rakes were available for introduction on all busy sections in time to provide much needed relief to the suburban passengers. The Committee stress that Railways should ensure that 9 coach rakes
-

1

2

3

are introduced on all busy sections in the three cities of Bombay, Calcutta and Madras, without further delay so as to relieve congestion and overcrowding at these places.

14.

2.37

The Committee further recommend that the requirements of such coaches for other metropolitan cities, where the traffic so requires, should be assessed in advance and plans prepared for production and procurement of the requisite number of coaches for introduction in these cities well in time.

15.

2.38

The Committee learnt during their study tour to Bombay that it would be possible to further relieve overcrowding by introducing 12 coach rakes. They note that the Railways have dropped the proposal to run 12 coach rakes on account of technical difficulties. The Committee would like the Railways to have this matter investigated thoroughly keeping in view the practice followed in other countries, and the technical developments in the field so that if it is found feasible to operate 12 coach rakes on busy sections on suburban lines at a later date, those could be pressed into service to relieve overcrowding.

16.

2.39

The Committee are concerned to note that a number of EMU rakes of 1928 vintage are still being used on the Central and Western Railways, Bombay. It is obvious that in spite of continuous and extensive repairs required by this old EMU stock, these coaches would be having frequent failures affecting punctuality of the trains and causing great inconvenience to the commuters. It is, therefore, necessary that earnest efforts are made to expedite the procurement of EMU stock by augmenting the manufacturing capacity of the Integral Coach Factory and putting the working of M/s. Jessops on a sound footing.

-
- | 1 | 2 | 3 |
|---|---|---|
|---|---|---|
-
17. 2.40 The Committee are perturbed to note that the manufacture of electric equipment for EMU coaches, particularly for meter gauge coaches, constituted a constrain on the production programme of such coaches at the Integral Coach Factory. The Committee see no reason why Government could not plan a production programme for electric equipment for EMU coaches at HEIL, Bhopal and Hardwar to ensure that the requirements of EMU coaches for such equipment were met in full. The Committee stress that effective measures should urgently be taken by Government to ensure that the electric equipment for EMU coaches,, particularly for meter gauge coaches, is supplied to the Integral Coach Factory to meet the full requirements of such coaches by the Railways.
18. 2.41 In this connection the Committee would also invite attention to the recommendations made by them in Paragraphs 2.107, 2.108 and 2.109 of their First Report on "Accounting Matters" wherein they have stressed the need for accelerating the production programme of EMU coaches by the Railways.
19. 2.52 The Committee note that there has been improvement in the average headway between the trains in the peak period at Bombay, Calcutta and Madras and that the 2-minute service would progressively be run on the Western Railway, Bombay by 1975-76 subject to the availability of requisite number of EMU stock and the work of quadrupling of lines would be completed by December, 1973. They also note that the question of reducing the headway further is under study by the Survey Teams at Bombay and Calcutta. The possibility of reduction of headway at Calcutta and Madras is
-

1

2

3

limited due to lack of separate suburban platform at Howrah and level crossings at Madras. The Committee hope that with the completion of the studies already undertaken at Bombay and Calcutta, every endeavour would be made by the Railways to reduce to the minimum the headway in these cities consistent with safety and the need for introducing more trains.

20.

2.53

As regards Madras, the Committee would like the Railway Administration to take initiative in consultation with the Planning Commission, Ministry of Transport and State Government to draw up a plan for construction of under/overbridge at important and busy level crossings so as to increase the frequency of suburban trains in that area.

21.

2.54

The Committee have already suggested various measures to expedite the construction of over and under-bridges in Paragraphs 3.51 to 3.56 of their First Report on "Accounting Matters". They hope that with the implementation of the various suggestions made by them, it would be possible to expedite the work of construction of under and over-bridges and remove bottlenecks in the smooth running of the trains.

22.

2.55

The Committee would further recommend that the Ministry of Railways in consultation with the Ministry of Transport/State Governments should identify the missing links in providing under and over-bridges on level crossings which are hampering the smooth movement of traffic in busy areas. The Committee stress that time-bound programme should be prepared to provide these missing links at the earliest.

23.

2.60

The Committee note that steam traction is used in some sections of Calcutta and Madras for suburban traffic as electrification of those

1

2

3

sections would not yield a reasonable return to the Railways. They also note that diesel engines are not used on these sections due to their non-availability. The Committee consider that in deciding the type of traction to be used, the Railway should take into account the needs of traffic, both passenger and goods. In regard to the suburban traffic, the Committee have already recommended in Paragraph 1.28 that Government should aim at providing quick, cheap and sure means of transport to the commuters to metropolitan cities and that the question whether financial cost and the losses, if any, incurred on providing such services should be borne by the Railways or some other authority, should be decided by the Government separately. The Committee would like the Railways to study the requirements of traffic on these sections with a view to determine the traction needed to haul that traffic and provide the same to cope with the growing traffic to relieve congestion and overcrowding. In the meantime the Committee recommend that Railway should put diesel engines on these sections, on a priority basis, particularly during peak hours to meet the needs of suburban traffic.

24.

3.17

The Committee regret to note that there is heavy overcrowding in suburban trains in Bombay, Calcutta and Madras particularly during peak hours. They note that studies have been undertaken for providing Mass Transit Systems in these cities and that Mass Transit System for Calcutta has already been sanctioned. The Committee are aware of the limitations in increasing the train services and reducing headways of the suburban trains in these cities. In the earlier Chapter they have urged the Railways to take effective measures to provide more suburban services for carrying suburban traffic to the extent possible.

1	2	3
(25)	3.18	<p>The Committee are however concerned to note that the number of suburban trains on the Section between Grant Road and Churchgate in Bombay would be increased during peak hours from 45 to 80 by the Western Railways, only when new EMU rakes become available from Integral Coach Factory and M/s. Jessops which will take time. The Committee are surprised that no advance planning was done by the Railways to order the manufacture of EMU coaches and to ensure their availability for running additional number of trains on this Section well in time of the completion of quadrupling of the lines on this Section. The delay in running the additional number of trains, for want of adequate number of EMU stock, would result in non-utilisation of line capacity which has been created at heavy capital cost, apart from causing delay in providing relief from overcrowding to the suburban passengers on this Section. The Committee recommend that effective measures should be taken by the Railways urgently to ensure that sufficient EMU coaches are made available by the Integral Coach Factory and M/s. Jessops by stepping up their production, to run the additional trains by the end of 1973.</p>
26.	3.19	<p>The Committee note that at present two classes of travel—first and third—are provided on suburban trains in the three cities of Bombay, Calcutta and Madras. They find that out of a total of 24 lakh daily suburban passengers in Bombay, Calcutta and Madras during 1970-71, about 23 lakh are third class passengers. The Committee feel that suburban travel, which is for short duration, and is mostly utilised by third class passengers, should be mass-oriented and should provide one class of travel only. Apart from marginal increase in capacity in the suburban trains the abolition of first class travel, would also result in less expenditure on cons-</p>

1

2

3

truction and maintenance of first class coaches on these trains.

27. 2.20 The Committee need hardly point out that while introducing one uniform class on suburban trains, due care should be exercised to see that ladies and children under 12, are provided adequate accommodation by continuing to earmark separate compartments for them.
28. 3.21 The Committee note that the question of providing increased standing accommodation in suburban trains has been under consideration of the Railway Design and Standard Organisation for a considerable time. They are constrained to observe that the R.D.S.O. has not taken up this problem on a priority basis, which it deserved. The Committee recommend that the R.D.S.O. should examine without delay how best accommodation in the existing EMU coaches could be optimised and evolve a new design suited to requirements for future EMU coaches. While increasing the capacity of these coaches particular attention should be paid to the problem of adequate ventilation and safety. The Committee have no doubt that in evolving the new lay out of EMU coaches for suburban services R.D.S.O. Railways would keep in view the latest technological development and layouts of similar rail coaches in foreign countries.
29. 3.22 The Committee have no doubt that before introducing coaches with the new lay-out on an intensive scale, they would be tried on pilot basis so as to ascertain the passengers' reactions as also to ensure that they subserve the purpose of providing maximum comfort, safety and optimum utilisation of space.
-

1

2

3

-
30. 4.9 The Committee note that the season ticket fares charged from the suburban passengers in the three cities of Bombay, Calcutta and Madras are lower than those charged from non-suburban season ticket holders in other cities. These fares generally range from 9 to 15 single journey fares for performing 50 journeys in a month in these cities, compared to 15 to 20 single journey fares charged from non-suburban season ticket holders. The Committee are surprised to note that the suburban season ticket fares in the three cities were not also uniform. While these fares, in respect of first class season tickets, were made uniform for all distances in the three cities in 1969, the third class suburban season ticket fares were made uniform in April, 1972 upto 48 Kms. only, beyond which the fares still differ to some extent. The Committee feel that the diversity in the suburban season ticket fares in the three cities should not have been allowed to continue indefinitely after the Companies Railways were taken over by Government. They recommend that the diversity still existing in the third class suburban season ticket fares, should be removed and uniform fares should be prescribed in the three cities.
31. 4.10 The Committee note that no scientific cost study of the suburban fares has been made by the Railway so far and that the detailed cost studies, undertaken by the Railways, would be completed in the next 18 months. The Committee recommend that earnest efforts should be made to complete the cost studies of passenger fares expeditiously. At the same time, they would like the Railways to determine the cost of suburban services separately from those of other passenger services in view of the fact that the assets on the suburban services i.e., line
-

1

2

3

capacity, locomotives, coaches etc., are used very intensively and, therefore, the operating ratio of the suburban services may well be lower than other passenger services. After the study has been completed, the Railways may examine to what extent it would be possible to adjust the fare structure of the suburban services, keeping in view the desirability of providing cheaper travel to suburban passengers.

32. 4.11 The Committee have pointed elsewhere in the Report that they attach highest importance to the provision of adequate transport facilities in the metropolitan areas in the interest of planned development. The Committee have no doubt that if Government on consideration of all aspects, feel that fares should be kept lower than the cost, a suitable decision would be taken in consultation with concerned authorities, particularly, the Planning Commission, Ministry of Finance and State Governments. The Committee would also like the Government to make a study as to the extent to which other railway systems in foreign countries provide suburban travel facilities at a rate lower than their cost and how their deficits are met.

33. 4.29 The Committee are concerned to note that losses on suburban services in the three cities of Bombay, Calcutta and Madras are increasing year after year and that in 1970-71 these losses were assessed at about Rs. 12 crores. The losses in Calcutta area have been the highest and amounted to over Rs. 9 crores in 1970-71. The Committee are perturbed at the high incidence of losses on suburban services in the Calcutta area. The Committee would like the Railways to analyse the causes of these abnormal losses and to reduce the same by effecting utmost economy in expenditure and increasing revenue earnings by plugging leakages like ticketless travel etc.,
-

1

2

3

in that area. They hope that with the improvement in the law and order situation in the Eastern Sector, it would be possible for the Railways to show better results in future.

34.

4.30

The Committee note that the figures of losses on 'Suburban Services' assessed by the Railways are a 'rough and ready figure' and indicate 'broad approximation' only and that no separate accounts of income and expenditure on 'Suburban Services' are maintained by the Railways. The Committee further note that the Railways are setting up costing cells as a result of the recommendations by World Bank Team of Consultants to improve cost accounting on the Railways. The Committee hope that with the setting up of these cells, it would be possible for the Railways to review their methodology of costing of 'Suburban Services' with a view to introduce refinements and accuracy in the method of costing. The Committee have already suggested that the costing of suburban services should be done separately so that the real losses on running of these services could be determined with accuracy.

35.

4.31

The Committee find that free residential card passes and concessional season tickets at 1/3rd of public rate, are issued to Railway officers and employees at Bombay, Calcutta and Madras and that the number of such passes and concessional tickets in 1971 was over 1 lakh. The Committee suggest that while assessing the losses on 'Suburban Services' the cost of free residential card passes and concessional season tickets issued to the railway officers and employees at these places should also be taken into account before arriving at the figure of losses so as to present a correct picture of the operational results of these services.

-
- | 1 | 2 | 3 |
|---|---|---|
|---|---|---|
-
36. 5.19 The Committee note that the monetary loss on ticketless travel on the suburban sections of the metropolitan cities as estimated by the Railways was between Rs. 60 lakhs to Rs. 90 lakhs in 1970-71. They further note that the amount of fare and penalty collected from ticketless travellers in these cities has been increasing year after year which indicates that the extent of suburban ticketless travel in these areas is quite heavy. The Committee find that the percentage of suburban trains checked varies from 14 by the Central Railway at Bombay to 61 on Metre Gauge section in Madras. This underlines the need of intensifying checking of the suburban trains particularly by the Central Railway. The Committee trust that necessary steps would be taken by the Railways in this regard.
37. 5.20 The Committee further note that the adequacy of the number of booking windows for issue of tickets to suburban travellers is constantly under review and that the Railways, apart from additional windows, have installed self-printing machines at busy stations and have also utilised the services of part-time volunteers from among the sons and daughters of the Railway employees to issue tickets at certain Stations. The Committee need hardly stress that one of the reasons of ticketless travel is the difficulty in getting tickets and long time spent in the queues before the booking windows. The Committee would like the Railways to increase the number of self-printing machines at busy stations to facilitate easy availability of tickets. They would also like that the experiment of employing part-time employees during rush periods for issue of tickets which had proved successful on the Western Railways should be tried on other Railways also.
38. 5.21 The Committee find that at present the suburban season tickets issued to suburban travellers contain the signature of the holder. As it is
-

1

2

3

very difficult to check the signatures of suburban travellers particularly during peak hours, the Committee recommend that photographs of the season ticket holders should be affixed to the season tickets which would facilitate checking and would eliminate misuse of suburban season tickets. The affixing of photographs should be so arranged that the same photograph could be used on season tickets for a year at least.

39. 6.14

The Committee have already Commented upon the delay in undertaking a detailed study of the traffic and transport requirements of metropolitan cities by Government which initiated these studies in 1965 only. Long range transport planning for metropolitan regions requires comprehensive studies and collection of data regarding traffic flows etc. The Committee deplore that these studies were not undertaken by Government till the traffic situation in the metropolitan cities, particularly Calcutta and Bombay had reached a critical stage and had created serious problems in the implementation of long range comprehensive transportation plans. The Committee have stressed that integrated plans for the development of adequate suburban services in the metropolitan cities should have been prepared and implemented by the Government from the very first Plan.

40. 6.15

The Committee note that construction of the Dum-Dum Tollyganj underground railways at Calcutta is being undertaken by Government and is expected to be completed by 1979. The Committee would like to point out that the construction of an underground railway system which is a new technological venture in the country, particularly in a congested city like Calcutta, is a challenging task and would pose numerous problems. They would therefore like to emphasise that the Metropolitan Transport Authorities, in-charge of the Calcutta Project, should plan the

1

2

3

time schedules of the various stages of construction of the underground railway in a realistic manner and keep a close watch on the progress of construction so as to ensure that it is completed within time, if not earlier. It is also necessary that the cost of construction is kept under constant review to ensure that the expenditure incurred in no case exceeds the estimates.

41. 6.16 The Committee need hardly stress that Government should make earnest efforts to provide facilities for suburban travel at the most competitive and reasonable rates.
42. 6.17 The Committee note that the techno-economic survey for the East-West line *i.e.*, from Sealdah to Howrah is in progress. The Committee would urge the Railways to complete the survey expeditiously so that further action to provide Rapid Transport System on this line could also be taken up at an early date.
43. 6.18 The Committee note that the techno-economic feasibility studies for the Mass Rapid Transit System at Bombay is at a fairly advanced stage. Considering the acute congestion and overcrowding in the suburban trains at Bombay, the Committee cannot help feeling that there have been considerable delays in taking up traffic surveys and techno-economic feasibility studies for solving the suburban traffic problems of Bombay, which should have been undertaken from the 1st Plan itself. It is regretted that these studies have not yet been completed. The Committee cannot too strongly emphasise the need for expeditious completion of the techno-economic feasibility studies in these cases. The Committee urge that the Government should take an early decision on the results of these studies in consultation with the Planning Commission and
-

1	2	3
		State Governments so that effective measures could be taken to start the construction of Rapid Transit Systems at Bombay at an early date.
44.	6.19	The Committee feel that the period of 12 years for the completion of the project is too long. They would like the Government to make earnest efforts to reduce this period to the extent possible.
45.	5.20	The Committee note that the Metropolitan Transport Organisations at Delhi and Madras were set up by the Railways in July, 1971 only. They deplore the delay in undertaking techno-economic feasibility studies for Mass Transit Systems in these metropolitan cities. The Committee would urge the Government to expedite the techno-economic feasibility studies for Delhi and Madras so that the traffic problems of these cities could also be taken up for solution at an early date to provide relief to the commuters in these cities.
46.	6.21	The Committee would like to point out that population of Delhi which is the Capital of the country, has grown at a phenomenal rate since Independence. There is an urgent need to provide efficient, dependable and cheap transport for the growing population of Delhi and the large number of passengers who commute daily to the city. The Committee consider that the suburban transport in Delhi should provide a model for other metropolitan cities in the country. It is a happy feature that for the planned development of this city, Government have already set up the Delhi Development Authority which has vast lands at its disposal. There would therefore be no difficulty in meeting the land requirements for the Metropolitan Rapid Transit

1

2

3

System here. The Committee recommend that perspective plan for the development of the suburban transport at Delhi for the next 20 to 25 years should be prepared so as to avoid congestion in the central area of Delhi. This plan should include the development of the satellite towns around Delhi and should be implemented in stages according to a phased programme.

47. 6.24

The Committee note that the allocation for Metropolitan Transport Project, which was originally fixed at Rs. 50 crores during the 4th Plan, has been reduced to Rs. 20 crores at the time of mid-term appraisal on account of dropping of the scheme of Suburban Dispersal Line at Calcutta. Out of this reduced allocation of Rs. 20 crores, an expenditure of Rs. 1.45 crores only, has been incurred so far.

48. 6.25

The low expenditure indicates that the metropolitan transport projects which have already been greatly delayed, are not being proceeded with urgency and the speed that they deserve. The Committee feel that it is not lack of finances which is hampering the progress of these projects but the implementation thereof. As already valuable time has been lost, the Committee would like the Government to speed up the pace of implementation of these projects so that the Rapid Transport Systems become a reality before the beginning of the 6th Plan. The Committee urge that effective measures should be taken by Government to ensure that maximum progress is made in the execution of these projects during the present Plan period itself.

49. 6.29

The Committee note that the Railways have set up Metropolitan Transport Organisations at Bombay, Calcutta, Madras and Delhi to deal with the problems of Mass Transit Systems in

1

2

3

these cities. They note that there have been changes in the heads of these organisations at Calcutta, Bombay and Delhi. The Committee expect that the Government should have appointed heads for these Organisations not only for the completion of surveys most expeditiously, but for the execution of the projects also. The Committee consider that there is need for the most efficient and competent organisations to carry out surveys and techno-economic feasibility studies for these projects expeditiously but also to undertake the implementation of the projects for the metropolitan cities.

50.

6.30

The Committee cannot emphasise too strongly the need for continuity in the personnel of these technical organisations which are handling an entirely new task. They suggest that while posting senior officers to these organisations the question of retaining them there for sufficiently long periods, should be given due consideration as frequent changes affect the progress of work in such organisations.

51.

6.34

The Committee note that the assistance of Soviet Consultants was taken for the Metropolitan Transport Project at Calcutta and of British Consultants for the Bombay Project. They are glad that the technical problems of metropolitan transport projects are being dealt with by the Railway Design and Standard Organisation at Lucknow and that maximum use would be made of the talent available in the country to solve the problems of design and construction of these systems in future. Foreign consultancy would be availed of for limited purposes only. The Committee cannot too strongly emphasise the need of self-reliance in this technical field, particularly when the Railways have already got

1

2

3

a good and experienced Central Design Organisation.

52. 6.35 The Committee would like to stress that full use should be made of the foreign consultancy at Calcutta and Bombay to train personnel so that they can take up this work with confidence in other cities.
53. 6.36 The Committee trust that with the completion of the Metropolitan Transport Project at Calcutta, the Railway engineers would acquire the requisite confidence and develop the necessary technology and knowhow to construct rapid transit systems in other major cities in the country.
54. 6.37 The Committee would also like the Government to prepare a manufacturing programme for the rolling stock required for Mass Transit Systems in the country indigenously so that the same is available to be put in operation as soon as the projects are completed.
55. 6.52 The Committee note that the construction of the Rapid Transit Systems in the country has been entrusted to the Railways but the question of the administrative authority for managing the system and the manner of financing it, has not yet been decided by Government. The Committee further note that, as an *ad hoc* measure, funds for the Rapid Transit System have been provided in the 4th Five Year Plan, outside the Railway plan and that no dividend liability would accrue during the period of construction of these projects and first five years thereafter. The Committee deplore the delay in taking a decision in this important matter which is pending with the Government since January, 1970. The Committee realise that the whole matter regarding
-

1

2

3

the financing and management of the metropolitan transport systems is a sensitive subject and would require consultations and coordination with the State Governments and other agencies. The Committee understand that such systems are worked by separate organisations in other countries. They also note that the Administrative Reforms Commission had also recommended for the creation of a separate transport authority for the purpose. The Committee have no doubt that before a decision is taken in this matter, the working of the organisations managing such systems in foreign countries, would be studied by Government. The Committee consider the Rapid Transit Systems to be an essential service for the benefit of common man, particularly the workers. The Committee urge that Government should take a decision in this matter without further loss of time in consultation with State Governments, local authorities etc., so that necessary authority to manage the systems may be organised on proper lines and associated with these projects during the period of their construction. What the Committee would like to stress is that there is need for a most efficient organisation to manage these systems which should provide suburban travel to the common man at the most competitive rates. It should also be ensured that the overhead expenses of this organisation are kept to the minimum in the interest of efficiency and economy.
