

57

RESTRICTED

**RAIL TARIFF ENQUIRY COMMITTEE**

**MAIN REPORT**

(VOLUME-I)

REPORT



**MINISTRY OF RAILWAYS**

**GOVERNMENT OF INDIA**

APRIL, 1980

RAIL TARIFF ENQUIRY COMMITTEEM A I N R E P O R T

The 'Main Report' of the Rail Tariff Enquiry Committee is in Five Volumes. The Contents of these Volumes are given below:

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M A I N R E P O R T

(VOL. I REPORT)

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## **PART I**

### **Basic Considerations**

CHAPTER I  
INTRODUCTION

Setting up of the Rail Tariff Enquiry Committee

1.01 The structure of rates for transport of goods by rail was last reviewed in 1955-57 by the Freight Structure Enquiry Committee (1955-57). Moreover, no special enquiry had ever been made by an independent body in respect of passenger fares or the rates for other coaching traffic. In view of the far reaching changes that have taken place in the country's economy in the past, and also the changes that are expected in the years to come, there was public demand for a fresh examination of fare and freight rates structure for carriage of traffic by rail. The Public Accounts Committee as well as the Railway Convention Committee had also emphasised the need for rationalising the fare and freight structure having due regard to the cost of service. In view of these circumstances, the Government of India set up the Rail Tariff Enquiry Committee (RTEC) under Resolution No. ERB-I/77/21/70 dated 19-9-1977 (copy attached as Annexure I-1). It consisted of the following:-

Dr. H.K. Paranjape ..... Chairman

Shri K.T. Mirchandani ..... Member

Shri V.K. Sthanunathan ..... Member

Shri Vinod Pal was appointed as the Secretary of the Committee.

Terms of Reference

1.02 The terms of reference of the Committee laid down in the Government Resolution are given below:-

- " (a) To examine the structure of fares, rates and other charges for public traffic carried by passenger trains and/or goods trains, in all its aspects, and ancillary and incidental matters such as packing conditions and booking and delivery of, and payment for, traffic;
- (b) To examine the structure of fares, rates and other charges for post office mails and military traffic carried by passenger trains and/or goods trains, as also ancillary and incidental matters;
- (c) To examine any other cognate matters that may be referred to the Committee by the Ministry of Railways; and

- (d) To recommend the modifications which should be made bearing in mind, among other relevant considerations the interests of the common man, the requirements of developing economy, and the importance of making the Railways financially viable and the possibility of increased efficiency; and
- (e) Any other matters connected with the rationalisation and simplification of the freight and fare structure on the Indian Railways and any other incidental matters relating thereto."

#### Interim Report

1.03 As desired by the Government, the Committee submitted an Interim Report in November, 1978. The main objective of the Interim Report was to rectify some of the obvious anomalies in the fare and freight structures. On the passenger side, the Interim Report dealt with the suburban and non-suburban season ticket fares and the special concessional table applicable to Second Class (ordinary) fares upto a distance of 50 Kms. In regard to the freight and Parcel rates, the question of giving exemption to certain commodities from the levy of supplementary charges imposed in 1974 and 1976 was dealt with. A copy of the Summary of Conclusions and Recommendations given in the Interim Report is attached as Annexure 1.2.

1.04 The recommendations made by the Committee in the Interim Report were generally accepted and implemented by the Government except that the increases in the season ticket fares suggested by the Committee were reduced.

1.05 Details regarding staffing, office accommodation and foreign literature etc. collected for the Committee have already been given in the Interim Report.

#### Notification in Press and issue of letters

1.06 A notification was published in all leading newspapers in the country during October, 1977, calling for suggestions on the terms of reference of the Committee from individuals, as well as various trade interests. In addition more than 4,000 letters

were addressed to the following:-

1. Members of Parliament;
2. Chambers of Commerce;
3. Passenger Associations;
4. Public Sector Undertakings;
5. Major Private Sector Undertakings;
6. Central Ministries;
7. State Governments;
8. Universities; and
9. Members of the National/Zonal Railway Users' Consultative Committees.

Copies of the press notification and the letters addressed to the various groups as indicated above were given in the Interim Report. Copies of replies and various memoranda received by the Committee in response to these notifications and letters, are given in Appendix I. These replies and memoranda have been carefully examined by the Committee.

Questionnaires to rail users and railway officials:

1.07 Separate questionnaires were sent to the various Chambers of Commerce, Passenger Associations, Siding Owners, and General Managers of the Zonal Railways. Copies of these Questionnaires are attached as Annexures 1.3 to 1.7. Replies to these questionnaires have been carefully examined by the Committee.

Discussions with government officials and rail users:

1.08 The Committee visited various regions of the country with a view to giving an opportunity to different organisations representing the interests of rail users to place their views, difficulties, and suggestions before the Committee. All the State capitals, important trade and industrial centres and major ports were covered by the Committee during these tours and discussions were held with the following:

- i) Important Chambers of Commerce, and Passenger Associations.
- ii) Industries' Associations.
- iii) Major Public Sector Undertakings.
- iv) State Governments.
- v) General Managers and principal officers of all the Zonal Railways.
- vi) Divisional Superintendents and Divisional officers of some of the important Railway Divisions.



The particulars of the tours are given in Annexure 1.8. In addition, the Committee held discussions with the Central Ministries concerned. Detailed discussions were also held with the various Directorates of the Railway Board.

#### Passenger Profile Surveys:

1.09 The Rail Tariff Enquiry Committee organised two major passenger profile surveys with the help of the Railway Board and the Zonal Railways. A survey of season ticket holders, both suburban and non-suburban, was organised by the Committee during August, 1978. More than 32,000 passengers at about 2,310 stations were interviewed during this survey with a view to determining the socio economic profile of passengers travelling on season tickets and their travel habits. The results of this survey which are given in Chapter VII of the Interim Report, were taken into account by the Committee in making their recommendations in the Interim Report, and have been further taken into account for this Report.

1.10 The second survey pertaining to non-suburban passengers was organised by the Committee in March-April, 1979. It is for the first time in the history of Indian Railways that a survey of non-suburban passengers of such a magnitude has been carried out. A stratified sample of 32,000 passengers was chosen scientifically **covering various types of trains** and all classes of accommodation. This survey was organised in two parts - one for the short distance trains and the other for long distance trains. Results of the survey have been delineated in Chapter VIII of this Report.

1.11 The Railway Board nominated Shri Chand Narain, Chief Marketing Supdt., Northern Railway, and Shri A.J.Kumar, Joint Director, Railway Board to assist the Committee in organising the Passenger Profile Survey for non-suburban passengers. These officers rendered valuable help in designing, organising and conducting this survey.

#### Costing Studies

1.12 In the Resolution setting up the Committee, the need for rationalising freight and fare structure on the basis of traffic costing studies and bringing charges in closer alignment

with the cost had been emphasised. It was, therefore, considered necessary by the Committee to examine the costs of transportation of traffic by rail as thoroughly as possible. For this purpose, a very close liaison was maintained with the Directorate of Statistics & Economics of the Railway Board and the results of the various studies ~~done~~<sup>undertaken</sup> by the Railway Board were duly taken into account by the Committee.

1.13 However, in view of the fact that the existing costing system on the Railways is based mainly on fully distributed Zonewise average costs, it was considered necessary by the Committee to undertake certain costing studies relating to the variation in costs due to various factors such as gradients, speeds, density of traffic, lead of traffic, etc. The relativity of costs in carrying the traffic in train loads, wagon loads and snalls had also to be established as accurately as possible. In this the Committee was assisted by Messrs. Bahadur Murao & Co. who were appointed as consultants. The results of these studies have also been duly taken into consideration by the Committee.

1.14 The Committee also had detailed consultations with the Research, Designs and Standards Organisation regarding several aspects of traffic costing pertaining to variation in costs due to gradients, speeds, and corrosive effects of certain commodities etc.

1.15 The Planning Commission had entrusted certain studies to the Rail India Technical and Economic Services Ltd.(RITES) pertaining to nodal costs, traffic flows and resource cost studies for Railways and Highways. A close liaison was maintained with the Planning Commission and RITES so that the Committee could derive maximum benefit from these studies. RITES' reports on commodity flows were received in November, 1979, and on Resource Cost Studies in January, 1980. These reports have been found to be very useful by the Committee. The Committee also maintained close liaison with the National Transport Policy Committee appointed by the Planning Commission.

#### Study on Sidings

1.16 As has been mentioned above, a detailed questionnaire

was sent to about 2,000 siding owners in connection with examination of siding charges. Considerable data was collected in this connection and the assistance of Shri V. Shankaran, a retired railway officer, was taken for analysing the data and for conducting some field studies in connection with the siding charges.

Expert Group for "Railways in Indian Economy - a Perspective for the Future".

1.17 As has been mentioned above, the last indepth study of the Railway freight structure was done twenty years back by an Expert Committee. It was felt by this Committee that we should not confine ourselves to the immediate needs of the Indian Railways but we should assess as realistically as possible its future requirements for another twenty years or so. An expert informal group was, therefore, constituted for this purpose which, apart from some eminent economists, also included representatives from the Planning Commission and the Ministry of Railways. The list of experts who constituted this Group is given in Annexure 1.9. Six meetings of this Group were held with a view to determining the role which the Railways would have to play by 2000 AD and the inputs which will be necessary to enable them to play their expected role efficiently. The results of the work done in consultation with this Group have been given in Chapter IV and Appendix VI.

Framework of the Report

1.18 This Report has been divided into four parts.

1.19 Part I primarily deals with the basic considerations in approach to tariff making. It includes the financial review of the working of the railways and an estimation of the financial needs for the future. The role that the railways are required to play and a perspective for future, i.e., "Railways in 2000 AD" has been discussed in this part. Results of the various costing studies have also been included in Part I.

1.20 Part II deals with passenger, luggage, parcel and other coaching traffic. History of passenger fares, results of the passenger profile surveys, the Committee's recommendations regarding rationalisation of passenger fares, season ticket fares, luggage, parcel rates and rates for other coaching traffic have been dealt with in this Part. Other related subjects such as tariffs for

special trains, reserved coaches, passenger travel concessions etc. have also been dealt with in Part II.

1.21 Part III deals with the freight traffic. The history of freight rates and the proposals for rationalisation of freight rate structure including classification of goods and rates for snalls, wagon load and train load traffic have been given in this Part. Other connected subjects such as concessions for export traffic, rates for over-dimensional consignments have also been included in this Part.

1.22 Part IV gives a Summary of the Committee's Conclusions and Recommendations relating to the subjects dealt with in this Report.

#### Final Report

1.23 The Committee will be submitting <sup>its</sup> ~~their~~ Final Report in a few months' time. The Final Report will include the following subjects:

1. Charges for Military Traffic.
2. Charges for Postal Traffic.
3. Port Traffic.
4. Packing Conditions.
5. Measures for improving operational efficiency.

#### Acknowledgements

1.24 The Committee is thankful to the Ministry of Railways for making various facilities available to the Committee for its work. We are specially grateful to the various Chambers of Commerce, Passenger Associations, Members of the Railway Users Consultative Committees and other individuals representing various trade and industry interests for giving their suggestions to the Committee through written memoranda and discussions. Central

Ministries / State Governments, and the various Public Sector Undertakings have also extended their whole hearted cooperation to the Committee. The Committee is particularly thankful to the General Managers and other officers of the various Zonal Railways for helping the Committee in their work. The various Directorates of the Railway Board have also extended their full cooperation in the work of the Committee. Experts from various institutions spent valuable time in assisting us as member of the informal

1-8

group on Railways in 2000 AD. We are grateful to them. The Planning Commission, the RITES and the National Transport Policy Committee permitted us to make use of the studies conducted by them to the extent they were relevant in our work. Our thanks are due to them. Last but not the least, the Committee would like to place on record their appreciation for <sup>the</sup> sincere and hard work put in by the officers and staff of the Committee's Secretariat headed by the Secretary, Shri Vinod Pal, and <sup>for</sup> giving necessary assistance to the Committee in completing their task.

CHAPTER IIFINANCIAL REVIEW OF THE INDIAN RAILWAYSHistorical Background

2.01 Indian Railways are one of the largest Railway systems in the world, and the largest in Asia. Among the State owned Railways, the Indian Railways are second only to Russia. The Indian Railway system consists of over 60000 route kilometres; it operates about 11000 trains, and carries 9.6 million passengers and 6.5 lakh tonnes of freight daily. The rolling stock fleet comprises over 11000 locomotives, 37000 coaching vehicles and 400,000 goods wagons. The gross traffic receipts in 1978-79 amounted to about Rs.2100 crores.

2.02 The Railways in India were originally constructed and operated by Private Sterling Companies. The Government however was actively associated with the Railway construction. As the first two companies found<sup>ed</sup> in the U.K. in 1845 and 1846 could not attract sufficient capital on their own, the Government decided to give a guarantee of 5% return on the capital. The Government also decided to make land available free of charge. The development of Indian Railways since then can be broadly divided into five distinct periods, viz., old guarantee system (1844 - 1869), State construction (1869 - 1879), new guarantee system (1879 - 1900), nationalisation (1900 - 1947), and the period after Independence. The characteristic feature of the initial period was that a guarantee of a specific return on capital was given by the Government irrespective of the actual performance. This system of guarantee resulted in extravagance by the Railway companies, both in capital and revenue expenditure. The exorbitance of the expenditure becomes evident when it is realised that in Australia the cost per mile for Railway construction was £12000 and in Canada £8500 while in India, in the early stages of construction, it was £16536.\*

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\* Initial Report submitted to the House of Commons in 1872-73, quoted in "Indian Railways - 100 years", New Delhi, 1953 P.21.

2.03 The Government therefore decided to change this policy and to purchase the private lines at the first opportunity. It was also decided to undertake new construction directly under Government auspices. However, due to the inexperience of the Government in Railway construction and operation, this expedient failed. Due to the Afghan War and the severe famine in 1878 the Government also faced financial difficulties. The policy was therefore again changed in 1878 and it was decided to encourage private investment by guaranteeing a fixed rate of interest to ensure rapid expansion of the Railway system which was necessitated by the severe famine of 1878.

2.04 In the earlier three periods upto 1900, apart from the guarantee, the Government gave free land to the companies in the first period (1844-1869) as an additional incentive and, during the second and third periods, the Government was constructing the track and handing it to the Railway companies for operation. It will be noted that, in the initial development of the Railways in India, a guaranteed return of between 4.5% to 5% on capital investment was considered necessary to attract sufficient capital.

2.05 Regarding management, a peculiar dual system was in vogue for a long period. While the bulk of the Railway system in the country came to be the property of the Government after 1907, the purchase was only formal and fresh arrangements were arrived at with the former owning companies to run the Railways on behalf of the State. Compensation for take over was generally not paid in cash but in the form of bonds or annuities and, in return, the companies were appointed as managing agents of the Railways owned by the Government. The contracts for running the railways were for fixed periods and no option to Government for earlier purchase was laid down. The system led to very peculiar results. As the Acworth Committee pointed out,

"A system seems to have little to recommend it under which, on the one hand, a progressive company is hampered by meticulous Government control of every detail of expenditure, while on the other hand, the utmost wisdom on the part of the Government cannot prevent the injury caused by the unwise and unprogressive policy of the Company's Board, at once to the revenues of the State and to the economic development of the country".\*

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\* Report of the East Indian Railway Committee 1920-21, Volume 1, Page 66.

The Acworth Committee (1920-21) recommended that the State should take over the Railways for direct State management as and when the contracts fell due. The ownership and management of the major private companies was gradually taken over by the Government during the period 1924 to 1944.

#### Separation of Railway Finances

2.06 Initially, the Railway Finances formed part of the General Finances of the Government. These were separated from the General Finances from 1924-25, mainly "to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues, on the money expended by the State on railways."\* The financial objectives of the separation were stated in the speech of the then Commerce Member (Minister) made while introducing the Resolution for separation of Railway Finances from General Finances, as reproduced below:

"....we want to introduce a system of finance which, while maintaining unimpaired the control of this House and while ensuring the general revenues a fair return from their Railway property, will be more suited to the needs of a vast commercial undertaking. Finally, and most important of all, we want to establish a principle. It is right and proper that the tax-payer, the State, should get a fair and stable return from the money it has spent on its Railways; but if you go further, if you take from the Railways more than that fair return, then you are indulging in a concealed way in one of the most vicious forms of taxation, namely a tax on transportation. One of the objects we have most at heart in putting these proposals before this House is to establish that principle."\*\*

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\* Resolution on the separation of railway from General Finances, P.22, Railway Convention Committee, 1943.

\*\* "Indian Railway Administration and Finance - An Introduction", Government of India, Ministry of Railways, 1976, para 702.



Financial Performance of the Railways, 1950-51 to 1978-79

2.07 The relevant data on the financial performance of the Railways during the years 1950-51 to 1978-79 as culled out from the Railway accounts are presented in Statement 2.1. It will be observed from the Statement that the Railways were able to earn a net surplus, after providing for depreciation and dividend to the General Revenues, from 1950-51 to 1965-66, in 1971-72, 1972-73 & from 1976-77 to 1978-79. In other years, the Railways were not able to earn enough to meet the dividend liability. For financial analysis, the period of the past 29 years can be divided into two parts. Upto the year 1965-66, the Railways earned a net surplus in all the years, the net surplus ranging between Rs.2.5 crores in 1953-54 to a little less than Rs.50 crores in 1963-64. From 1966-67 to 1970-71, the Railways showed a deficit, ranging from about Rs.8 crores in 1968-69 to about Rs.32 crores in 1967-68. After 1970-71 the Railways earned a net surplus for two years, suffered losses for the next three years and again earned a surplus for the remaining three years.

2.08 The profitability of a commercial unit is assessed either on the basis of net profits (after taxes) as a proportion of net worth, or of gross profits before interest (but after providing for depreciation) as a proportion of the total capital employed. It is not possible to work out exactly such proportions here for the reason that the Indian Railway Accounts maintain data on a somewhat different basis. As they are organised as a Department of the Government of India, they are not subject to the payment of any tax on their income. The return earned by the Railways has therefore to be related either to "Capital-at-charge", which represents the loan capital advanced by the Government and on which a fixed dividend has to be paid, or to "Investment", i.e., block account of value of assets; the latter can be taken as the nearest approximation to capital employed.\*

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\* The major limitation is that the concept of 'Investment' as used in Railway Block Accounts does not include the inflationary element when the assets are replaced at a higher price. Data on investment thus continue to show only the original costs of assets, though they may have been subsequently replaced at a much higher cost; but improvement element is attempted to be calculated and included.

2.09 The net surplus, after providing for depreciation and dividend, ranged between 0.3 per cent and 3.3 per cent of the Capital-at-charge during the period from 1950-51 to 1965-66. This averaged to 1.4 per cent of the Capital-at-charge. After 1965-66, the highest net surplus earned related to the year 1977-78, 2.6 per cent of the Capital-at-charge. For the entire period 1950-51 to 1978-79, the position of the net surplus earned by the Railways is indicated below:-

(Rs. crores)

<u>Years</u>	<u>Net Surplus(+)/Deficit(-)</u>
1950-51 to 1965-66	(+)324.57
1966-67 to 1975-76	(-)357.02
1976-77 to 1978-79	(+)230.13
Total	<u>(+)197.68</u>

During this period, investment on the Railways increased by more than seven times, from Rs.855 crores in 1950-51 to Rs.6180 crores by 1978-79.

2.10 The gross surplus before dividend but after depreciation varied from 4.2 per cent to 7.3 per cent of the Capital-at-charge, and from 3.7 per cent to 6.9 per cent of investment, during the years 1950-51 to 1965-66. For the period as a whole, the proportions averaged to 4.6 per cent and 5.5 per cent of the Capital-at-charge and investment respectively. For the years from 1966-67 to 1978-79, the gross surplus before dividend ranged between 1.4 per cent to 7.4 per cent of the Capital-at-charge and between 1.2 per cent and 6.0 per cent of investment. For the entire period 1950-51 to 1978-79, the gross surplus averaged to 3.9 per cent of the Capital-at-charge and 4.7 per cent of investment.

2.11 In the years when surpluses were inadequate, the Railways had to secure temporary loans from the Government to meet their dividend liability. The outstanding temporary loans as at the end of 1978-79 amounted to Rs.216 crores. However, the Railway Convention Committee (RCC), 1977, on the recommendation of the

Working Group on the Capital Structure of Indian Railways, recommended the writing off of the interest portion of Rs.94 crores, reducing the liability to Rs.122 crores. The Railways had also to take temporary loans from the Government to finance certain unremunerative projects, required to be financed from the Development Fund. The loan outstanding at the end of 1978-79 on this account amounted to Rs.158 crores.

#### The Accounting Procedure of the Indian Railways

2.12 For a proper analysis of financial performance, it is necessary to understand the accounting procedure followed by the Indian Railways. For their capital expenditure, the Railways are advanced loans from the General Exchequer, and the Railways are expected to pay "dividend" on this <sup>amount</sup> ~~k~~ The loans are non-refundable. The payment of dividend is related to the loans advanced from the General Exchequer termed as "Capital-at-charge". From out of their working expenses, the Railways contribute towards the Depreciation Reserve Fund. Expenditure on replacement of worn-out assets is charged to this fund. The net surplus of the Railways after meeting the dividend liabilities to the General Revenues is credited to two reserve funds - the Revenue Reserve Fund and the Development Fund. The Revenue Reserve Fund is maintained mainly for meeting future dividend liability in case of unsatisfactory financial working. The Development Fund, instituted from 1st April, 1950, is utilised for financing expenditure on passenger amenity works, labour welfare works and unremunerative projects costing more than Rs.3 lakhs each, but considered essential for improvement of operational efficiency. Apart from this, certain new minor works and works relating to unremunerative improvements costing not more than Rs.3 lakhs each are met from the current or revenue account. It will thus be seen that the development expenditure of the Railways is financed out of (i) loans advanced by the general exchequer, (ii) Depreciation Reserve Fund, (iii) Development Fund, and (iv) for certain minor works, from current revenues. However, for all major new capital works, the Railways are obliged to obtain non-refundable advances from the General Exchequer, and these are added to the Capital-at-charge.

"Dividend" to the Government

2.13 Upto the year 1949-50, the Railways were paying interest on the loan capital at fixed rates and were also contributing a fixed per cent (1% for most of the period) on the Capital-at-charge of the commercial lines, plus a fixed per cent of the surplus left, if any, thereafter. The procedure was changed from 1950-51. The Railway Convention Committee of Parliament (1949) recommend the following procedure:-

"The present relationship between General and Railway Finance should be altered to give the former the status of the sole shareholder in the Railway Undertaking. General Finance should be guaranteed a fixed dividend on the loan capital invested in the Undertaking as computed annually. The rate of dividend should be 4% on such capital for a period of five years commencing from 1950-51. A Committee of the House should review the rate towards the end of this period and suggest for the years following it, any adjustment considered necessary, having regard to the revenue returns of the Railway Undertaking, average borrowing rate of Government and any other relevant factors".

2.14 The Government's borrowing rate at that time was 3.16%. From 1950-51 onwards, the Railways are thus required to pay a fixed 'dividend' on the Capital-at-charge which includes both the interest element as well as a contribution from the surplus. The rates of dividend payable by the Railways are determined by the Railway Convention Committee of Parliament appointed from time to time. The rate of dividend was 4% on the Capital-at-charge from 1950-51 to 1960-61, 4.25% from 1961-62 to 1962-63 and 4.50% for 1963-64. From 1964-65 onwards, the rate of dividend was calculated at 4.5% on the capital invested upto the year 1963-64, and 6% on the capital invested in subsequent years. The rate of dividend on the capital invested upto 1963-64 was increased to 5.5% from 1966-67 in lieu of the tax on passenger fares. From the additional contribution, the Railways are paying a lumpsum, at present Rs.16.25 crores, for distribution to the State Governments in lieu of the passenger fare tax, and the balance is credited to a fund from where matching grants are given to the State Governments to undertake safety works.

2.15 The Railways have been exempted from the payment of dividend in respect of the capital invested in strategic lines, unremunerative branch lines and the construction of new lines. These exemptions have been liberalised from time to time. The capital exempted from the liability to pay dividend increased from 4.2% of the total Capital-at-charge in 1960-61 to 20% in 1977-78. For the year 1977-78, the capital qualifying for exemption from payment of dividend included capital expenditure on (a) unremunerative branch lines, (b) North-East Frontier Railway, (c) element of over-capitalisation, (d) 50% of capital outlay on works in progress during 1975-76 to 1977-78, (e) construction of new lines, and certain other miscellaneous items. Of the capital thus qualifying for payment of dividend, about 50% related to capital advanced prior to 31st March 1964 on which dividend at the reduced rate of 5.5% is being paid. As a result of these exemptions, the actual dividend paid by the Railways to the General Exchequer varied between 3.6% and 4.9% of the Capital-at-charge during the years 1950-51 to 1978-79. The effective rate in 1978-79 - the last year for which accounts are available - was 4.5% (Statement 2.1).

#### The Surplus

2.16 The gross surplus earned before payment of Dividend has been shown in para 2.10 above. The surplus shown is after making provision for <sup>Depreciation</sup> and Pension liability in addition to working expenses. It may however be necessary to examine whether the level of surplus presented in the Railway accounts can be considered real in the sense that adequate provisions are made for these items. The Expert Group on the Capital Structure of Indian Railways (1978)\* have drawn attention to the large arrears in depreciation and to the need for clearing accumulated arrears on account of depreciation. The Accident Enquiry Committee appointed by the Railways have recommended that the Railways should take special steps to reduce the increasing accidents on account of failures of Railway equipment which may be due, to some extent, to inadequate provision for the maintenance of assets. It is therefore necessary to examine these factors fully for a proper assessment of the financial performance of the Railways. Due to these factors the level of surplus indicated in the Railway Accounts may not necessarily reveal the true financial position.

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\* "Report of the Expert Group on the Capital Structure of Indian Railways", Ministry of Railways, October 1978 (Minco).

Provision for Maintenance of Assets

2.17 In the analysis of financial performance, it is necessary to examine whether adequate provision is made for the working expenses. During the discussions with some of the concerned officers, the Committee got the impression that, on account of financial difficulties, adequate provision for the proper maintenance of assets has not always been made in the past years. While every care is apparently taken to see that adequate funds are made available so as not to permit any adverse effect on safety, it was brought to our notice by certain Railway administrations that some maintenance activities had to be curtailed on account of paucity of funds. A plea was also made on behalf of some of the Railway administrations for an urgent need to increase the availability of funds for track renewals and track maintenance. It was pointed out that the track which has outlived its life is difficult to maintain, and requires additional inputs to maintain it to the requisite standards.

2.18 The Railway Accident Enquiry Committee has also drawn attention to the increase in the incidence of accidents due to failure of Railway equipment. The Committee has observed -

"Failure of Railway Equipment, namely, locomotives, rolling stock, permanent way, etc. however, increased substantially during the period 1968-69 to 1977-78. This demands immediate attention and action."\*

The Committee has pointed out that there has been a sharp increase in the number of accidents per million train kilometres on account of failure of Railway equipment from 6.4 in 1971-72 to 20.1 in 1975-76. Even in 1976-77 and 1977-78, the number of such accidents was quite high, at 15.4 and 17.6 per million kilometres respectively.

2.19 It has to be noted that the failure of equipment may not be necessarily due to inadequate provision of funds for repairs and maintenance; it can also be due to deterioration in the efficiency of labour. But if this deterioration is not purely temporary, it may be necessary to increase the allocations

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\* Para 21, Summary of findings and recommendations, Report of the Railway Accident Enquiry Committee, 1978, Part-I, Ministry of Railways.

for repairs and maintenance. While no obvious risks are taken, there may be a tendency to reduce the allocation of funds for repairs and maintenance when there is pressure for economy in expenditure. The deterioration in repairs and maintenance of assets may have adverse effects on their economic lives. On the basis of the impression gathered by the Committee from discussions with the concerned officials and the observations made by the Accident Enquiry Committee, it is felt that funds provided in the past for repairs and maintenance may not always have been adequate. At the same time, it has to be noted that every executive agency, especially in the traditional budget system, demands more than what may be actually necessary, expecting a certain cut.

#### Depreciation Reserve Fund (DRF)

2.20 It has been generally accepted that provision for depreciation by the Indian Railways has been less than at the desired level, especially after the financial position started deteriorating after the late 'Sixties. The Working Group on the Capital Structure of Indian Railways drew attention to the heavy accumulations of arrears in the replacement of assets, and laid stress on the imperative need for stepping up the allocation to DRF to enable the Railways to overtake these. The Planning Directorate of the Railway Board estimated the level of funds required to clear the arrears and the replacements falling due by the end of 1982-83 at Rs.2050 crores at 1977-78 prices. The tentative provision accepted by the Planning Commission is only Rs.1050 crores. The existence of overaged assets on the system also indicates the need to step up contributions to DRF.

#### The Concept of Depreciation

2.21 The importance of providing appropriate amounts under the Working expenses of a commercial unit to take care of the wear and tear of the capital equipment used for the production of goods and services is generally accepted. However, such wear and tear or even the element of obsolescence cannot be measured precisely in practice, and has necessarily to be estimated in general terms. Therefore, the concept of depreciation has remained one of the most controversial subjects in the accounting world. In a broad way, the concept has

evolved around two requirements. One view looks at the problem as a means of charging the capital expenditure of a unit against profits earned over the useful service life of the assets used in the process. This is termed as the accounting concept. Under the other, the economic concept, depreciation is viewed as a non-cash charge to the profit and loss account aimed at retaining the portion of the profits for maintaining the productive equipment of the business or as a means of ensuring retention of cash for rehabilitation and replacement of fixed assets.

2.22 A number of methods have been evolved to estimate the proper allowance for depreciation. Basically there are two approaches, one following the historical cost of the assets as the basis for working out depreciation and the other, the current replacement costs. A number of methods such as estimating depreciation on a straight line basis, written down value or declining balance basis etc. are tried. Generally the tax laws allow depreciation on the historical cost basis. However, there is an increasing awareness about the inadequacies of this system, especially in a situation of continuously rising prices. In many countries including India, a number of concessions are allowed by the tax authorities to encourage commercial units to make liberal provisions for depreciation so as to take care of price inflation. There is also increasing awareness of the need to change over to inflation accounting systems,

#### Practices followed by Commercial Organisations

2.23 Under the Indian Income Tax Act, the Commercial Units are permitted to charge Depreciation in their accounts on the basis of the original cost of assets on the Written Down Value method. The Written Down Value was first introduced in India in the Income Tax Act 1939. Prior to that, the straight-line method was allowed under the Tax Laws. The rules under the Tax Law prescribe rates of permitted depreciation allowances for various types of assets. However, most of the commercial organisations generally follow in their accounts the straight



line method of depreciation on original cost of assets. For the purposes of Income Tax, Depreciation is separately calculated according to the practices permitted under the Act. However, the amounts allowed under the Income Tax Act are liberal. Further, additional provisions have been allowed by the Government of India under various concessions such as the Development Rebate in earlier years or the Investment Allowance at present. Commercial organisations are also permitted to charge depreciation at accelerated rates under certain conditions. These provisions as well as the tendency to build up reserves from surpluses to the extent possible enables these organisations to replace their aging assets without overreliance on outside funds. Many such units are able to manage in spite of providing depreciation on historical cost basis, as the additional provisions permitted as well as the reserves generated enable them to take care of the inflationary element.

2.24 The Income-Tax Act does not allow depreciation on replacement cost basis. In fact, the commercial units in the country follow the original cost approach though the private corporate sector is increasingly becoming aware of the need to resort to the replacement cost approach. The private corporate sector is also aware of the need to introduce inflation accounting for managerial purposes. However, at present, only a few companies are following this practice, in addition to the accepted accounting procedure on historical cost basis, for their own information. It has been made out that even the liberal provisions allowed under the Income-Tax Act will not take care of the inflationary element at the time of replacement of assets. It has been recently brought out at a workshop on inflation accounting held in December 1979 that the gap in the accumulated provisions on account of depreciation on historical cost basis and funds required at replacement cost is quite substantial for the major industries. The relevant data are given in Table 2.1.

Table 2.1

Replacement Costs in Selected Industries in the Eighties

Industry	Replacement costs (Rs. crores)	Accumulated value of depreciation and development rebate reserves (Rs. crores)	Resources (Rs. crores)	Gap as % of replacement cost
1	2	3	4	5
Aluminium	155.1	48.7	106.4	68.6
Sugar	9.5	3.0	6.5	68.4
Cotton Spinning	6.6	2.1	4.5	68.4
Scooters	29.0	15.2	13.5	47.1
Mini-Steel	2.3	1.2	1.1	47.5
Tractors	7.1	3.9	3.2	45.3
Nylon Yarn	16.4	11.4	5.0	30.6
Cement	11.2	8.4	2.8	25.2
Fertilizers	112.4	90.8	21.6	19.2

Source: FICCI Workshop paper, December, 1979 as reported in "Business India", March 3 to 16, 1980, Page 56.

2.25 It has been made out by some experts that the provision allowed for depreciation is inadequate in comparison with what is allowed in other countries. While in India only the Written Down Value method is permitted under the Tax Laws, the assesseees in the U.S.A. have a choice of selecting any of the following four methods of depreciation, namely, (i) Straight-line method, (ii) Double declining balance method, (iii) Sum of the years digit method, and (iv) Multiple straight-line type of write-off. In the U.K. also, the assesseees have a choice to follow either the declining balance method or the straight-line method. In respect of certain types of assets, the replacement method of providing depreciation is permitted in the U.K. In other countries, the rate schedule is also flexible and the commercial units have a choice regarding the period over which the assets can be replaced. While there is increasing awareness in foreign countries to make use of the inflation accounting methods, with some exceptions

the tax laws in important countries like the U.K. and U.S.A. do not still allow replacement cost as a basis for depreciation. The Choksi\* Committee (1977) also recommended that no such changes should be made in Indian Income-Tax Law. However, the French Tax Laws have recognised the loss in the purchasing power of the currency, by permitting re-valuation of the assessee's fixed assets on the basis of approved co-efficients to the original cost of fixed assets, and the recorded provision for depreciation. The co-efficients are worked out by the Government.

2.26 In the U.K.. the Consumers Association has made a demand that the accounts of the major public sector units should be prepared on inflation accounting basis. It has been brought out in the study prepared by the Association that depreciation worked out on the basis of current cost accounting (C.C.A.) basis is two to five times the estimates worked out on historic cost basis. The relevant data are given below:-

<u>Industry</u>	<u>Ratio of CCA Depreciation to Historical Cost Depreciation</u>
British Airways	1.7
British Gas Corporation	2.4
British Railways Board	5.4
British Steel Corporation	2.8
Electricity Council	2.8
National Bus Company	2.5
National Coal Board	1.8
Posts	2.6
Telecommunications	1.9

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\* Interim Report of the "Direct Tax Laws Committee",  
Government of India, Ministry of Finance, December, 1977, pp.10,11.

It has been brought out in the Report\* that, while the British Railways are providing depreciation on historical cost basis, an additional provision to the extent of about 53% of that provision is further made so as to take care of price inflation. The Electricity Council of U.K. is also enhancing the depreciation provision by 40% as worked out on historical cost basis to take care of price increases. In India the Bombay Electric Supply and Transport Undertaking is following a similar approach by contributing 50% additional contribution to that worked out on historical cost basis to take care of inflation to some content.

### Depreciation Procedure on Indian Railways

2.27 The methods of charging depreciation have changed on the Indian Railways from time to time. Prior to 1875, several of the old guaranteed companies maintained renewal reserve funds. As it was thought that this, combined with guaranteed return, led to unfair results for the State, the Government abolished it in 1875. The companies were required to charge expenditure on renewals and replacements directly to revenue. The question of instituting a Depreciation Reserve Fund came into prominence after the First World War as the postponement of renewals of Railway assets during the War required serious consideration. Various bodies like the Acworth Committee, the Railway Finance Committee of 1921 and the Inchcape Committee recommended the establishment of a Depreciation Reserve Fund. A Special Committee was also appointed by the Railways in 1923 to consider the arrears of depreciation and to suggest methods for the formation and working of a depreciation fund. A regular Depreciation Reserve Fund (DRF) was constituted from 1st April, 1924, as part of the implementation of the proposals relating to separation of Railway Finances from General Finances.

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\* "Nationalised Industries' Accounting Policies", An Examination of the Accounting Policies of Eight Nationalised Industries of Particular Interest to Consumers, Consumers' Association, London, December, 1979, pp.7 and 10.

The Report of the Inflation Accounting Committee appointed by the U.K. Government in 1975 pointed out that "it is practicable and desirable to apply Current Cost Accounting to the accounts of nationalised industries and we have, therefore, recommended specifically that the initial standard of Current Cost Accounting should apply to them" (CMND 6225, HMSO London (reprinted) 1977, p.217.)

However, the accumulated depreciation upto that date was not credited to the Fund at its inception.

2.28 The method of determining annual contributions to the DRF and also the procedure for charging replacement expenditure changed from time to time. From 1924-25 to 1934-35, the annual contribution was worked out on a straight line method on the original cost of individual wasting assets and their service lives. Detailed asset registers were maintained for this purpose. When an asset was replaced, the original cost was charged to the DRF while the excess cost, if any, was added to the block account of assets (termed capital). The inflationary and improvement elements in the replaced assets were thus added to the value of the Railway assets.

2.29 From 1935-36, the elaborate system of maintaining detailed asset registers was discontinued, and the annual contribution was fixed at 1/60th of the Capital-at-charge, the proportion being arrived at on the basis of the actual experience during the years 1924-25 to 1934-35\*. The intention was to arrive at an appropriate annual contribution to DRF roughly equal to what would have been contributed in the earlier system, without the cumbersome procedure of keeping detailed asset registers. Simultaneously it was also decided to charge to the DRF the full cost of replacement by a like asset, but the improvement element in the replaced asset was to be charged to the 'capital', representing Government loans. In other words, while the inflationary element was charged to the DRF, the improvement element continued to be charged as new capital expenditure and was financed from Government loans.

2.30 This system was again changed in 1950-51. Since then, the contribution to DRF is determined by the different Railway Convention Committees on the basis of expected renewals and replacements falling due, and taking note of the financial position of the Railways. The full cost of replacement including inflationary and improvement elements is charged to DRF since 1950-51. However, the improvement

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\* For the years 1943-44 to 1945-46 and 1948-49 and 1949-50, additional contributions were made in view of the special (War) situation prevalent then.

element in the replaced assets is being added to the block value of assets as given in the Railways' block accounts but not to the Capital-at-charge, which represents the loans received from the General Exchequer. The position as it existed at different times is presented in a tabular form in Annexure 2.1.

### Rationale behind the Depreciation Procedure

2.31 The DRF on the Indian Railways is in effect a renewals and replacements fund. The existing method of providing contributions to DRF on the basis of need-based replacements was introduced by the Railway Convention Committee of 1949. It was observed by the Committee that the annual contributions made during the previous years on the basis of 1/60th of the Capital-at-charge resulted in inadequate contributions and arrears in replacements. The Committee further observed:

"While the contribution is based on the original costs and the estimated lives of the assets, the present day replacement costs have no relation to the original cost of acquisition. Nor were the estimated lives of much significance, as replacements have now become necessary for obsolescence also, before the expiry of the estimated lives of the existing assets. For one reason or other, the Railway undertaking had been prevented, over a period of years, from following a continuous policy of providing for adequate renewals and replacements, and there was, in consequence, a heavy backlog now to be overtaken involving heavy expenditure in the next few years. The prevailing price level was also abnormal and as a result of the operation of these two factors, the withdrawals from the Depreciation Fund are now running at the level of Rs.30 crores a year against the normal contributions at the rate of Rs.11.5 crores. In other words, unless immediate steps are taken for altering the basis of contribution and of strengthening the Fund very substantially, it is likely to be liquidated by the year 1953."

2.32 The Committee therefore decided to recommend contribution to the DRF for a fixed period on the basis of the renewals requirements as indicated by the Railways and scrutinised by it\*.

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\* It <sup>may</sup> be noted that the St. Louis - San Francisco Railway Company of the U.S.A. follows similar practice of 'replacement' accounting for rails, ties, ballast, and other track materials. Thus for these assets, replacements in kind are charged to expense, and improvements are capitalised.

This system was continued by the subsequent Convention Committees also. The system had the advantage that this procedure enabled the Railways to charge to the working expenses, under the provision for contributions to DRF, the full replacement cost of assets replaced. Not only did this procedure ensure that the contributions enable the building up of a fund for the physical replacements of existing assets over a period, but it also enabled the Railways to charge the inflationary and improvement elements in the replaced assets to the working expenses in the form of contribution to DRF instead of to capital.

2.33 The RCC has usually disfavoured contributions being made to the DRF which would not be required for replacement purposes in a short time. In fact, any large balances being outstanding in the DRF has been criticised by Parliamentary Committees. It will also be observed that over the whole period, the accretions\*to the fund including interest more or less matched the withdrawals from the fund (See Table 2.2).

Table 2.2  
Accretions to and withdrawals from DRF, 1951-1979  
(Rs. crores)

Year	<u>Accretion to DRF</u>		<u>Withdrawals from DRF</u>	
	Total	Annual average	Total	Annual average
1	2	3	4	5
<u>1950-51</u>	<u>33.59</u>	-	<u>26.63</u>	-
1951-56	184.57	36.89	206.49	41.30
1956-61	241.28	48.26	320.42	64.08
1961-66	393.40	78.68	360.30	72.06
1966-69	306.03	102.01	253.90	84.63
1969-74	571.79	114.36	494.07	98.81
1974-79	721.80	144.36	616.14	123.23
Total (1951-1979)	2418.87	86.38	2251.32	80.40

\* Contributions from Revenue, Production units and interest on balances.

2.34 The procedure followed by the Railways in the past had, in the earlier years, taken care of the inflationary factor to a considerable extent. If the Railways had continued only to provide depreciation on the basis of original cost of assets, it would have perhaps resulted in considerable shortfalls in the provision on account of rapidly rising prices, unless steps were taken to make contributions on a replacement cost basis. However, with the deterioration of the financial position of the Railways after 1966-67, it apparently became necessary for the Railways to reduce their contributions to the DRF much below the contributions which could be considered appropriate to take care of need-based replacements. As a result, considerable arrears in depreciation have accumulated after 1966-67. The accretions to depreciation as a proportion of the Capital-at-charge was generally around 4% for most of the years upto 1965-66, the average for the entire period being 3.75% (See Statement 2.2). From 1966-67 onwards, the rate declined and reached a level of 2.9% for 1975-76, the average proportion for the entire period 1966-67 to 1978-79 being 3.24%. In relation to the value of assets (block capital), the proportion observed during the years 1950-51 to 1978-79 however ranged between 4.4% in 1955-56 to 2.4% in 1975-76, the average proportion for the entire period 1950-51 to 1978-79 being 2.8 per cent. In relation to gross receipts, the contribution to DRF from Revenue declined from a level of 13% in 1966-67 to 6.5% during recent years. It will be of interest to note in this connection that the Railways suffered a loss, after providing for dividend, from the years 1966-67 to 1970-71, and again from 1973-74 to 1975-76. Thus, the deterioration in the financial position of the Railways appears to have directly affected the provision for depreciation, resulting in considerable accumulation of overaged assets.

#### Overaged Assets

2.35 The arrears of contribution to the Depreciation Fund seems to be one of the constraints in replacement of physical assets as and when due. The result of such delayed replacement



is that overaged assets continue to be in service. Some estimates by various official groups in respect of different types of assets are indicated in the following paragraphs so as to give a more vivid picture of the results of inadequate provision for depreciation.

### Rolling Stock

2.36 As at the end of March 31, 1978, about 11% of the steam locomotives and 2% of electric locomotives were overaged, in relation to the total stock. About 7% of coaches, and 8% of wagons (in vehicle units) were also reported to be overaged in relation to those in service.

2.37 The draft Report of the Working Group on Railways' Five Year Plan for 1978-83 shows the need-based requirements of the Rolling Stock, taking into account backlog of arrears:-

<u>Asset</u>	<u>Need-based replacement (Nos.)</u>
Locomotives	348
Coaches	5755
EMUs	302
Wagons (in terms of 4-wheelers)	64025
Power packs of locomotives	671

The Railways' Draft Plan suggested an outlay of Rs.1760 crores for the rolling stock, Rs.1230 crores for additions and Rs.530 crores for replacements; even this was on a modified scale taking into consideration capacity constraints as well as paucity of funds. The Planning Commission has however approved an outlay of a smaller amount, Rs.1046 crores for additions and Rs.505 crores for replacements. Thus the arrears of overaged rolling stock are likely to be carried forward to the next Plan.

### Track Renewal

2.38 The draft Report of the Working Group on Railways' Five Year Plan, 1978-83, observed that a backlog of around 5500 Kilometres of primary track renewals had accumulated by then. It has been indicated that about 2000 kilometres of track had to be put under speed restrictions due to weak structure. On account of limited availability of funds, the work on track renewals has been progressively declining as indicated in Table 2.3.

Table 2.3Progress of Track Renewals during the Plans

(In Kilonetres)

Plan	Annual Average length renewed in terms of complete renewals	
	Primary	Secondary
1	2	2
Second Five Year Plan(1956-61)	1900	530
Third Five Year Plan (1961-66)	2600	620
Inter Plan Period (1966-69)	1700	500
Fourth Five Year Plan (1969-74)	1300	316
Fifth Five Year Plan (1974-79)	950	290

Source: Draft Report of the Working Group on Railways'  
Five Year Plan, (p.113)

2.39 On the basis of a track length of a little over one lakh kilonetres, and taking into account the safety aspect, the growth of traffic, age-cum-condition and economic service life of various components, the Working Group has<sup>d</sup> assessed that the required level of average primary track renewals should be 1900 kilonetres per annum and of secondary renewals 900 kilonetres per annum during the next five years. For the plan, the Working Group suggested a programme of primary renewals of 12,100 kilonetres and secondary renewals of 6100 kilonetres after taking into account the indigenous capacity constraints. It estimated the fund requirements for this programme at Rs.480 crores after taking into account the credits for the value of released materials. As against this, the Planning Commission has approved only a smaller outlay for track renewals during the next Plan (Rs.350 crores).

Workshop Equipment and Machinery

2.40 Most of the workshops attending to the repairs and maintenance of the rolling stock of the Indian Railways, inherited from individual State Company railways in the distant past, are equipped with obsolete and overaged machinery and tools. The Working Group on "Workshop Modernisation Project, Phase I 1978-81", in its report prepared in December, 1977,

observed that manufacturing and maintenance capability of the workshops and sheds had been seriously undermined due to a backlog in the replacement of overaged and obsolete equipment. It is observed from the Report that the percentage of overaged machinery and plant in the repair workshops increased from 46.7% in 1952 to 57.8% in 1973. On the basis of a detailed machinewise census, it has been estimated that 77% of such machinery and plant in Mechanical workshops, 53% in production Units and 46% in Loco Sheds and sicklines would be due for replacement by 1978-79. The Study had assessed that the funds required to meet the arrears in replacement as well as replacement falling due in the next five years, at 1976-77 prices, were Rs.300 crores. In the next Five Year Plan, as against a total need-based requirement of Rs.429 crores (Rs.260 crores for additions and Rs.169 crores for replacements) for Workshops and Sheds, and Machinery and Plant, the Railways suggested a provision of Rs.395 crores. The Planning Commission has only agreed to a smaller outlay of Rs.244 crores (Rs.149 crores for additions and Rs.95 crores for replacements).

#### Why Overaged Assets

2.41 As has been indicated earlier, the contributions to DRF have been suggested by the Railways and recommended by the various Railway Convention Committees not wholly on the basis of need-based replacements, but also in view of what they thought would be financially feasible. In suggesting the estimated contributions, the Railways have also been taking into consideration physical constraints in the form of productive capacity in the country in working out the actual replacements to be provided. For example, for the formulation of the Sixth Five Year Plan, though the Railways worked out the level of need-based replacements at Rs.2050 crores, they suggested replacements only at the level of Rs.1650 crores taking into consideration the indigenous production constraints. Thus the arrears on account of replacements have accumulated on the Indian Railways both on account of paucity of funds and, to some extent, due to indigenous production constraints. A decision had been taken earlier not to resort to avoidable imports. While this policy may have been appropriate in the context of foreign exchange shortages in the past, it needs to be reviewed when the foreign exchange reserves are not

unsatisfactory. We understand that latterly imports of urgently needed items like traction motors, and wheel sets have been ordered. Indigenous production capacity certainly needs to be created, and regular demand by the Railways will help to create and maintain such capacities, both within and outside the Railway organisation. It is well known that wagon-building capacity of a number of units and even the traction motor manufacturing capacity of units like Bharat Heavy Electricals has been inadequately utilised in a number of years, not because the Railways did not need these items for replacement purposes, but because they had severe financial constraints. This even appears to have resulted in the BHEL converting the concerned units for other production and, when the Railways wanted traction motors, these could not be available in the required quantities. In the meantime, the overaged assets continue to be flogged into use.

2.42 The accumulation of overaged stock not only creates safety problems but also results in considerable increases in the cost of maintenance as well as in deterioration in the quality of service. We are therefore of the view that contributions to DRF should be worked out on a proper basis, irrespective of the varying amounts required for physical replacements from year to year, or the production capacity available in the country at a particular time.

#### Proper Approach

2.43 In the Railways, it is obvious that the problem of inflation assumes a much greater importance on account of the long life of the major assets like the rolling stock as well as track. Public utilities like the Railways also require relatively larger fixed investment in relation to their turnover as compared to manufacturing units. The provision for depreciation is also of greater importance in public utilities than for others because the depreciation policy directly affects the prices at which utility services are permitted to be sold.

Depreciation policy does not have the same direct price determining effect when prices are not regulated or administered. On account of these factors, adequate provision for depreciation to take care of inflationary element is of special importance for the Railways\*.

2.44 Thus, while the procedure followed by the Railways served them well for a period, the rather subjective nature of the provisions made thereunder created difficulties, especially after the financial position of the Railways deteriorated since 1966-67. As long as the Railways' financial position permitted, adequate provision was made to meet need based replacements. When the financial position started deteriorating, contributions were reduced, resulting in accumulation of arrears and overaged assets in the system. Under the normal commercial principle of providing for depreciation, and as no cash flow is involved and no distinction is made between capital expenditure on replacements and on new additions, there is no question of need-based provision. Normally, surplus in a well-managed commercial unit is calculated only after full provision is made for permissible depreciation. Under the system followed by the Railways so far, the allotment of funds for replacements tends to be reduced in case of financial constraints and thus the surplus does not really reflect the true performance of the undertaking. Another

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\*In this connection the following paragraph from "Public Utility Economics" by Paul J. Garfield & Wallace G. Lovejoy, Prentice Hall, New Jersey, 1964, may be of interest:

"Although depreciation is important generally, it is of special importance where public utilities are concerned. Public utilities differ from other enterprises because they require proportionately greater investment in plant and equipment.... Thus, the annual charge for depreciation will be proportionately greater for utility companies than for other companies doing the same annual volume of business because utilities have a relatively greater investment in depreciable assets....."

Second, depreciation is of greater importance for utility companies than for others because the regulation of depreciation policy directly affects the prices at which utility services are sold. Depreciation policy does not have the same direct price-determining effect in the non-regulated segment of business. Third, since depreciation accruals represent cost amortization, price inflation will have a more adverse effect on public utilities than upon non-regulated businesses because of the utilities proportionately greater investment in fixed assets of long service life."

disadvantage of the present method arises from the lumpiness of investment. Most of the Railway assets have a long life-span of 30-35 years. The investment activity on the Indian Railways gained momentum after the beginning of the planning era. The major assets acquired in <sup>the</sup> earlier part of this period will become due for replacement in a short time from now onwards. On account of this factor alone, it may be necessary for the Railways to provide for depreciation amounts much larger than the need based requirements as at present if they are to avoid financial strains in the near future; and we trust that they will do so.

#### Recommendations for Posts and Telegraphs

2.45 In this connection, it may be interesting to note that the Posts and Telegraphs Department of the Government of India, another commercial unit managed departmentally by the Government, appointed a team of British Consultants to examine, inter alia, the working of their Renewals Reserve Fund (RRF). The Consultants recommended\* that the present contribution to RRF should be replaced by a depreciation provision based on the original cost of assets and expected life, plus a supplementary depreciation provision to cover the effects of inflation on replacement prices. It was suggested that the cost of assets should be adjusted annually by means of a factor to indicate the current replacement cost. The provision under supplementary depreciation would thus be the difference between the depreciation on the replacement basis and the depreciation on historical cost basis. The Consultants also observed that the method so far being followed by the Department for charging the cost of replacement of assets\*\* had resulted in showing in the capital account not the actual cost of assets but merely a summation of original costs which for commercial accounting was highly undesirable. The consultants therefore recommended

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\* "Review of the Accounting Procedures of the Telecommunications Operations." Indian Posts & Telegraphs Department, 1965, pp.15,16.

\*\* The method was similar to the method being used by the Railways.

the discontinuance of the Renewals and Reserve Fund and suggested that the actual charge against revenue on account of depreciation should comprise a straight-line depreciation based on the historical cost of the assets plus a supplementary provision to cover the inflationary element on replacement cost. It was specifically recommended that the depreciation provision should not be decreased on any grounds other than on revisions in the lives of assets and specifically not on the ground that the department cannot afford it. It is understood that these recommendations have not yet been fully implemented.

#### The Position on Foreign Railways

2.46 To arrive at an appropriate measure for determining depreciation with respect to net fixed assets, the proportions of depreciation allowed by a few important foreign rail-road systems were examined by us. The proportions of depreciation to net fixed assets allowed by foreign rail-road systems range from 24.3% to 1.2%. The proportions observed in respect of some important Railways are given in Table 2.4.

Table 2.4

#### Depreciation on Foreign Railways

<u>Name of the Railway Unit</u>	<u>Proportion of depreciation to net fixed assets</u>
1. French National Railway Company	13.7
2. Italian State Railways	6.0
3. Swiss Federal Railways	5.9
4. Japanese National Railways	5.6
5. British Railways	4.7
6. Canadian National Railways	4.7
7. American Rail Roads	3.4
8. German Federal Railways	3.3

Compared to these, the proportion of depreciation on the Indian Railways to block account of assets (investment) has been around 2.6 to 2.7 per cent in the recent past.

Source: Worked out from the data available in "International Railway Statistics, 1976", International Union of Railways, Paris, and Annual Report of the Canadian National Railways for 1977.

Possible Solution to the Problem

2.47 The Railway authorities as well as other bodies such as the Railway Convention Committee have shown increasing consciousness of the importance of providing adequate depreciation. The RCC (1971) had suggested that the technique of assessing depreciation requirements should be refined to avoid the risk of any future underprovision. On its recommendation, the Railway Board appointed a Working Group to go into the whole question. The Working Group emphasised that the current replacement cost approach should be followed in the Railways in view of the permanent character of railways and their crucial role in providing infrastructure for development. At the same time, the Working Group came to the conclusion that there was no necessity to make a fundamental change in the present system of working out the depreciation provision. It considered three alternative systems: (i) maintenance of registers by individual assets or by groups and estimation of contribution on the basis of original cost and service life; (ii) the depreciation provision to be worked out on the basis of data already available in the block account on the value of wasting railway assets and estimated service lives, and adding to it estimated overall inflationary and improvement elements; and (iii) the depreciation provision to be based on revaluation of major railway assets at current prices, and estimating depreciation on the basis of assumed service life for each major group of assets. The Ministry of Railways accepted system (ii) suggesting calculation of contributions to DRF on the basis of the original cost of assets and estimated service life, and adding to it the contribution required on account of inflationary and improvement elements.

2.48 The reasons for accepting this method were stated to be as follows:

- (i) it comes closest to the object expressed by the Convention Committee;



- (ii) it breaks up the contribution to the Depreciation Fund on a rational and scientific basis into three constituents, namely depreciation proper, inflationary element and the cost of improvement;
- (iii) while the depreciation proper could be standing charge related as it is to the lives of assets, the inflationary element and the improvement cost could be up-dated periodically, thereby maintaining the rational and scientific character of the system on a long-term basis; and
- (iv) it has the added advantage of being the most economical way of working out the cost of renewals and replacement in a given period and its adequacy can be reviewed to coincide with the Plan period.

2.49 Thus, the principle that depreciation should be attempted to be provided after taking into account the inflationary element, and on some practicable basis relating to replacement costs, has been accepted by the Government. It is on the basis of these recommendations of the Working Group that the actual provision for depreciation in the Fifth and Sixth Plans has been attempted to be worked out. What is not clear is whether the provision that is being made satisfactorily meets the requirements of providing for the inflationary element as well as the large backlog that has already accumulated because of inadequate provisions in the past. The fact that the depreciation provisions being made in the current Plan period are not adequate to meet even the current replacement needs, leave aside taking care of bunched replacements which may have to be faced a few years hence, is an indicator that whatever the principles adopted upto now, the actual provision for depreciation continues to fall short of the requirements.

2.50 As pointed out above, the concept of depreciation provision is one of the most controversial in the fields of accounting as well as tax administration. While we have attempted to indicate above the contours of the problem, and arrived at the conclusion that the provisions for depreciation that have been made by the Indian Railways in the past do not appear to have been adequate even with the changes effected in the recent years, a Committee like ours is hardly in a position to go into further details of this question and make specific recommendations. Our examination however suggests the need for a more thorough examination of the question than has

been attempted in the past. Perhaps, it may be worthwhile to consider the appointment of a special Expert Committee to go into the question. From our point of view, what is important is to make assumptions about the appropriate provision for depreciation which can be considered reasonably satisfactory so as to make sure that, with normal efficient operation of the railway system, the earnings of the Railways are enough to enable them to provide every year for depreciation amounts which would not be too inadequate to carry out replacements when they fall due, keeping in view the inflationary situation as well as the large arrears regarding the provisions made in the past. There has in the past been an attempt to limit depreciation provisions to what was thought practicable in view of the financial situation of the Railways. This is the kind of situation which we would like to avoid in the future. There should be, in a large public utility organisation like the Railways, a more objective and satisfactory basis for regularly setting aside appropriate amounts for carrying out replacements.

2.51 We have already stated that depreciation should be related to the value of capital assets rather than to the Capital-at-charge. As we have earlier pointed out, however, the system of accounts followed by the Railways upto now does not give precise information about even the historical value of their assets. What is shown as 'investment' in block accounts of Railways comes nearest to the net value of assets. It is therefore appropriate that the depreciation should be charged on the basis of this value rather than on the basis of the Capital-at-charge.

2.52 After the recommendations of the Working Group mentioned earlier, in recent years the Railways have been providing for depreciation at a rate which is about 2.6/2.7 per cent of the value of assets. We have already stated that, in our view, this provision is inadequate. We are therefore assuming for our purpose a rate of 4.7%\* on the value of assets. This would,

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\*The proportion is arrived at on the basis of the experience of important foreign rail systems, especially Canada and the U.K.

in our view, enable the Railways to make the minimum adequate provision required for need-based replacements and also take care of the arrears relating to the past to some extent. We also hope that, as we have recommended earlier, the Government will appoint an Expert Committee to go into this whole question at an early date so that a long-term policy decision can be arrived at on a more scientific and acceptable basis than has been the position upto now. We also hope that early steps will be taken to begin maintaining data regarding assets when they are replaced in such a manner that, at least in the future, it will be possible to calculate the net value of assets in the proper sense of the term.

#### Contribution to Pension Fund

2.53 The pension scheme was introduced in the Railways in 1957 and all the staff appointed subsequently are compulsorily pensionable. The staff who were in service on that date have been given the option to join the pensionary scheme, and many have done so. At the end of 1977-78, over 11 lakh employees were pensionable.

2.54 Upto 1964, pension payments were currently charged in the year in which the payments were made as in the case of other Government Departments. However, the coming over of a large number of existing staff belonging to various age groups to the pension scheme was expected to give rise to widely fluctuating expenditure from year to year. Therefore, in 1964, a pension fund was set up to reflect not only the amount actually paid as pension each year but also the potential cumulative liability for the pension benefits earned by each year of service so as to avoid the inconvenience of a fluctuating burden.

2.55 It was decided to appropriate amounts annually to the Pension Fund on the basis of an actuarial valuation of the pensionary liability. The first valuation of such liability was made by the Railways in 1964-65 on the basis of sample data. The contributions were worked out by the Government actuary for a hypothetical population of ten lakh railway employees in different grades and on the basis of rates of pensions prevalent at that time. The actuary suggested a contribution of about Rs.29 crores per annum. The actual contributions made by the Railways however fell short of the suggested level.

2.56 As a result of an increase in the number of pension optees as well as liberalisation of pension benefits, it was decided to undertake a second valuation in respect of the staff in position as at the end of 1969-70. The report of the Second Actuary, submitted in 1974, was based on the actual data for about 4½ lakh railway employees. The actuary suggested that there should be a balance of Rs.332 crores in the Pension Fund as at the end of 1969-70, and an annual contribution at the rate of 13.7% of the total enoluments of the staff opting for pension should be made. The actual contribution made by the Railways were mainly governed by the requirements for actual disbursements and the financial constraints of the Railways. The contributions thus fell short of those recommended.

2.57 At the instance of the Committee, the Railway Board attempted an exercise to estimate the arrears in the pensionary contribution as at the end of 1977-78. It has been estimated that, taking into consideration the initial balance suggested by the actuary and the required level of contributions on the formula suggested by him, the balance in the Pension Fund as at the end of 1977-78 fell short by about Rs.350 crores. The real short-fall may be even more than the figure suggested. As indicated earlier, the formula was suggested by the actuary on the basis of the number of pension optees at a little over 4½ lakhs. Apart from the annual contribution on the basis of enoluments, the actuary had also suggested an initial balance in the fund which averages out to about Rs.6000 per employee. The number of pension optees had increased to a little over 11 lakhs at the end of 1978-79. Considerable changes have also taken place in the pay scales as well as the quantum of benefits under the pension scheme. All these pension liberalisations as well as additions to the number will require contribution to the Pension Fund at a much higher rate. It may be necessary for the Railways again to undertake a fresh valuation to determine their pension liability. Meanwhile the accumulated arrears can be taken at least to be Rs.350 crores.

2.58 If adjustments are made to take care of the inadequate provisions as illustrated above, the financial performance of the Railways will appear more unsatisfactory than indicated earlier.

#### Financial Performance as Efficiency Indicator

2.59 The financial analysis undertaken earlier does not show a happy picture about the Indian Railways especially since the late 'Sixties. However, it is necessary to keep in mind certain peculiar characteristics of the Railways as a commercial unit before any judgement can be arrived at. The Indian Railways is one of the oldest business units in the country, the first railway having started operations in the year 1853. The present Indian Railway system is a consolidation of a large number of originally private-owned companies, with varying degrees of efficiency and started at different points of time. While initially a system with broad-gauge was introduced, the Government later decided to go in also for metre-gauge systems in the interest of rapid expansion of route length. A large number of princely States found it economical to construct narrow-gauge lines. As a result, at present the Indian Railways are saddled with three different gauges. The Railways also operate over a vast geographical area with considerable regional differences. The density of traffic experienced shows wide variations on different sections. There are certain routes on which there is considerable pressure on account of heavy traffic demand, some sections are worked just at optimum capacity, while there is gross under-utilisation on some.

2.60 The Railways, as a commercial unit, has also certain special characteristics. They are like a multi-product multi-unit concern. They provide traffic services both for goods and passengers, and the services are of different kinds. Goods traffic consists of parcels and snalls, wagon-loads and train-loads, carried for distances varying from a few kilometres to thousands of kilometres. Passenger traffic goes in stopping passenger trains, ordinary expresses and special super fast trains of different kinds. Facilities vary from Air-conditioned cabins to ordinary wooden bench coaches. Over half the passenger traffic consists of commuters travelling in Electric Trains in metropolitan areas. The Indian Railways are also having

certain production units for the production of locomotives and coaches, and the accounts of these form a part of the Railway accounts. As a departmentally run public utility, there is much Parliamentary interest regarding the prices charged by the Railways. The Railways are therefore subject to all the normal limitations of administered prices.

#### The Question of 'Social Burdens'

2.61 In assessing the financial performance of the Railways, the fact that the Railways have had to meet certain social obligations imposed on them due to the fact that it is a public enterprise, departmentally administered, subject to public and parliamentary pressures, and which limit their earnings, has also to be taken note of. A private commercial organisation, even if it is a public utility concern, offers much more resistance before undertaking such expenditure or foregoing such revenues. Such obligations have been termed as 'social burdens' on the Indian Railways. Recently a high level Committee was appointed by the Railways to examine the problem of social burdens. The Committee enumerated\* the following items generally included under 'social burdens', which affect the Railways' financial performance:

- (a) Commodities carried below cost.
- (b) Suburban and certain short-distance services carried below cost.
- (c) Losses arising on new "developmental lines" constructed to open up backward areas.
- (d) Losses arising on unremunerative branch lines.
- (e) Restoration of lines dismantled during the Second World War.
- (f) Losses on account of subsidized housing provided to the staff and development of new townships.
- (g) Losses on account of certain welfare activities carried by the Railways, such as education, health, etc.
- (h) Losses on account of employing police force to protect railway property and maintaining law and order on the Railways.

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\*"Report of the High Level Committee on Social Burdens on Indian Railways", Government of India, Ministry of Railways, January, 1979, Para 2.9.

It has been estimated that the losses incurred by the Railways on account of some of these factors ranged between Rs.124 crores to Rs.244 crores during the period 1971-72 to 1979-80. The estimated losses suffered by the Railways on some of these items in 1979-80(R.E.)\* are indicated below:-

(1) Losses on coaching services	- Rs.175.45 crores
(2) Losses on low rated commodities	- Rs. 68.09 crores
(3) Losses on freight concession on relief measures	- Rs. 0.15 crores
Total	<u>Rs.243.69 crores</u>

2.62 In addition, the Railways are also spending Rs.33.48 crores on the Railway Protection Force, about Rs.7 crores as contribution to State Governments for police etc., Rs.44.69 crores on health, medical and welfare services, Rs.7.09 crores on educational assistance to Railway employees' children and Rs.18.92 crores by way of subsidised housing of employees. The aggregate losses on the working of unrenunc-rative branch lines amounting to Rs.25 crores are included in the estimates given above.

2.63 We do not agree that all these expenses are special only to the Railways and that they should all be separately calculated as one-rous "social burdens". For example, quite a large number of enter-prises both in the public and the private sectors provide housing to the staff at subsidised rates. This is especially necessary in the case of enterprises which are located in out of the way places and where the nature of the employees' duties and working hours make it necessary that the employees should be housed near the work place. Facilities for employees' education and health are also made available by quite a large number of enlightened employers. It is true that there are employers, especially in the private sector, who provide no such services; but there is no reason why we should necessarily compare the Railways with the most unenlightened employers in the country. Even the provision of protective forces is nothing unusual for large enterprises which use or store valuable assets. The real

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\* Appendix XIX, Explanatory Memorandum on the Railway Budget, 1980-81, Ministry of Railways.

problem in the case of the Railways arises because they are a vast organisation employing a large work force exceeding 17 lakh employees, with the railway track spread in the nooks and corners of the country, and its rolling stock running in different parts of the country open to raids and obstructions when law and order in certain areas is unsatisfactory. While it may not be inappropriate to expect the State Governments, whose constitutional responsibility it is to look after law and order within their own areas, to provide protection to the Railway system, like any prudent business organisation it is only proper that the Railways must supplement this effort from their own resources in view of the special nature of their assets and working systems. It is therefore only right that the Railways have recently decided to encourage the State Governments to build up more protective forces for the benefit of the Railways by agreeing to share up to 50% of the cost involved in such work. The Committee on Social Burdens has also made a reference to some similar burdens carried by other enterprises and also by railways in some other countries. It is only when the Railways are obliged to provide their own services at rates much below cost - even dependent cost - or to maintain and even construct unremunerative lines, and provide facilities such as season tickets at uneconomical rates, that the question of 'social burden' in a genuine sense arises. The losses on such burdens have of course to be taken into account when assessing the financial performance of the Railways and using it as an indicator of the manner in which the Railways have been managed.

2.64 Past experience suggests that, even in respect of such burdens, the Railways may not always succeed in finding suitable ways out of their difficulties. The best example of this is the questions arising out of the continuance of what are generally known as unremunerative branch lines. While not all of them are of a character which really indicates that they should be closed down, some of them are clearly redundant with hardly any use being made of them. Especially with the growth of



alternative modes of transport like roadways, the usefulness of some of the railway lines has come into question; and the losses suffered on them run into large amounts. For example, the losses on the Darjeeling Himalayan Railway and on the Nilgiri Railway are quite large. With motorised road transport providing excellent alternative services, the utility of maintaining such railway services is questionable. The Railways have been examining this problem for a long time. They have been attempting to persuade the State Governments to agree to the closure of some of these lines; but the State Governments have continued to oppose such attempts. They also show no willingness to share the burden of maintaining such railway lines. The Central Government has found it difficult to take a strong line of action in the face of such opposition.

2.65 One more factor which has also to be taken into account in this respect is the long time span over which many of the Railway projects are spread. To satisfy the aspirations of different regions, many times the Government has initiated a large number of projects at the same time. However, due to the over-all constraint of resources, it becomes difficult to provide adequate funds for speedy completion of all the projects. The result is that the period of completion gets spread over a long time span.\* This adversely affects the Railways' capacity to earn additional returns on the capital invested.

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\*From the analysis of new Railway lines constructed after 1950-51 and completed by now, it has been observed that about 25% of such projects were completed in a period of two years or less, 21% in three years, 14% in four years and 40% in five years or more. In terms of the project cost it has been observed that about 63% of the total project costs of these lines represented the projects which took more than five years to complete.

There are instances of projects which took more than 12 to 13 years to complete. For example, the Hassan-Mangalore line involving an outlay of Rs.42 crores was completed in 15 years. The Guna-Maksi line took 12 years to complete while the Panskura-Haldia Port line took 13 years to complete.

Of course, the reasons for the long period taken for construction may vary from project to project and only a detailed study can indicate in what cases the spread over of financial resources has been a major factor responsible for the long time taken.

### Level of Fares and Freight Rates

2.66 The reasons for unsatisfactory financial performance of the Railways may be either that the fares and freight rates have not increased in the past in line with the increase in the operating expenses of the Railways, or that the costs have increased disproportionately, or both.

2.67 The analytical study brought out by the Economic Unit of the Railways in October, 1975, on "Productivity Trends in the Indian Railways" covering the period 1960-61 to 1972-73 highlighted the fact that the profitability of the Railways deteriorated to a considerable extent, especially after 1965-66 in spite of improved operational efficiency, mainly because increases in the fares and freight rates lagged considerably behind the increases in the price levels of major inputs required by the Railways. It has been estimated in the Study that the operating surplus at constant prices (1972-73) would have increased by 360 per cent during 1960-61 to 1972-73, as against an increase of only 161 per cent at current prices, which highlights the deterioration in the profitability due to fares and freight rates not keeping pace with the increase in prices between 1960-61 and 1972-73.\* The profitability of the Railways would have improved considerably, if fares and freight rates had increased in line with price increases.

2.68 Extending the Study further, it has been estimated in the Corporate Plan of the Railways that fares and freight rates in 1975-76 were only about 67% of what they were in 1960-61 when adjusted for price changes, i.e., registering an annual reduction of 2.5 per cent as against an estimated annual average increase in productivity of the order of 2%.\*\* This is claimed to have resulted in a massive transfer of real income from the Railways to the users, and consequently in considerable deterioration in the Railways' financial position.

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\* A study of Productivity Trends in the Indian Railways, 1960-61 to 1972-73. Economic Unit, October, 1975, P.V.9 (Mineographed)

\*\* Indian Railways Corporate Plan, 1976, p.55

2.69 Statement 2.3 gives data on changes in average earning per passenger kilometre and per tonne kilometre for specified years during 1950-51 to 1978-79 in relation to increases in the prices of some major inputs of the Railways and also a few other commodities. During the period 1950-51 to 1978-79, the average earning <sup>of</sup> by the Railways per passenger kilometre increased by about 203%. The average earning per tonne kilometre showed an increase of 178% during this period. As against this, the prices of major inputs showed more substantial increases. The average cost per Railway employee increased by 441%, the index number of wholesale prices of coal by 405% and that for mineral oils by 447%. The index number of wholesale prices for iron & steel and ferro-alloys showed an increase of 558%, that for transport equipment registered an increase of 281%, and that for machinery and machine tools of 307% during this period. Even the prices of foodgrains showed an increase of 236%, which is higher than the increase in the Railway fares and freight rates. The general index number of wholesale prices for all commodities registered an increase of 291% and the cost of living index number (working class) increased by 298% during this period. It will thus be seen that in relation to the increases observed in the prices of the major inputs of the Railways as well as certain other important commodities, the increases in the Railway fares and freight rates were at a considerably lower level. It is interesting to note that the gap between increases in the general price level and the Railway fares and freight <sup>rates</sup> started widening rapidly since 1965-66, and it is since then that the Railways started showing deficits.

### Conclusion

2.70 Our examination of the financial working of the Indian Railways suggests that their financial position is not satisfactory, and that many factors such as inadequate provision for elements like depreciation have played a part in it. In addition, the fares and freight rates have not kept pace with the increase in the general price level as well as with the prices of important inputs. Before drawing any specific conclusion, however, it is necessary that we also examine data about the non-financial indices of railway performance. This we proceed to do in the next Chapter.

Financial Performance of Indian Railways, 1950-51 to 1978-79

(Rs.in crores)

Sl.No.	1950-51	1951-52	1952-53	1953-54	1954-55
1. Capital_at-charge	827.0	850.1	857.4	869.3	901.6
2. Total investment	855.2	895.3	915.4	950.0	1006.7
3. Revenue Gross Receipts	263.30	291.16	270.88	274.60	286.81
4. Depreciation Provision	33.59	30.00	30.00	30.00	30.00
5. Working Expenses including Depreciation & Miscellaneous expenses	215.74	229.41	223.70	237.68	242.75
6. Gross Surplus	47.56	61.75	47.18	36.92	44.06
7. Dividend to General Revenues	32.51	33.41	33.99	34.36	34.96
8. Payment to States in lieu of Tax on passenger fare	..	..	..	..	..
9. Net Surplus/deficit (-)	15.05	28.34	13.19	2.56	9.10
<u>Ratios</u>					
10. Percentage of Net Surplus to Capital-at-charge	1.8	3.3	1.5	0.3	1.0
11. Percentage of Net Surplus to Investment	1.8	3.2	1.4	0.3	0.9
12. Percentage of Gross Surplus to Capital-at-Charge	5.8	7.3	5.5	4.2	4.9
13. Percentage of Gross Surplus to investment	5.6	6.9	5.2	3.9	4.4
14. Percentage of Dividend to Capital-at-Charge	3.9	3.9	4.0	4.0	3.9
15. Operating ratio* (per cent)	80.0	77.1	80.6	84.5	82.3

\* The relation of working expenses to gross traffic receipts.

Contd.../-

Financial Performance of Indian Railways, 1950-51 to 1978-79

Sl.No.	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
1.	969.0	1071.7	1222.4	1356.6	1432.3	1520.9
2.	1102.1	1239.1	1434.2	1611.7	1732.7	1868.6
3.	316.33	347.94	379.98	393.90	423.60	460.42
4.	45.00	45.00	45.00	45.00	45.00	45.00
5.	265.99	289.56	322.20	334.58	349.04	372.55
6.	50.34	58.38	57.78	59.32	74.56	87.87
7.	36.12	38.16	44.40	50.39	54.43	55.86
8.	..	..	..	..	..	..
9.	14.22	20.22	13.38	8.93	20.13	32.01
10.	1.5	1.9	1.1	0.7	1.4	2.1
11.	1.3	1.6	0.9	0.6	1.2	1.7
12.	5.2	5.4	4.7	4.4	5.2	5.8
13.	4.6	4.7	4.0	3.7	4.3	4.7
14.	3.7	3.6	3.6	3.7	3.8	3.7
15.	81.6	80.4	81.5	82.4	79.2	78.4

Contd.../-

Statement 2.1 (Contd.)

Financial Performance of Indian Railways, 1950-51 to 1978-79

Sl.No.	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
1.	1683.0	1896.8	2159.6	2435.1	2680.3	2841.6
2.	2055.8	2318.6	2634.2	2960.0	3255.5	3463.6
3.	503.14	567.74	632.86	661.03	733.76	769.00
4.	65.00	67.00	80.00	83.00	85.00	100.00
5.	403.39	444.42	487.67	542.92	598.92	654.88
6.	99.75	123.32	145.19	118.11	134.84	114.12
7.	62.85	68.76	83.45	92.43	103.78	132.39
8.	12.50	12.50	12.50	12.50	12.50	
9.	24.40	42.06	49.24	13.18	18.56	(-)18.27
10.	1.4	2.2	2.3	0.5	0.7	(-)0.6
11.	1.2	1.8	1.9	0.4	0.6	(-)0.5
12.	5.9	6.5	6.7	4.9	5.0	4.0
13.	4.9	5.3	5.5	4.0	4.1	3.3
14.	4.5	4.3	4.4	4.3	4.3	4.7
15.	78.0	75.8	74.7	79.9	79.5	83.2

Contd.../-

## Statement 2.1 (Contd.)

Financial Performance of Indian Railways, 1950-51 to 1978-79

Sl.No.	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
1.	2978.0	3101.3	3195.5	3330.3	3519.4	3726.0
2.	3639.2	3797.2	3927.9	4099.4	4333.5	4581.7
3.	818.36	899.07	951.60	1006.95	1096.97	1162.77
4.	95.00	95.00	95.00	100.00	105.00	110.00
5.	708.36	756.26	805.04	862.22	927.89	998.34
6.	110.00	142.81	146.56	144.73	169.08	164.43
7.	141.53	150.67	156.39	164.57	151.24	161.51
8.						
9.	(-)31.53	(-)7.86	(-)9.83	(-)19.84	17.84	2.92
10.	(-)1.06	(-)0.3	(-)0.3	(-)0.6	0.5	0.08
11.	(-)0.9	(-)0.2	(-)0.3	(-)0.5	0.4	0.06
12.	3.7	4.6	4.6	4.4	4.8	4.4
13.	3.0	3.8	3.7	3.5	3.9	3.6
14.	4.7	4.9	4.9	4.9	4.3	4.3
15.	84.7	82.5	83.0	84.2	83.1	84.5

Contd.../-

## Statement 2.1 (Contd.)

Financial Performance of Indian Railways, 1950-51 to 1978-79

Sl.No.	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
1.	3893.4	4105.6	4354.8	4533.7	4797.1	5023.9
2.	4791.4	5050.3	5345.0	5572.4	5896.0	6185.7
3.	1138.19	1415.19	1775.51	2045.69	2133.83	2161.30
4.	115.00	115.00	115.00	135.0	140.0	145.0
5.	1082.78	1341.55	1638.48	1749.40	1781.04	1900.47
6.	55.41	73.64	137.03	296.29	352.79	260.82
7.	170.92	187.47	198.14	209.05	226.56	224.16
8.						
9.	(-)115.51	(-)113.83	(-)61.11	(+)87.84	126.23	36.66
10.	(-)3.0	(-)2.8	(-)1.4	1.9	2.6	0.7
11.	(-)2.4	(-)2.3	(-)1.1	1.6	2.1	0.6
12.	1.4	1.8	3.2	6.5	7.4	5.2
13.	1.2	1.5	2.6	5.3	6.0	4.2
14.	4.4	4.6	4.6	4.6	4.7	4.5
15.	93.7	93.5	91.1	84.4	83.0	87.5

Source: i) Indian Railways Annual Report and Accounts, 1973-74 and 1977-78.

ii) Annual Statistical Statements of Indian Railways - 1978-79.



## Statement 2.2

Accretions to Depreciation Reserve Fund, 1950-51 to 1978-79

(Rs.in crores)

Year	Capital- at- charge	Invest- ment	Gross recei- pts	Contri- bution to DRF from revenue	Total Accre- tion to DRF	Accretion* to DRF as		
						percentage of Capital- at- charge (6+2) x 100	Invest- ment (6+3) x 100	Gross receipts (5+4) x 100
1	2	3	4	5	6	7	8	9
1950-51	827	855	263.30	30	33.59	4.1	3.9	11.4
1951-52	850	895	291.16	30	33.79	4.0	3.8	10.3
1952-53	857	915	270.88	30	34.42	4.0	3.8	11.1
1953-54	869	950	274.60	30	33.97	3.9	3.6	10.9
1954-55	902	1007	286.81	30	33.72	3.7	3.3	10.5
1955-56	969	1102	316.33	45	48.67	5.0	4.4	14.2
1956-57	1072	1239	347.94	45	48.90	4.6	3.9	12.9
1957-58	1222	1434	379.98	45	49.38	4.0	3.4	11.8
1958-59	1357	1612	393.90	45	48.40	3.6	3.0	11.4
1959-60	1432	1733	423.60	45	47.96	3.3	2.8	10.6
1960-61	1521	1869	460.42	45	46.64	3.1	2.5	9.8
1961-62	1683	2056	503.14	65	67.63	4.0	3.3	12.9
1962-63	1897	2319	567.74	67	69.02	3.6	3.0	11.8
1963-64	2160	2634	632.86	80	82.57	3.8	3.1	12.6
1964-65	2435	2960	661.03	83	85.69	3.5	2.9	12.6
1965-66	2680	3256	733.76	85	88.49	3.3	2.7	11.6
1966-67	2842	3464	769.00	100	104.61	3.7	3.0	13.0
1967-68	2978	3639	818.36	95	100.33	3.4	2.8	11.6
1968-69	3101	3797	899.07	95	101.09	3.3	2.7	10.6
1969-70	3196	3928	951.60	95	102.34	3.2	2.6	10.0
1970-71	3331	4100	1006.95	100	108.55	3.3	2.6	9.9
1971-72	3521	4335	1096.97	105	114.36	3.2	2.6	9.6
1972-73	3726	4582	1162.77	110	120.53	3.2	2.6	9.5
1973-74	3893	4791	1138.19	115	126.02	3.2	2.5	10.1
1974-75	4106	5050	1415.19	115	126.88	3.1	2.5	8.1
1975-76	4355	5345	1775.51	115	127.98	2.9	2.4	6.5
1976-77	4534	5572	2045.69	135	148.75	3.3	2.7	6.6
1977-78	4797	5896	2133.83	140	155.62	3.2	2.6	6.6
1978-79	5024	6180	2161.30	145	162.57	3.2	2.6	6.7

\* includes contribution from revenue, from production units and interest on balances.

Statement 2.3

Changes in average Fare & Freight Rates in relation to  
Prices of certain relevant items - 1950-51 to 1978-79

Index Numbers with 1950-51=100

	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1976-77	1977-78	1978-79
1. Average earnings per passenger km.	100	116	116	154	169	234	234	238	303
2. Average earnings per tonne km.	100	111	122	145	172	257	280	273	278
3. Average cost per railway employee.	100	117	142	185	269	481	500	512	541
4. Index number of wholesale prices:-									
i) Coal	100	101	141	173	238	439	470	473	505
ii) Mineral Oils	100	110	127	161	203	522	543	544	547
iii) Iron & Steel & Ferro Alloys	100	147	186	229	310	568	579	583	658
iv) Transport equipment	100	123	149	171	204	349	343	351	381
v) Machinery & Machine Tools	100	125	143	175	223	386	380	385	407
vi) Foodgrains	100	68	96	145	195	339	297	332	336
vii) All commodities	100	86	116	153	211	364	372	391	391
5. Cost of living index number (Working Class) 1949=100)	100	95	123	167	224	376	362	390	398

- Source: 1. Indian Railways Annual Report & Accounts, 1977-78.  
2. Annual Statistical Statements of Indian Railways - 1978-79.  
3. "Wholesale Price Statistics in India" 1947-78, Vol. I, Shri H.L.Chandhok, Economic and Scientific Research Foundation, New Delhi, 1978.  
4. Indian Labour Journal.

OPERATIONAL PERFORMANCE OF INDIAN RAILWAYSGrowth of Traffic

3.01 The growth of passenger and freight traffic on the Indian Railways since 1950-51 is given in Annexures 3.1 and 3.2. A summary is given in Table 3.1 below:

TABLE 3.1Growth of Traffic

S.No.	1951-52	1976-77	1977-78	1978-79	Percent- age Incr- ease in 1978-79 over 1951- 52.
<b>1. Passengers Originating (in millions)</b>					
(a) Suburban	411	1802	1928	2113	414
(b) Non-Suburban	797	1498	1575	1606	102
(c) Total	1208	3300	3504	3719	208
Index	100	273	290	305	
<b>2. Passenger Kms. (in Billions)</b>					
(a) Suburban	6.8	37.0	39.4	43.4	538
(b) Non-Suburban	56.3	126.8	137.3	149.5	166
(c) Total	63.1	163.8	176.7	192.9	206
Index	100	260	280	306	
<b>3. Goods Traffic</b>					
(a) Total Tonnes Originating (in millions)	93	239	237	223	140
Index	100	257	255	240	
(b) Net Tonnes Kms. (in Billions)	44.1	156.8	162.7	154.8	251
Index	100	356	369	351	

### Passenger Traffic:

3.02 It will be seen from Annexure 3.1(a) that the number of originating passengers has grown at an average rate of 3.9% per year during the period from 1950-51 to 1978-79. The growth rate was higher in the Second, Third and Fifth Plan periods, the average per year being 4.6, 5.5 and 7.2% respectively, as compared to a marginal decline during the First Plan, and average increases per year of 2.1% during the Annual Plans from 1966-67 to 1968-69, and 3.7% during the Fourth Plan. It is also seen that the growth rate ~~of~~<sup>in</sup> suburban passengers has been much higher than that ~~of~~<sup>in</sup> non-suburban passengers, the overall average annual rate of increase during the period from 1951-52 to 1978-79 being 6.3% for suburban passengers and 2.7% for non-suburban passengers. The average growth rate per year in the total passenger-kilometres during the period 1950-51 to 1978-79 is also 3.9%, the corresponding percentages for suburban and non-suburban passengers being 7.1% and 3.7% respectively. From this it may be seen that average leads have gone up both for suburban and non-suburban passengers, the average lead in 1978-79 for suburban passengers being about 20.5 Kms. and for non-suburban 93.1 Kms., as against 16.5 Kms. for suburban and 70.6 Kms. for non-suburban during 1951-52. It is pertinent to note that the rate of growth of passenger traffic has been comparatively much higher during the years 1975-76 to 1978-79.

### Freight Traffic:

3.03 The growth of freight traffic since 1950-51 is indicated in Annexure 3.2 both in terms of tonnes originating as well as net tonne kilometres. The average rate of growth per year during the period 1950-51 to 1976-77 has been 3.8% for originating tonnes and 5.1% for net tonne kilometres. The average rate of growth per year has been between 6 to 8% during the First, Second, Third and Fifth Plan periods. The performance during the Fourth Plan was much lower (-0.3%) due to a steep decline in traffic during 1973-74.

cont...

3.04 The average lead of goods traffic has appreciably increased from 370 Kms. in 1950-51 to 721 Kms. in 1978-79 for revenue earning traffic and from 470 to 693 Kms. for total revenue and non-revenue traffic (Annexure 3.7).

3.05 It is thus seen that so far as passenger traffic is concerned there has been almost a continuous growth, <sup>the</sup> growth rate after 1974-75 being particularly high. However, in respect of total originating goods traffic, there ~~has been~~ <sup>was</sup> stagnation from 1965-66 to 1974-75. The total originating traffic picked up again during 1975-76 and 1976-77, the record level of 239 million tonnes being achieved in 1976-77. It declined to 237 million tonnes in 1977-78 and to 223 million tonnes in 1978-79. The revenue earning traffic reached the low level of about 194 million tonnes in 1979-80.

#### Modernisation

3.06 Indian Railways have made notable progress in modernisation since 1950-51. Some of the important aspects of modernisation are given in Annexure 3.3. It will be seen from this Annexure that rapid strides have been made during the last three decades in modernisation of traction, wagons and signalling and telecommunication equipment. Electrified route Kms. have increased from 388 Kms. in 1950-51 to 4720 in 1977-78, increasing the percentage of electrified route Kms. to total route Kms. from 0.72 to 7.78%. In regard to the passenger services, the diesel and electric traction which together contributed only 7.6% of GTKMs in 1950-51, carried 49.3% of GTKMs in 1977-78. Similarly, in hauling goods traffic, the percentage proportion of diesel and electric traction increased from 1.7% to 83.2% during this period. Higher capacity wagons have been provided, increasing the average carrying capacity per wagon from 22.6 tonnes to 29.9 tonnes on the BG, and 17.1 tonnes to 21.3 tonnes on the MG. On the signalling and telecommunications side, the number of block stations with tokenless block working ~~have~~ <sup>has</sup> increased from 132 in 1969 to 704 in 1977-78. Track length with automatic signalling facilities has increased from 825 to 1312 Kms. and route length of Centralised Traffic Control from 289 to 339 Kms. during this period. In telecommunication, the micro wave route length ~~have~~ <sup>has</sup> increased from 909 Kms. in 1969 to 11703 Kms. in

cont...

1977-78. Similarly, considerable progress has been achieved in mechanised maintenance of track, provision of long welded rails, development of concrete sleepers, modernisation of workshops and introduction of computers etc.

3.07 The abovementioned technological improvements have obviously contributed towards improving the productivity of the resources used by the Railways. It is not feasible to work out separately how much improvement in productivity is due to technological improvements and how much due to improvement in staff efficiency. Anyway, it has to be appreciated that even the technological advancement has been achieved by appropriate planning, coordination and other managerial inputs. It should, therefore, suffice for the purpose of our study to have an overall indication of the improvements in the productivity of the various resources on the Indian Railways. These may be assumed to result both from technological advancement and the improvement in staff efficiency. Further, a comparison of the various efficiency indices with those of important foreign railways will also give us a good idea regarding the level of efficiency with which the Indian Railways are utilising their resources.

#### Indices for Operational Efficiency:

3.08 The Railways being a complex organisation, it is difficult to evolve an overall operational efficiency index for the railway system as a whole. However, it is possible to have a general picture of the operational efficiency of the railways by examining trends of productivity and the utilisation of various <sup>individual</sup> resources over a period of time.

3.09 For the present purpose, the productivity of <sup>the</sup> following resources is being analysed:

1. Track
2. Locomotives.
3. Passenger vehicles.
4. Wagons.
5. Staff.
6. Capital.

Utilisation of Track

TABLE 3.2  
Track Utilisation

	<u>Broad Gauge</u>				<u>Metre Gauge</u>			
	<u>1950-51</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1950-51</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
1. Train Kms. per running track-Km. per day.	17.0	22.6	23.5	22.5	10.5	14.2	14.1	13.2
2. Passenger Kms. per route Km. per annum (000)	1765	4016	4377	4793	853	1515	1572	1675
3. Net tonne-Kms. per route Km. per annum (000)	1502	4348	4548	4288	245	872	857	831

3.10 The particulars of track utilisation are given in Annexure 3.5 and Table 3.2. It will be seen from this Annexure that the track density has shown appreciable improvement since 1950-51. On the BG, the train Kms. per running track Km. per day have increased from 17 in 1950-51 to 23.5 in 1977-78. There was a marginal drop to 22.5 in 1978-79. Similarly, passenger Kms. per route Km. per annum have increased by more than 170% during this period, the increase being from 17.65 lakh to 47.93 lakh passenger Kms. during this period. The increase in net tonne Kms. per route Km. per annum has been even greater than this, 45.48 lakhs in 1977-78 against 15.02 lakhs in 1950-51, indicating an increase of over 200 per cent. There was a slight drop in 1978-79 to 42.88 lakhs.

3.11 Similarly, on the MG system, during the period 1950-51 to 1978-79, passenger Kms. per route Km. per annum have increased by 96% and net tonne Kms. per route Km. per annum by 239%.

3.12 There is no doubt that modernisation including dieselisation, electrification, and utilisation of higher capacity wagons as well as augmentation of section capacity on the various routes, have helped the Indian Railways considerably to improve their utilisation of track. However, it is not possible to separate the improvement in this direction contributed by

cont..

modernisation and otherwise. The fact remains that track utilisation has shown progressive improvement over the years and is much better now than at the beginning of the Five Year Plans.

Utilisation of Locomotives

TABLE 3.3  
ENGINE USAGE

1960-61				1977-78				1978-79			
Steam	Die- sel.	Elec- tric.	All Tra- ction.	Steam	Die- sel	Elec- tric	All Trac- tion.	Steam	Die- sel.	Elec tric.	All Tra- ction.

1. Engine Km.  
per engine  
day in use.

BG(a) Passr.	274	250	363	277	228	735	636	329	218	628	459	313
(b) Goods	155	300	156	162	111	353	406	256	100	317	309	235
MG(a) Passr.	210	274	177	220	215	561	431	239	223	574	419	235
(b) Goods	140	273	171	142	123	305	211	186	115	285	211	175

2. Average  
speed of  
through goods  
trains. (Kms/  
hour)

BG	18.9	22.5	20.1	19.2	16.3	22.5	24.9	22.5	15.8	21.9	24.0	22.1
MG	16.4	21.6	31.4	16.5	13.7	19.0	16.8	17.4	12.7	18.6	17.1	16.9

	1960-61		1977-78		1978-79	
	BG	MG	BG	MG	BG	MG
3. Passgr. Kms. per Kg. of Tractive Effort.	1923	1958	2678	2727	2793	2835
4. Net tonne-Kms. per Kg. of Tractive Effort.	1699	1203	2147	1603	2044	1597
5. Gross Tonne Kms. per Kg. of Tractive Effort.	1864	1444	2472	1825	2330	1759
6. Net Tonne Kms. per Engine hour.	4170	1766	6125	3023	5941	3131



3.13 Statistics indicating the trend of efficiency of utilisation of locomotives are given in Annexures 3.6(a) to 3.6(h). The following indices have been given in these Annexures:-

- (a) & (b) Engine Kms. per engine day in use.
- (c) Net tonne Kms. per goods engine hour.
- (d) Passenger Kms., net tonne Kms. and gross tonne Kms. per Kg. of tractive effort.
- (e) Average speeds of goods trains.

Annexures 3.6(f) & (g) give progress of dieselisation and electrification. Annexure 3.6(b) gives net tonne Kms. per engine day in use.

#### Passenger Locomotives.

3.14 It will be seen from Annexure 3.6(a) that engine Km. per engine day per engine in use in respect of BG services have improved from 249 in 1950-51 to 329 in 1977-78. This has, however, dropped to 313 Kms. in 1978-79. The utilisation of diesel locomotives has increased from 250 Km. per day per engine in use in 1950-51 to 735 in 1977-78, and that of electric locomotives from 397 in 1950-51 to 697 in 1976-77. Both in respect of diesel as well as electric locos there has been some deterioration in 1978-79, the utilisation dropping to 628 and 459 Kms. respectively. The utilisation of steam locomotives has however declined from 249 Kms. per day per engine in use in 1950-51 to 218 in 1978-79. With progressive dieselisation and electrification the utilisation of steam locomotives is bound to go down as the steam locomotives are progressively restricted to less important passenger trains.

3.15 On the M.G. also, the engine utilisation has shown progressive improvement over the years, the best utilisation being 239 engine Kms. per engine day in use in 1977-78. The utilisation of diesel and electric locomotives has been the best on the MG in 1976-77 when the performance was 578 engine Kms. per engine day in use for diesel traction and 439 Kms. for electric traction.

#### Goods Locomotives.

3.16 In regard to the goods services on the BG, the particulars are given in Annexure 3.6(b). Here also it will be seen that there has been progressive improvement both on the BG as well as on the MG. The best performance has been achieved in 1976-77 when the engine Km. per day per engine in use for the goods services were

264 Kms. on the BG and 189 Kms. on the MG, showing an improvement of 164 per cent on the BG and 89 per cent on the MG over 1950-51 performance. There has been some deterioration during 1977-78 and 1978-79 in engine utilisation on the goods services. Here again, the utilisation of steam locomotives has gone down for obvious reasons, the steam locomotives being confined to the working of less important goods trains such as shunting trains.

3.17 Another important index of efficiency of engine utilisation is net tonne Kms. per goods engine hour. <sup>Data about</sup> Performance in this respect <sup>are</sup> ~~is~~ given in Annexure 3.6(c). It will be seen from this Annexure that on the BG, net tonne Kms. per goods engine hour have improved from 3283 in 1950-51 to 6125 in 1977-78, thereby showing an improvement by 87 per cent. However, there has been a deterioration in 1978-79, the utilisation dropping to 5941 net tonne Kms. On the MG also, net tonne Kms. per goods engine hour have increased from 1238 in 1950-51 to 3131 in 1978-79 showing an improvement to the extent of 153 per cent. Here again, the improvement could be ascribed considerably to the modernisation in traction namely, dieselisation and electrification, with progressive increase in the number of higher capacity locomotives.

#### Output per Kg. of Tractive Effort.

3.18 Annexure 3.6(d) gives the performance of locomotives in terms of passenger Kms., net tonne Kms., and gross tonne Kms. per Kg. of tractive effort. As the output is related to Kg. of tractive effort, higher capacity locomotives by themselves would not improve the performance unless their utilisation improves. Hence this is a more representative index for judging the efficiency of utilisation of locomotives.

3.19 In respect of passenger Kms. per Kg. of tractive effort, it is seen that the best performance both for BG as well as MG has been achieved in 1978-79. Performance during 1976-77 and 1977-78 was also better than previous years. On the BG, 39% improvement was recorded in 1978-79 as compared to 1951, and on the MG the improvement was to the extent of 20%. In regard to net tonne Kms. per Kg. of tractive effort, best performance has been achieved during the years 1976-77 and 1977-78. On the BG, 68% improvement was recorded in 1977-78, the best year, over 1950-51. On the MG, the best performance was in 1976-77 when the performance was 60%.

better than that in 1950-51. In regard to gross tonne Kms. per Kg. of tractive effort also, the performance during the years 1976-77 and 1977-78 has been the best. On the BG, the best performance was during 1977-78, recording an improvement of 62% over 1950-51. On the MG, the best performance was in 1976-77 when an improvement to the extent of 55% was achieved over 1950-51.

#### Average Speeds of Through Goods Trains

3.20 Average speeds of through goods trains are given in Annexure 3.6(e). So far as BG diesel traction is concerned, it is seen that the average speed of through goods trains has been fluctuating between 22 and 24 Kms. per hour, except in 1978-79 when it dropped to 21.9 Kms. per hour. The best performance was achieved in 1966-67 when it was 24.1 Kms. per hour. It may however be borne in mind that in 1966-67, the diesel traction carried only 41% of the net tonne Kms. on the BG as against 58.5 in 1977-78 and 63.3% in 1978-79. If the overall average speeds for all tractions are observed it will be found that they have shown progressive improvement upto 1976-77 when a record performance of 23.2 Kms. per hour was achieved. In electric traction also, on the BG, an average record speed of 25.4 Kms. per hour was achieved in 1976-77.

3.21 Similarly, on the MG, the average speed of through goods trains for all traction has shown improvement, the record figure of 18.1 Kms. per hour having been achieved in 1973-74. Since then, the average speed has fluctuated between 17.3 to 17.6 Kms. per hour upto 1977-78. In 1978-79 this dropped to 16.9 Kms. per hour.

#### Wagon Utilisation

3.22 The following indices of wagon utilisation have been given in Annexure 3.7 and a summary is given in Table 3.4

1. Wagon Kms. per wagon day
2. Net tonne Kms. per wagon day.
3. Net tonne Kms. moved per annum per tonne of wagon capacity.
4. Wagon Turn Round.

TABLE 3.4  
WAGONS AND COACHES UTILISATION

	1950-51	1976-77	1977-78	1978-79
1. Wagon Kms. per Wagon day.				
(a) BG	62.3	81.2	81.9	75.9
(b) MG	50.2	58.1	57.5	52.7
2. NT Kms. per Wagon day.				
(a) BG	709	1019	1045	976
(b) MG	304	570	570	543
3. NTKMs moved per tonne of wagon capacity.				
(a) BG	11833	15362	15873	14903
(b) MG	9021	12394	12070	11791
4. Wagon Turn Round(days).				
(a) BG	11.0	13.0	13.3	14.3
(b) MG	7.1	11.1	11.5	12.8
5. Vehicle Kms. per Vehicle day.				
(a) BG	264	306	323	316
(b) MG	209	205	205	196
6. Passgr. Kms. per Vehicle day.				
(a) BG	8405	8568	9215	9880
(b) MG	5120	5062	5200	5450
7. Passgr. Kms. per 000 seating capacity.				
(a) BG	73646	87116	93827	99404
(b) MG	63914	63115	65192	68968

Wagon Kms. per Wagon day

3.23 On the BG, the wagon Kms. per wagon day have shown an improvement from 62.3 Kms. in 1950-51 to 81.5 Kms. in 1977-78, which was the best performance achieved so far. However, in

1978-79, it dropped to 75.9 Kms. On the MG the best performance of 60.1 Kms. was achieved in 1965-66 and 1969-70. In 1976-77 and 1977-78 the performance dropped slightly to 58.1 and 57.5 Kms. respectively. However, in 1978-79, there was considerable deterioration, the ~~index~~ <sup>utilization</sup> dropping to 52.7 Kms.

Net Tonne Kms. per Wagon Day:

3.24 The NTKMs per wagon day have shown progressive improvements both on the BG as well as MG. On the BG, it increased from 709 net tonne Kms. in 1950-51 to 1045 net tonne Kms. in 1977-78 and on the MG it increased from 304 in 1950-51 to 570 in 1977-78. Record performance was achieved both on the BG as well as the MG in 1977-78. However, there has been some deterioration in 1978-79, the BG index dropping to 976 net tonne Kms. and the MG one to 543 net tonne Kms.

Net Tonne Kms. moved per Annum per Tonne of Wagon Capacity

3.25 As in the case of locomotives, this index discounts the improvement factor of utilising higher capacity wagons to a certain extent. In this respect it is also seen that the performance has shown improvement best results being, on the BG in 1977-78 and on the MG in 1976-77, viz. 15873 net tonne Kms. and 12394 net tonne Kms. respectively.

Wagon Turn-Round

3.26 It will be seen from Annexure 3.7 that wagon turn-round has increased i.e. the situation has deteriorated both on the BG and the MG. On the BG, the worst performance was in 1973-74 when it was 15 days. Then there was improvement to 13 days in 1976-77. However, it again increased to 13.3 days and 14.3 days respectively in 1977-78 and 1978-79. On the MG also the turn-round in 1973-74 was 12.5 days which was quite high. It improved to 11.1 by 1976-77 but again deteriorated to 12.8 in 1978-79.

3.27 One reason which may contribute to increase in wagon turn-round is the increase in average lead of traffic. It is seen that average lead of revenue earning as well as total traffic has progressively increased to 721 Kms. and 693 Kms. respectively in 1978-79. In 1976-77, the average lead was 656 Kms. for total traffic against which the Wagon Turn-round on BG and MG were 13 and 11.1 days respectively. In 1978-79 this average lead has gone

up to 693 Kms. while the wagon turn-round figures have increased to 14.3 and 12.8 days on BG and MG respectively. On BG, wagon Kms. per wagon day being in region of 80 Kms., the increase in 37 Kms. of average lead should not have normally contributed to more than three fourth of a day's increase in the wagon turn-round. It can, therefore, be concluded that the deterioration in the wagon turnround in 1978-79 has been steeper than what increase in average lead would justify.

#### Utilisation of Passenger Vehicles

3.28 The performnace in regard to utilisation of coaches is given in Annexure 3.8.

3.29 In respect of vehicle Km. per vehicle day, it is seen that on the BG, the best performance has been achieved during the years 1976-77 to 1978-79. A record performance of 323 vehicle Kms. per vehicle day was achieved on the BG in 1977-78. Similarly, on the MG, a record performance of 205 vehicle Kms. per vehicle day was achieved during the years 1976-77 and 1977-78.

3.30 In regard to passenger Kms. per vehicle day also, best results have been achieved during the same years, the record performance having been achieved in 1978-79 when the utilisation was 9,880 on the BG and 5,450 on the MG.

3.31 In regard to passenger Kms. per thousand seating capacity also, the performance during 1977-78 and 1978-79 has been better than earlier years. Highest figures of 99404 passenger Kms. per thousand seating capacity was achieved on the BG in 1978-79, the corresponding figure for MG being 68,968.

#### Ineffective Rolling Stock

3.32 Particulars of percentage of ineffective rolling stock are given in Annexure 3.9

#### Steam Loconotives:

3.33 The percentage of ineffective steam loconotives has generally been varying between 13 and 16. On the BG, the best performance was achieved in 1976-77 with 13.39% ineffectives. On the MG, the percentage has varied between 13 and 17.

Diesel and Electric Locomotives:

3.34 With increasing average age of diesel and electric locos, the percentage of ineffectives has gone up. However, it is seen that the trend towards increasing proportion of ineffective locomotives has been arrested from 1975-76. In respect of diesel locomotives on the BG, the percentage of ineffectives has been brought down progressively from 17.74% in 1974-75 to 14.48% in 1978-79. Similarly, in respect of electric locos on the BG, the percentage has been brought down from 21.23% in 1974-75 to 17.35% in 1978-79. On the MG, there had been improvement in 1976-77 when the percentage for diesel locomotives was 11.42. This has, however, subsequently deteriorated to 12.32 and 12.75 during the years 1977-78 and 1978-79 respectively. In respect of electric locomotives on the MG, there has been a sharp deterioration in 1978-79 when this percentage increased to 20 as against 15 in the earlier years.

3.35 In regard to the passenger coaches on the BG, best performance of 12.74% ineffectives was achieved in 1976-77. Thereafter, there has been some deterioration to 13.41 and 13.44% during the subsequent years 1977-78 and 1978-79 respectively. On the MG also, the performance since 1976-77 has been better as compared to the previous years.

3.36 In regard to wagons, it is seen that, on the BG, the best performance in recent years was achieved during 1976-77 and 1977-78 when the proportion of ineffective wagons was 3.99% and 3.98% respectively. In 1978-79, this deteriorated to 4.34%. On the MG also, the performance during 1976-77 and 1977-78 was better than other recent years.

3.37 Overall, it can be concluded that except for electric locomotives on the MG, the performance in regard to ineffective rolling stock on the Indian Railways during the last three years (1976-77 to 1978-79) has been satisfactory.

Productivity of StaffTABLE 3.5

	<u>Productivity of Staff</u>			
	<u>1950-51</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
1. Total No. of Staff (Regular in 000)	914	1474	1495	1525
2. Total Traffic Units (NTKMs. + Passgr. Kms. in Billions)	110.6	320.6	339.4	347.7
3. Total Traffic Units per employee (in 000)	121.0	217.5	227.0	228.0
4. Index	100	179.8	187.6	188

3.38 The productivity of staff in terms of total traffic units\* per employee is given in Annexure 3.10. It will be seen from this statement that the productivity of staff has shown progressive improvement over the years. Compared to 1950-51, there has been 88.4% improvement in the productivity index. A record performance of 228 thousand traffic units per employee was achieved in the year 1978-79 as against 121 thousand in 1950-51. No doubt, modernisation has contributed considerably towards improvement in the productivity of staff. However, as has been stated earlier, it is not possible to identify how much improvement in staff productivity is due to modernisation and how much due to better performance of staff.

Transport Capacity Utilisation

3.39 The Working Group on the Railway's Sixth Five Year Plan (1978-83) have commented on the carrying capacity of the Indian Railways in their Report. It has been appropriately mentioned by them that "The Railway's capacity cannot be quantified in

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\*Traffic Units have been calculated as net tonne Kms. plus passenger Kms. Strictly speaking it may not be appropriate simply to add the two to represent total output of the Railways. However, in the absence of any other better alternative this has been done for the purpose of this comparison.



respect of the line capacity which being a non-transferable asset does not lend itself to be quantified on global basis. Capacity on a section/route cannot be transferred to another section or route when the traffic demands on the former come down, nor can the same be increased on another section/route automatically if additional traffic develops. It may be added that the capacity utilisation on the quadrilateral comprising the main trunk routes is quite intensive, being over 80% on most of these sections.

3.40 The Working Group have quantified the transport capacity of the Indian Railways in terms of the rolling stock i.e. wagons and locomotives. They have calculated that in 1977-78 at the optimistic target of 12.1 days turnround of BG wagons, the Indian Railways would have a capacity of handling about 247 million tonnes of freight at an average lead of 678 Kms. In terms of locomotives also, the Railway's capacity for handling freight traffic for the same lead has been worked out to 247 or 248 million tonnes. As against this, the total originating traffic on the Indian Railways during 1976-77 and 1977-78 was 239.1 and 237.3 million tonnes respectively, the average lead of the traffic being 656 and 686 Kms. respectively. It will thus be seen that in terms of rolling stock, the capacity utilisation on Indian Railways has been over 96% in 1976-77 and 1977-78. However, in 1978-79, the total originating goods traffic dropped to 223 million tonnes with an average lead of 693 Kms. The capacity utilisation has, therefore, shown a decline in 1978-79 in respect of goods traffic. However, the fact that in 1978-79 there was an increase of 6.1% in respect of passengers originating and 9.2% in respect of passenger Kms. over 1977-78 has to be kept in view while considering the overall capacity utilisation.

#### Comparison with Foreign Railways

3.41 Data about some important operational efficiency indices of Indian Railways together with those of a few important foreign Railways have been given in Annexures 3.11(a) to (d). A few selected indices have been given in Table 3.6

TABLE 3.6

COMPARISON WITH FOREIGN RAILWAYS  
(Source: International Railway  
Statistics 1977)

S. No.	Item	British	German	French	Canadian	Japanese	IR(1977-78)	
		BR	DB	SNCF	CPR	JHR	BG	MG
1. Average Gross Load per train in tonnes.								
(a) Diesel								
	i) Passgr.	437	181	406	433	253	821	577
	ii) Goods	591	566	611	3832	385	1620	829
(b) Electric								
	i) Passgr.	477	287	500	-	377	725	454
	ii) Goods	543	875	854	-	615	1591	1062
2. Average Annual Engine Kms. per engine used(000)								
	i) Diesel	NA	75	88	121	64	145	138
	ii) Electric	NA	163	167	-	127	177	133
3. Average Annual Vehicle Kms. per vehicle day(000)								
		NA	97	122	117	174	118	73
4. Average Annual Wagon Kms. per Wagon day (000)								
		NA	17.6	18.7	40.4	NA	29.9	20.9
5. Annual No. of GTKMs hauled per Loco Km.								
	(a) Diesel	474	196	305	1093	199	1207	739
	(b) Electric	439	484	584	-	482	1138	547
6. Annual No. of Passgr. Kms.								
	(a) Per Vehicle Kms(000)	1726	1841	3229	1481	6088	7841	3872
	(b) Per seat(in units)	26516	26756	41664	NA	87095	93765	65208
7. Annual No. of NTKMs.								
	(a) Per Wagon(000)	113	NA	255	1101	344	474	253
	(b) Per unit of CC in tonnes	4998	NA	6612	NA	NA	15862	11907

3.42 A perusal of these Annexures will reveal the following:-

1. Ineffective Rolling Stock:

It will be seen that both in respect of locomotives as well as wagons, the position of the ineffective rolling stock on the Indian Railways compares well with other Railways. Performance in regard to wagons is in fact better than most of the foreign railways.

2. Utilisation of Locos:

(a) Average gross load per train in tonnes: In regard to the passenger trains, the performance of Indian Railways is far superior to all other important foreign railways for all types of tractions. In regard to the diesel hauled goods trains, Indian Railways' performance of BG has been surpassed only by the Canadian Pacific Railways. In respect of goods trains hauled by electric locos, the performance of Indian Railways is better than that of the other foreign Railways.

(b) Average Annual Engine Kms. per Engine Used: In respect of diesel locomotives, the performance of Indian Railways is surpassed only by the Korean National Railways. For electric locos, the performance on the Indian Railways is better than the other Railways.

(c) Annual No. of GTs hauled per Loco Km.: Both for electric and diesel locomotives, the performance of the Indian Railways is better than the other foreign railways.

(d) Kgs. of diesel oil consumed per thousand GTKMs: In this respect also the Indian Railways show the best performance.

3. Wagon Utilisation

(a) Average Annual Wagon Kms. per Wagon: Here also, the performance of the Indian Railways is next best to that on the Korean National Railways.

(b) Annual No. of Net Tonne Kms. per Wagon: Only the Korean National Railway and Canadian Pacific Railways have been able to achieve performances better than Indian Railways.

(c) Annual No. of Net Tonne Kms. per Unit of Carrying Capacity in Tonnes.

In respect of the available figures, it is seen that the performance of Indian Railways is better than the other Railways.

(4) Vehicle Usage:

(a) Average Annual Vehicle Kms.per Vehicle Day: Here again, the performance on Indian Railways is better than the other Railways.

(b) In respect of annual number of passenger Kms.per vehicle and per seat, the performance of Indian Railways is surpassed only by the Korean National Railways.

3.43 The United Pacific Rail Road Co. have also published data in respect of some selected statistics pertaining to the year 1975 based on a survey of Rail-roads of selected Industrial countries. The particulars of the same are given in Annexure 3.11(e). Following interesting facts may be noted from this Annexure:

(a) Average No. of employees per route mile: It may be noted that as against 2.4 employees per route mile on the US and Canadian Railways, the Japanese and the Indian Railways employ nearly 30 employees per route mile. Italian and German Federal Railways employ over 21 employees per route mile.

(b) Average revenue per employee(in US \$): Indian Railways have the highest performance in this respect showing an earning of over \$ 40,000 per employee as against \$ 27,000 to 40,000 per employee on the US Rail-roads. The performance on the British, French, German, Italian, Japanese and South African Railways is much lower than this.

(c) Average labour cost per employee(in US \$): Average labour cost per employee on the Indian Railways is about \$ 795 (Rs 6868/-) as against over \$ 18,000 on the US Rail-road and between \$ 7000 to \$ 15,000 on other Railways in the developed countries.

(d) Ratio of Labour Cost to Revenues: On Indian Railways the percentage of labour cost to revenues in 1977-78 was 51% which is comparable to the ratios obtaining on the US Railways and Canadian National Railways. This ratio is comparatively very high on British, French, German, Italian and Japanese National Railways. On the German and Italian Railways, the percentages are as high as 119 and 153% respectively.

Comparison with USSR and Chinese Railways:

3.44 It will be useful to compare the performance of Indian Railways with that of USSR and Chinese Railways also. Table 3.7 below gives some information about USSR and Chinese Railways in this connection.

TABLE 3.7

	Chinese Railways (1975)	USSR Railways (1978)	Indian Railways BG - 1977-78
1. Net Tonne Kms. per Route Km. (000)	9160	24438	4548
2. Passgr. Kms. per Route Km. (000)	2000	2364	4377
3. Net Tonne Kms. per wagon-day.	5293	3754(1967)	1045
4. Average lead of freight traffic in Kms.	487	908 826(1967)	686
5. Wagon Turn-Round in days.	3.4	5.38(1967)	13.3

(Source: JANE's World Railways (1979-80) (P. 346-348 and 449-451) and USSR Railway Transportation by Kulikov) (Appendices 1 and 4)

It will be seen from the above that the density of goods traffic per route Km. on the Chinese and USSR Railways is much higher than that on Indian Railways. However, in passenger traffic, the density on Indian Railways is much higher. In respect of wagon utilisation, the performance of the USSR and Chinese Railways is far better than <sup>that</sup> on the Indian Railways.

Productivity of Capital

TABLE 3.8  
TRAFFIC UNITS PER CRORE OF CAPITAL-AT-CHARGE

Year	Capital-at-charge (in crores of Rs) Current prices.	Capital-at-charge (in crores of Rs) 1950-51 prices.	Total Traffic Units (in mill- ions) Passgr. Kms + NTKMs.	Traffic Units (in mill- ions) per crore of Capital- at-Charge at constant prices of 1950-51
1950-51	1127.8	1127.8	110634	98.1
1970-71	3429.9	2600.2	245478	94.4
1975-76	4422.8	2913.2	296980	101.9
1976-77	4581.8	2951.8	320592	108.6
1977-78	4826.5	3011.5*	339391	112.7

\*Provisional

\*\*Excluding residential buildings, miscellaneous and intangible assets.

3.45 The Capital-at-Charge at current prices and at constant prices (1950-51) and the traffic units per Crore of Capital-at-Charge at constant prices have been indicated in Annexure 3.4 and summarised in Table 3.8 above. It will be seen from this that the productivity of capital on Indian Railways has shown significant improvement during the years 1975-76 to 1977-78. The best performance has been achieved in the year 1977-78 when 112.7 million traffic units were produced per Crore of Capital-at-Charge at constant prices as compared to 98.1 million traffic units in 1950-51.

3.46 The limitations of the accounting concept of "Capital-at-Charge" used in the Indian Railway Accounts have already been explained in Chapter II. It will be recalled that the main implication of these limitations is that the Capital-at-Charge does not properly represent even the historical value of assets, leave alone the current value of assets. The use of these data for examining Capital-output Ratio therefore suffers from serious limitations. The data however are given here for what they are worth, as no other data on the subject are available.

#### Operating Ratio

3.47 The Operating Ratio is one of the indices which is very commonly used for certain accounting purposes. The ratio shows the relationship between Working Expenses and Gross Revenue Receipts. Naturally therefore its value depends upon many factors. Gross Revenue Receipts depend upon the tariff rates as well as upon the traffic carried. The Working Expenses depend upon the prices of various inputs as well as their efficient utilisation. In a complex system like the Railways where the streams of outputs and number of inputs are large, the tariff rates are regulated in one manner or another and the prices of inputs are influenced by various forces, the Operating Ratio cannot be considered to be a very useful indicator of operational efficiency. The

Operating Ratio since 1950-51 has been fluctuating as follows:-

<u>Year</u>	<u>Operating Ratio</u>
1950-51	81.00
1955-56	81.93
1960-61	78.75
1963-64	74.85
1965-66	78.30
1969-70	82.67
1973-74	93.39
1974-75	92.41
1975-76	89.32
1976-77	84.41
1977-78	82.99
1978-79	87.54

3.48 The best performance in this respect was achieved in 1963-64. In spite of better performance in the various operational efficiency indices during 1976-77 and 1977-78, the Operating Ratio has been much higher in these years than that in 1963-64. This indicates the limitations of the operating ratio in evaluating the performance of the railway system. From the point of view of examining the return obtained from investment in financial terms however the operating ratio is important; and an increase in this ratio suggests that some corrective measures are called for either on the pricing side or in the improvement of efficiency. We shall take up this question further later in this Report.

#### Conclusion

3.49 The extensive examination of physical performance of the Indian Railways in the utilisation of various kinds of assets given above suggests that, both as compared to previous performance and as compared to important foreign railways, the operating efficiency of the Indian Railways can certainly not be considered inadequate. This however is not to say that there is no scope for better utilisation of resources on the Indian Railways. When making comparison with foreign railways, especially those in developed countries, an important factor to be kept in view is that relatively capital is less scarce in those countries as compared to labour. There is less concern therefore in those countries for obtaining the maximum

yield from whatever capital resources are invested. On the other hand, in those countries labour is very costly, as has been well brought out above. All business in these countries is, therefore, far more interested in saving labour and attaining high labour productivity. The Indian situation being different and the real cost of capital investment being very much higher, the utilisation of capital assets has got to be very much better than that in the richer countries. The above data show that the Indian Railways do show better performance than that <sup>of</sup> most of the richer countries. It may, however, be noted that efficiency of utilisation of track and rolling stock on the USSR and Chinese Railways is significantly higher.

3.50 Thus over a period of time Indian Railways have improved their operational efficiency, achieving best results in 1976-77 and 1977-78. However, a perusal of results achieved on the USSR and Chinese Railways indicates that there is considerable scope for further improvement, especially in terms of utilising capital assets. It would not be realistic to anticipate that such improvements can be achieved overnight. Railways being a complex and gigantic organisation, such improvement can only be brought about through sustained efforts over a period of several years. In this connection it may be mentioned that the Committee has held extensive discussions with the railway officials and the rail users inviting their suggestions for improving operational efficiency. Detailed questionnaires were also sent to the General Managers of the Zonal Railways. The suggestions received by the Committee are under examination. The scope for study in this sphere is vast and it will not be possible for the Committee with its limited time span to go into much detail in this connection. However, the Committee is examining some of the major aspects related to railways' operational efficiency and their recommendations pertaining to this aspect will be contained in the Final Report.



CHAPTER IVTHE ROLE OF RAILWAYS IN 2000 A.D.Introduction

4.01. Under the Committee's terms of reference, the Committee has to bear in mind among other relevant considerations, "the requirements of the developing economy." It was therefore thought necessary that the Committee should consider the role which the Railways had played, are playing and would be expected to play in the development and efficient functioning of the national economy.

4.02. It is not necessary for us to go into the history of the Indian Railways except to point out that Railways began to be constructed in India soon after they began to be developed in Great Britain, the first railway lines being constructed in the fifties of the last century. The British rulers of India gave considerable importance to the development of the railway system traversing the sub-continent, both for ensuring that military movement could be effectively undertaken when necessary and because one of the major interests of the British conquerors of India was to exploit the Indian economy for the benefit of Great Britain. As has been pointed out in a number of historical studies, the construction of the railway lines received special encouragement from the British Government of India because of these reasons, and where the proposition of railway construction was not attractive for the British investors in railways, the Guarantee System was adopted to help railway construction. Railway routes were principally organised with a view to ensuring movement of important materials to the ports of Bombay, Calcutta, and Madras, and the movement from these ports of imported manufactured articles to the internal markets in the country. The shape of the route structure of Indian Railways was thus essentially organised, not for the growth of internal trade and industry, but for helping British exploitation of India. Of course, as time passed, other types of railway lines were constructed, sometimes as famine relief works, which provided internal connections among certain important regions and also helped the movement of food-grains from one part of the country to another in times of distress.

Some areas under the governance of Indian princes undertook or encouraged railway construction within their own territories, partly because of the understanding shown by some enlightened administrators and partly for other reasons.

4.03. Whatever the reasons for railway construction, it was undoubtedly an important inheritance of the British rule to India that an extensive railway net-work existed in the country at the time of Independence. The existence of the railways, combined with some halting policies in encouraging industrial growth in the inter-War period, had also helped the growth of certain industries. The importance of the railways to the economy was well illustrated especially in the period of the Second World War when it was observed that the Railways played a major role both in the War effort and also in ensuring the movement of essential supplies to different parts of the country.

#### After Independence

4.04. The importance of the railway system as an essential infrastructure facility for national development was recognised by the post-Independence Government in that a Committee to look at the railway system and make recommendations about its future was set up under the Chairmanship of Shri H.W.Kunzru soon after Independence. The First Five Year Plan also recognised the important role which the Railways had to play, and provided for large out-lays for the rehabilitation and development of the railway system. This had suffered ravages in the War and early post-War period due to shortages of materials including rolling stock and other equipment. Subsequent Plans also continued to give importance to the further development of the Railway system though, as we indicate subsequently, the attention and importance received by them slackened with succeeding Plans.

4.05. One of the obvious aspects of railway development in the post-Independence periods is that the development of route length in the whole period of almost 35 years since Independence has been halting. Beginning from 53,596 route kilometres in 1950-1951, the route length today hardly exceeds 60,000 kilometres thus

showing an average annual increase of less than 0.34 per cent. This may be compared with a country like China; though it inherited a railway route length of 22,000 kilometres in 1949, this had increased to over 50,000 by 1978. The route length in India, whether in terms of population or land area, compares very unfavourably with not only the economically richer countries of the world, but even when compared with countries like Malaysia, Algeria or Egypt in terms of the population or Sri Lanka in terms of land area. (See Table 4.1 on page 4-4). The extensive net-work of Railways that exists in the richer countries has certainly been of considerable importance to them in attaining and maintaining high levels of economic growth. It is true that in some of the richer countries, railway development has not only stagnated in terms of route kilometrage in the post-Second World War period but it has even to some extent declined. This is because of the increasing use of road vehicles with the growth of petroleum based motorised transport. What needs to be noted however is that, not only is the total transport facility available in these countries, taking roads and rail tracks together, far more extensive than that in India but even now the railway track availability is at a far higher level than that in India even after thirty years of planned development. The fact that railway development is of special importance in ensuring economic growth especially at the phase of industrialisation and urbanisation of an economy is indicated by the economic histories of the richer countries. The policy adopted by the U.S.S.R. regarding railway construction from the period of the Soviet First Five Year Plan, and the policy adopted by China since 1949. The relationship between the economic situation of a country as indicated by its per capita income and the availability of the railway facilities is well brought out in Table 4.1.

Table 4.1

## RAILWAY DEVELOPMENT IN SELECTED COUNTRIES

Country	'Per Capita' income in U.S. dollars -1977	Railway Route-Kms - 1977	
		Per million of population (1977)	Per 10,000 sq.Km. of land area
1.	2.	3.	4.
U K	4420	324	749
U S A	3520	2452	591
Sweden	9250	1464	295
Canada	3460	3047	77
France	7290	656	638
Germany, FR(W)	3160	469	1180
Germany DR(E)	4680	844	1345
Japan	5670	188	574
U S S R	3020	533	62
Mexico	1120	383	126
Malaysia	930	139	55
Algeria	1110	233	17
Zambia	450	233	16
Ghana	380	90	41
Egypt	320	123	49
China	390	56	54
Pakistan	190	118	113
India	150	96	204
Sri Lanka	200	113	246
Burma	140	99	47

It is not as if one can claim a <sup>causal</sup> casual relationship; but there is no doubt that a certain positive correlation exists.

4.06. This is not to say that Indian Railways have not expanded in terms of facilities provided by them for carrying traffic. As indicated by table 4.2 there has been a rapid development of rolling stock used on the Indian Railways, not merely in terms of numbers but also in terms of qualitative changes such as the increasing use of better and modified traction including the replacement of steam by electric and diesel locomotives, the development of larger and stronger wagons and better passenger coaches, and the extensive development of facilities such as communications and signalling.

Table 4.2

Year	LOCOMOTIVES			Wagons	Passgr. Coaches	EMU Coaches	Rail Cars	Others
	Steam	Diesel	Elec- tric					
1950-51	8120	17	72	205596	13022	460	87	6059
1960-61	10312	181	131	307907	20062	846	116	7415
1970-71	9387	1169	602	383990	24591	1750	85	8719
1978-79	8082	2126	944	401880	26830	2412	30	8326

As a result of the increase in facilities of this kind, the railways have been able to carry rapid increases in traffic both in terms of goods and in terms of passengers (See tables 3.1 & 3.2 in Chapter III). But the fact that far greater attention has been paid to increased utilisation of track rather than the development of new routes has not only meant that some of the densely used railway routes in India have an occupancy ratio far higher than <sup>what</sup> ~~is to be~~ found in most places in the world, but it has also meant a continuation of the very unequal railway facilities available in different parts of the country as they were inherited at the time of Independence.

Unequal Railway Facilities

4.07. The very large variation in the availability of railway track among different States is well brought out by the data given in Table 4.3.

Table 4.3  
Statewise coverage of Railway Routes

S. No.	States/UTs	Area* (000 Km <sup>2</sup> )	Popula- tion ** (Mil- lion) 1976	Route- Kms. (1975-76)	Railway Route Kms.	
					Per mil- lion of popula- tion.	Per 1000 sq. Kms.
1.	Andhra Pradesh	277	47.9	4725	99	17
2.	Assam	79	17.4	2194	126	28
3.	Bihar	174	61.8	5214	84	30
4.	Gujarat	196	30.3	5679	187	29
5.	Haryana	44	11.2	1405	125	32
6.	Himachal Pradesh	56	3.7	256	69	5
7.	Jammu & Kashmir	222	5.1	77	15	-
8.	Kerala	39	24.0	887	37	23
9.	Madhya Pradesh	443	47.2	5547	118	13
10.	Maharashtra	308	56.5	5232	93	17
11.	Karnataka	192	32.5	2806	86	15
12.	Nagaland	17	0.6	9	15	-
13.	Orissa	156	24.4	1960	80	13
14.	Punjab	50	15.0	2137	142	43
15.	Rajasthan	342	29.0	5612	194	16
16.	Tamil Nadu	130	45.4	3765	83	29
17.	Uttar Pradesh	294	96.2	8661	90	29
18.	West Bengal	88	49.8	3770	76	43
19.	Manipur	22	1.2	-	-	-
20.	Meghalaya	22	1.1	-	-	-
21.	Sikkim	7	0.2	-	-	-
22.	Tripura	10	1.7	-	-	-

Union Territories

1.	Andaman & Nicobar Islands	8* ) )		-	-	-
2.	Arunachal Pradesh	84 )		-	-	-
3.	Chandigarh	0.1 )	7.7	-	-	-
4.	Dadra & Nagar Haveli	0.5 )		-	-	-
5.	Delhi	1 )		-	-	-
6.	Goa, Daman & Diu	4 )		-	-	-
7.	Lakshadweep	0.03 )		-	-	-
8.	Mizoram	21 )		-	-	-
9.	Pondicheri	0.5 )		-	-	-

\* As on 1.7.1971

\*\* estimated (Midyear)

It is well known<sup>m</sup> that States which have far less railway track especially in terms of land area feel specially aggrieved and think that this is a permanent and major handicap in the way of their economic development. It is true that, unlike in the 19th Century when railways were the only means of modern transport and therefore a lack of railway development invariably meant almost a complete block in the way of economic progress, with motorised road transport now available as an alternative, inadequate availability of railway track need not necessarily be a major stumbling block in the way of economic progress. Data given in Table 4.4 show that there is some correlation between the availability of railway track and the per capita product.

Table 4.4

Per Capita Product in States (index with Average for States=100)

Sr. No.	State	1975-76			Total
		Agri. & allied sectors	Manufac- turing & allied sectors	Services	
1.	Andhra Pradesh	95.4	69.0	100.0	90.6
2.	Assam	99.8	74.6	75.7	86.6
3.	Bihar	70.1	77.2	56.3	67.6
4.	Gujarat	100.7	166.8	129.3	124.8
5.	Jammu & Kashmir	96.5	62.1	79.7	83.3
6.	Karnataka	105.7	117.2	94.0	104.8
7.	Kerala	99.1	78.4	121.3	101.0
8.	Madhya Pradesh	90.8	74.6	67.0	79.8
9.	Maharashtra	89.5	202.6	191.7	147.0
10.	Orissa	115.3	59.1	56.3	84.2
11.	Punjab	186.0	140.5	125.7	157.1
12.	Rajasthan	107.6	72.0	71.0	88.2
13.	Tamil Nadu	71.8	114.7	134.0	100.7
14.	Uttar Pradesh	83.8	53.4	73.0	73.4
15.	West Bengal	89.3	135.3	125.7	111.1
Average for above States (Rupees at current prices)		458.	232	300	990
Coefficient of variation (%)		25.8	43.0	36.2	24.9

Source: ~~1975-76~~ National Account Statistics, 1970-71 to 1976-77 Central Statistical Organisation, Government of India.

Quoted from Draft Sixth Five Year Plan 1978-83 (Revised) page 197.

Thus Orissa and Madhya Pradesh which are States with comparatively lower per capita products<sup>are</sup> are also States which have less railway track. At the same time, it cannot be ignored that States like Uttar Pradesh and Bihar which are much better off than others in terms of railway route length are among the poorest and most backward States. There can be no question ~~but~~ that many factors, and not merely the inadequacy of railway transport, are responsible for certain parts of the country remaining backward, ~~but~~ a key factor in reducing inter-regional disparities is, as admitted in the revised Sixth Plan document "the provision of productive infra-structure in the form of water, power and transport facilities.\*"

Inadequate Emphasis on Railways in the past

4.08. An important reason for the slow increase in railway route length in the past thirty years appears to have been the idea that, with the availability of the alternative mode of transport by way of roads, less emphasis was considered necessary on a capital intensive mode of transport like the Railways. In fact, not only in India but all over the world, in the period between 1950 and 1973, the prevalent idea seemed to be that the future of transport largely lies with roads rather than railways. It was only the realisation about the high cost and relative scarcity of petroleum products resulting from the continuous price hikes since 1973 that has brought about a change in this outlook. A Working Group appointed on Energy Policy by the Planning Commission\*\* has pointed out how the fact that railways are a much more energy efficient means of transport for long distances suggests that the railways' ability to provide more services should be increased. While the exact role of railways in the future development of national transport is a matter outside our own Terms of Reference, the Report of the National Transport Policy Committee (NTPC) appointed by the Planning Commission indicates that much greater attention to railway development needs to be given in the future as

\* Draft Sixth Five Year Plan 1978-83 (Revised) (Government of India Planning Commission) 1979, page 196.

\*\* Sec, Report of the Working Group on Energy Policy, New Delhi (Minco)



compared to what has been done in the last plan periods\*  
(See Table 4.5 below).

Table 4.5  
Plan Outlay on Railways in relation to total Plan Outlay

	Total Public Sector Outlay	Outlay for trans- port and commu- nicati- ons	Outlay for Rail- ways	Outlay for transp- ort & communi- cations as a per- centage of total public sector outlay	(Rs. crores) Outlay for rail- ways as/per- centage of total public sector outlay	Outlay for rail- ways as a percentage of outlay for trans- port & communi- cation
First Plan (1951-56)	2167	725	424	33.5	19.6	58.5
Second Plan (1956-61)	4992	1581	1044	31.7	20.9	66.0
Third Plan (1961-66)	8937	2472	1686	27.7	18.9	68.2
Inter Plan (1966-69)	6879	1476	763	21.5	11.1	51.7
Fourth Plan (1969-74)	16273	3574	1428	22.0	8.8	40.0
Fifth Plan (1974-79)	29571	6881	2076	23.3	7.0	30.2
Sixth Plan (1978-83) (Revised)	71000	11178	3400	15.7	4.8	30.4

Note: Under the First Four Plans, the Capital expenditure on the replacement of assets of Railways was not included in the Plan outlay. The figures of outlay for these Plans are adjusted so as to include expenditure on replacement also, to make them comparable with the later Plans.

4.09 As against an investment of 58, 66 and 68 per cent of that in total transport and 20, 21 and 19 per cent in total Plan expenditure in the first three Plans which was provided for the development of railways, subsequent Plans gave far less importance to railway development, these proportions coming down

\*"Report of the National Transport Policy Committee", Government of India, Planning Commission, 1980, para 2.5.2 and 9.33.2.

to about 40 and 30 per cent, and 9 and 7 per cent, in the Fourth and Fifth Plan periods. Surprisingly, even though the former Planning Commission (1977-79) had indicated that policy decisions regarding intermodal distribution of future transport development would be taken only in the light of the recommendations of the NTPC<sup>@</sup>, the continuance of the old approach is indicated in the revised Plan document, where the suggested outlay on Railways is less than that in the previous Plan as a proportion of the overall Plan outlay. It is also to be noted that the increase suggested in the Sixth Plan in this document over the proposed outlay on Railways in the Fifth Plan period is only 54 per cent while the increase is 61 per cent for the Transport and Communications sector as a whole, and as high as 84 per cent in the case of roads and road transport.

#### Why a Projection

4.10 It was hardly possible for a Committee like ours nor was it within our Terms of Reference to prepare anything like an alternative Plan for transport or railway development. But we could not also overlook our impression that the outlays provided by the Planning Commission for the Railways in the past and even in the revised Sixth Five Year Plan are not likely to be adequate to enable the railways to carry out their appropriate role in the development and efficient functioning of the national economy. In terms of the overall approach adopted by the NTPC, we are certain that when the Five Year Plan is revised, greater emphasis will be placed on Railways' development. While it is not our task to work out exactly what the outlay should be, it was necessary for us to form some idea about the overall requirement of resources for railway development over the next two decades or so, railways being a sector where gestation periods of development projects are inevitably long. The Corporate Plan prepared by the railways themselves does not go beyond the year 1988-89. While making use of the thinking behind the Railways' own Corporate Plan, the Committee thought it necessary to prepare an estimate however rough for its own use.

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<sup>@</sup> Revised Draft Sixth Plan (op.cit., p.322)

\* ibid. page 16.

Assumptions for Projections - Role of Railways

4.11. In working out these ideas about the task which the Railways will be called upon to perform by 2000 A.D., we are making certain assumptions which need to be explained. Firstly, we are assuming that the role of railways in total transport facilities will continue to evolve as it has been evolving during the last thirty years. It is on this basis that the growth rate of railway traffic is projected. We are doing this partly because data about the principal alternative to rail transport, namely roadways, are not available in a systematic form, especially on a time-series basis. Our discussions with the Ministry of Transport did not convince us that the data that are being published regarding the relative roles of rail and road transport are sufficiently well based to make future projections on the basis of these data. Qualitatively speaking, it would not be wrong to say that, in view of the recent developments in the field of fuel, national policy would require more emphasis for long distance haulage as well as mass transit to be placed on railways rather than roadways. This would probably imply that the demand for railway traffic facilities will grow at a rate faster than would be indicated by projections from the past trends. This merely underlines the point that our projections are likely to provide the essential minimum rather than - as some people might imagine - an unduly inflated maximum.

Passenger Facilities to be Increased

4.12. Secondly, regarding passenger traffic, we are assuming that, in a democratic society like ours, it would be difficult to resist the demand for increasing facilities for carrying passengers as long as the facilities, on proper costing, pay their way. While in times of special shortages and in the short run, a choice may be made in favour of goods transport as against passenger transport to ensure that the wheels of the economy continue to run smoothly, not anticipating the demand for passenger transport facilities appropriately in advance, and not providing for such an increase, is bound to recoil on the Railway Administration. In a democratic framework, parliamentary

and other pressures will make the provision of additional trains for carrying passengers unavoidable. If this has not been planned in advance, perhaps on the unrealistic assumption that it can be avoided, the result may well be that goods transport, sometimes even in essential commodities, will suffer. It is therefore only appropriate that a realistic projection of future demand for passenger transport is made and appropriate plans prepared to meet that demand. This is also of importance in terms of helping national integration. People wanting to travel to different parts of the country is a good thing from the point of view of the country's unity and all that one can insist upon is that no subsidy is given to the normal movement of passengers. As long as this care is taken, appropriate anticipations and provisions for passenger transport requirements should be considered to be an essential part of railways' development programmes.

#### Metropolitan Traffic

4.13. As industrialisation and urbanisation have progressed, there has been growth of metropolitan areas in the country, and with it has arisen a demand for rapid transit systems. The Planning Commission took note of this possibility at an early stage, and constituted Metropolitan Transport Teams to report on the prospect of meeting the developing transport requirements of Bombay, Calcutta, Madras and Delhi. Special units were constituted for conducting studies and working out projects. It is well-known, however that the progress of the metropolitan transport projects in all these areas has been tardy. Even in areas like Bombay, Calcutta and Madras, where suburban trains have been operating for long, the pressure on the services has been increasing at a far faster rate than the provision of facilities to meet this growing traffic. The provision of new facilities has been extremely slow because of resource constraints and there is acute discontent among the users of the transport systems regarding the quality of service rendered to them. The new underground railway system in Calcutta has been progressing only slowly, and now it is expected that the project will be partially completed only by 1987 or so. The development of facilities around Delhi has also not been possible on the required scale. There

are many complaints about the suburban type services that are available in Hyderabad-Secunderabad and in some other areas which are served by train services which are increasingly being used for commuting. In respect of many other new developing metropolitan areas, there has hardly been any planning by the Railways for meeting the future requirements of rapid transit systems. The inadequacy of what has been done in the past has been explained in detail in Chapter VI of our Interim Report, and it is not necessary for us to go into these details again in this Report.

4.14. We do find however that there persists a certain ambivalence in the attitude of various authorities including the Planning Commission regarding the services to be provided in the metropolitan areas. Nobody will disagree with the point that it is high time that our urbanisation was brought under control and this is especially true in respect of the already very large metropolises such as Bombay, Calcutta and Delhi. Uncontrolled urbanisation, as the Planning Commission has pointed out in the Revised Sixth Plan, "without providing commensurate development of infrastructural facilities is rapidly leading to urban blight through slum settlements, grossly inadequate services, overcrowding, traffic jams, ribbon development, crumbling 'old' city centres.....derelict neighbourhoods, insanitary backyards, and poor maintenance of building and other civic services. Life for the urban poor in large cities represents the worst form of degradation of the human environment". This is undoubtedly true, and whatever the Planning Commission and other concerned authorities can do to ensure that new work opportunities are created in other areas so as to avoid further migration to the major metropolitan cities and, if possible even to decongest these cities, should be welcome. In Chapter 28 of the Revised Sixth Plan, the Planning Commission has indicated its preferences regarding

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 \* ibid, page 222.

the new urbanisation policies. The real point however is that all such attempts made in the past have failed, while the infrastructure facilities such as transport have come under increasing pressure. As the Commission itself points out, attempts to deal with the problem in the past have either been ill-conceived or executed in a half-hearted way. Their impact has been negligible, and legal provisions have been watered down under the pressure of greedy land-holders.

4.15. To the extent that the Planning Commission and other authorities can ensure better implementation of these policies in the future, the more manageable the problem will be. What however cannot be accepted is that enough provision need not be made for the already existing as well as the realistically expected demand for commuter traffic in major metropolitan areas. Any attempt at keeping the investments on such metropolitan transport systems low on the plea that better rapid transit systems will encourage more migration to the cities, is a very unrealistic and almost inhuman approach to the problem. What is necessary is not to make the life of people already living - and in most cases forced to live - in the heavily congested metropolitan areas worse by denying them facilities of essential infrastructure such as transport, but investment in creation of infrastructure facilities elsewhere and other similar steps so that more employment opportunities get created there. One does not see any attempt on these lines in the present plans, either of the Railways or of the Planning Commission. In our view, this is a major inadequacy which will have to be got over at a very early stage.

Long Term Planning Necessary:

4.16. It cannot be overlooked that the creation of transport facilities in all urban areas, and especially in already developed urban areas, involves many difficulties, and therefore not only are capital costs high but the gestation periods are also inevitably long. This is also true about railway systems generally. It is a welcome feature of Railway Management that they have already prepared a comparative plan which thinks of fifteen years' railway requirements. We do however think that, with the long gestation period of railway schemes, it is time Railways begin to plan on a longer term footing. In any case, we have thought it is necessary to give special attention to the development requirements of railways over the next 20 years. probably for twenty years.

4.17. In addition to the reason that the gestation period of railway development schemes is long, we cannot overlook the crisis that transport inadequacy has created in the country in recent times. While poor labour relations and various other temporary factors may have enhanced the difficulties, it should not be overlooked that an essential infrastructure facility like the railway should always be a little <sup>a</sup> ahead of the expected demand for it so as to take care of possible slippages. To expect a large organisation like the Railways always to operate at the peak of its efficiency, and to provide development outlay on the basis of such an assumption, does not appear to be a realistic way of ensuring efficient management of the economy as a whole. While every step should be taken to improve the effective use of all resources devoted to railways - and we hope to deal with some of these matters in our Final Report - railways cannot be an island of efficient and honest working if there is a break-down of law and order, and inefficiency and corruption prevail all around. Anything that happens in one corner of the country not only affects railways in that region but, depending upon the role of the particular section in the total system, it affects the overall working of the railway system adversely in varying degrees. A realistic approach to railway development should therefore not ignore such possibilities and should think of future development not merely in such a way that railway capacity would be a little ~~ahead~~ <sup>ahead</sup> of the actual projected demand but that, wherever possible, <sup>bye</sup> development takes the form of alternative routes and ~~by-passes~~ <sup>by</sup> instead of doubling and trebling along existing routes.\*

#### Projections for Passenger Traffic:

4.18. With a view to working out the projections for passenger and freight traffic in 2000 A.D. and the ensuing investment requirements, the Committee constituted a small special cell to work on this problem. The Committee also had the benefit of consultations with an informal group of experts who were kind enough to be associated with the working

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\* For an elaboration of this approach, see, A.K. Chaakravarti, "Inmobility is Poverty", April, 1963.

out of the projections at different stages. The details regarding the manner in which the projections have been made and the investment requirements calculated are given in Appendix 6. Here it is only intended to give the main conclusions of the study.

4.19. The projections for passenger traffic have been separately worked out for suburban (Bombay, Calcutta, Madras) traffic and non-suburban traffic. Various studies including those conducted by our Committee indicated that it can be safely assumed that neither income nor price elasticity may be assumed to be significantly high within probable ranges of fares for the bulk of the commuter traffic. It was found that the projection for suburban traffic can be attempted taking into consideration the expected growth of working population, viz., that in the age-group 15 to 59, and this is essentially the basis on which the projections have been made. The average distance expected to be travelled by commuters has been projected on the basis on the trends experienced over the last two decades or so. While note has been taken of various policies which are expected to reduce the further growth of metropolitan population, it is assumed that this will not have any significant impact in the period for which we are making **the projection.**

4.20. Regarding non-suburban passenger traffic, on the basis of the data available to the Committee, it was safe to assume that income as well as price elasticity would not be very high for passenger traffic as a whole, even though some change in the distribution of passengers among different classes of accommodation may result from fare increases. As the non-suburban passenger survey conducted by the Committee showed that a major chunk (85%) of the passengers travelled for fulfilling social or official obligations, it was not incorrect to assume that price elasticity would not be very high. Even as regards internodal shifts of passengers, the survey showed that a very large proportion of railway passengers prefer this mode. This is so either because railways are the only service available, or because the passengers find it far superior in various ways. This is especially so regarding those going long and medium distances, and even those regularly going to nearby places for purposes of work. Luggage carrying capacity, punctuality etc. appear to have been a major factor in their making this choice.



4.21 Taking these factors into account, projections have been made assuming that the share of passengers in the age-group 15 to 59 years would remain the same as at present, but that the demand for railway services will not continuously increase more than in proportion to population as in the past. The last assumption has been made on the ground that it may be safe to assume that railway fares will not as in the past lag behind the general price level and further that the income elasticity of demand for railway services would not be very high. Attempt has also been made to make projections of traffic demand for new suburban-like situations which are likely to come into existence as a result of the growth of new metropolitan areas.

#### Projections for Freight Traffic

4.22 As regards freight traffic, it is well-known that seven commodities, viz., coal, iron ore, iron and steel, fertilizers, cement, foodgrains and petroleum products constitute 69% of total tonne kilometres and 78% of total revenue earning originating tonnage. For projecting freight traffic in 2000 A.D., attention has been concentrated on these seven commodities and the projections made on that basis blown up to cover the total freight traffic. It has been assumed that the rail transport co-efficient of these commodities is not likely to change significantly. The traffic demand arising from these seven commodities has been estimated by projecting availability of these commodities in 2000 A.D. on the basis of such data as are available, and it is found that the projections are not incompatible with some of the projections made by other authorities. It has been assumed that there would be rationalisation of railway traffic, especially in bulk commodities, in future as a result of better regional dispersal of the growth both in agriculture and industry through a more rational regional development policy. The estimates of freight traffic were also projected on the basis of varying assumptions regarding growth rates, but for the purpose of our final traffic projections, the estimates based on the past growth rates have been taken as valid.

Overall Projections

4.23 As a result of these projections, railway traffic in 2000 A.D. as compared to that in 1977-78 is projected to be as follows\*

	(10 <sup>9</sup> NTKM/PKM)		
	<u>Freight traffic</u>	<u>Passenger Suburban</u>	<u>Traffic Non-suburban</u>
Traffic in 2000 A.D.	406.00	168.00	320.00
Traffic in 1977-78	162.69	39.43	137.20
Additional Traffic in 2000 A.D.	243.31	128.57	182.80

\*In this connection, some of the other traffic forecasts have been given for comparison in Appendix 6. The National Transport Policy Committee has given the following forecasts for 2000 A.D.:

Rail Passenger Traffic (10<sup>9</sup> PKMs)

<u>Suburban</u>		<u>Non-Suburban</u>	
Trend analysis	162	Trend analysis	358
Regression analysis	126	Regression analysis	251

Freight Traffic

(billion tonne-Kms)

	<u>Percentage Share</u>		<u>Total Traffic - Rail</u>
	<u>Rail</u>	<u>Road</u>	
	1	2	3
Assumption I - Past Trends	67	33	435
Assumption II - 1976-77 Diesel prices and 50% shift to road traffic	70	30	455
Assumption III - 1979 Diesel prices and 50% shift to road traffic	72	28	468

Assumption II & III are related to impact of changes in break-even points due to changes in oil prices; the shift to railways from roads may be either 50% or 75%. (Latter not stated here).

It will be noticed that the forecast used by us for passengers is very near to (but lower than) the trend analysis forecast of the NTPC. Our freight traffic forecast is lower than even the lowest estimate of the NTPC. It will thus be seen that the forecast made by us can be taken as adequately reliable for the purpose in view.

(Report, para 3.5.7, 3.5.12, & 3.5.13)

Investment Required

4.24 At the next stage, the rolling stock required to carry the extra traffic - both passengers and goods - was calculated and the investment required for acquiring this stock at the 1977-78 prices computed. The fact that steam engines would be largely replaced by diesel and electric engines, that electrification will proceed at a certain pace\*, and that additional electric multiple units will be provided to cater to the traffic both in the existing suburban and newly emerging suburban areas were also taken into account. The investment requirements for the rolling stock were then found to be Rs. 11886.69 crores at 1977-78 prices. Regarding investment in various other traffic facilities, the past trends, the expectations indicated in the Railways' own Corporate Plan and trends which can safely be assumed to be valid for the period between 1989 and 1999 were used to arrive at estimates regarding investment in such facilities including workshops, electrification and new lines. The resultant investment requirement for taking care of the additional traffic which would be generated in 2000 A.D. as compared to 1977-78 was estimated as follows:-

	(Rs. crores) (at 1977-78 prices)
1. <u>Rolling Stock</u>	
a. Locomotives	2249.93
b. Coaches	1665.46
c. Wagons	5064.76
d. EMUs	1836.78
e. Miscellaneous	<u>1069.76</u>
Total	<u>11886.69</u>
2. Traffic facilities <sup>@</sup>	7132.01
3. Workshops and Sheds <sup>@@</sup>	1664.14
4. Electrification	786.70
5. New Lines	1601.00
6. Other investment (10% of 1 to 5)	<u>2307.05</u>
Total investment	<u>25377.59</u>

@ Including signalling and safety.

@@ Based on Railway Corporate Plan (1976-89)

\* We have assumed - as indicated in Appendix 6 - that electrification will proceed at the same pace as planned at present. The NTPC has pointed out how an earlier replacement of steam by other traction may release large quantities of scarce high grade coal for other uses. This may involve earlier dieselisation or, preferably, electrification. Large investments are required for this. The NTPC has recommended early cost-benefit studies for deciding this. In any case, this also shows that our estimates of investment are likely to be on the minimum rather than on the high side.

4.25 Thus, the total amount of investment that will be required for carrying the extra traffic which would be generated by 2000 A.D. is estimated at Rs.25,378 crores. It should be noted that Plan Outlay consists of net investment for additional facilities plus the outlay required for the purpose of replacement of the facilities whose useful life is over. We have adopted a simple formula for working out this relationship. In the Corporate Plan prepared by the Railways for the years 1976 to 1989, it has been assumed that when the outlay on new facilities would amount to Rs.6480 crores, the provision out of the Depreciation Reserve Fund for replacements on a need-based estimate would amount to Rs.3120 crores, i.e., 48% of the outlay on new facilities. As we have no data about the manner in which major assets will fall due for replacement in the period 1989 to 1999, to what extent it would be different from the position in the earlier decade, we are assuming that the relationship between outlay on new facilities and outlay on need-based replacements would remain the same. On this assumption, the total outlay for the development of the railways upto 2000 A.D. would have to be Rs.35,721 crores or, broadly, Rs.36000 crores at 1977-78 prices. It may be assumed that the outlay in the first year of the revised plan would have to be Rs.1000 crores in order that an outlay of Rs.36000 crores (1977-78 prices) is completed in 20 years. It will then have to increase in constant proportion so that the total outlay as required is made over twenty years.

#### Importance of Adequate Investment in Railways

4.26 While we are aware of the limitations of the calculations made by us, the data given by us and the basis of the calculations made as explained in the Appendix would suggest that these calculations are likely to provide a minimum rather than an exaggerated idea of the outlay required if the railways are to meet the projected additional traffic demand over the next 20 years. It has not unoften happened in the past that the outlay on railways has been significantly reduced as compared to what was considered necessary by the Railways themselves, by the Plan Working Group and other competent agencies. The proportionate decline in the outlay on railways in the recent Plans including the revised Sixth Plan prepared by the previous Planning Commission has already been mentioned earlier. It is our apprehension that if the Railways continue to be deprived of adequate outlays in the future, the crisis which the

economy is facing at present, and for which the railways are thought to bear a major responsibility, would be difficult to solve. Now that the Government is thinking of preparing a new Sixth Plan, and the report of the National Transport Policy Committee is also available, it may not be wrong to expect that it would be accepted by the Planning authorities that larger outlays should be sanctioned for the development of railways.

4.27. This does not mean that larger outlays are the only instrument available for improving the contribution of railways to the efficient working of the national economy. Like in many other sectors, various factors have been contributing to poor morale and low efficiency on the railways, especially in the very recent past. It is possible and necessary that suitable organisational and other policy measures should be taken to ensure that railway efficiency is improved. We shall deal with such matters more fully in our Final Report. It would be wrong however to assume that such improvements can be attained in a very short period. Keeping down Plan outlays on unrealistic assumptions about improved efficiency can clog the working of the economy. Efficient functioning of most sectors is likely to be adversely affected, if railway transport cannot meet the essential demands made on it. It is therefore of the highest importance that a realistic view is taken of the matter, and proper outlays are made available for further development, including replacements, of the railway system.

ANALYSIS OF THE COSTS OF RAILWAY SERVICES

5.01 The Resolution setting up the Rail Tariff Enquiry Committee had emphasised the fact that far-reaching changes had taken place in the country's economy in the two decades since the Freight Structure Enquiry Committee (1955-57) submitted its recommendations. The rapid inflation in recent years had particularly affected the Railways because of their highly labour intensive operations. There had also been sharp increases in the cost of energy and other major inputs that go into the production of rail transport. As a result, costs had increased sharply, while revenues had failed to keep in step. Such a situation had led to rapid deterioration in the financial health of the Indian Railways.

5.02 In view of the changes in the cost structure, the Resolution had indicated the need for rationalisation of the tariff policy vis-a-vis the cost of services provided by the Railways. The Rail Tariff Enquiry Committee was therefore directed to make a detailed examination and recommend restructuring of the freight rates and fares, keeping in view the cost of providing the various services. The most important reason why the state of the financial health of the railways continues to be unsatisfactory appeared to be that some or all of the services did not meet their costs. To remedy the situation, it was essential to obtain dependable cost figures in respect of various areas of railway operations. Unless this was done, the nature and magnitude of the problem could not be appreciated correctly.

5.03 The Railway Freight Structure Enquiry Committee (1955-1957) had made a specific reference\* "to the inadequacy of cost studies on Indian Railways" and had drawn attention to the valuable cost analysis conducted in other countries.

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\* Report, pages 79-81

They had specially referred to the studies conducted by the Inter-State Commerce Commission in the United States and indicated that such work in India would prove very useful.

5.04 Following this recommendation, a Costing Cell was established in the Railway Board in 1962. In the course of the last 18 years, the Costing Cell has been continuously strengthened and the scope of cost studies has gradually widened. It was explained to us that the costing methodology is being continuously improved and new aspects of costing are being taken up for study. We have made full use of whatever data and analysis were already available as a result of the work done by the Costing Cell of the Railway Board. Some of the studies recently made such as those on the profitability of the traffic streams of particular commodities have been of special use to us in our work.

5.05 It was also brought to our notice that the National Transport Policy Committee appointed by the Planning Commission had given an assignment to Rail India Technical and Economic Services (RITES) Ltd. to undertake special studies of transport costs by different modes of transport. As in other aspects of their studies, we were able to keep in close touch with this aspect of the work of the National Transport Policy Committee and also of RITES and were able to benefit from the results of those studies. Their studies relating to the resource costs of haulage were of special use to us.

5.06 While taking into account the results of the studies already completed or under way in the Costing Cell of the Railway Board and the studies undertaken by RITES, the Committee found that there were certain aspects of cost analysis which would be of importance to the Committee and which were not being covered by the studies from both these sources. These aspects related specially to cost variations relating to distances, speeds, gradients, and other such factors. The Committee was also interested in the differential cost of movements of goods moving as small consignments, in wagon loads and in train loads. On the passenger side, it was necessary for the Committee to analyse the differentials in costs

for providing different types of passenger services. The Committee engaged a Costing Consultant for a few months with a view to securing his assistance in examining the available data on these different matters and analysing it in an expert way so as to enable the Committee to come to some conclusions on cost differentials due to these various factors. The report of the Consultant appointed by the Committee is given in Appendix VII.

5.07 The Committee has made as much use of the data and analyses available from all these sources to the extent they were useful. The analysis of different types of costs used by the Committee has been explained further in this chapter and the limitations of data as well as analysis have also been indicated.

#### Cost methodology used in the Railway Board

5.08 The costing of railway services computed by the Railway Board's Costing Cell is mainly based on a system of analysing the fully distributed cost. Under this system, the total expenses incurred by the Railways are allocated to various services produced, and the unit cost is calculated on the basis of the total output in terms of traffic units. While some routes such as main trunk routes are fully - or from some points of view more than fully - utilised, there are others which are very sparsely utilised. A system of fully distributed costs thus gives an indication of costs correctly as they are actually incurred in a period of time; but provides no indication as to the necessary and unnecessary, the justified or the unjustified, costs in different parts of the system.

5.09 For managerial as well as tariff making purposes, what is needed is a system of standard costs which would indicate, at a given level of prices of different inputs and with a given technology, what costs it is necessary to incur if certain outputs are to be obtained. It is also necessary to distinguish between the costs for different time



horizons, and for different elements such as for fixed assets and for variable inputs as related to outputs. With a complex network consisting of three gauges, different gradients, different types of traction, varying utilisation of track capacity, and vastly differing streams of traffic both goods and passengers, distinguishing the costs on account of these different elements to the extent possible is obviously desirable. Such cost analysis, to the extent it becomes available, would be of use to the Railways for tariff making, for management control and for planning future development and operations.

5.10 One special characteristic of any railway system is that the proportion of costs which are common or 'joint' to various types of services is very large. The allocation of such joint costs to different services is therefore one of the major problems facing cost analysis in any railway system. Of course joint cost is a phenomenon that is to be found in any complex business operation. But it is far more important in a railway system than in manufacturing organisations. Another special element which makes the costing on railway systems rather complicated is the fact that an old railway system like the one in India, and especially one with a very large network spread over the whole sub-continent and constructed at different points of time, has largely varying historically evolved structures. The cost of construction incurred at different points of time, their standards, gauges, types of rolling stock and traction and other aspects vary considerably. The standards and facilities for repairs and maintenance may also significantly vary though some basic minima would be observed as required by considerations of safety. All over the world, such difficulties have plagued the development of meaningful cost analysis on railways. Costing on Indian Railways has also therefore been faced with many of these difficulties. The authorities concerned expressed their awareness of these inadequacies and have been attempting to improve their methodology so that the data collected and analysis provided by them become increasingly

result-oriented and meaningful for purposes of policy formulation.

The Base year 1976-77

5.11 The Costing Cell of the Railway Board have fully analysed upto now the data for 1976-77. For this year they have also made more detailed analyses for certain streams of traffic. For others, analyses are available for earlier years. We have used the cost analyses for 1976-77 to the extent they were available. This is because, as indicated in Chapters II and III, 1976-77 and 1977-78 were two years in which the financial as well as physical performance of the Indian Railways by various indicators was one of the best. As the concept of the standard cost is difficult to apply in a system like the Railways, and in any case no such analysis was either available to us or could be developed by us in the time at our disposal, we have to go by the best data and analysis that could be available. As mentioned earlier, we have made some effort to supplement the data and analysis produced by the Railway Board by other sources. Essentially, however, the Committee had to rely upon the analysis produced by the Railway Board's Costing Cell. In view of this limitation, we thought that the best approach was to use the cost analysis for a year like 1976-77 when the overall performance on the Railways was good. The costs incurred by the Railways for providing different services, the relationship between inputs and outputs for that year, may be assumed as the ones which may be accepted as satisfactory for the purpose of tariff formulation.

5.12 It is true that such historically based cost analysis cannot give a really satisfactory basis for tariff policy as, to some extent, it assumes that the costs actually incurred in that year were fully necessary for producing the outputs that were produced. There are no data to show that such an assumption is justified. In fact, it is known that there are many areas in which outputs can be increased without

proportionate increases in inputs. There are a number of railway-lines where traffic is quite small. The physical indicators in Chapter III suggest that the use of various assets on Indian Railways, while quite good in comparison with that in a number of foreign countries such as even the U.K. or <sup>the</sup> U.S.A., is much lower than in countries which are more conscious of the importance of utilising capital assets to the maximum such as the U.S.S.R. or China. It is also possible that certain provisions - such as the one for depreciation - may be inadequate. It is however not practicable for a Committee like ours to assume input output relationships very different from what have been actually achieved on the Indian Railways unless far more elaborate studies than were available or possible are made. Direct comparison with other countries or direct use of performance standards elsewhere would obviously be wrong because each system has its own peculiarities. It cannot also be overlooked that even in less complex manufacturing organisations, where standard costs are computed, allowance is always made for actual performance and the best results that have been achieved. Abstract and unrealistic standards are best avoided as they may give a quite unreal picture of the genuine possibilities.

5.13 Taking all these factors into account, we have thought that a year like 1976-77 when the Railways attained some of the best results in terms of efficiency that they have ever attained would provide a good basis to provide the standards on which to formulate future tariffs. This does not mean that we do not expect Railway performance to improve so that efficiency gradually increases beyond what was achieved in 1976-77. There are ways in which attempts can and should be made in this direction, and we propose to deal with some of these matters in our Final Report. But for tariff formulation, it was necessary for us to take the input output relationship for the best or near-best year experienced by the Railways upto now. It also happens that 1976-77 was also the year for which the latest cost analyses prepared by the Railway Board were available. We have therefore

thought it fit to use the cost data for this year as the standard for our work. We have of course made allowance for the changes in prices which have occurred since then. The manner in which this has been done and its implications are dealt with in Chapter VI. In this Chapter, we explain the cost data and analysis for the year 1976-77, or in a few cases for other years, as they have been available to us and the use to which we have put them.

#### Allocation of Costs between Coaching and Goods Services :

5.14 As already indicated earlier, the major difficulty encountered while computing costs for any particular railway service, is the methodology to be adopted for apportionment of common or 'joint' costs. The common costs are divided between various services on the basis of the most appropriate proportion for each category of expense. The Railway Board have adopted a technique for working out the unit cost of freight and non-suburban coaching services, based on formulae developed by adapting various techniques used in developed countries. These incorporate instructions for the purposes of apportioning total railway costs among the different functional groups.

5.15 Railways in India have broadly three systems, viz., Broad Gauge, Metre Gauge, and two kinds of Narrow Gauge. While N.G. railways constitute a comparatively small proportion of the total track, B.G. constitutes 51% and M.G. 42% of the total. Since most railways have a mix of the three gauges, the expenditure incurred by them are in many cases common to more than one gauge. The first step in traffic costing is, therefore, to allocate the expenses among the different gauges and the various services.

5.16 The broad principle followed in allocation is that items of expenditure which are directly allocable to a particular gauge or service is allocated to it, and booked separately

in accounts. Those expenses which cannot be allocated straight-away to a particular gauge or service are recorded as joint expenses, and at the end of the year apportioned between relevant gauges or services on the basis of related outputs on the respective gauge or service.

5.17 Those expenses which can be directly allocated to coaching include such items as repairs and maintenance of coaching vehicles, wages of staff connected with booking and checking of tickets, wages of travelling ticket examiners, train Conductors, printing of tickets, supply of water to passengers, train lighting equipment and maintenance etc. Expenses which are directly allocated to goods include items such as repairs and maintenance of wagons and wages of goods sheds staff etc.

5.18 Some of the major items of common expenses are allocated between goods and coaching in the following manner :

i) Repairs and maintenance of track

Track and the expenses on them are identifiable for the different gauges of the Railways. But when the services run on the track are considered, the expenses are generally common both to coaching and goods services. There are however some areas of track which can be clearly identified as being utilised by a particular service. For example, marshalling yards, or colliery and industrial sidings, are only used for goods services and coaching yards only for coaching services. Costs of these are allocated directly to the respective services on the basis of equated track kilometres. The major expenses which include mainly those on the running track and transportation sidings are apportioned between coaching and goods services in the ratio of the gross tonne kilometres relating to the particular service.

ii) Fuel consumed by the railways are coal, HSD oil and electricity. This is the single largest item of expenditure incurred by the railways. Naturally, a very strict count is

kept on the consumption of fuel, and the expenditure on this account. Issues of fuel to each individual locomotive are recorded and, from these details, the consumption for the different services on the different gauges of the railways are tabulated. The expenses on different kinds of fuel are calculated on the basis of this record of consumption for coaching, goods and shunting services. The shunting expenses are further distributed between coaching and goods services, in the ratio of shunting hours used for the two services.

iii) Train and engine crew

Under the existing accounting system, the wages for all such staff working on different services are booked under a common head. However, the strength and grade of staff allocated for the various services are available with the bill-preparing offices of the various cost centres. Based on the data obtained from these offices, the share of expenses for the respective services during a representative period is worked out, and that ratio is applied for apportioning the total expenses over the year.

iv) The basis of distributing various other items of common expenses have been evolved on similar lines.

Costing of Goods Services

5.19 In freight services, the main functional groups are running, marshalling, terminal, transshipment, repacking and general overheads. There is a further splitting-up of some functional groups; for example, documentation, traction and train passing in operating services; track and signalling etc. Formulae have been devised by the Railway Board so that costs on different constituents of the various functional groups can be abstracted from the total.

5.20 The sumtotal of expenses under each functional group and its constituents are rated against the relevant units of output, e.g., tonnage handled, tonne kilometres, wagon kilometres, train kilometres etc.

5.21 The unit costs of goods services are worked out for each zonal railway, separately for B.G. and M.G. systems, under three groups, viz., Group 'A', Group 'B' and Group 'C'. Group 'A' costs are fully distributed costs, including interest and depreciation charges and other general overheads. The amount of depreciation included in these costs is based on the actual contribution to the Depreciation Reserve Fund<sup>(DRF)</sup> and not on the expenditure met out of DRF every year. The following items of unit costs are worked out in this group :-

- 1) Terminal cost per tonne - Smalls,
- 2) Terminal cost per tonne - Full loads,
- 3) Terminal cost per wagon - Full loads,
- 4) Repacking cost of smalls per tonne per handling,
- 5) Transshipment cost at break-of-gauge point per tonne per transshipment,
- 6) Marshalling cost per wagon per yard handled,
- 7) Line haul cost per train kilometre,
- 8) Line haul cost per wagon kilometre,
- 9) Line haul cost per tonne kilometre - Pay load,
- 10) Line haul cost per wagon kilometre - Carrying Unit.

5.22 Group 'B' unit costs relate to specific items of services like documentation, traction cost per engine hour, track and signalling cost per kilometre etc. These unit costs, inclusive of interest, depreciation and the overheads, are basically meant for managerial control and are of use to the local managements.

5.23 Under Group 'C', the constituent elements are re-grouped and re-arranged to work out the unit costs of different types of traction utilised for the railways. The items of unit costs worked out under this group are indicated below :-

- (1) Terminal - cost of documentation, etc. per invoice.
- (2) Terminal - cost of handling (Smalls) per tonne.
- (3) Terminal - cost of other terminal services per tonne - Smalls.
- (4) Terminal - cost of other terminal services per tonne - Full loads.

- (5) Terminal - cost of other terminal services per wagon - Full loads.
- (6) Cost of Repacking of Smalls per tonne per handling.
- (7) Cost of Transshipment at break-of-gauge per tonne per transshipment.
- (8) Cost of <sup>of</sup>marshalling per wagon per yard handled.
- (9) Provision and maintenance of carrying units per wagon day.
- (10) Line haul cost - Traction - per 1000 GTKm - Steam.
- (11) Line haul cost - Traction - per 1000 GTKm - Diesel.
- (12) Line haul cost - Traction - per 1000 GTKm - Electric.
- (13) Line haul cost - Other transportation expenses including train passing staff per train kilometre.
- (14) Line haul cost - Other transportation expenses including train passing staff per 1000 GTKm.
- (15) Line haul cost - Track and signalling per train kilometre.
- (16) Line haul cost - Track and signalling per 1000 GTKm.
- (17) General overhead charges - percentage to direct cost.
- (18) Central charges - Percentage to total cost.

5.24 The important point to remember while considering costs of goods services is that the unit costs vary not so much with the nature of the commodity carried as with the following :

- a) Loadability,
- b) The number of marshallings involved,
- c) Whether the commodity moves in wagon loads or block loads.
- d) Distance.

5.25 While the loadability of various commodities can be studied and computed with a fair degree of accuracy, the other variables like the number of marshallings etc. are assumed on the basis of spot surveys made by the railways from time to time. The unit cost figures arrived at therefore suffer from these limitations. The reliability of the results



depends on the surveys carried out by the railways in this regard. The more representative the survey, the more accurate would be the assumptions. The railways are aware of this problem and carry out these surveys periodically to update the basic data.

5.26 Another important factor which affects the unit cost of goods operation is the extent of empty haulage. Figures for the total wagon kilometres, as well as the loaded wagon kilometres, are available in the Railway Board's Annual Statistics. Based on these, the percentage of empty return ratio can be worked out. The cost of movement of any particular commodity would depend on whether any special empty return is involved, e.g., in the case of special type of rolling stock like tank wagons, a 100% empty return takes place. Block rake movements of box wagons involving transportation of commodities like coal, iron ore and other ores etc., entail a higher percentage of empty return ratio, as compared to the movement of other goods in wagon-loads.

5.27 The overall empty return ratio for the year 1976-77 (B.G.), taking into account all special stock, viz., box wagons and tank wagons etc. was 50%. If empty movement of special stock is excluded, the overall empty return ratio for the general service wagon was 25%.

5.28 The unit costs vary with the level of empty return involved in the movement of any particular commodity. The higher the empty return ratio, the higher is the unit cost.

5.29 As the empty return ratio is not separately computed for different commodities on the basis of any regular survey, the overall empty return ratio is applied for the whole commodity movement. It is only when special commodity studies are undertaken - as they have been undertaken recently - that special studies regarding empty movements in respect of the particular commodity on representative tracks are made.

5.30 Similarly, it needs to be noted that no independent studies of the cost variation for haulage in relation to distance have been made. On the basis of the sample surveys mentioned above, assumptions are made about the number of marshallings related to the distance of the load.

#### Terminal costs

5.31 No commoditywise analysis of terminal costs has been made by the Railway Board. In respect of different commodities, the terminal costs which have been used by the Railway Board as well as by us are based on the unit terminal costs for freight services as a whole. We were also interested in computing the differential figures of the terminal expenses involved in the carriage of rake-loads, wagon-loads and snalls.

5.32 Since no such analyses were available, we made use of the cost studies made by RITES. The cost figures arrived at by RITES could not, however, be utilised directly. This was because the basic concepts on which they based their calculations were different from those utilised by the Railway Board. RITES data were therefore suitably modified to arrive at our estimate of terminal costs.

#### Comparative Cost of Movement of Block Rakes and Wagon Loads :

5.33 By the very nature of the operations involved, the expenses on account of <sup>the</sup> running of block rakes are likely to be less than those in moving wagons piecemeal from yard to yard. This would be mainly due to avoidance of marshalling en route, better utilisation of wagons, higher speeds, etc. We were interested in quantifying the difference in costs so that the benefits of movement in block rakes could be used for tariff formulation. From an examination of the cost analysis made by RITES, included in their paper on 'Resource Cost Studies' submitted to the National Transport Policy Committee, it was clear that, for all distances, the cost of running block rakes was less than the costs of piecemeal wagon movements. The extent of savings however varied with the nature of the

commodities handled as well as the distance traversed. The Consultant appointed by the Committee had also made some sensitivity analysis which suggested economies of around 4%.

5.34 The Directorate of Statistics and Economics (Railway Board) were however of the opinion that, in case of movement involving blocks of wagons, the higher level of empty return ratio would eat into the savings considerably. According to them, with an empty return ratio of 50%, block rake movement remained economical upto 400 kms., and was positively uneconomical beyond 800 kms. With empty return ratios of 80% and above, block rake movements are uneconomical even upto 400 kms.

5.35 The Directorate of Statistics and Economics however added that block rake movement involved some other factors, such as lesser expenditure on repairs and maintenance, lesser number of claims, better utilisation of rolling stock and had other intangible benefits which could not be readily quantified.

5.36 From the above, it would appear that it would be correct to assume that a certain level of savings is involved in block rake movements as compared to piecemeal wagon movements. The exact extent of these savings cannot at present be quantified.

#### The Effect of Gradients

5.37 It is a well established fact that whenever trains have to negotiate steep gradients, the cost of operations is higher. This may be due to provision of a banking engine, or a reduction in load. Costs also go up due to provision of extra staff and equipment for intensive brake examination prior to the negotiation of steep gradients. The Committee was interested in quantification of such increases to examine the feasibility of quoting special rates for traffic moving over steeply graded sections. We therefore made a reference to the Central Railway to analyse the additional costs involved on certain specified sections. The Central Railway worked out the additional costs involved on the Kasara - Igatpuri Ghat Section. A preliminary

study of the Itarsi - Amia section on the Grand Trunk route was also made by our Cost Consultant. The results proved very useful to us to have a clearer understanding of the situation and specially to appreciate the extent of the problem.

5.38 The details furnished by the Central Railway indicate that on the 16 Km long Kasara - Igatpuri section, having a ruling gradient of 1 in 37, the additional cost for goods traffic and passenger traffic is 57.7% and 84.6% respectively.

Studies made by <sup>the</sup> Research, Design and Standards Organisation (R.D.S.O.)

5.39 As already mentioned earlier, there were certain areas of cost analysis where we found that no work had been done by the Railway Board Costing Cell and information was lacking. We therefore requested the R.D.S.O. to carry out studies and advise us as to what is the effect of gradients, curves, and other such factors on consumption of fuel, as also the effect of speed on costs. We also requested them to quantify, to the extent possible, the corrosive effect of the carriage of commodities like salt, fertilisers and other chemicals on wagons.

5.40 In their reply, the R.D.S.O. pointed out that, while no doubt there would be an increase in fuel consumption while steep gradients were being negotiated, such gradients would normally be in isolated areas, where steep grades would be followed by level sections and down grades. The overall fuel consumption therefore is not likely to be affected to any appreciable extent, unless trains had to traverse long distances on sustained steep grades. Unit cost would certainly go up where the trailing loads have to be reduced due to inability of the locomotive to pull up the entire load due to limitation of tractive effort. Similarly, loads have to be reduced on steep down grades also, to ensure adequate brake power. It was however not possible accurately to quantify such increases in costs.

5.41 The R.D.S.O. also carried out certain metallurgical studies to establish the effect of corrosive substances on wagons. The results brought out by the RDSO were forwarded to the Carriage & Wagon Shops, Alambagh, for working out the additional maintenance involved due to the corroding effect of certain commodities. Since most of these commodities are carried in general service wagons, only a theoretical exercise could be attempted on the assumption that a wagon would be used exclusively for carriage of these corrosive commodities, and the wagon body would be in constant contact with the corrosive substance. Based on these theoretical assumptions, the Alambagh Workshops worked out the additional cost which would be incurred on repairs and maintenance of such wagons. The details are as under :-

<u>Name of commodity</u>	<u>% age of moisture</u>	<u>Caclulated loss of metal in inches per year.</u>
1. <u>SALT</u>	Nil	0.001
	2%	0.011
	5%	0.010
2. <u>COAL</u>	Nil	0.0012
	2%	0.0086
	5%	0.0174
3. <u>SULPHUR</u>	Nil	0.0022
	2%	0.0072
	5%	0.0108
	10%	0.0175
4. <u>LINE</u>	Nil	0.0009
	2%	0.0019
	5%	0.0022
	10%	0.0035
5. <u>SUPERPHOSPHATE</u>	Nil	0.0035
	2%	0.0121
	5%	0.0235
	10%	0.0285

Other relevant data are :

1. Cost of reflooring of covered wagon with steel sheet of 5 m.m.(0.203 inch) thick, including labour, material and on cost. .. Rs.4,130/-
2. period of reflooring in normal course. .. 35 years.
3. Floor thickness in service requiring reflooring. .. .0625 inch.

5.42 The Railways will therefore have to incur an extra expenditure in case of continuous loading of corrosive substances as listed below :

Corrosive Substances	Percentage of Moisture	Period for replacement of the floor	Extra cost to be incurred.
1. Salt	5%	14.5 years	Rs. 8,257.12
2. Coal	10%	8.07 "	Rs.16,514.24
3. Sulphur	10%	0.02 "	Rs.16,514.24
4. Lime	10%	40.1 "	NIL
5. Superphosphate	10%	4.9 "	Rs.24,771.36

These data have been kept in view in examining the question of classifying these commodities.

#### Cost of Transshipment at Break-of-Gauge points

5.43 Another important factor affecting cost of movement of goods traffic on Indian Railways is the cost involved in transshipment of consignments from wagons of one gauge to another before they can be finally transported to their ultimate destination. The importance of this factor can be appreciated from the fact that more than 10% of the total tonnage handled has to pass through a transshipment point.

5.44 The Railway Board has worked out unit costs of transshipment and, as per their analysis, the unit cost worked out to Rs.7.50 per tonne for every transshipment. Thus if the consignments have to undergo even one transshipment, the total cost involved would be in excess of Rs.15 crores for 20 million tonnes of traffic. The Railway Board Costing Cell have however not made any further analysis to arrive at the cost structure of transshipment (commoditywise).

5.45 A rough examination of the cost involved indicates that the main factors are -

- 1) The cost of handling staff;
- 2) Shunting; and
- 3) Detention of wagons at transshipment points.

Each of these factors would account for about 30% of the total transshipment cost.

5.46 Transshipment points are major operating bottlenecks and their performance is watched very keenly by executive staff at Divisional, Zonal, and the Railway Board level.

5.47 Detailed statistical figures are also maintained to monitor the efficiency of transshipment points. We feel, however, that more detailed analysis of the costs involved at transshipment points (commoditywise) needs to be taken up by the Railway Board to have a better understanding of the cost of transportation of commodities which involve transshipment.

#### Validity of Assumptions.

5.48 Based on the unit costs worked out by the Railway Board, further analyses were made by us to obtain a clearer picture of the costs. In the unit cost analysis and profitability studies made by the Railway Board, the number of marshallings assumed were as follows :-

Upto 1	to	400 kms.	...	2 marshallings		
		401	to	800 kms.	...	3 marshallings
		Beyond		800 kms.	...	4 marshallings

5.49 While we were in the process of formulating our recommendations, the Railway Board Costing Cell intimated that they had carried out a more recent survey to determine whether any changes in the marshalling pattern had taken place. We were advised that, as a result of this survey, the marshalling pattern was seen to have undergone certain changes, and the assumptions have to be updated in the following manner :-

	B.G.		M.G.	
	Existing	Revised	Existing	Revised
Upto 400 kms.	2	3.72	2	3.6
400- 800 kms.	3	4.37	3	4.82
800-1200 kms.	4	4.86	4	6.43
1200-1600 kms.	4	5.49	4	6.62
1600 and above	4	5.55	4	7.02

It would be noticed that even now the assumption appears to be that very few additional marshallings are involved in distances beyond 1200 kilometres. It has been pointed out sometimes that, while this would be undoubtedly true for goods traffic as a whole, in the case of commodities which normally move much longer distances in other than block rakes, this may not be an adequately valid assumption and may distort the cost which is worked out.

5.50 In fact, with the costing analysis as it is conducted up to now, no real data are available about the relationship between cost and distance. The assumption underlying this is that, except for marshallings (and transshipment when change of gauge is involved), there is no other factor which can lead to a change in the proportion between variable cost and distance. Without detailed studies, it is difficult to say to what extent this assumption is valid. For the time being, we have used the cost data as furnished by the Railway Board, and have only been able to introduce a few modifications which are explained below.



empty

5.51 Taking into account the overall/return ratio of 50% on BG and 40% on MG, unit costs per tonne and per tonne kilometre were worked out by us on the basis of the average weight carried per wagon. The average load on the run for full wagon load traffic was taken as 20.23 tonnes for B.G. and 14.22 tonnes on M.G. based on Railway Board's cost analysis data. The costs were segregated between terminal and en route costs, taking note of the revised marshalling pattern advised by the Railway Board. The details are given in Statement 5.1. In addition, costs based on full loadability (i.e., 24 tonnes on B.G. and 19 tonnes on M.G.) have also been estimated (See Statement 5.2).

5.52 In view of the survey in which a new pattern of marshallings had emerged, we requested the Railway Board to work out the profitability of selected commodities afresh. This was done by them, and the data on profitability of selected commodities at different distances were made available to us. These figures were utilised by us while framing our recommendations for classification of various commodities.

5.53 As per this profitability study, a large number of important commodities were losing at all distances both on BG and MG. Some commodities were losing upto certain distance and then making profits. A list of some of these important commodities is given below :-

Commodities losing throughout on BG & MG

1. Foodgrains - Division A & B.
2. Edible oils.
3. Oil Cake.
4. Potatoes, onions and other fruits & vegetables.
5. Char coal.
6. Fire wood.
7. Bamboos.
8. Grass green & dry.
9. Fodder.
10. Hard coke.
11. Bidies.
12. Jute raw, waste.
13. Safety Matches.

Commodities losing upto 500 kms. on BG & MG but making up thereafter on B.G.

1. Gur, Shakkar, Jagree
2. Oil seeds
3. Glass ware
4. Asbestos products
5. Jute & Hemp, unpressed
6. Cotton raw, unpressed
7. Paper - NOC
8. Coconut & Ground nut oil
9. Rubber tubes and tyres

5.54 On the M.G. almost all commodities were losing at all distances.

COACHING TRAFFIC :

5.55 Coaching traffic relates to movement of passengers, luggage, parcels, postal traffic etc. and can be broadly divided into two groups, viz., Passenger traffic and other coaching traffic. Passenger traffic on the Indian Railways is further divided into two broad divisions, suburban and non-suburban. The details about suburban and non-suburban services are discussed separately below.

Costing of Suburban Passenger traffic - EMU services

5.56 Suburban passengers are carried almost entirely by Electric Multiple Units (EMU). On the coaching side, costing of EMU services was taken up first, mainly because detailed statistical information relating to traffic and other operating details were readily available. These services are different in nature from other passenger services, in so far as they are run entirely on electric traction and have a high frequency. Passengers carried by them constitute 55% of the total number carried by Indian Railways. Moreover, over the last many years, these services were incurring losses, and proper costing was specially necessary so as to examine the problem in its proper perspective.

5.57 The nature of traffic is different in the different cities. While in the Bombay area, it is mainly intra urban metropolitan transport, in Calcutta and Madras, commuters normally go to the Central Business District in the morning, and return to their residential suburbs and towns in the evening. Because of this, while there is a pronounced unidirectional peak hour traffic in the Madras and Calcutta areas, the situation is somewhat different in Bombay. In Bombay, while the occupation in the down-town direction is comparatively higher in the mornings, the occupancy in the return direction is also not quite low, as the railway transport services also serve important localities within the city itself.

5.58 The five zonal railways which operate the EMU services allocate the cost of operation on the basis of the methodology formulated by the Railway Board. The present instructions in this regard were issued in 1967 and modified in 1973. The methodology for working out the share of expenses for EMU services is broadly stated below :-

- a) EMU share of expenses relating to repairs and maintenance of track, bridges etc., is based on the related gross tonne kilometres.
- b) Expenses relating to other assets of the Engineering department are apportioned in the ratio of EMU hours to total engine hours, on the concerned operating Division.
- c) 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. Expenses for repairs and maintenance of overhead equipment etc. are apportioned in the ratio of train kilometres of EMU services to total train kilometres and shunting kilometres under electric traction.

- d) The operating personnel are generally separate for EMU services. Expenses on their account are therefore fully booked to the cost of running of EMU services, and no rules for apportionment need be framed. Similarly, a number of stations are also exclusively used by the EMU services alone. Cost incurred on their account is therefore booked entirely to the cost of running of these services. Expenses on account of stations which are common to EMU and other main line services are apportioned in the ratio of the respective numbers of trains run.
- e) Indirect expenses, like general overheads, are added pro-rata, in the ratio of direct expenses apportioned to EMU services and expenses for other services on the division.

5.59 Based on the above methodology of apportionment of expenses, the profit or loss of running the EMU services are estimated by the zonal railways and compiled by the Railway Board.

5.60 For making meaningful recommendations, the Committee required to have the cost data analysed further so as to get a clearer picture of the profitability of running of EMU services. The Railway Board works out what may be called a Profit & Loss Account of running these services zonewise. We however required detailed unit costs for our purposes. We therefore further analysed the working results to compute unit costs, after segregating the expenses under the constituent functions for the services.

5.61 Unit costs were developed using the methodology used by the Railway Board for splitting up non-suburban passenger expenses between terminal and line haul functions. Thus, costs which could be directly allocated to terminal or line haul functions were booked against the relevant constituent; joint costs were apportioned between line haul and terminal on the basis of appropriate percentages; and overheads were distributed pro-rata.

5.62 After segregating the expenses relating to terminal, line haul and overhead functions, the different functional costs have been rated against related outputs, and the following unit costs developed :

- a) Terminal :
  - i) Terminal cost per passenger carried;
- b) Line haul :
  - i) Line haul cost per passenger kilometre;
  - ii) Line haul cost per vehicle kilometre;
  - iii) Line haul cost per train kilometre.
- c) Overall :
  - i) Overall cost per passenger carried;
  - ii) Overall cost per passenger kilometre;
  - iii) Overall cost per vehicle kilometre;

5.63 Unit costs for operation of EMU services during 1976-77 have been worked out on the basis of the methodology enunciated above and the details are indicated in the table given below :-

TABLE 5.1

UNIT COSTS OF EMU SUBURBAN SERVICES - 1976-77

S.No.	Average for BG & MG (including Overheads)
1. Terminal Cost per Passenger carried (Paise).	4.50
2. Line haul Cost per Passenger Kilometre (Paise).	1.92
3. Line haul Cost per vehicle kilometre (Rupees).	2.56
4. Line haul cost per train km.(Rupees).	21.45
5. Overall cost per passenger carried(Paise).	43.65
6. Overall cost per Passenger km. (as per actual occupation)(Paise).	2.14
7. Overall cost per Vehicle km.(Rupees).	2.86

5.64 For the purpose of our computation, the capacity passenger kilometres were worked out on the basis of the actual vehicle kilometres and the number of seats in motor and trailer coaches used on different zonal railways. Analysis of the actual passenger kilometres during 1976-77, against the figures of capacity passenger kilometres, indicate that while average occupancy in Bombay area was about 84%, it was about 50% in Calcutta and only 42% in Madras. From this it will be clear that, while there may be heavy overcrowding during the peak periods, the average occupancy is fairly low. This is because a number of trains are run even in the non-peak periods, and the occupancy in the return direction during the peak period is also low. The cost of running the services, whether fully occupied or partly occupied, is almost the same; and therefore even though it appears that suburban services are overcrowded, their costs are not that low since the average occupancy is not very high.

5.65 The Central Railway have furnished a statement showing occupation on <sup>train</sup> services on different sections at different hours of the day. These data are based upon a visual survey. This shows that on the main line section of the railway, between Bombay VT and Kalyan, the peak hours are between 7.30 to 11.00 A.M. for Up trains towards Bombay, and between 14.00 hours to 21.00 hours for Down trains away from Bombay, when the trains are found to be running with overcrushing capacity, i.e., with occupancy between 150% and 200% of capacity. The number of trains run during these peak hours (as computed from the time table) are 64 Up trains in the morning, and 92 Down trains in the evening. They account for about 30% of the total number of trains on the main line section during the day.

5.66 The survey indicated another spell of about one and half hours, when the main line trains carry passengers to full capacity. For the remaining hours of the day, the trains run well below capacity.

5.67 The Harbour section has no period when the occupancy could be referred to as overcrushing. During the peak hours, which are between 6.30 hours to 11.00 hours in <sup>the</sup> Up direction and between 16.00 hours to 20.00 hours in the Down direction, the trains on the Harbour section run with 10% to 25% over carrying capacity. 69 trains are run during the peak hours, which account for about 27% of the trains run on the Harbour lines daily. For another one hour, the trains on this section run with capacity number of passengers; but for the remaining period they run with occupation well below capacity.

5.68 These data no doubt include all passengers on the trains including those travelling ticketless and those travelling on free passes. Even if 10% of the total number of employees on the Central and Western Railway are assumed to be living in Bombay area, and therefore given free passes, the number of commuters on their account would not be very large. A rough estimate puts the figure at less than 1% of the total number of suburban passengers in the Bombay area. Their impact on the occupancy ratio will be negligible. No data are however available with any railway regarding the extent of ticketless travelling.

5.69 Thus even though it may appear that the suburban services run overcrowded during certain period of the day, the unit costs are not very low since the total expenses have to be shared by the average occupancy which is fairly low.

5.70 While considering the unit costs on these services, another important point to be kept in view is the long term marginal cost. At present the facilities provided for such services are stretched almost to their full capacity. Any substantial increase in the number of trains will require massive investments for provision of new lines, rolling stock, and other equipments. The incremental costs would therefore be very high. Our understanding of the cost of EMU services is based on the historical cost of assets, and the unit costs have been worked out on the basis of the methodology followed by the Railway Board for charging interest/dividend and depreciation etc. on such historical cost.

5.71 At present, the overall average cost of EMU services is 2.14 paise per passenger kilometre. As the demand and requirements of EMU services in the Metropolitan cities increase, new assets will have to be created, leading to fairly substantial increases in these costs. This aspect needs to be appreciated in its proper perspective.

#### Non-suburban Passenger services

5.72 After the expenses of the railways have been segregated between coaching and goods, the share of expenses for the suburban traffic is deducted from the coaching expenses. The remaining expenses relate to non-suburban passengers, and other coaching traffic. The total non-EMU expenses are then brought on to the coaching service formula book for further analysis. The methodology adopted is basically similar to that for freight traffic cost already discussed above.

5.73 In the case of coaching services however, apart from apportioning the expenses between the functions involved, the expenses have also to be segregated between passenger traffic and other coaching traffic. Broadly, the two main functions involved in both are (i) terminal and (ii) line haul.

5.74 The terminal services on account of passenger traffic include booking of tickets, enquiry and reservation facilities, ticket checking, waiting rooms, platforms, marshalling of coaches, cleaning and maintenance of coaches etc. Expenses on these items have to be segregated into a number of appropriate functions. Railways also provide Refreshment Rooms at stations and Dining Car and pantry services on the trains. The formula book for the analysis of the costs of coaching services provides details for segregation of expenses relating to these various functional services.



5.75 Since different classes of accommodation are provided on trains with different standards of comfort and amenities, the coaching cost analysis provides for segregation of joint expenses between different kinds of traffic, different functions, different kinds of trains and different classes of accommodation. The unit costs for various types of services and classes of accommodation are worked out on the basis of the formulae provided.

Details of Passenger Costing

5.76 Based on the unit costs of passenger traffic worked out by the Railway Board, further analyses were made by us and the details are given in the following statements :-

1. Unit cost per passenger kilometre (Classwise) on the basis of (actual) occupation ratio. .. (Statement 5.3)
2. Unit cost per passenger kilometre (Classwise) on the basis of 80% occupation ratio. .. (Statement 5.4)
3. Average Unit Costs (including overheads) per passenger km. (on the basis of actual occupation ratio) showing also the break up and the proportion of each constituent element to the total. .. (Statement 5.5)
4. Number of coaches in service and the capital cost per seat/berth. .. (Statement 5.6)

5.77 As already stated, the analyses made by us were based on the fully distributed cost figures provided by the Railway Board. While examining the fare structure for different kinds of services, we felt ~~that~~ the need for specific costing of some of the individual services like the Rajdhani Express and other superfast services.

5.78 The Railway Board Costing Cell had on their own already undertaken the job of examining some of these aspects. They made their analysis in respect of the following trains available to

us :-

1. Rajdhani Express.
2. Tamilnadu Express.
3. A.C. Deluxe Express.

5.79 The specific costing of the above trains enabled us to have a better understanding of the cost involved in running superfast trains.

#### Other Coaching services

5.80 Other coaching services relate to transport of parcels, luggage, postal bags and mail vans, and military traffic. These are transported by passenger or mixed service trains. The expenses incurred are in most cases joint with those for passenger traffic. Segregation of expenses between passenger traffic, and the other coaching traffic, has been done by the Railway Board on the basis of costing methodology developed by them. The expenses on other coaching traffic, have been further segregated between terminal cost and line haul cost. As per their cost analysis, the cost per vehicle kilometre has been worked out at Rs.1.56 on B.G. and Rs.1.41 on M.G.

5.81 Terminal expenses relating to other coaching traffic pertain to booking and delivery of luggage, parcels etc., provision of weighing machines, maintenance of luggage and parcel offices, provision of commercial and other staff employed, loading and unloading from parcel vans etc., and shunting and marshalling of parcel vans and brake vans at stations. Line haul costs include cost on traction, train passing and track expenses etc.

5.82 Detailed statistical data about the tonnage of other coaching traffic, the distances for which these are carried, as also the average load on the run of vehicles used for such traffic, are however not available. In the absence of such basic information, it was not possible to work out the unit cost of transportation of parcel and luggage traffic etc.

5.83 The Committee felt handicapped by the lack of the above statistical details on the basis of which unit costs could be developed. To overcome this, we made use of the data collected by the Railway Board in sample surveys which were undertaken by them. ( These surveys were based on Parcel Way bills from selected stations for three days in the months of April and October, 1976). These were further supplemented by data collected by the Committee itself. On the basis of these, the total tonnage, the tonne kilometres for various classes of parcels, the average load on the run per vehicle etc. were estimated. Based on these estimates, unit cost per quintal kilometre were worked out and further segregated between its elements, viz., terminal and line haul cost.

5.84 On the basis of our computation, the weighted average costs for BG and MG for the transportation of luggage and parcels worked out as follows :-

a) Terminal costs	..	Rs.7.69	per quintal.
b) Line haul costs	..	<del>Rs.</del> 3.81	<sup>Paise</sup> per quintal kilometre.
c) Total costs	..	<del>Rs.</del> 4.84	<sup>Paise</sup> per quintal kilometre.

Conclusion :

5.85 The above analysis of the costing of coaching traffic indicates some of the important limitations from which the material suffers. Not only are adequate data not available for properly costing different types of other coaching traffic such as parcels, postal mails etc., but even the analysis of passenger traffic suffers from a major handicap in that no data are available to show the relationship between the linehaul costs and the distance travelled. We only know that terminal costs being the same irrespective of the distances, the total average cost declines with distance. As this cost constitutes about 13% of the total passenger costs, some reduction in average cost per kilometre would occur with longer distances. The present data however give no clear indication of how much reduction is related to how much increase in distance.

5.86 The inadequacies of cost data and analysis which were mentioned above are not very uncommon. Cost analysis is a relatively new development in the accounting systems of business organisations; and in the railway systems all over the world, cost analyses are found to be difficult and have not developed as much as in manufacturing industries. The authorities concerned assure us that they are doing all that they can continuously to improve methodology. We shall deal with this question to some extent together with other suggestions for improvements in our Final Report.

5.87 With all the limitations enumerated earlier, the cost data available to us now are far better than what they were even a decade back. We have used them to the maximum possible extent in arriving at our recommendations regarding future tariffs.

## ASSUMPTIONS :-

			BG	MG	
Average load per wagon	..		20.28	17.22	
E.R.R.	..		50%	40%	
Marshalling: Upto	400 kms		3.72	3.60	<u>Cost of movement of full wagon load traffic - 1976-77 (All traffic).</u>
401 -	800 kms		4.37	4.82	
301 -	1200 kms		4.86	6.43	
1201 -	1600 kms		5.49	6.62	
Above	1600 kms		5.55	7.02	

Dist- ance	COST			PER TONNE (Rupees)			Weighted Average		
	Broad Gauge			Metre Gauge			Weighted Average		
	Term- inal	Enroute	Total	Term- inal	Enroute	Total	Term- inal	Enroute	Total
40	5.04	14.83	19.87	6.21	13.51	19.72	5.21	17.64	19.85
100	5.04	17.95	22.99	6.21	18.35	24.56	5.21	18.01	23.22
200	5.04	23.16	28.20	6.21	25.42	32.63	5.21	23.63	28.84
300	5.04	28.37	33.41	6.21	34.50	40.71	5.21	29.26	37.47
400	5.04	33.58	38.62	6.21	42.50	48.71	5.21	34.88	40.09
500	5.04	41.01	46.05	6.21	54.13	60.34	5.21	42.91	48.12
600	5.04	46.22	51.26	6.21	62.20	68.41	5.21	48.54	53.75
700	5.04	51.43	56.47	6.21	70.27	76.48	5.21	54.17	59.38
800	5.04	56.64	61.68	6.21	78.34	84.55	5.21	59.79	65.00
900	5.04	63.52	68.56	6.21	91.01	97.22	5.21	67.51	72.72
1000	5.04	68.73	73.77	6.21	99.09	105.30	5.21	73.12	78.33
1100	5.04	73.94	78.98	6.21	107.16	113.37	5.21	78.26	83.97
1200	5.04	79.15	84.19	6.21	115.23	121.44	5.21	84.39	89.60
1300	5.04	86.51	91.55	6.21	123.85	130.06	5.21	91.93	97.14
1400	5.04	91.72	96.76	6.21	131.92	138.13	5.21	97.55	102.76
1500	5.04	96.93	101.97	6.21	140.00	146.21	5.21	103.13	108.39
1600	5.04	102.14	107.18	6.21	148.07	154.28	5.21	108.80	114.01
1700	5.04	107.55	112.59	6.21	157.28	163.49	5.21	114.76	119.97
1800	5.04	112.76	117.80	6.21	165.36	171.57	5.21	120.39	125.60
1900	5.04	117.96	123.00	6.21	173.43	179.64	5.21	126.00	131.21
2000	5.04	123.17	128.21	6.21	181.50	187.71	5.21	131.64	136.85
2100	5.04	128.38	133.42	6.21	189.58	195.79	5.21	137.26	142.47
2200	5.04	133.59	138.63	6.21	197.65	203.86	5.21	142.89	148.10
2300	5.04	138.80	143.84	6.21	205.72	211.93	5.21	148.51	153.72
2400	5.04	144.00	149.04	6.21	213.79	220.00	5.21	154.13	159.34
2500	5.04	149.21	154.25	6.21	221.87	228.08	5.21	159.75	164.96
2600	5.04	154.42	159.46	6.21	229.94	236.15	5.21	165.37	170.58
2700	5.04	159.63	164.67	6.21	238.01	244.22	5.21	170.91	176.12
2800	5.04	164.84	169.88	6.21	246.09	252.30	5.21	176.53	181.84
2900	5.04	170.04	175.08	6.21	254.16	260.37	5.21	182.25	187.46
3000	5.04	175.25	180.29	6.21	262.23	268.44	5.21	187.87	193.08
3500	5.04	201.29	206.33	6.21	302.60	303.81	5.21	215.99	221.20

## Statement 5-1(Contd.)

## ASSUMPTIONS :-

		BG	MG	
Average load per wagon	..	20.28	14.22	
B.R.R.	..	50%	40%	
Marshalling: Upto 400 kms.		5.72	3.60	<u>Cost of movement of full wagon load traffic - 1976-77 (All traffic).</u>
401 - 800 kms.		4.37	4.82	
801 - 1200 kms.		4.56	6.43	
1201 - 1600 kms.		5.49	6.62	
Above- 1600 kms.		5.55	7.02	

BROAD GAUGE				METRE GAUGE				WEIGHTED AVERAGE				Dis- tance
Term- inal	Enr- oute	Total	Index	Term- inal	Enr- oute	Total	Index	Term- inal	Enr- oute	Total	Index	
12.50	37.03	49.53	-	15.53	33.78	49.31	-	13.03	35.60	49.63	-	40
5.04	17.95	22.99	100	6.21	18.35	24.56	100	5.21	18.01	23.22	100	100
2.52	11.53	14.10	61.33	3.11	13.21	16.32	66.45	2.61	11.82	14.43	62.14	200
1.58	9.46	11.14	48.46	2.07	11.50	13.57	55.25	1.74	9.75	11.49	49.48	300
1.26	8.40	9.66	42.02	1.55	10.63	12.18	49.59	1.30	8.72	10.02	43.15	400
1.01	8.20	9.21	40.06	1.24	10.83	12.07	49.14	1.04	8.58	9.62	41.43	500
0.84	7.70	8.54	37.15	1.04	10.37	11.41	46.46	0.87	8.09	8.96	38.59	600
0.72	7.35	8.07	35.10	0.89	10.04	10.93	44.50	0.74	7.74	8.48	36.52	700
0.63	7.08	7.71	33.54	0.78	9.79	10.57	43.04	0.65	7.47	8.12	34.97	800
0.56	7.06	7.62	33.14	0.69	10.11	10.80	43.97	0.58	7.50	8.08	34.80	900
0.50	6.87	7.37	32.06	0.62	9.71	10.53	42.87	0.52	7.31	7.83	33.72	1000
0.46	6.72	7.18	31.23	0.55	9.74	10.30	41.94	0.47	7.16	7.63	32.86	1100
0.42	6.60	7.02	30.54	0.52	9.60	10.12	41.21	0.43	7.03	7.46	32.13	1200
0.39	6.65	7.04	30.62	0.48	9.53	10.01	40.76	0.40	7.07	7.47	32.17	1300
0.36	6.55	6.91	30.06	0.44	9.42	9.86	40.15	0.37	6.97	7.34	31.61	1400
0.34	6.46	6.80	29.58	0.41	9.33	9.74	39.66	0.35	6.88	7.23	31.14	1500
0.32	6.38	6.70	29.14	0.39	9.25	9.64	39.25	0.33	6.80	7.13	30.71	1600
0.30	6.33	6.63	28.84	0.37	9.25	9.62	39.17	0.31	6.75	7.06	30.40	1700
0.28	6.26	6.54	28.45	0.35	9.19	9.54	38.84	0.29	6.69	6.98	30.06	1800
0.27	6.21	6.48	28.19	0.33	9.13	9.45	38.52	0.27	6.63	6.90	29.72	1900
0.25	6.16	6.41	27.88	0.31	9.08	9.39	38.23	0.26	6.58	6.84	29.46	2000
0.24	6.11	6.35	27.62	0.30	9.03	9.33	37.99	0.25	6.54	6.79	29.24	2100
0.23	6.07	6.30	27.40	0.28	8.93	9.26	37.70	0.24	6.50	6.74	29.03	2200
0.22	6.03	6.25	27.19	0.27	8.94	9.21	37.50	0.23	6.46	6.69	28.81	2300
0.21	6.00	6.21	27.01	0.26	8.91	9.17	37.34	0.22	6.42	6.64	28.60	2400
0.20	5.97	6.17	26.84	0.25	8.87	9.12	37.13	0.21	6.39	6.60	28.42	2500
0.19	5.94	6.13	26.66	0.24	8.84	9.08	36.97	0.20	6.35	6.56	28.25	2600
0.19	5.91	6.10	26.53	0.23	8.82	9.05	36.85	0.19	6.33	6.52	28.08	2700
0.18	5.89	6.07	26.40	0.22	8.79	9.01	36.69	0.19	6.31	6.50	27.99	2800
0.17	5.86	6.03	26.23	0.21	8.76	8.97	36.52	0.18	6.28	6.45	27.82	2900
0.17	5.84	6.01	26.14	0.21	8.74	8.95	36.44	0.17	6.26	6.43	27.69	3000
0.14	5.75	5.89	25.62	0.18	8.65	8.83	35.95	0.15	6.17	6.32	27.22	3500

ASSUMPTIONS :-

		<u>BG</u>	<u>MG</u>	
Average load per wagon	..	24.0	19.0	
B.R.R.	..	50%	40%	
Marshalling: Upto	400 kms.	3.72	3.50	<u>Cost of movement of full wagon load traffic - 1976-77 (All traffic).</u>
301 -	800 kms.	4.37	4.82	
301 -	1200 kms.	4.86	5.43	
1201	1600 kms.	5.49	5.62	
Above	1600 kms.	5.55	7.02	

Distance	COST PER TONNE (Rupees)						Weighted Average		
	Broad Gauge			Metre Gauge			Term-inal	Enroute	Total
	Term-inal	Enroute	Total	Term-inal	Enroute	Total			
40	4.26	12.64	16.90	4.64	10.40	15.04	4.31	12.32	16.63
100	4.26	15.45	19.71	4.64	14.42	19.06	4.31	15.30	19.61
200	4.26	20.13	24.39	4.64	21.26	25.90	4.31	20.29	24.60
300	4.26	24.82	29.08	4.64	28.04	32.68	4.31	25.29	29.60
400	4.26	29.50	33.76	4.64	34.78	39.42	4.31	30.27	34.57
500	4.26	36.06	40.32	4.64	44.22	48.86	4.31	37.25	41.56
600	4.26	40.75	45.01	4.64	51.00	55.64	4.31	42.24	46.55
700	4.26	45.43	49.69	4.64	57.79	62.43	4.31	47.23	51.54
800	4.26	50.11	54.37	4.64	64.57	69.21	4.31	52.21	56.52
900	4.26	56.21	60.47	4.64	74.30	79.44	4.31	58.90	63.21
1000	4.26	60.89	65.15	4.64	81.50	86.14	4.31	63.38	68.19
1100	4.26	65.58	69.84	4.64	88.36	93.00	4.31	68.88	73.19
1200	4.26	70.26	75.52	4.64	95.15	99.79	4.31	73.88	78.19
1300	4.26	76.77	81.03	4.64	102.34	106.98	4.31	80.48	84.79
1400	4.26	81.45	85.71	4.64	109.12	113.76	4.31	85.46	89.77
1500	4.26	86.13	90.39	4.64	115.91	120.55	4.31	90.45	94.76
1600	4.26	90.81	95.07	4.64	122.69	127.33	4.31	95.43	99.74
1700	4.26	95.67	99.93	4.64	130.33	134.97	4.31	100.70	105.01
1800	4.26	100.35	104.61	4.64	137.11	141.75	4.31	105.68	109.99
1900	4.26	105.03	109.29	4.64	143.90	148.54	4.31	110.67	114.98
2000	4.26	109.72	113.98	4.64	150.68	155.32	4.31	115.66	119.97
2100	4.26	114.40	118.66	4.64	157.47	162.11	4.31	120.65	124.96
2200	4.26	119.08	123.34	4.64	164.25	168.89	4.31	125.63	129.94
2300	4.26	123.76	128.02	4.64	171.03	175.67	4.31	130.62	134.93
2400	4.26	128.45	132.71	4.64	177.82	182.46	4.31	135.61	139.92
2500	4.26	133.13	137.39	4.64	184.60	189.24	4.31	140.60	144.91
2600	4.26	137.81	142.07	4.64	191.39	196.03	4.31	145.58	149.89
2700	4.26	142.49	146.33	4.64	198.17	202.81	4.31	150.56	154.87
2800	4.26	147.18	151.44	4.64	204.96	209.60	4.31	155.56	159.87
2900	4.26	151.86	156.12	4.64	211.74	216.38	4.31	160.55	164.86
3000	4.26	156.54	160.80	4.64	218.52	223.16	4.31	165.54	169.85
3500	4.26	179.95	184.21	4.64	252.45	257.09	4.31	190.47	194.78

## ASSUMPTIONS :-

		BG	MG
Average load per wagon	..	24.0	19.0
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401- 800 kms.		4.37	4.82
801- 1200 kms.		4.85	6.43
1201- 1600 kms.		5.49	6.62
Above- 1600 kms.		5.55	7.02

## Statement 5.2(Contd.)

Cost of movement of full  
wagon load traffic -  
1976-77  
(All traffic).

COST PER TONNE KILOMETRE (PAISE)				COST PER TONNE KILOMETRE (PAISE)				COST PER TONNE KILOMETRE (PAISE)				Dis- tance
Broad Gauge		Metre Gauge		Broad Gauge		Metre Gauge		Broad Gauge		Metre Gauge		
Term- inal	Enr- oute	Total	Index	Term- inal	Enr- oute	Total	Index	Term- inal	Enr- oute	Total	Index	
10.65	31.60	42.25	-	11.60	26.00	37.60	-	10.78	30.80	41.58	-	40
4.26	15.45	19.71	100	4.64	14.42	19.06	100	4.31	15.30	19.61	100	100
2.13	10.17	12.20	61.90	2.32	10.63	12.95	67.94	2.16	10.15	12.30	62.72	200
1.42	8.27	9.69	49.16	1.55	9.35	10.89	57.14	1.44	8.43	9.87	50.33	300
1.07	7.38	8.44	42.82	1.16	8.70	9.86	51.73	1.08	7.57	8.64	44.06	400
0.85	7.21	8.06	40.89	0.93	8.84	9.77	51.26	0.86	7.45	8.31	42.38	500
0.71	6.79	7.50	38.05	0.77	8.50	9.27	48.64	0.72	7.04	7.76	39.57	600
0.61	6.49	7.10	36.02	0.66	8.26	8.92	46.80	0.62	6.75	7.36	37.53	700
0.53	6.26	6.80	34.50	0.58	8.07	8.65	45.38	0.54	6.53	7.07	36.05	800
0.47	6.25	6.72	34.09	0.52	8.31	8.83	46.33	0.48	6.54	7.02	35.80	900
0.43	6.09	6.52	33.08	0.46	8.15	8.61	45.17	0.43	6.39	6.82	34.78	1000
0.39	5.96	6.35	32.22	0.42	8.03	8.45	44.33	0.39	6.26	6.65	33.91	1100
0.36	5.86	6.29	31.91	0.39	7.93	8.32	43.65	0.36	6.16	6.52	33.25	1200
0.33	5.91	6.23	31.61	0.36	7.87	8.23	43.18	0.33	6.19	6.52	33.25	1300
0.30	5.82	6.12	31.05	0.33	7.79	8.13	42.65	0.31	6.10	6.41	32.69	1400
0.28	5.74	6.03	30.59	0.31	7.73	8.04	42.18	0.29	6.03	6.32	32.23	1500
0.27	5.68	5.94	30.14	0.29	7.67	7.96	41.76	0.27	5.96	6.23	31.77	1600
0.25	5.63	5.88	29.83	0.27	7.67	7.94	41.66	0.25	5.92	6.18	31.51	1700
0.24	5.58	5.81	29.48	0.26	7.62	7.88	41.34	0.24	5.87	6.11	31.16	1800
0.22	5.53	5.75	29.17	0.24	7.57	7.82	41.03	0.23	5.82	6.05	30.85	1900
0.21	5.49	5.70	28.92	0.23	7.53	7.77	40.77	0.22	5.78	6.00	30.60	2000
0.20	5.45	5.65	28.67	0.22	7.50	7.72	40.50	0.21	5.75	5.95	30.34	2100
0.19	5.41	5.61	28.46	0.21	7.47	7.68	40.29	0.20	5.71	5.91	30.14	2200
0.19	5.38	5.57	28.26	0.20	7.44	7.64	40.08	0.19	5.68	5.87	29.93	2300
0.18	5.35	5.53	28.06	0.19	7.41	7.60	39.87	0.18	5.65	5.83	29.73	2400
0.17	5.33	5.50	27.90	0.19	7.38	7.57	39.72	0.17	5.62	5.80	29.58	2500
0.16	5.30	5.46	27.70	0.18	7.36	7.54	39.56	0.17	5.60	5.77	29.42	2600
0.16	5.28	5.42	27.50	0.17	7.34	7.51	39.40	0.16	5.58	5.74	29.27	2700
0.15	5.26	5.41	27.45	0.17	7.32	7.49	39.30	0.15	5.56	5.71	29.12	2800
0.15	5.24	5.38	27.30	0.16	7.30	7.46	39.14	0.15	5.54	5.68	28.96	2900
0.14	5.22	5.36	27.19	0.15	7.28	7.44	39.03	0.14	5.52	5.66	28.86	3000
0.12	5.14	5.26	26.69	0.13	7.21	7.35	38.56	0.12	5.44	5.57	28.40	3500



Statement 5.3

Unit cost per passenger kilometre (classwise) on the basis of actual occupation ratio.

Sl. No.	Class	B.G.		M.G.		Total cost (Rs.)
		Occupation ratio %	Cost (Rs.)	Occupation ratio %	Cost (Rs.)	
1.	A.C. First	53	0.28511	45	0.55639	0.30378
2.	Ist Class Exp.	43	0.18344	40	0.27386	0.19725
3.	AC Chair Car	54	0.04781	-	-	0.04781
4.	2nd Express	77	0.03456	88	0.03999	0.03577
5.	Total Express	-	0.04157	-	0.04656	0.04266
6.	Ist Ordinary	17	0.77027	18	0.59808	0.73765
7.	2nd Ordinary	101	0.04303	105	0.04521	0.04383
8.	Total Ordinary	-	0.04597	-	0.04894	0.04706
9.	Grand Total	-	0.04362	-	0.04809	0.04494

## Statement 5.4

Unit cost per passenger kilometre (classwise) on the basis of 80% occupation ratio.

Sl. No.	Class	B.G.		M.G.		Total
		Occupation ratio %	Cost (Rs.)	Occupation ratio %	Cost (Rs.)	
1.	A.C. First	80	0.19135	80	0.37055	0.20135
2.	Ist Class Exp.	80	0.10072	80	0.13920	0.10700
3.	A.C. Chair Car	80	0.03381	-	-	0.03381
4.	2nd Express	80	0.03335	80	0.04377	0.03544
5.	Total Express	-	0.03872	-	0.04945	0.04083
6.	Ist Ordinary	80	0.17496	80	0.15847	0.16757
7.	2nd Ordinary	Actual (101)	0.04303	Actual (101)	0.04521	0.04383
8.	Total Ordinary	-	0.04534	-	0.04806	0.04635
9.	Grand Total	-	0.04173	-	0.04851	0.04365

Statement 5.5

Average Unit Costs (including overheads) per Passenger Km. (on the basis of actual occupation ratio) showing also the break up and the proportion of each constituent element of the total.

1976-77

Particulars	BROAD GAUGE		METRE GAUGE		TOTAL	
	Per Passe- nger Km. Ps.	Percen- tage to the Total Cost.	Per Passe- nger Km. Ps.	Percen- tage to the Total Cost	Per Passe- nger Km. Ps.	Percent to the Total cost.
Total Terminal Services.	0.00761	19.53	0.00864	19.12	0.00791	17.61
Total Line haul services.	0.03601	80.47	0.03945	80.88	0.03703	82.39
Total Terminal & Line haul services.	0.04362	100	0.04809	100	0.04494	100

Statement 5.6Number of coaches in service and the capital cost per seat/berth(a) Number of coaches

Class	B.G.	M.G.	N.G.	Total
A.C.C.	147	-	-	147
AC two tier sleeper	33	-	-	33
AC Chair Car	50	-	-	50
First Class	1391	652	-	2043
Second Class sleeper	2593	963	-	3556
Second Class other coaches	6994	5698	-	12692
Total	11208	7313	-	18521
Composite Coaches	3874	2840	-	6714
Grand Total	15082	10153	1337	26572

(b) Cost per seat/berth (BG)

(Ps. in thousands)

	Capital Cost	Capacity		Unit Cost	
		Seat	Berth	Seat	Berth
A.C.C. Composite	1229	34	10	15.91	68.82
AC Sleeper	1216	-	48	-	25.33
First Class Chair Car	602	60	-	10.03	-
First class regular	564	39	26	14.46	21.69
Second sleeper	497	-	75	-	6.63
Second General Seat	512	90	-	5.69	-

Statement 5.5

Average Unit Costs (including overheads) per Passenger Km.  
(on the basis of actual occupation ratio) showing also the  
break up and the proportion of each constituent element of  
the total.

1976-77

Particulars	BROAD GAUGE		METRE GAUGE		TOTAL	
	Per Passe- nger Km. Ps.	Percen- tage to the Total Cost.	Per Passe- nger Km. Ps.	Percen- tage to the Total Cost	Per Passe- nger Km. Ps.	Percenta to the Total cost.
Total Terminal Services.	0.00761	19.53	0.00864	19.12	0.00791	17.61
Total Line haul services.	0.03601	80.47	0.03945	80.88	0.03703	82.39
Total Terminal & Line haul services.	0.04362	100	0.04809	100	0.04494	100

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	Capital Cost	Capacity		Unit Cost	
		Seat	Berth	Seat	Berth
A.C.C. Composite	1229	34	10	15.91	68.82
AC Sleeper	1216	-	48	-	25.33
First Class Chair Car	602	60	-	10.03	-
First class regular	564	39	26	14.46	21.69
Second sleeper	497	-	75	-	6.63
Second General Seat	512	90	-	5.69	-

## CHAPTER VI

### OUR APPROACH TO RAILWAY TARIFFS

#### Railways as Monopoly

6.01 When thinking of the fixing of appropriate tariffs for railway services, the first point to be noted is that the question of tariff fixation arises essentially because railway services are not operated in what may be considered to be fully or even largely a competitive market. It is a market with very large monopoly elements, the result being that the prices to be charged are those which can be deliberately fixed either by the producer himself or by an outside authority which regulates the prices. The railway tariffs, in other words, are in the nature of administered prices and not mainly market determined competitive prices.

6.02 At the same time, it should not be overlooked that the monopoly power of Railways has certain definite limitations. While the competition faced by Railways is limited, it is still of some importance and limits what can be charged, especially for certain types of services. In the case of passenger transport, for example, motorised transport certainly provides an alternative to the user by way of buses for the poorer passengers, and by way of cars to the richer ones when it is a question of traversing short and medium distances, say, upto 500 kilometres. It is of course known that persons travel even longer distances in buses and cars; but that is exceptional. In the case of longer distances, in recent times, airways provide some competition to railways; but that is only in respect of the richer category of passengers, as air services are offered at price ranges which are not within the reach of the bulk of the railway passengers.

6.03 When it comes to the transport of goods, it may again be observed that automobile trucks provide effective competition not only at short or medium distances but also when it comes to comparatively smaller quantities even for longer distances. Of course, the larger the bulk of the traffic that is carried and the longer the distance, the less effective is the

competition offered by truck transport. For bulk transport of some products like POL, an alternative to railways which is coming to be increasingly important is the pipeline. Where waterways are available to traverse the same routes, they also can offer effective competition. The major limitations regarding the competition offered by pipelines or by waterways is that they may either not be available or, even when available, may require considerable investment and creation of special facilities before they become effectively competitive.

6.04 It is also an important point that the nature of services offered by the different modes of transport is different. Railway transport is normally speedier as compared to that provided by automobiles or waterways. On the other hand, roads can provide door to door services so that both passengers and goods can be picked up at or near their starting points, and reached to or near their destinations far more conveniently than is possible when they are transported by rail. Goods movement by trucks also gives some savings on packing. Many passengers feel that the railways provide a service which is less risky, contains more leg-room, and enables more luggage to be carried as compared to motor transport. Air services are faster; but airports are usually situated far away from city centres, and therefore special arrangements for journeys to and from the airport have to be made at a much greater cost than is necessary in the case of railway services whose stations are usually situated in the hearts of cities. All these factors are mentioned mainly with a view to pointing out that the degree of competition that exists is limited, and has an impact only regarding certain services and certain types of customers. The possibility of such limited competition, wherever it exists, has of course to be taken note of.

6.05 One possibility that should also be kept in view in this respect is that the different transport services may fully or partly be catering to entirely different kinds of customers who, to that extent, may constitute non-competing groups. For example, in the case of passenger services, when it comes to carrying hundreds of thousands of passengers daily as in the mass transit



systems in suburban sections, there is no real alternative to the railways. But however wide-spread the network of railway lines, there would still be points which may not be directly touched; and a person or the goods will have to be transported to the railway terminal before they can be transported by rail. In such cases, the use of alternative or complementary modes of transport, whether it is walking, cycling or motor or animal transport in the case of passengers, and animal or motor transport in the case of goods, will have to be made. Thus, there is a certain non-competing area where the railways do not enter the field. On the other hand, when it comes to the bulk movement of thousands of tonnes of goods, there is no alternative to a railway track unless a pipeline is technically feasible. While it is not impossible that hundreds of trucks may be deployed for the movement of coal or iron ore to a steel plant, it is well-known that this is not an economically efficient way of transporting such bulk commodities not only because of the high cost involved, but also because this may physically clutter up the highway, thus making it impossible for other users to use it. This will also waste scarce fuel and create air pollution.

6.06 It is many times thought that when it comes to richer passengers, they have the alternatives of going by air or travelling in air-conditioned comfort by the A.C. class on railway trains. While the choice undoubtedly exists when it relates to points which are connected by air as well as by railway, most of the travellers can be classified into what may be called non-competing groups. Some passengers cannot afford the travel time involved even by the fastest railway trains. In their case, the airway is the only available mode of transport. They would travel by train only as an exception and when there is a breakdown in the air services. On the other hand, there would be passengers who, either due to sickness or age, or because they are travelling for pleasure in company with their families, would prefer a more comfortable and less hectic means of travel. In their case, the air-conditioned services on the trains may be not only far better

and preferred mode of transport, but they would hardly think of the airways as a possible alternative. Moreover, at least in India, the number of places connected by airways is not large as compared to those connected by railways. Therefore, for the vast number of passengers who want to travel between points unconnected by airways, even if they can afford the air fare, there is no alternative except to travel by railways. Thus, except for a small number of passengers, there is no reason to think that there is competition between airways and air-conditioned class travel by railway trains.

6.07 All the above examples indicate the high degree of monopoly power which the railways enjoy vis-a-vis the users. The result is that it is possible for the railways to charge high prices and to offer a poor quality of service and still get away with it. This is a major reason why, in most countries, the railways are either brought under some type of public regulation so that the controlling authority can make sure that the prices charged are not unreasonable and the services provided are satisfactory, or the system is brought under public ownership as it is felt that there would be an automatic control over the management of the railway services through parliamentary or other types of public accountability methods. In India, the railways are owned and managed by Government, and the charges for railway services have to be fixed by Government, the Government itself being accountable to a popular<sup>ly</sup> elected legislature. The tariffs prescribed on the railway system for their services have therefore to be such as would in their overall structure be acceptable to the railway users as also to the common people.

### Special Characteristics

6.08 In the case of public utilities like railways, certain special features have to be kept in view. The first is that these are capital-intensive services with not only very large initial investments but also investments which are lumpy in character. One can have a railway line between two points with a certain minimum investment on the track, communications and signalling and various other facilities, or one may not have it at all. For technical operation, a certain minimum investment is unavoidable, and if that is not done, the service cannot exist. Some variation in the service availability

is of course possible in that, by some extra investment, the utilisation of the same railway track can be improved; with better signalling and communications some strengthening of the track or diesellisation, more or heavier trains can be run. But the technical possibilities of doing this are limited. If increase in traffic beyond a certain point is required, it may be necessary to double the track or electrify it which involves a large investment. In other words, fixed investments play a major role in the capital structure of such utilities as compared to the capital structure of manufacturing enterprises. The implication of this is <sup>that</sup> the servicing of capital, repairs and maintenance, depreciation and a fair return are of much greater importance in the financial working of the system than they would be in a manufacturing concern. As against this, many of the assets used in such utilities have a long life, and the degree of obsolescence due to technological change is also usually less. Another reason why replacements on account <sup>of</sup> obsolescence may not be carried out early is that the utilities like railways enjoy a considerable degree of monopoly, and therefore may not always be keen to undertake technological improvements.

#### Discriminating Monopoly

6.09 One special feature of a public utility like railways is that it can practice discrimination as among different classes of users or commodities. This is possible because different streams of traffic, each with its own special characteristics, can be separated, and it is not easily possible for one type of traffic to pose as if it belongs to another. The railways can thus provide distinct types of passenger accommodation to suit the tastes and budgets of different types of users. On the other hand, freight services distinguish between commodity and commodity, and charge them differently because one commodity cannot easily be palmed off as another. Where a clear distinction is not possible, discrimination cannot be sustained. Thus, even though

different types of rice or timber may be priced very differently and can be distinguished from each other by experts, it may be difficult for non-expert railway officials to ensure that the distinction is always observed, and therefore charging different rates for different qualities of rice/<sup>or timber</sup> may not be practicable. But except for such examples, different commodities - and their distinct varieties - can be treated differently.

6.10 The main principle of discriminating monopoly is, as is well known, that no price needs to be below the cost of service, and any price can be up to the value of service. Before going into the complexities of these two principles, it may be stated that the approach essentially is that all traffic which can at least bear a charge which covers the cost of transporting it should be carried while no traffic need be charged a tariff lower than what it can bear. Thus, by charging commodities which can bear only a low incidence of tariff charge at lower rates - as long as they meet the costs of transporting them - and by charging other commodities which can bear a high incidence at higher rates, the total traffic carried can be maximised, and so also the total revenue. The same would be the case with passenger traffic, the lowest class of accommodation being charged at the base cost of carrying it, while the higher classes are charged a tariff/<sup>under</sup> which, in addition to meeting the costs of carrying them, they bear a higher charge based on an estimate of what they can pay. This involves cross-subsidisation by some streams of traffic of others. But as the overall cost of providing transport is met only by carrying the whole stream of traffic, low-paying as well as high-paying, only such a basis of charging for traffic is expected to ensure the maintenance and economical operation of the overall facility and therefore is generally accepted as being fair to all users.

6.11 Another aspect is that when examining the cost-revenue relationship especially in a public utility like railways, the social costs and benefits - as distinguished from the costs and benefits to the railway organisation - have to be considered. It is in most cases not possible fully to quantify the former. But allowance has to be made for such social costs and benefits when a conclusion is arrived at. We have given weightage to such social considerations when formulating our proposals.

Cost of Service

6.12 It is some times pointed out that, in the case of a public utility like railways, the cost to be essentially covered is only the marginal cost of providing the service. As long as a particular stream of traffic can pay a charge which covers such marginal cost, it would be wrong to deny the facility to that stream of traffic, it is claimed.

6.13 Without going into the theoretical controversy about the subject, it may only be pointed out that the assumption underlying this approach is that either the incidence of fixed costs already incurred and their servicing is to be borne by some other authority such as the public exchequer, or that other streams of traffic are able to bear these costs. As already mentioned earlier, to the extent that there are streams of traffic available which are in a position to pay a higher charge because they can bear the incidence, the question of subsidising the service as a whole does not arise. It is then merely a question of cross subsidization. There can be no objection to such cross subsidisation in principle though there can and is bound to be considerable argument regarding which streams of traffic can be made to bear how much extra burden. But, to the extent that such cross subsidisation cannot meet the total costs of providing and maintaining the service, the question arises as to whether it is justifiable to put the burden on the general exchequer. The argument that the cost of the fixed investment has already been incurred, and that the question after making the investment is to make the best use of the facility already created, is inadequate in that it assumes that the facility once created is there for all times to come. Whatever the nature of the facility or the asset, it requires maintenance, and replacement. Maintenance is accepted as a part of the working expenses but, unless adequate amounts are earned to provide for depreciation and build up resources so that the asset can be replaced whenever necessary either due to the end of its physical life or obsolescence, funds will not be available for such replacement. The service

will then cease to exist. The implication is that one has to think not merely of short-term marginal cost but also of long-term marginal cost.

6.14 Even a more important question is that, unless the railway system (or any other such public utility system) is treated as stagnant, it has to compete with other channels of investment for capital resources which are scarce in any country, and are specially scarce in a developing poor country like India. Unless therefore the real return on the investment is worthwhile as compared to the return available from other channels of investment, the authority making the investment would not consider it prudent to make that investment. Therefore, capital resources will only be available for an organisation like railways if investment in them can earn a return <sup>which is considered to be a proper return</sup> on the capital for that type of investment in the economic system.

6.15 In other words, once the full implications of the cost of service approach are understood, it is clear that one has to think not in terms of short-term but long-term marginal costs; and that while cross subsidization among different types of traffic is permissible, the facility as a whole should earn enough to meet all its costs, including a fair rate of return on the capital investment. Every stream of traffic must at least earn a revenue which must cover its "direct" cost, normally including depreciation as well as a minimum rate of return. This may not be so in the short-term or on special sections where, due to peculiar circumstances, traffic availability may be low. We shall deal with such special aspects later. Normally, each stream of traffic should be expected to meet its direct cost. At the same time, there must be other streams of traffic which can bear the incidence of a charge which would provide adequate surpluses so that the undertaking as a whole earns a proper rate of return. What this proper rate of return is we discuss in a later section.

6.16 One other question that assumes considerable practical importance in tariff making is that costs of different streams of traffic vary, not so much because of the special nature of the traffic but also for historical reasons. For example, we find that in India we have three gauges on the Railways - the result of the special

history of railway development in the country - and the cost of providing the services varies according to gauge. The services on the broad gauge are not only better and faster, but also cheaper to provide; while those on the metre gauge - and certainly on the few narrow gauge sections - are costlier and poorer. But any attempt at charging higher tariffs on the metre or narrow gauge services is bound to evoke adverse reaction. Certain sections and regions of the railway net-work have a larger proportion of MG and NG routes; and the users can naturally ask why they should be discriminated against. It is not their fault, they would say, that in decades gone by, it was considered more prudent or more economical by the powers that existed then to construct MG or NG lines in their areas. A similar question is posed by different types of traction. Though steam traction is being replaced by diesel and electric traction, because of the high capital costs involved, the progress is slow and it is only by 2000 A.D. or so that almost all steam traction would be replaced. In the meanwhile, steam traction continues to be very costly as compared to diesel or electric traction. If, however, streams of traffic which are hauled by steam traction are attempted to be charged higher prices because of the higher cost incurred by such traction, they are bound to protest, stating that it is not their choice to be hauled by steam traction.

6.17 A third aspect is that some routes would have high traffic density, and there the cost of operation may be much lower than that on those with less traffic density. Leaving aside the practical difficulties in continuously distinguishing between high and low density sections, a practical question is whether, by charging higher tariffs on low density sections on the ground that the costs are higher, we shall not be reducing the traffic density on those routes further and thus adding to costs. This discussion should sufficiently illustrate the complexity involved in tariff making in a large and complex utility like the railways with its own special

history and the public and political pressures as well as economic considerations which would make discrimination in tariffs according to varying costs difficult.

6.18 Another and far more important factor which has to be kept in view when thinking of the possibility of cross subsidization is that, with alternative modes of transport, especially automobile transport, being available the possibility of discriminating tariffs and indulging in cross subsidization on a significant scale is limited. We have already seen that the degree of competition offered to railways is limited; but even that degree of competition makes real discrimination difficult. Different streams of goods traffic could be made to cross subsidize each other provided that the streams which could bear high incidence have no alternative. What we are increasingly finding is that a large number of high value commodities, which in earlier decades could be made to pay a high tariff as they had no alternative means of transport, now take to roadways where no such discrimination is practised against them. The railways all over the world and so also in India are increasingly left with the task of carrying bulk traffic in a few major commodities. Such bulk traffic constitutes over 80% of the total goods traffic carried by Railways; and these are all commodities which are in the nature of raw materials or intermediate products. In the old approach to cross subsidization, it would be thought that they should be charged just the direct cost of carrying them and not more. But when they constitute over 80% of the traffic, how is it possible to earn the necessary surplus only from the remaining small proportion of high value traffic?

6.19 Similarly, when it comes to passengers, it is observed that the vast bulk of passengers are those who travel in the second class (ordinary), the lowest class of accommodation provided by the Railways. They have always provided a large proportion of the railway passenger revenues. In 1978-79 they constituted 91% of originating passengers and provided 41% of Passenger revenues. While one can certainly discriminate in their favour and against the better off passengers by charging the latter tariffs higher than the cost for upper class accommodation, their number and contribution to total



revenues being small, the possibility of using the principle of discrimination for providing any significant relief to second class (ordinary) passengers is limited. It has thus to be recognised that, if an undertaking like railways is to pay its way, a large part of the cost of running it has to be borne by its major users, a small number of bulk commodities on the goods side and the second class (ordinary) passengers on the other. The idea that higher value commodities and upper class passengers can be made significantly to share the burden for providing subsidized transport to these earlier mentioned streams of traffic is an unrealistic one. This fact needs to be stressed because, unless this is understood, considerable misconceptions and unreality will continue to dominate public thinking regarding the tariff policy on the Railways.

#### Expected Rate of Return

6.20 One of the points which has to be considered in determining the appropriate level of tariffs is the rate of return or profits which should be assumed as appropriate for an undertaking like the Railways. Obviously, tariffs should not be so formulated as to ensure a particular rate of return or profit under all circumstances. It should be related to a certain level of efficiency so that, only when that level of efficiency is attained or maintained, it should be possible for the undertaking to make the profit at the recommended levels of tariffs. Because we are dealing with a situation of semi-monopoly conditions with regulated or administered tariffs, the rate of return at an appropriate level of efficiency has to be built in the tariff structure. It is obvious that, whether the undertaking like Railways is owned by Government or not, it cannot be permitted to make excessive profits. Profit maximisation cannot be accepted as the goal of tariff policy. What has to be considered is what can be accepted as the appropriate rate of return in an undertaking like this.

6.21 We have already seen that the Government, on the advice of the Railway Convention Committee, fixes a rate of "dividend" which is expected to be paid by the Railways on the Capital-at-charge, i.e., the capital that is invested in the Railways by the public exchequer. The Railways have been expected in the past to earn a surplus over and above the amounts required for paying such dividends. These net surpluses have been utilised, when available, for building up the Development Fund and the Revenue Reserve Fund. There has however been no clear understanding regarding how much such net surplus the Railways should earn in a normal year with adequately efficient operations. The failure to provide such an objective or to make any such assumption has, to some extent, resulted in the tariff structure being left somewhat rudderless, without a clear objective. Such lack of direction or clear understanding, combined with deteriorating efficiency, has resulted, as shown earlier, in the Railways not only not earning the surpluses to contribute to the Development Fund and the Revenue Reserve Fund, but not even earning enough always to pay the dividends. Therefore for some years in the recent past, the Railways were in the peculiar position of having to borrow from Government in order even to pay the dividend\* which is regularly

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\* It may be noted in this context that, following the Report of the Expert Group on Capital Structure, the Railway Convention Committee has decided that "the existing arrangement of the Railways taking temporary loans from the General Revenues to meet shortfalls in dividend payment may be discontinued with effect from 1.4.1978. In years in which the net Revenue of the Railways is not adequate to meet the current dividend liability, the shortfall in the payment of the current dividend liability shall be treated as a deferred liability on which no interest shall be charged. The deferred dividend liability shall be paid from out of the surplus available with the Railways after meeting the following:-

- (i) Interest due on the outstanding Development Fund loan.
- (ii) Meeting the expenditure on works chargeable to Development Fund."

(Railway Convention Committee (1977), Fifth Report, Lok Sabha Secretariat, February 1979, para 103).

On the basis of this recommendation, the Railways have already opened what is called the "Deferred Dividend Liability Account". As the actual payment of dividend is now limited to the net revenue available, the shortfall is being transferred to this new account. The implication of this apparently is that the Railways can get away without earning a dividend; but obviously, this is neither desirable nor would it be accepted by Parliament for long.

due to the Government, and also to resort to further borrowing for undertaking the expenditure which has to be incurred from the Development Fund. This is obviously not a desirable state of affairs. It is necessary that whatever tariff policy is adopted for the future, it should be based upon a clear understanding of what rate of surplus the Railways should aim at in a normal year.

#### The Position in other Public Sector Undertakings

6.22 When considering the question regarding the appropriate rate of return, it will be useful to take into account the general guidelines laid down by the Government and the policy advocated by bodies like the Planning Commission in this context. The Planning Commission in its latest Draft Sixth Five Year Plan document had pointed out that "\*In determining administered prices a fair return on investment should be allowed. However, the impact of increases in administered prices on the general price level has to be taken into account, and the timing of price adjustments should be carefully determined so as not to aggravate a general upward movement in prices". In the same document, the Commission also pointed out that mobilisation of resources from public enterprises would involve\*\* "raising returns from public enterprises.... through improved efficiency and appropriate price adjustments." In the "Guidelines for price fixation" issued by the Government of India (Ministry of Finance) in September 1976, it had been recommended that "the rate of return in general should be calculated on the net worth of a company (e.g. share capital plus free reserves) rather than total capital employed". The guidelines recommended that the rate of return should consist of two components:-

- (a) a basic minimum which would be uniform as between industries, and

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\* Page 9 "Draft Sixth Five Year Plan 1978-83, Revised"  
Government of India, Planning Commission, 1979.

\*\* ibid, page 13.

- (b) an additional variable component which may be varied from industry to industry depending on differences with respect to factors such as risk, priority, growth prospects, need for internal generation of funds, degree of obsolescence of capital stocks and capital structure including reserves. The guidelines recommended that "the basic minimum component of the rate of return may be equal to the going rate on bank deposits of five years' duration".

An earlier version of the Draft Plan had specifically stated that the return from investments in Central and State enterprises should be raised to a post-tax level of about 10%\*

6.23 No specific guidelines have been issued in respect of the overall surplus which the Posts & Telegraphs Department of the Government of India is expected to earn. The Department had obtained loans from international agencies for expansion in the Tele-Communication services. The World Bank had expected a minimum return of 13% on the capital employed when considering the loan requests.

#### Return expected from State Electricity Boards

6.24 State Electricity Boards constitute some of the large public utility concerns in the country. The financial objectives set for them may therefore be considered to be of some relevance in our context. The Electricity (Supply) Act, 1948, which provided for the constitution of SEBs, indicated in a general way the financial returns expected from the SEBs. Under the Act, SEBs are expected to earn a reasonable surplus after meeting all the expenses. The level of surplus to be generated has however been left to be determined by the individual State Governments. A Working Group on Price Policy set up by the Planning Commission in 1962 suggested a return of 12% on the capital employed in the SEBs. In 1964, the Venkataraman Committee appointed to review the working of the SEBs suggested a return of 11%, consisting of 6% by way of interest, 1.5% as electricity duty, 0.5% for contribution to general reserves and a net surplus of 3%. For purposes of granting loans to SEBs, the World Bank had stipulated a return of 9.5% on the average capital employed.

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\* "Draft Five Year Plan, 1978-83," Planning Commission, Government of India, April, 1978, para 1.53, page 8.

6.25 It may be interesting to note that the financial performance of the SEBs has not been satisfactory. As at end of 1974-75, the unpaid interest accrued over the year amounted to Rs.338 crores. The analysis of the financial results of the SEBs for the year 1975-76 revealed that, meeting the interest liability amounting to Rs.297 crore net deficit from the working of the 18 SEBs amounted to crores (surplus of Rs.7 crores by three SEBs and deficit Rs.129 crores by the others). After allowing for interest on other loans, the net surplus of all the 18 SEBs amounted to Rs.56 crores, giving a return of 1.3% on the total Government loans of Rs.4179 crores.

#### Port Trusts

6.26 The Commission on Major Ports appointed by the Government of India under the Chairmanship of Shri R.Venkataraman, in its Report submitted in June, 1970<sup>\*</sup>, made certain recommendations regarding the rate of return expected from major ports. The Commission observed that, while the earlier Port Trust Act stipulates that the Port Trusts should aim at meeting all the financial obligations such as working expenses, depreciation, interest, etc., no specific objectives on the rate of return to be aimed at have been provided. The Commission thought that, probably on account of this factor, many of the ports attempted only to balance the budget and took only an ad hoc view in respect of future liabilities. Beyond matching revenues with expenditure, their managements pursued few other financial objectives. The Commission considered at length whether the ports should continue to operate on a 'no profit no loss' basis as in the past, or should attempt to raise surpluses to finance a part of their development programmes, while keeping in view the public interest. The Commission thought that a clear enunciation of the financial objectives was necessary for proper management of the ports.

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\* "Report of the Commission on Major Ports, Vol.I, June 1970" Government of India, Ministry of Shipping & Transport.

In the absence of any such directive, the Ports' Managements have not been forward-looking and had not provided facilities in anticipation of the traffic development at their Ports. The Commission also observed that the managements did not take proper steps to improve operational facilities and efficiency. For creating adequate facilities and cushion in port capacity to take care of peak requirements, the Commission thought it necessary to prescribe definite objectives for the ports to create enough surplus funds which would cover depreciation, current costs of maintenance of assets, payment of interest and contingencies as well as future development. The Commission took into consideration the fact that the Government had prescribed 9.5% (excluding 1.5% Duty) as the rate of return for Electricity Boards. Taking into account the differences in the financial pattern of the Port Trusts, the Commission recommended that a minimum of 12% rate of return on the capital employed should be set as the financial objective for major ports. The Commission also observed that, on account of the impact of inflationary tendencies, the burden on port finances for replacement of the assets had also increased considerably. The Commission observed that provision of depreciation on the historical cost basis would fall short of the requirements for replacement. Taking this into consideration, the Commission observed that a rate of return of not less than 12% on capital employed would help provide for interest and other obligations in the following manner:-

- 6% towards interest charges;
- 3% towards replacement, rehabilitation and modernisation of the capital assets;
- 3% towards reserve for development, repayment of loans and contingencies;

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Total 12%

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#### The Performance of Central Government Public Sector Enterprises

6.27 It may also be of interest to look at the performance of the public sector enterprises in the recent past. As at the end of 1976-77, there were 176 public sector undertakings\* under the

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\* These relate to corporate enterprises, data for which are published by the Bureau of Public Enterprises, and exclude banking companies and departmentally run commercial enterprises.

control of the Central Government with an investment amounting to Rs.15,602 crores. Information on the performance of the operating enterprises for the last five years is presented in Statement 6.1. The profitability ratios of these enterprises\* are shown below:-

Year	Cross profits (before interest and tax payments) as % of capital employed.
1974-75	8.4
1975-76	7.6
1976-77	9.4
1977-78	7.5
1978-79	9.8**

Taken together, these undertakings earned a return of 9.8% on the total capital employed before payment of interest during 1978-79. The return earned by enterprises producing goods amounted to 8.9% on capital employed, and that by enterprises rendering services amounted to 9.9%. The rate of return on capital employed earned by different groups of enterprises varied from 2% to 22% in the case of those producing goods, and from 2% to 13% in the case of enterprises producing services (See Table 6.1).

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\* Running Enterprises excluding insurance companies.

\*\* Excluding Coal India and its subsidiaries.

Table 6.1

Rate of return earned by Central Government  
Public Enterprises in 1978-79

	Gross profit to capital employed (%)
<u>I. Enterprises producing goods</u> *	
Steel	6.2
Minerals and Metals other than coal	5.1
Petroleum	21.8
Chemicals & Pharmaceuticals	3.0
Heavy Engineering	6.4
Medium & Light Engineering	13.5
Transportation Equipment	6.0
Consumer goods	1.8
Agro-based products	-
Total	8.9
 <u>II. Enterprises rendering services</u>	
Trading & marketing Services	13.1
Transportation Services	6.2
Contracts & Construction	6.4
Industrial Development & Technical Consultancy Services	3.7
Small Industries Development	2.2
Tourist Services	12.8
Financial Services	5.6
Total	9.9

\* Excluding Coal India and its four subsidiaries.

Returns in the Private Sector

6.28 To obtain a comparative understanding, it is also worthwhile to take into account the return on capital obtained by enterprises in the private sector. Of course, it is true that enterprises in the private sector are very diverse in character in terms of their size, nature of operations and managements. Moreover, to the extent that they are free to do so, the objective is to obtain as large profits as they can though, in view



of the possibility of adverse criticism from the public and in Parliament, they have to curb the profit maximisation tendency to some extent. For our purpose, it will be only useful to consider the record of the really large private sector enterprises. Of course, no enterprise in the private sector comes anywhere near the size of the Indian Railways; but then there are few enterprises in the world which will compare with the Indian Railways in terms of capital assets or in terms of the number of employees. Taking the large Indian private sector enterprises, it may be observed that the profitability of such enterprises in most cases exceeds 10%. If one takes the financial performance of a group of selected large public limited companies (415 in number)\*, we find that their gross profits as a proportion of total net assets were just above 11% in the three years 1975-76, 1976-77 and 1977-78. If one looks at individual industry groups excluding shipping, the gross profits varied between 5 and 24 per cent in these three years. In electricity generation and supply (there are a few private companies in this field), they were somewhat higher - between 11.8 and 12.2 per cent - as compared to the sample as a whole, while in shipping they were lower, varying between (as low as) 1.4% in 1977-78 and 8.5% in 1975-76. A study\*\* by the Industrial Credit & Investment Corporation of India of the financial performance of the companies with which it had dealings showed that, for the 417 companies included in the study, the return on capital employed (profits before tax plus interest as a percentage of net worth plus interest bearing debt) was 16.3% in 1977-78. During the period from 1973-74 to 1977-78, the largest number of companies (from 35 to 45 per cent) obtained a return of between 10 and 20 per cent, the next largest (between 16 and 24 per cent) less than 10%,

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\* Reserve Bank of India Bulletin, June 1979, "Finances of Large Public Limited Companies", 1976-77 and 1977-78, Table 6.

\*\* The Industrial Credit & Investment Corporation of India Ltd. Financial Performance of Companies - I.C.I.C.I. Portfolio: 1977-78, Bombay, 1979. Page 3.

and the next largest group (about 20%) obtained a return of between 20 and 30 per cent. The proportion of companies earning returns exceeding 30% varied from 11% and 16% of the 417 companies.

6.29 A recent study of industrial giants in the private sector made by the Economic Times\* shows that, of the 251 largest corporate enterprises in India, the largest number (almost one-third) had gross profits in relation to the total capital employed at 10 to 15 per cent in 1977-78 as well as 1978-79, some 17 to 22 per cent had profits ranging from 15 to 20 per cent, while another about 15% had profits exceeding 20%. It should however also be noted that, out of the 251 largest companies, the profitability (gross profits to total capital employed) was only between 8 and 9 per cent in companies whose total assets exceeded Rs.100 crores (there were 16 such companies).

#### Financial Performance of Major Foreign Railways

6.30 The differing accounting practices, the fact that foreign railways undertake a number of activities besides railway transport, and other such factors make a comparison of financial performance of different railways rather difficult. It may be useful nevertheless to have some idea about the financial working of major foreign railways. Information regarding the net surplus (deficit) of the major foreign railway systems during the year 1975, before provision for national income taxes but after interest payments, is given in Table 6.2.

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\* Economic Times, New Delhi, Thursday, March, 20, 1980  
Page 8, Table II.

Table 6.2

Financial Performance of Major Foreign Railways

(Figures in million US \$)

	Net income* (loss) as reported	Subsidies included in income	Net income* (loss) exclu- ding subsidies
<u>I. Privately owned systems</u>			
1. U.S. Class I Railroads:			
Excluding Antrak	317	152	165
Including Antrak	(36)	157	(193)
2. Canadian Pacific Ltd.	353	70	263
<u>II. Government owned systems</u>			
3. South African Railways	(141)	30	(171)
4. Canadian National Railways	(168)	269	(437)
5. British Railways	11	829	(818)
6. Italian State Railways	(1188)	1252	(2440)
7. French National Railways	(265)	3114	(3376)
8. Japanese National Railways	(3027)	649	(3676)
9. German Federal Railways	(1665)	2386	(4051)

\* Net Surplus

Source: "A Survey of Railroads of selected industrial countries", prepared by Union Pacific Railroad Company, September, 1977, page ix.

6.31 It will be observed that even after taking into account government subsidies, only two railway systems were able to earn net surpluses, while a third system earned only a nominal surplus during 1975. All other systems incurred losses ranging from \$36 million to over \$3000 million. After excluding government subsidies, only two railroad systems have generated net surpluses, while the deficit suffered by other systems varied from \$171 million to more than \$4 billion. Apart from subsidies directly included

in income, certain systems received grants. Inclusive of all such subsidies, it is interesting to note that subsidies ranged from around 3% of the total revenue to over 60%.\*

6.32 In this connection, it is also interesting to note that the Soviet Railways, in spite of their excellent physical performance in most parts of their history, used to make losses for a long time as a result of the rates not always being increased in relation to the cost increases. As would appear from the following table, in financial terms the Soviet Railways used to be in the red upto 1950, or so:-

Table 6.3

Soviet Railroad Payments into, and Receipts  
from, the State Budget, Selected Years 1940-62 \*\*

(in millions of Rubles)

Item	1940	1950	1955	1960	1962
Railroad Profits paid to USSR budget	301	388	1629	2394	2817
Budget grants to the railroads	449	1011	942	824	730
Balance of rail contribution	-148	-623	687	1570	2087

\* In this connection it may be of interest to note that the American Interstate Commerce Commission considers a return of 10.6% on net investment to be the necessary earnings level for individual railroads to maintain adequate service. However, the industry's rate of return has not been more than 1.6% for the past four years and has not exceeded 4% for the past 20 years. (International Railway Journal, October 1979, Page 25.)

\*\* Soviet Transport Experience: Its Lessons for Other Countries, 1968, Holland Hunter, The Brookings Institution, Transport Research Programme, Washington, D.C.20036, Page 69, Table 7.

It is only since then that the Soviet tariffs policy is so devised that a positive financial return is obtained. It has been stated that, in 1967, the rate of profit with regard to fixed and current assets on the Soviet Railways was about 14%\*. The Soviet price system is however in many respects different from ours, and this has to be kept in view when understanding their position.

#### Expectation on the Indian Railways

6.33 In the early years of the development of the Railways, it was expected that a project, after meeting the cost of operation, repairs and maintenance, depreciation and interest charges should generate a 'fair' margin of profit. In 1937, the Wedgewood Committee made a critical comment that the capital expenditure on the Railways had been on too lavish a scale. Following this, a net return of at least 10% was prescribed.\*\* The Railway Convention Committee of 1949 recommended a return of 4.25% on the basis of the dividend rate of 4% in force at that time. This was reviewed by the Railway Convention Committee (1954), which raised it to 5%. Currently a net return of 6.75% on investment is considered appropriate. Alternatively, a return of 10% by Discounted Cash Flow method is taken as adequate to justify a new project.

6.34 Keeping in view all these various factors discussed above, a rate of return of 10% on the capital invested in the Railways may not be considered inappropriate. This rate would be inclusive of the dividend but exclusive of depreciation. As the Railways being a department of the Government do not pay any taxes, the question of post-tax return does not arise.

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\* USSR Railway Transport by F.Mulyukin & V.Kulikov, Novosti Press Agency Publishing House, Moscow, Page 24.

\*\* See "Memoranda for the Railway Convention Committee, 1954" by Financial Commissioner for Railways, P.65.

Why Earn Profits

6.35 A point that may be raised in this connection is whether a public utility undertaking like the Railways should at all aim at making a profit over and above fulfilling the obligation to pay dividend on the capital invested by the Government in them. As mentioned earlier, it has always been understood that the Railways as a commercial undertaking should earn a surplus over and above the dividend paid by them. Balances could be built up in the Development Fund only if this happened, even if we assume that the Revenue Reserve Fund was merely meant as a fund for balancing the earnings of good and bad years. A further and important point which should not be overlooked in this context is that India being a poor country, with capital as one of the very scarce of its resources, it is obviously undesirable not to earn an appropriate surplus on the capital investment. The scarcity value of capital or the real rate of interest is surely much higher in India than the rate at which Government borrows money from the money market or the dividend rate prescribed. A tariff policy for Railways which assumes a rate of return which is very low can therefore be considered inappropriate in that it would encourage the additional consumption, through lower prices, of a service which uses a great deal of capital. There is no economic or social justification for this. Not insisting upon an appropriate rate of return on capital investment is also likely to encourage more use of capital than is justified. It is true that there are severe limitations on the extent to which the capital co-efficient can be varied in investments in a particular sector like the Railways. But there is no doubt that some variation is possible especially because the capital intensity in different projects and assets varies considerably. That is why, when examining new projects, an attempt is made to examine the possible rate of return on capital investment and an appropriate cut off point is decided so as to exclude projects which may waste capital in terms of the benefits that would accrue from them.

6.36 The fact that the Railways have not been earning surpluses for most of the years since 1966-67 has also resulted in some important works which should have otherwise been taken up from the Development Fund not being undertaken; and these included small capital works, and works on operating improvements which are non-remunerative but necessary. Even investments on improvement in services such as those on suburban sections, which were not found to be remunerative, could not be taken up as required. This does not mean that no investments of this kind have been undertaken. The fact remains however that, as such works could be undertaken only on the basis of loans from the General Exchequer and therefore depended upon the overall ways and means position of the Government of India, the allocation of resources for this purpose could not but be tardy.

6.37 In all modern commercial undertakings, it is understood as a fact of everyday life that one of the obvious ways in which an incentive can be provided to the management as well as the employees of an undertaking is by ensuring that it continues to grow and expand. A part of the funds for the growth and expansion of most enterprises has to come from its own surpluses and only the remaining from outside.

6.38 The study on the large public limited companies in India referred to earlier shows that internal resources contributed almost 48% of the total requirements of funds required by them. The internal resources as a proportion of new fixed assets work out to 77% in 1977-78; whether the enterprises actually use their internal funds fully or partly to meet their investment in new fixed assets is difficult to say.

6.39 In the case of public sector enterprises, data as at the end of 1977-78 show that the internal resources utilised by the 59 profit-making running concerns in the public sector amounted to 29.5% of the gross block including capital works in progress. This proportion was 26.57% for 60 enterprises at the end of 1978-79. While the proportion varied from company to company in the public sector, about 39 companies had an internal resources ratio of 30% or above.

Additional Earning Required - 1976-77

6.40 As explained earlier, the Committee has used the cost data for 1976-77 for the purpose of working out the tariff structure recommended by it. One difficulty which is immediately faced in our using the cost data for a past year, especially in a period of rapidly rising prices, is that the costing figures become out-dated in a short time. As we expect our recommendations to be considered and implemented in 1980-81, it is necessary that these data should be updated to the extent possible. It is obvious that this can be done only on a rough and ready basis. We had requested the Railway Board to compute, on the basis of actual cost figures available with them, the present day cost of carrying the same traffic as in 1976-77 with the same level of efficiency. An exercise was attempted by the Directorate of Finance (Budget) for this purpose. On the basis of this exercise, it was concluded that an escalation of 28.81% in working expenses would be necessary if the costs of 1976-77 are to be expressed in terms of the prices and charges which the Railways are expected to pay in 1980-81. In doing this, the price indices for fuel (coal, diesel and electricity) and for manufactured items have been assessed on the basis of data relating to the wholesale price index for February, 1980. The escalations in staff cost have been assessed on the basis of the cost per employee having gone up as a result of additional instalments of dearness allowance and the provision of what has been called the productivity-linked-Bonus. The Committee has also taken into account the expected impact of the awards given by the Tandon Committee on Reclassification of Artisan Staff and the Running Allowances Committee as well as one additional instalment of Dearness Allowance which may have to be considered on the basis of the price rise so far. As a result of these escalations, it has been observed that the total working expenses may be assumed to have gone up by a little over 30%. (For details, see statements 6.2 to 6.5.)



Additional Depreciation

6.41 It has already been explained in Chapter II that the Committee's review of the management of Railway Finances suggests that there are certain important elements where the actual costs incurred or provisions made are inadequate as compared to what is really required. The most important element in this is the provision for depreciation. The Committee has extensively examined this question in Chapter II. It has indicated why, in order to ensure that appropriate funds are available for carrying out replacements in a satisfactory manner so as to maintain the value of railway assets and ensure their efficient operation on a continuing basis, it is necessary that the annual provision made for depreciation should be substantially increased' as compared to what has been done upto now. As we have concluded there, we do not presume that our Committee is competent to lay down what exact methodology, what rate and what basis for computing depreciation should be adopted in future. We have suggested there that the Government should appoint an expert committee to go into this very vital matter as early as possible. It is quite obvious to us however that the provision that has been made in the past has been inadequate and that it' should be substantially increased. The phenomenon of accumulation of overaged assets already afflicts the Railways in a significant way; thus there is also a considerable back-log of depreciation provisions. An increase in the provision of depreciation is thus called for, both to ensure that a fair accounting provision is made so as to understand the real costs of using the fixed assets of the Railways and, at least to some extent, make amends for the inadequate provisions made in the past.

6.42 This latter is of special importance because, if replacement of assets is to be carried out from the Depreciation Reserve Fund on the need-based approach, the balances available in the Fund need to be augmented rapidly. As it is, it appears that even at the end of the current (Sixth) Five Year Plan there would still be a back-log of need-based

replacements. This obviously needs to be rectified. Taking all these facts into account we are, for the purpose of tariff making, assuming that a minimum provision of 4.7% of the value of assets as they are shown in the Block Account of the Railways needs to be provided as an immediate contribution to the DRF. While the actual contribution is a matter which will have to be decided by the Railway Administration after discussions with the Railway Convention Committee and we hope that the Expert Committee suggested by us will provide proper guidance to the Railways on this subject, it is our view that the additional provision assumed by us will be the very minimum that will be necessary for <sup>the</sup> purpose. On this basis, an additional provision of Rs.102 crores would have to be computed for 1976-77, as compared to the actual provision of Rs.135 crores which was made in that year and the total accretion of Rs.149 crores inclusive of contributions from the production units and interest on the balances.

#### Additions to Pension Fund

6.43 Similarly, earlier in Chapter II, we have pointed out why the appropriations that have been made upto now to the Pension Fund have to be treated as inadequate. This has also resulted in considerable arrears which have to be made up. For the present purpose however we are merely making a provision of an addition of Rs.14 crores to take care of the more liberalised pension payments. This is the least that can be done to understand the impact of the additional cost which the Railway Administration will have to incur in 1980-81 as compared to 1976-77.

#### Additions to Repairs and Maintenance

6.44 As regards repairs and maintenance, we have also pointed out the reasons why we think that the provisions that are being made <sup>in the</sup> Working Expenses on this account may have been inadequate and this might have seriously affected the Railways' working as well as the maintenance of the value of certain types of assets. We have however found it very difficult to quantify the extent to which there has been a gap between the actual provisions and the desirable ones. On the basis that, in 1976-77, the gap between the demands put forward by Zonal Railways on this account and the Budget

provision made was about Rs.7 crores, we are assuming that, even on a generous basis, an additional amount of Rs.10 crores would have been adequate to take care of the possible inadequacies in repairs and maintenance.

#### Total Additions

6.45 In all, therefore, our calculations show that, to the actual costs incurred in 1976-77 of about Rs.1950 crores, an amount of Rs.610 crores has to be added in order to arrive at the cost that would have had to be incurred if we allow for the escalation in costs and make appropriate provisions for some of the items where we think that the provisions did not reflect the necessary costs. The increase in costs taking all these into account comes to a little over 30%.

#### Additional Surplus

6.46 It has already been explained earlier that the Railways are required to pay a fixed rate of return called 'Dividend' on the capital invested in them from the public exchequer called 'Capital-at-Charge'. The rate at which this return is paid is determined from time to time. For our present purpose, we are assuming that this rate will continue to be the same in future, with at least all the exemptions that are already in existence. In fact, we are recommending some further exemptions, but we are not in a position to calculate the impact of those and we do not think that this is necessary for the present purpose. On that basis, the amount that was actually paid in 1976-77, viz., Rs.209 crores is what we should continue to assume as appropriate.

6.47 What appears to us inadequate, however, is the net return obtained by the Railways over and above what is paid by them to the public exchequer. We are discussing separately what we think would be an appropriate rate of return to be aimed at by the Railways on the capital invested in them. For reasons explained therein, it is our view that the Railways should earn, when they are working at normal

efficiency, a return of 10% on the Capital-at-charge. On that basis, the Railways should have earned an amount of Rs.453 crores instead of Rs.296 crores in 1976-77. As we are assuming that 1976-77 was a year of normal efficiency for the Railways, and we are basing our tariff structure on the basis of the appropriate costs as incurred by the Railways in that year for the traffic carried by them then, we think it only proper that our tariff structure should be such as to enable the Railways to earn this additional amount. To put it in other words, the tariffs to be suggested by us should be such that, if the Railways operate at the level of efficiency which they had attained in 1976-77, they should meet all their appropriate costs at the 1980-81 prices and earn a return on the Capital-at-Charge of 10%.

6.48 Totally, as the detailed computations given in Table 6.4 will show, the Railways will have to earn about Rs.770 crores more on the traffic carried in 1976-77. This is an increase of about 40% over the costs (including dividend) in that year. We are aiming in our recommendations for the tariff structure to permit the Railways to earn this extra amount, provided they carry the traffic and attain the level of efficiency as in 1976-77. The implication is that if they show less efficiency, they will earn less. If they carry less traffic for any reason, they would also earn less. If they show more efficiency and/or carry more traffic they will earn more. In this way, we satisfy the criterion laid down in our Terms of Reference that the tariff structure which we recommend should not be based on a 'cost-plus' approach.

Table 6.4

Estimates of Additional Earnings Required in 1976-77

<u>Items</u>	<u>Additional Amounts</u> (Rs.crores)
1. Price escalation	484.19
2. Appropriate Provisions	
2.1 Repairs & Maintenance	10.00
2.2 Depreciation Reserve Fund	102.47
2.3 Pension Fund	13.84
2.4 Sub-Total	126.31
3. Total (1+2)	610.50
4. Appropriate return	157.08
5. Total Additional Earnings Required (3+4)	767.58
or, say	770.00

Details are given in Statements 6.2 to 6.5

Development Outlay for the Railways

6.49 In the planning process as it operates in India, the Plan outlay for each major sector is decided by the Planning Commission in consultation with the concerned Ministry or State Government. For the Five Year Plan, the projected traffic requirements and the outlay required to meet these requirements, are estimated by the Working Group on Railways' Plan with which the Railways are closely associated. When the projected outlay for different sectors are put together, and it is found - as is almost invariably the case - that the projected outlays for all the sectors and the States put together far exceed the projected mobilisation of resources as well as the permissible extent of deficit financing, the Planning Commission attempts to cut down the outlays proposed for different sectors. It has not infrequently happened in the past that the proposed outlays have been reduced even though they were considered necessary to attain the projected physical targets.

6.50 Data about the outlays suggested by the Railways, those recommended by the concerned Working Groups and those finally approved by the Planning Commission in respect of different Five Year Plans and some Annual Plans, <sup>to</sup> the extent available to us, are presented in Statement 6.6. As has been already indicated earlier in Chapter IV (Table 4.5), the proportion of total outlay on the Railways, though it was high in the initial Plans, has been on the low side in recent Five Year Plans. The difference between what the Railways or the Working Groups considered necessary and what the Planning Commission finally approved has been very large in the last two Plans. For the draft Sixth Plan, as against the Working Group's recommendation of a need-based outlay of Rs.6265 crores, the Planning Commission has tentatively approved an outlay only of Rs.3400 crores. It may be noted in this connection that the Railways themselves had suggested only an outlay of Rs.4700 crores, probably because the authorities felt that, in view of the poor financial performance of the Railways in recent years as well as the overall financial constraints, to expect anything more than this amount would be unrealistic.

6.51 To the extent that an undertaking can generate resources from within by an appropriate price policy and **maintaining good efficiency**, the possibility of it securing sanctions for a larger outlay should surely increase. In this context, it should not be overlooked that, though it is never officially admitted, at least in the Annual Plan discussions if not when setting the five year targets, the extent of internal mobilisation receives attention when the Plan outlay is being discussed between the Planning Commission and the sectoral authorities. We also think that it is only proper that a certain addition by way of the facility for expansion should be provided to an enterprise if it does well by way of internal mobilisation of resources. This would act as an incentive for it to pursue the right price policy and also to ensure operating efficiency. Such provisions exist even in a more rigidly planned economy such as that of the Soviet Union. In our context, where planning is subject to so many changes due to the existence of a mixed economy, the inadequacy of regulatory instruments and political and economic changes and compulsions, it is even more necessary to provide such an incentive.

6.52 From this point of view, we cannot but express our disagreement with the approach hinted at by the National Transport Policy Committee that the allocation of investment resources to different nodes of transport need not be related to the surpluses generated by these nodes of transport.\* The Railway authorities can hardly have any incentive

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\* cf. "...no large scale investments, in general, in such transport projects should be undertaken as are not economically viable on a long-term basis. The economic viability of a project must be assessed by taking into account all its costs and benefits." This is unexceptionable. But ~~when~~ the Committee says, "...in a planned economy where inter se investment priorities are determined on larger socio-economic considerations, no meaningful purpose can be served by relating revenue from each transport service to expenditure incurred on it by Government." (Para 4.1.3). If this is related to current budgetary revenue and expenditure of the Government, it is understandable. But surely it cannot be valid about investment decisions. Unless one assumes an omniscient and fool-proof-in-predicting planning agency, some allowance to revenue earned must be given in making investment decisions, though social cost-benefit considerations have to be allowed for. The Committee has not made enough allowance for the morale of managements of particular transport agencies in laying down this proposition. This is not proper. Inadequate incentives to organisations play havoc with the efficiency and rational price behaviour of public sector agencies. This does not mean

to take the odium of ensuring a proper tariff policy nor will they have adequate incentive for improving efficiency if earning a surplus is unlikely to make any difference to the Plan outlay which they are permitted to undertake. To some extent, with a tariff policy which relates financial performance to appropriate levels of efficiency, earning of surpluses would definitely indicate both efficient performance and greater need for expansion. We therefore recommend that it should be possible for the Railways to be permitted larger outlays if they show better performance and thus earn a larger surplus. Of course, the internal resources can only form a part of the total outlay required, the latter being determined only partly by how much is internally mobilised, and largely on overall considerations of economic development and the role of railways in it.

#### Appropriate Rate of Surplus

6.53 In any case, the Railways being the largest single investment of the Government of India, and one of the oldest enterprises, it is only proper that it should at least aim at earning a surplus at the rate of 10%. The justification for this view is explained earlier (paras 6.22 to 6.34) where the

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#### \* Foot-note contd.

that all investment should be based on internal revenue generation. The Committee's approach, as further underlined by its statement (para 4.1.8): "Resources from railways are conventionally treated as a source of finance for the total Plan (emphasis added), not for financing the railways' own plan directly. We support this principle..." can - and in the past has - lead to an attempt by railway authorities not to make maximum effort to mobilise resources and this goes against the overall principles suggested by the NTPC itself. Of course, when internal resources are inadequate to carry out development on the scale required, they must be supplemented. The further statement that "if Government were to attach priority to railway development, it will not allow deceleration of rail development in the absence of inadequacy of internal generation of resources" (ibid) is perfectly justified. But what the NTPC has not made clear is the importance of maximising internal mobilisation to the extent, after considering all social as well as private costs and benefits, it is possible. We think, looking at the past and present experience of all public enterprises including railways, that this needs to be emphasised. Such an approach also makes considerable difference in the normal bargaining that is involved in any planning or budgeting process.

(Report of the National Transport Policy Committee, Government of India, Planning Commission, 1980).

approach suggested by the Planning Commission and the Ministry of Finance, the recommendations and record regarding other public utility enterprises in India, and the actual record of public sector and private sector enterprises has been outlined. In view of this, and as the Railways do not have to pay taxes, a return of 10% on capital, as earlier suggested by the Planning Commission, would be justified. This would also satisfy the criteria suggested by the Ministry of Finance.

6.54 Of course this return of 10% should really be related to the value of capital assets rather than the Capital-at-charge. As explained in Chapter II earlier, however, because of the way in which the Railway accounts are kept, a full-scale picture of the net value of assets even on a historical cost basis is at present not available. The better known definitive figure is that of the Capital-at-Charge. For the time being therefore we may aim at the Railways obtaining a return of 10% on this amount. Looking at the difficulties even in earning such a return in the recent past, this itself would be a useful achievement. In future, as the situation improves, and also when the accounting procedures are revised as hinted by us earlier, the rate of return could be more properly related to the net value of assets. On this basis, with the Capital-at-charge as in 1976-77, the Railways might have been expected to earn about Rs.450 crores. Excluding the dividend paid which was about Rs.210 crores, this surplus, if earned, would have left a balance of Rs.240 crores which would have been available for development outlay through contribution to the Development Fund etc.

6.55 We have already seen earlier that, in our view, contribution to Depreciation Reserve Fund in the year 1976-77 should have been of the order of about Rs.237 crores. Including interest on the balance in the Fund etc., the total accretion to the Fund would then have been of the order of Rs.250 crores. On this basis, and including net funds available from the Pension Fund and certain types of capital expenditure net from revenue, the total amount of internally generated funds available as mobilised resources for further development outlay



would have been over Rs.500 crores\* See Table 6.5)

Table 6.5

Internal Generation of Resources - 1976-77(Adjusted)\*\*

(1)	(Rs. crores) (2)
1. Accretion to Depreciation Reserve Fund	251.22
2. Net contribution to Pension Fund	23.54
3. Surplus after dividend	244.32
4. Capital expenditure charged to Revenue	17.08
Total	536.16

\*\* Adjusted to represent appropriate provisions for Depreciation, pension and return on capital. Details are given in Statements 6.4 and 6.5.

Mobilisation for Future Outlay

6.56 We have already explained in Chapter IV why, in our view, the development outlay of the Railways over the next twenty years would have to be of the order of Rs.36,000 crores at 1977-78 prices. We expect that this outlay should be incurred in such a manner that in the first year of the 20 year period, it is about Rs.1000 crores, increasing at about 6% per year and reaching about Rs.3000 crores per annum in the 20th year. It has already been explained earlier that, in our view, this outlay is the minimum that will be necessary if the Railways are to fulfil the task that they are called upon to do in the development work of the country. We have already indicated that the physical targets envisaged by us appear to be reasonable in view of the projections made by the National Transport Policy Committee. In fact, if the substitution of certain types of road transport by rail transport takes place according to some of the assumptions

\* The present calculation shows an additional generation of Rs.536 crores. This is what the proposed tariff policy would yield, if the efficiency is at the 1976-77 level, input-output relations are as of that year, and so also traffic; and if the various assumptions in proposing the actual tariffs suggested prove to be valid. There is a large area of assumptions here; and a cushion of Rs.36 crores is not too large to take care of it.

projected by the National Transport Policy Committee, the Railways will have to expand their facilities much faster. In any case, it would be safe to assume that the outlay envisaged by us will have to be incurred at the very minimum. <sup>As</sup> ~~the~~ has already been indicated, this outlay was expressed in terms of prices of 1977-78. Applying the necessary escalation, taking into account the increases in the prices of some of the more important materials involved in creating capital assets of the Railways, it is calculated that the initial year's outlay at ~~1979-80~~ <sup>1980-81</sup> prices would amount to Rs.1250 crores. The first year of the 20 year period would require an outlay of this magnitude. This may be compared to the tentative plan outlay of Rs.650 crores suggested in the 'On-Account' budget for 1980-81 recently presented to Parliament. An addition of at least Rs.600 crores to this may thus be necessary if 1980-81 has to be treated as the first of the 20 year programme envisaged by us.

6.57 We have provided data in Statement 6.7 about the internal mobilisation of resources, expected and realised, for certain Five-Year and Annual Plans. This would show that, except in the First and Fourth Five Year Plans, the expected contribution from the Railways was below 40% for the Five Year Plans and usually below 50% even in individual Annual Plans. To come to the more recent past, it may be noted that the Fifth Plan initially expected about 33% internal mobilisation from the Railways. For the four years of the Fifth Plan taken together, the Railways show in their accounts that they have generated about 47% of the capital expenditure. However, in this period the Railways were unable to earn surpluses enough even to pay dividends during some years; they had to borrow from the General Exchequer for that purpose. The net result was that, in the four years of the Fifth Plan, the Railways' real internal

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\* See Report, op.cit., paras 3.8.2 and 3.8.3. Also cf. "The utilisation of assets (on railways) have improved over the years, traffic densities increased many-fold and most of the trunk-routes are working at saturated levels. There have been frequent shortages of rail services, particularly in the recent past, with bottlenecks appearing in the system. There is thus need to provide resilience in the rail system to meet changing patterns of traffic and sudden spurts in demand. This would call for an increased investment in the system to enable the railways to meet the demand. Investments are, indeed, a determining factor for the future of the railways for their development" (Para 9.33.2).

mobilisation proved to be only about 10% of the total Plan outlay.

6.58 The financial situation of the Railways was better in 1976-77. Following this, the Draft Sixth Plan assumed internal mobilisation (at existing fares and freight rates) of about 25% of the total outlay. In 1978-79, the Railways contributed about 43% of a development outlay of Rs.522 crores from their internal resources.

6.59 We were hoping that we shall be able to secure some guidance from the Planning Commission and the Ministry of Finance regarding what would be an appropriate assumption to make regarding internal resource mobilisation by the Railways for the future, especially in view of the fact that it appears likely, both according to our computations and the approach taken by the National Transport Policy Committee, that the outlay on the Railways will have to increase substantially. Unfortunately, we received no such guidance. We have therefore thought it best to assume that the Railways may be expected to mobilise 40% of their development outlay from internal resources, 60% being contributed by the General Exchequer. This 40% will include the use of funds from the Depreciation Reserve Fund, Pension Fund, etc. The Railways would on this basis be called upon, in the initial year, to mobilise an amount of Rs.500 crores out of an outlay of Rs.1250 crores.

6.60 As per the calculations made by us and indicated in Table 6.5, through additional depreciation, net accretions to the Pension Fund and the surplus remaining after payment of dividend, the Railways will be able to contribute over Rs.500 crores for development outlay, provided the total earnings of the Railways are increased by about Rs.770 crores at the 1976-77 level of traffic and efficiency. In making this calculation, we have taken the cost escalation between 1976-77 and 1980-81 into account, and we have also made the necessary extra provision for contribution to DRF, some more repairs and maintenance expenses and a larger contribution to Pension Fund. Out of the total earnings inclusive of the extra earnings of Rs.770 crores, after deducting the additional expenses as explained above, a sum of over Rs.500 crores would be available as mobilisation for developmental outlay.

Extra Earning to be Reserved for Development

6.61 While assuming that an amount of over Rs.500 crores would thus be available for developmental outlay, we hope that the necessity to make these larger amounts <sup>actually</sup> available for railway development will be realised. While the part of the additional earning which will go to the DRF will automatically become available for that part of the development outlay which is permitted to be financed from that Fund, that part of the additional earning which will assume the form of extra surplus after payment of dividend may merely contribute towards repayments of the temporary loans which the Railways have already incurred in recent years. As against this, the additional surplus can also be used to make up for the arrears in the DRF or the Pension Fund. If they are used for either purpose, and if no extra resources are made available for Railway development, then the essential purpose underlying our recommendation would not be served. Whatever the form it takes, unless the additional earnings are put to use for early development of the Railway system, they **will** not serve the purpose which we have thought essential.

6.62 Another point we would like to draw attention to is that upto now there has been an understanding that all outlay which is in the nature of new investment should be from capital resources to be made available by the Government except to the extent it can be brought under the purview of the Development Fund. If internal mobilisation is to become a permanent feature of Railway finances, and a part of their development is to be so financed, steps will have to be taken either to widen the scope of the works to be undertaken from the Development Fund, or to set up a Capital Reserve Fund which could be used for financing such work. Whatever the form, the main point that we would like to stress is that the additional earnings which the Railways would earn under the scheme of financing as we envisage it should not in the long run be merely used as a contribution towards improving the general ways and means position of the Central Government. In a number of discussions, we found that one of the underlying assumptions of many railway officials has been that, the Railways being a department of the Government, and with the tradition of new capital expenditure being incurred only from loans made available by the Public Exchequer, there was no reason for

the Railways to attempt to earn more as this additional earning would not necessarily be available for the Railways' own development. We have already pointed out earlier that such a conception can be a serious disincentive for Railway authorities to maximise their attempts at internal mobilisation. It is therefore essential that all steps necessary to remove such a misconception are taken and it is made quite clear that, if extra earnings are obtained in the manner suggested by us, they will be available for the further development of the Railways.

6.63 Though we have made it quite clear, it is worth reiterating that these extra earnings if they materialise would be possible only on the basis of the Railways succeeding in attaining and maintaining the level of efficiency and the quantum of traffic which had been attained in 1976-77. The Railways will succeed under the scheme that we are proposing in earning approximately Rs.770 crores more and spare over Rs.500 crores by way of internal mobilisation for development, only if they attain the level of efficiency and the traffic which existed in 1976-77. If they do better, their surplus of course would be larger. If they do worse, their surplus would be smaller. This will hold good for 1980-81. As further development takes place, and more outlay is undertaken, traffic will increase; but the basic relationship between inputs and outputs should not worsen, so that efficiency is at least at the same level as in 1976-77. Only then will the profitability of the Railways be maintained at the same level.

6.64 The other important implication of these assumptions is that the extra earnings that would arise would be essentially due to the new tariff rates in which the earning of the additional amount of Rs.770 crores is built-in. The earning of this amount therefore will have to be attributed to the tariff policy and cannot be claimed as directly or indirectly arising due to additional productivity. The Railways have already decided to institute a Productivity-Linked-Bonus for staff. This bonus is related to the performance in physical

terms for the year 1977-78. We have taken the financial implications of this into account when working out the total escalated costs as shown in Statement 6.3. It should thus be clear that the extra earnings that arise out of <sup>the</sup>tariff revision should be available specifically for the purposes of taking up further developmental outlay and not <sup>for</sup>any other purpose. The only claim to this extra amount is from the side of the users - existing and potential - of railway services or, in other words, of the national economy.

#### Implications for Tariff Structure

6.65 Once we come to the conclusion that the Railways should be enabled to earn Rs.770 crores more through tariff adjustments, the first question that arises is how this amount is to be distributed among the main streams of traffic carried by the Railways. Leaving aside miscellaneous sources of revenue, the two main revenue earning streams of railway traffic are goods on which freight rates are charged, and coaching which includes the carriage of passengers and also that of sundry traffic such as parcels. It will be seen from Table 6.6 given below that, in the recent years, coaching traffic has contributed about 35% of the total earnings from goods and coaching.

Table 6.6

#### Earnings from Goods and Coaching Traffic, 1974-75 to 1978-79

(Rs. crores)

Year	Earnings from goods Traffic (excluding wharfage and denurrage)	Earnings from Coaching Traffic	Total 2+3
1	2	3	4
1974-75	868.9 (64.3)	481.8 (35.7)	1350.7 (100.0)
1975-76	1095.7 (64.5)	603.5 (35.5)	1699.2 (100.0)
1976-77	1275.6 (66.0)	656.2 (34.0)	1931.8 (100.0)
1977-78	1298.6 (64.6)	711.8 (35.4)	2010.4 (100.0)
1978-79	1265.5 (62.3)	764.2 (37.7)	2029.7 (100.0)

Figures in brackets give percentage to total.

In more recent years, while passenger traffic has increased continuously, there have been some setbacks in goods traffic, and therefore the earnings from the latter have proportionately somewhat declined. This is however to be treated as a temporary aberration. The Railways are already taking steps to increase their throughput of goods traffic, and for 1980-81, a target substantially higher than the traffic carried in 1979-80 has been set. There are various ways in which the Railways are attempting to do this, and we presume that they will succeed. Some aspects of this problem we shall deal with in our Final Report. For the time being, we do not think that it would be wrong on our part to assume that, out of the total earnings from goods and coaching traffic carried by the Railways, about two-thirds should be earned by the former and about one-third by the latter. The income from coaching traffic has however not been adequate in the past to meet its costs. In 1976-77, costs exceeded income by about Rs.100 crores. Our tariff proposals are intended to make up this as much as possible, and enable coaching traffic to contribute its appropriate share of the extra earnings\*. Out of the additional earnings of Rs.770 crores, therefore, we expect that goods will contribute about Rs.500 crores and coaching over Rs.250 crores.

6.66 In formulating our proposals, we are also taking care to see that no stream of coaching traffic is carried at rates lower than the direct costs - including depreciation and dividend - of carrying it. The only difference would be that the goods traffic will be contributing proportionately more to generating the surplus that we consider desirable than coaching traffic will do. Even there, we are making proposals which would ensure that such streams in the coaching traffic as can bear a larger burden are made to contribute their

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\* This would also be in keeping with the policy suggested by the Planning Commission to give higher priority to goods than to passenger traffic (see, Draft Sixth Plan, op.cit., p.393)

appropriate share to earning a surplus for the Railways. We are also taking care to see that not all commodities in goods traffic are made to bear a larger burden for earning the surplus. But, in overall terms, goods traffic will contribute proportionately more to the surplus than coaching traffic. This has been happening in the past. It cannot be completely avoided.

6.67 Regarding the tariff rates for different streams of traffic, the general principle which we are adopting for formulating our proposals is that, except for very special reasons which we explain when we come to that particular item, no stream of traffic would be carried at rates which would, for that stream as a whole, not meet the total costs directly to be ascribed to that stream. As mentioned earlier, the contribution to surplus of each stream of traffic would however vary according to what that stream of traffic can bear.

6.68 For the goods traffic, it is proposed that there would be a basic Class 100 and the rate for this class of traffic would be such that, even at the maximum distance of 3000 kilometres, it would cover the fully distributed costs including the dividend. The classification for various commodities is so organised that the commodities which constitute the large bulk of the railway traffic are given percentage classification in terms of 100 which would make the Class 100 somewhat like a 'mean' of the goods traffic carried by the Railways. This would be different from the present position where the bulk of railway traffic falls under classes which are below Class 50.

6.69 When deciding tapering, as explained later,\*\* the terminal cost would be charged separately. For linehaul costs, the taper according to distance would be so adjusted that the reduction in the per kilometre charge for increasing blocks of distances would decline for Class 100 in such a manner that this decrease keeps pace with the decrease in the distance-wise cost index, especially beyond 1000 kilometres. At shorter distances, the decrease in charge does not decline with distance exactly in proportion to costs.\* One of the

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\*\* Paras 6.81 and 6.91 below.

\* In formulating our proposals in this respect, we have also kept in view the limitations of the cost data and analysis available to us, as explained in Chapter V above. Also see paragraphs 6.80 to 6.82 below.



objectives the Committee has firmly kept in view is the recommendation of the National Transport Policy Committee\* that, for shorter distances, motor transport would be more suitable in terms of overall resource costs, and that the Railways should concentrate more on medium and long-distance transport, except in the case of bulk commodities.

6.70 When classifying a commodity in relation to the basic Class 100, it is kept in view that in the case of commodities which are responsible for the bulk of the goods traffic on the Indian Railways, not only the total traffic in that commodity should cover the fully distributed costs for carrying that commodity including the dividend, but that **not** more than 10 to 20 per cent of traffic in that commodity should be carried at a rate which is lower than such costs. In any case, at almost all distances it should always cover the direct costs. The approach is somewhat more flexible when it comes to high value, high classification, or low value but marginal, commodities.

6.71 In the case of passenger services, our approach is that while revenue from ordinary train passengers should cover variable and dependent costs of these services, revenue from the Mail/Express services should not only cover their fully distributed costs but also make up the shortfall (between the fully distributed costs and the revenue) in ordinary services so that passenger services become self-supporting, i.e., meet their fully distributed costs at least when they are taken as a whole. A certain degree of cross subsidisation implicit in this is justifiable taking into account the difference in the quality of services provided and the socio-economic profile of the users. We find that almost everywhere in the world, local services corresponding to our ordinary trains do not pay their costs fully and are subsidised by Mail/Express services which serve medium and long distance passengers. The differentials in the fares for various classes of passengers and the amount of supplementary charges for superfast trains, sleeper facilities and the like have been fixed taking into account the additional costs and the higher standard of comfort provided, and the ability of the users to bear the charges.

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\* See Report of the National Transport Policy Committee, 1980, op.cit., paras 3.2.10 to 3.2.21.

6.72 To put it in percentage terms, it is clear that the total earnings from the carriage of coaching and goods traffic must increase by about 40% over the 1976-77 level. When it comes to individual streams of traffic, whether on the coaching or goods sides, except where there are special reasons therefor, the rate for every stream of traffic will have to increase by about 30% if the additional direct costs as calculated by us have to be met at the new tariff rates on the 1976-77 level of traffic and efficiency. The additional net surplus required will have to be found largely from goods. In the case of goods traffic, therefore, the rates for certain streams of traffic and at certain distances will have to be higher. For which streams of traffic and at what distances, the proportion of increase in tariff rates should be larger so as to obtain an overall increase of about 40%, is a matter that will have to be determined on socio-economic considerations and after examining what each stream of traffic can bear. This aspect will be discussed in detail when individual rates of coaching and goods traffic are examined later in the relevant chapters.

#### Uniformity of Tariffs

6.73 In view of the considerations which have been mentioned earlier (see 6.16 - 6.17 above), it is clear that even where the existence of higher actual costs on particular sections, or particular gauges, or means of traction can be established, it would not be appropriate to make a distinction in the tariffs to be charged. A further difficulty arises because of the fact that, while the costing analyses of the Indian Railways is in a far better shape today than it was at the time of the earlier Freight Structure Enquiry Committee, the analyses is still not reliable enough to base such tariff distinctions. It would not be appropriate to make major distinctions in tariffs on the basis of these costing analyses, especially when they go against certain generally established and accepted principles.

6.74 For both these reasons, the basic approach to tariffs which we recommend is that, barring exceptions which we mention further in this Report, the tariffs should be uniform over the whole of the Indian Railways for the same type of passenger accommodation or for the same type of goods.

### Station to Station Rates

6.75 There are two general exceptions to this which are already prevalent and which, in our view, need not be disturbed. The first is the practice of what are known as "Station-to-Station Rates". These are rates which are prescribed by Zonal Railway Administrations on commercial considerations. It is understood that such rates are quoted to attract high rated traffic even on congested routes. Really the idea should be that, if there are particular sections where traffic at the normal rates will be inadequate while a concessional rate will attract enough traffic to improve the economical working on that section, such a rate may be prescribed. It is obvious that the rate will not be lower than the long-term marginal cost of moving that traffic; because in that case the special rate will merely worsen the financial position. But if a section is underutilised or conditions exist in which a particular kind of traffic will become available in sufficiently large quantities at special rates, and this will enable more effective utilisation of track and other facilities on that particular section, the extra revenue earned may more than balance the extra cost that would be incurred and thus add to the total revenues. It is only on the basis of such analysis that 'station-to-station' rates should be mainly permitted. We accept this as a commercially sound practice which should continue.

### Inflation of Distances

6.76 Another practice that is prevalent is regarding the inflation of distances on sections where the gradients are specially high (steeper than 1 in 50). These are called the *Hill* Ghat Sections. It has sometimes been suggested that this logic of inflation of distances, or some other method of charging more on high gradient sections, should be applied to other gradient sections also.

6.77 We have had this matter examined fully. It may be recalled in this connection that, because the cost of construction of different Railway systems varied considerably, and because these had been administered by different

companies for long, varying charges were permitted to be levied on different systems taking into account their different costs of construction and operation as well as the density of traffic. When the question of bringing about uniformity of rates on the Indian Railways was taken up soon after Independence, it was found that there were at least 50 sections where inflated distance was the basis of charge. Six of these were hill sections where the gradient was steeper than 1 in 50; another six were on hill sections where the gradient varied between 1 in 50 and 1 in 100; and the remaining 38 were on sections where the gradient was 1 in 100 or more. The distances over these sections were inflated apparently because it was felt that the cost of operation on these gradients was higher than the normal cost of operation.

6.78 The question whether these special charges should continue was gone into in detail at the time when the proposal, that the inflated distances should be done away with and a uniform basis of charge introduced except on hill sections with gradients steeper than 1 in 50, was made. It was opposed on the plea that this would affect Railway finances adversely; that sections which were already uneconomic in their operation would become even more uneconomic. It was however felt that, except where the operating costs are distinctly high as in the Ghat Sections, the system of inflated kilometrage on isolated steep gradient sections would lead to anomalous situations, especially in view of telescopic freights and fares. If a section of, say, 20 kilometres was charged, say, at double the distance, i.e., 40 kilometres, the net effect of this additional kilometrage would be quite different on different streams of traffic according to whether the traffic originates at or near the gradient section, merely passes through it, or whether the gradient section comes at the end of the journey, and how long that journey is. Isolated sections being subject to inflation of distances would therefore lead to quite anomalous incidence on different streams of traffic.

6.79 We agree with the logic of the decision as it was taken then and has prevailed up to now. As a further check, we also had a cost computation made on some gradient sections. It was found that

the additional charge for such inflation would be very high for short distances while it would be nominal in the case of long distances. We also find that any such attempt would lead to considerable computational work, anomalous incidence and unnecessary controversies. As against this, the gain to the Railways in terms of the total revenue would be very small. We therefore recommend that the existing system of confining inflation of distances to the very steep gradients like Ghat Sections should continue.

#### Distance and Railway Tariffs

6.80 One question that usually arises in the case of the tariff rates that are charged by the Railways is whether the tariff should be uniform irrespective of the distances covered or whether they should vary with distance; and further whether the variation should be proportional in that the charge is uniform per kilometre traversed, or it should vary with the length of the distance.

6.81 Firstly, when it comes to cost-based tariff charges, it is clear that the tariff cannot be uniform irrespective of the distance traversed. While the cost of carriage may not vary in proportion to the distance covered it is unlikely to be the same whatever the distance. A distinction can be made in this respect between fixed charges which would not vary according to the distance covered and those which do so. In the former would be included charges for facilities such as booking, reservations, and other station facilities, the cost of maintaining and cleaning the trains, etc. in the case of passengers. In the case of goods, these will include the cost incurred for the booking of goods, the placing of wagons, the expenditure incurred for providing loading and unloading sheds, platforms and various related facilities. These-what are called Terminal Costs-would remain the same irrespective of the distance covered and therefore their incidence would decline per kilometre, the longer the journey performed. The other expenditure

includes the expenditure incurred for moving the train and therefore would cover the costs of traction, the most important of them being fuel, labour charges of the running staff, the costs incurred for running repairs and maintenance, the costs of staff employed for looking after passengers and, in the case of goods, costs that have to be incurred for reorganisation of trains in marshalling yards, transshipment costs where a break of gauge is involved and other similar costs incurred for the carriage of goods. Costing studies indicate that these - what are called linehaul costs - also decline with distance, per kilometre; in other words, the linehaul costs do not increase in proportion to the distance. They show a declining average cost\*.

6.82 In view of this tendency for average cost to decline with distance, to the extent tariffs have to be cost-based, they should also decline with distance. This is why we normally find that, in transport tariffs, there is a tapering of charges, i.e., the charge per kilometre declines at longer distances.

6.83 . Sometime it is suggested that there should be equal tariffs irrespective of distances. In the case of passengers, such a practice is prevalent usually in the case of journeys in a system of limited jurisdiction and distances, such as metropolitan rapid transit systems. Uniform fares for single journeys irrespective of distances traversed are common in many such systems all over the World. For no other type of passenger services is such a uniform fare system attempted or suggested. It is quite obvious to us that such a system for any other type of passenger travel has no justification and need not be considered further.

6.84 As regards passenger transport within metropolitan areas, one argument supporting a uniform fare is that this is administratively convenient and saves considerable inconvenience and cost both to passengers and to the railway system. A uniform ticket implies

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\* As mentioned in Chapter V, at present we have no data about the relationship between distance and linehaul costs in respect of passenger traffic.

that ticket issue as well as checking is far more convenient, cheaper and speedier; and mechanised or semi-mechanised - even automatic - ticket issue becomes much easier. We have examined whether such a system would be practicable in the suburban sections such as those in Bombay, Calcutta and Madras. We find that such a system would not be very economical in our context because the cost of labour in India, while gradually increasing, is still not as high as in the richer countries where savings on ticket issuing and ticket checking staff is a major consideration.

6.85 The other argument in favour of uniform fares is that a very large proportion of journeys undertaken in such metropolitan areas are from the place of residence to the place of work and back. People do not necessarily reside at longer distances from the place of work by choice. Many times the space near the Central Business District is already heavily congested and housing is available, especially for the poor, only at longer distances. Our Passenger Profile Survey (referred to later) also shows that the income distribution of passengers has no correlation with the distance travelled by them. On welfare grounds, therefore, it is suggested that there is no reason to charge people more because they travel longer distances. Metropolitan intra-city travel is need-based compulsory travel and the fare should therefore be uniform irrespective of distances.

6.86 This argument has considerable substance in it. But we cannot adopt it for two very practical reasons. The first is that, unlike in the underground metropolitan systems where such uniform fares are prevalent, the suburban sections developed in India are very much longer, the distance being as much as 121 kilometres on the Bombay suburban section and 144 kilometres in Calcutta. Moreover, the central business districts, instead of being in the centre of the systems with various lines radiating away from it, happen to be near a kind of one-side terminal, and a very large part of suburban traffic is along two or three railway lines largely converging

towards the business district terminal in the morning and away from it in the evening. If the fares are <sup>made</sup> uniform irrespective of distance, while ~~this~~ may help the distant passengers, it may put a very heavy burden on the nearer ones unless the system is heavily subsidised. We are discussing later the question of suburban fares and to what extent and in what manner it is appropriate that such travel may be subsidised. In any case, charging a uniform fare over such a long distance appears to us irrational. With a large number of unemployed and underemployed persons in the metropolitan areas, uniform fares would also lead to a tendency to undertake unnecessary journeys which at the moment, with the large overcrowding that the systems have to cope with, cannot be encouraged. We do not therefore think it proper to **suggest** uniform fares on our present suburban systems.

6.87 The difficulty that is specially faced by poorer persons coming from longer distances is taken care of in our context by charging relatively lower fares for longer distances for season tickets which is the normal form in which the regular commuters from longer distances pay for their journeys. We are recommending the continuation of this <sup>for the time being,</sup> system and we think that this is a much better way of dealing with the matter in our context.

#### Freight Rate Equalisation?

6.88 Regarding goods, the system of freight equalisation at least for certain basic commodities has been sometimes advocated. Some State Governments suggest - West Bengal forcibly pleaded this with us - that such a system should be applied in the case of raw materials which are only available in certain parts of the country. Their main point however was that a system of freight equalisation already prevails in the country today for certain commodities such as steel, cement and fertilizers, while it does not prevail in respect of others such as cotton or oil seeds. Their plea really was that either there should be no freight equalisation, or that it should prevail regarding all important raw materials.



6.89 As the National Transport Policy Committee has gone into this question thoroughly by having it examined through a Study Group, it is not necessary for us to go into its details. We agree with the conclusion of the Committee\* that there is no case for freight rate equalisation which in the long run merely distorts economics of location and leads to a wrong pattern of development. We should also emphasize that the Railways do not follow a policy of freight equalisation. Such freight equalisation as exists at present is being pursued by certain sectoral Ministries of the Government of India. It is not within our Terms of Reference to examine whether this is proper. We however agree that freight equalisation is not a suitable policy for a transport organisation like the Railways to adopt in normal circumstances and we make no such recommendation.

#### Tapering or Not?

6.90 One point that is sometimes made is that the tapering of rates with distance is somewhat akin to freight equalisation and that such a system handicaps industries located near sources of raw materials by taking away the locational advantage enjoyed by them. As against this, other interests contend that it is necessary in the interest of an integrated national economy that freight rates should not be pitched so high for longer distances that regions located away from principal sources of raw materials or markets are permanently handicapped. While freight equalisation may not be appropriate, it is suggested, the tapering should be such as would significantly reduce the handicap of longer distance goods movement.

6.91 In this respect, our view is that a transport organisation such as the Railways should in this matter be largely guided by cost considerations. It should ensure that it charges freight rates which as far as possible cover the costs of transporting commodities over different distances. With the distinction which we have already explained between terminal charges and linchaul

\* cf. "Given the effect on real transport costs this policy imposes, it appears to us that there is a case for phasing out existing freight equalisation schemes", (Report of the National Transport Policy Committee, 1980, para 5.3.3) Op.cit.,

charges, if the terminal charges are separately collected, the longer distance movement will certainly obtain some advantage, the cost due to terminal charges declining with distance. The cost data available to us suggests that average haulage costs also decline with distance\*. We are therefore recommending a system of tapering with distance which takes cognizance of the average cost curve declining with distance. The only other factor which we keep in view is the National Transport Policy Committee's recommendation that, in the national interest, the internodal split among different means of transport should be such that transport for medium and long distances should be by rail while that for shorter distances (except for bulk commodities) should be by road. We are therefore deliberately suggesting rates which taper more slowly than the costs for shorter distances while they taper more sharply at medium and especially for longer distances. At the same time, we are making sure that, even at the longer distances, the tapered rate is not one which does not cover at least the direct cost of haulage.

6.92 We also make a distinction between different commodities according to what the commodity can bear by way of freight incidence at longer distances. There are commodities whose longer distance movement cannot be avoided in certain contexts. Thus, though alternative sources of energy such as hydro-electricity, petroleum-based power and atomic power are being attempted to be developed in areas located far away from the main sources of coal in the country, such development is bound to take time and, in the meanwhile, coal has to be transported to these areas if their industries and other economic activities are to be sustained. Similarly, an industry like cement or fertilizers cannot always be economically located in all parts of the country while these products need to be used practically everywhere for economic development and functioning. While the green revolution is attempted to be brought about in a suitable manner in all regions, at least for sometime to come, some parts of the country will continue to remain the granaries for others, and foodgrains will have to be transported from these parts to other

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\* At least in respect of goods traffic

distant and deficit parts of the country. If such longer distance movements have to bear a freight charge which is very high, the economic development as well as the welfare of the people in those regions will be adversely affected. The advantage of having a common market for such a large land mass as is provided by the Union of India will to that extent be reduced. We therefore think it appropriate that in such commodities the freight charges should be such that, while they cover the direct costs of hauling these commodities, they need not contribute towards the surplus to be earned by the Railways equally at all distances. Some discrimination in favour of longer distances in such commodities may not be inappropriate. This can be made up by charging more on commodities which either do not have to move over such longer distances, or which can bear such incidence because of their comparatively high value. This is broadly the policy which we recommend and have attempted to follow in our proposals.

#### Export Traffic

6.93 It is sometimes suggested that, in order to assist the attainment of certain economic objectives such as export development, special concessions in tariff rates on exported commodities may be granted. This point is specially made by producers whose locations lie at distances far away from exporting points such as major ports. They point out that they have to suffer a special handicap as compared to producers in locations at or nearer to the exporting points. In the Indian context, it is emphasised that, because of the freight rate as well as other policies pursued under British Rule, economic and especially industrial development has been concentrated around the major ports of Bombay, Calcutta and Madras. The national policy now is to reduce such concentrations and develop industry in up-country locations. It is stressed that such development is handicapped as, to the extent that an export market is important for such industries, the competitive position of up-country producers is adversely affected by heavy freight charges. In view of the historical

inbalance that is existing in the country, and to further the national policy of balanced industrial development, we agree that some special consideration can be shown to up-country producers, located away from the ports, so as to improve their competitive position in export markets. The matter is referred to further when we deal with freight rate charges.

#### Special Rate for North Eastern States

6.94 Prior to the partition of the country in 1947, the rail transport requirements of the Eastern region were served by the Bengal-Assam Railway, and East Bengal Railway. The East-West lines of these railways served the needs of the present North-East Region comprising the States of Assam, Tripura, Meghalaya, Nagaland and Manipur.

6.95 With the partition of the country and the coming into being of East Pakistan, access to this region by railway was cut off and overnight the actual distances increased considerably. The Assam Rail link connecting Calcutta with Gauhati was constructed on a top priority basis, setting up a North South rail link along the Western borders of the erstwhile East Pakistan. This line joined the East West line running from New Bongaigaon, providing a route to the Eastern States.

6.96 Before partition, it was possible for traffic to move on the BG upto various termini on the west bank of the Padma river. Transshipment by ferry was then required and railway transportation was again available on the M.G. from a number of points on the eastern bank of the river. Instead of this, transportation is now provided by a railway line running almost along the periphery of the Bangladesh border and also involving a change of gauge at New Bongaigaon.

6.97 The transport requirements of Tripura, prior to partition, were looked after by the North-South M.G. line running along the Eastern border of the State. Partition, however, resulted in the railway line itself becoming the international boundary for a considerable distance - the line itself falling in the territory of Bangladesh. For every important junction on this railway line there is a corresponding town in the State of Tripura which was served by that railway station. This link was cut off suddenly.

6.98 For a few years after Independence, this line was available for Tripura; but for various reasons it was not considered possible or even desirable to continue the use of the railway line lying in a foreign country. In any case, the statutory requirements of customs checks and passports etc. and its verification at the international checkpost would have resulted in considerable increase in the time required for movement between any given points. Similar problems have been faced by other States in the Region since 1947 as a result of Partition.

6.99 The cutting off of the direct rail link resulted in considerable set back to the economy of the already backward states in the region. For example, rail transport is available by a long and circuitous route upto Dharnanagar, providing a 12 kilometres line in the State of Tripura. Beyond Dharnanagar, all traffic - both goods and passengers - has to move by road. The problem is further aggravated by the lack of adequate road facilities in the area. The urgent requirement of transport, however, resulted in speeding up the programme of road construction especially since 1962, under the Border Roads Organisation. But even this road construction is not quite adequate to look after the needs of the States. Transportation on these roads is further hampered <sup>by</sup> various special difficulties such as lack of strong bridges, or tendency towards land-slides. Hilly terrain of the area makes road construction and maintenance difficult. There are a large number of streams and rivers which cut off portions of the major highways during the rainy season, resulting in virtual isolation of large portions of the area.

6.100 Lack of adequate transport facilities has proved to be a major handicap in the progress of the region. The situation is further complicated by the fact that most of the States in the North-Eastern region are net importers of even basic requirements like food, building materials and fuel. With a long railway lead and uncertain road conditions during the monsoons, civil supplies become a major pre-occupation of the

State Administrations. As a consequence, developmental activities suffer. Lack of proper transport facilities are therefore blamed as a major handicap responsible for the comparative backwardness of these regions.

6.101 The States' administrations have represented that the long leads result in a comparatively high price for all materials reaching them, e.g., salt, food, coal, cement and other raw materials. Because of the high cost of raw materials, it is difficult to set up any industry in the area and compete effectively with other regions. In addition, the agricultural/horticultural potential of the region also cannot be exploited, since the markets are far away and the comparatively high incidence of freight results in non-competitive prices. Thus, growth of forest based industries has also not progressed adequately.

6.102 The natural markets for the produce of these States are mainly the business area in Calcutta and around. Thus, tea and jute have to find their way to these markets. Since freight constitutes an important constituent of the price of jute produced in Tripura, the producers get a much lower price than the producers in Bengal, who have an easy access to the jute factories in Calcutta. Similarly tea, which is normally auctioned in Calcutta, fetches a lower price for the producers of the North-Eastern region.

6.103 Tropical fruits, especially pineapples, are produced in large quantities in Tripura, and there are proposals to set up a number of canning factories. The price which these products command in the markets at Calcutta are adversely affected by the high incidence of freight. Similar problems are faced by other products of the area which have to be marketed in various parts of the country. Large quantities of bamboo are available in Arunachal Pradesh; and they are very much wanted by the paper industry in Calcutta. But the freight rates make their marketing difficult in competition with nearer sources. Another product of the region is timber of different types. With so much shortage of timber in the country, there is a good market available for it; but the very high freight charges handicap the marketing of the product.

6.104 In view of the peculiar problems faced by these States as a result of partition, the Indian Airlines are offering concessional fares for flights between Calcutta and various North-Eastern States. Even though these fares are concessional, they are obviously beyond the capacity of the majority of the people, who have necessarily to take the circuitous rail route. In any case, goods cannot move by air in any considerable quantities. Thus, commodities like steel, coal, cement, foodgrains, salt and other such materials, required for speeding up of the development of the region or for common consumption have necessarily to be moved by rail. The price becomes fairly prohibitive due to the long lead and transshipment.

6.105 All these problems have come up due to the partition of the country. It is perhaps unfair that the people of this region should be made to suffer on account of the increased cost of every commodity due to a situation which has been created due to factors over which they had no control. The long distances also add to a sense of isolation which people of this area feel. People from other regions also do not easily visit these areas, one reason among many others being the cost of the journey involved.

6.106 The Committee has received representations from the Governments of the States in this region which emphasise the handicaps from which the people of the region suffer due to both inadequacy of the railway facilities as they exist and operate, and the high costs of transport. The inadequacy of transport facilities and the frequent delays to which goods are subjected add to the difficulties as well as costs. In our discussions with various authorities in the region, it was stressed that serious problems are faced by people in this region both because their development is retarded and because even certain consumable items like salt are not always available adequately as a result of transport difficulties. This uniform plea made by the officials, political leaders, and others in the region has made a strong impression on us and

we urge that the Government must give early attention to these matters. The recent events in this area should have already indicated the urgency of the problem.

6.107 While it is not necessary at this stage for us to go into the question relating to the creation of better railway facilities and their efficient operation, we think it appropriate that the question regarding the tariff rates for transport to this region should receive our attention at this stage of our work. In this context, it may be recalled that the Freight Structure Enquiry Committee (1955-57) had recommended that the distances to and from Assam should be treated as being the same now as they used to be over the direct and short route that existed before partition, or some other variant of such assistance which would meet the situation at least halfway may be devised. The Committee had suggested that this concession could be limited to a period during which the industrial development of Assam could be expedited.

6.108 This recommendation was not accepted by Government at that time. The decision was taken mainly on two grounds. One was that, as a result of the uniform tariffs that had been introduced throughout the Indian Railway system soon after Independence, the fare and freight charges on the Assam Railway had been significantly reduced as compared to what they used to be when that Railway was run as a separate unit with its own tariff structure. The cost of construction as well as operation in that area being high, in effect the railway users elsewhere were already providing a kind of cross subsidy to railway users in that region, it was pointed out. It was also pointed out that, because some of the gradients on the Assam Railway were steep, movement there used to be subject to inflation of distances which had also been abolished. This had also benefited the movement to and from that region. The Railway Ministry therefore apparently felt that any additional burden by way of a subsidy would not be fair to other railway users. It was also pointed out that the problem of commodities having to move over longer distances as a result of partition had affected not only the regions in the North East; similar changes had to be faced by East Punjab when the nearer port of Karachi was not available and the more distant port of Bombay had to be used. A similar plea made by the Director of Industries, Punjab, had been turned down by the Ministry of Railways.



6.109 Another important consideration which apparently weighed with the Ministry of Railways was that development of the backward areas and regions was an objective which had to be looked at for the country as a whole. If special assistance for such development was to be given, it had to be given as part of an integrated development plan. The matter was therefore referred to the Planning Commission for consideration. It was pointed out that it was not proper that other railway users should be made to bear the burden of developing the North Eastern region.

6.110 We have not been able to ascertain what exactly the Planning Commission did in this connection. What we find however is that the only freight concession which is available at the moment is a subsidy of 50 per cent in respect of inputs for and outputs of certain categories of industrial units in the region from Siliguri onwards. This is obviously quite inadequate. The real problem faced by the people in this region is that, for most of their requirements of consumable items as well as raw materials and industrial products, they have to depend upon distant regions of the country; and the long distances involve a very heavy freight charges. Their products have also to be marketed in Calcutta, Patna or beyond. We are convinced that both in the interest of national integration and for the proper development and common welfare of the people in this region, it is necessary that they should not have to bear the burden of high transport charges which are essentially the result of the partition of the country. This was a national decision for which the people of the region should not be made to bear an extra cost. We therefore agree with the various pleas made to us that some step should be taken to reduce the heavy transport charges that movement to and from this region involves.

6.111 At the same time, we appreciate the point, to which the Railways attach considerable importance, that it is not fair that railway users in other parts of the country should be made to bear the burden of such a concession. The

responsibility for helping the growth of backward regions and to ensure national integration has to be borne by the country as a whole, and not necessarily and directly by railway users through a process of cross subsidisation. While some cross subsidisation is unavoidable in a public utility system like the Railways, the very heavy subsidy that would be involved in the movement to and from the North Eastern region is not one which should in fairness have to be borne by other railway users. It is proper that the burden of this should be borne by the Central Exchequer.

6.112 We therefore recommend that a scheme for a transport subsidy for all rail transport movements to and from the North Eastern region should be formulated. The best and the most practicable basis for this would be what was already recommended by the Freight Structure Enquiry Committee in 1957. At least to begin with, the distances should be deflated to what they would have been if the partition of the country had not taken place or movements on the railway lines in Bangladesh were possible. Two statements (Statements 6.8 and 6.9) indicating distances between certain stations by the normal rail route, as also via Bangladesh, are given. These would show that the increase in distances as a result of partition varies from as little as 47 kilometres to as much<sup>as</sup> over a thousand kilometres. Distances between a few points have marginally declined. The proper approach would be to calculate chargeable distances on the basis of such notional direct routes and the users - passengers and goods - charged on that basis. Full benefit of the reduced chargeable distance should be given to the users. The losses which the Railways would sustain as a result of this concession should be borne by the Central Exchequer. A scheme can be worked out by the Ministry of Railways once the decision in principle is taken\*.

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\* The National Transport Policy Committee in its Report (1980) has pointed out: "The location of the North-Eastern region, now linked with the rest of the country through a longer rail route, should not put people in that area to a disadvantage on account of moving essential commodities at high cost to it and, therefore, a suitable freight policy needs to be devised for this region". (Para 4.2.6).

6.113 It should be clearly understood that the recommendation which we have made above, is not intended as a substitute to the present system of granting freight subsidy to the extent of 50% in respect of traffic moving east of New Jalpaiguri or Siliguri. The rail-users as well as governmental authorities in the North Eastern Region have pointed out how important it is that, not only the present freight subsidy should continue but that, in view of the main markets for their products and also the points of origin of some of the commodities essentially required in that region, the freight subsidy should be applicable also from Patna in the West and Howrah in the South. We recommend that this should be done. It should of course be understood that the financial burden due to the subsidy is not to be borne by the Railways just as it is not borne at present for <sup>the</sup> subsidy which is given on the distances upto and from New Jalpaiguri or Siliguri.

6.114 Apart from the long railway lead involved, these States have also to move traffic from the railhead for considerable distances to the interior areas. These interior areas could be served by out-agencies which can give facilities similar to those obtaining at railway stations. There are at present a few out-agencies at places like Kohima and Imphal. There is scope for establishing out-agencies at various other interior points. At present, even if there is an out-agency, the charges for the carriage over the road portion from the railhead have to be paid by the public at the road rates, and railway rates are reckoned only to and from the railhead. Normally, the road rates are much higher than the railway rates; and this, combined with long distances from the railhead, results in high transport charges and therefore high prices in some of these areas even for essential commodities or developmental materials brought in from outside. The movement of their produce to other areas similarly gets handicapped. This is one reason why persistent demands arise for the development of railway lines in such areas even if the cost of construction is likely to be very high and the traffic not adequate to justify such

construction. This question needs to be looked into more thoroughly and some steps devised which would take care of the transport problem of these areas with proper coordination between the two complementary modes of transport, rail and road. We shall deal with this problem further in our Final Report.

#### The Question of Suburban Fares

6.115 While the general principles about tariff policy which we have suggested earlier can apply to various streams of passenger traffic, using different gauges and different sections with varying costs and services, one special question that needs to be treated somewhat differently is that of the suburban sections. At present, suburban sections with special electric multiple unit train facilities are confined to the three metropolitan areas of Bombay, Calcutta and Madras. But the demand for regular commuter trains is increasingly coming up in other areas as new metropolises are coming up, and commuters find that the existing train and bus services are inadequate to cope with their rapidly increasing number.

6.116 As explained earlier, the use of season tickets for the commuting public has been a feature of the metropolitan suburban sections for a long time. As suburban-like situations develop in other areas, the demand for such season tickets in these areas has also increased. The most rapid growth of traffic has been experienced in recent years through the growth of such non-suburban season ticket using passengers. The demand for the construction of special metropolitan transport facilities has been in existence for quite some time but, except for making some beginning for the construction of an underground system in Calcutta, the Railways have been unable to satisfy such demands uptill now. The most important constraint in this is the lack of financial resources for taking up such projects. We have extensively examined this question in our Interim Report (Chapter VI). It is not therefore necessary for us to deal in detail with this problem. All that is essential for the present purpose is to indicate the principles on which the tariff proposals for the future should be based and the general manner in which the problem should be tackled.

6.117 As we have indicated in our analysis of the problem in the Interim Report, the costs of providing additional services in the existing metropolitan railway sections or construction of new facilities elsewhere would be very large. The marginal cost of providing facilities are bound to be very high as construction costs as well as the costs for acquiring new assets such as rolling stock are very much higher at present prices as compared to the time when such facilities were originally created. Therefore, unless the returns from these investments are likely to be adequately high, they are unlikely to be considered as economically justified. This is bound to mean, as experienced in the past, very slow progress, if any, of such schemes.

6.118 One method of earning larger revenues from the existing suburban sections or from newly constructed or expanded facilities would be to have a separate and higher fare structure for them. In the case of existing suburban sections, this may be difficult as the suburban lines and the non-suburban lines have a large number of joint costs and joint facilities. It would therefore be unrealistic to expect that they can be treated on an entirely different footing. Even future expansions, unless they take the form of entirely new types of construction such as the Calcutta underground system, may be very similar to the other parts of the Railways. It may then be difficult to justify an essentially different fare structure for them. The difference between them and other railway services may be no larger than that between the services on different gauges or on different routes. For this reason, we have to accept that the basic fare structure on the existing or the newly emerging suburban or suburban-like services would have to be the same as on other parts of the railway system. An underground system like the one in Calcutta may be an exception.

6.119 The other method of increasing the earnings from the suburban or suburban-like sections would be to raise the rates of season tickets substantially. This could be of considerable help as some 3/4th of the traffic on suburban sections is based on the issue of season tickets. We have dealt with the history of the season tickets and also the nature of the season ticket holders extensively in the Interim Report (Chapters V and VII). As a result of our tentative examination of the problem, we had concluded that the season ticket fares were too low and should be raised. The Government partially implemented our interim proposal at the time of the Railway Budget in 1979. Though, as a result of this action of the Government, the financial situation on the suburban sections has improved, the present season ticket fare structure is still such that the earnings from such services do not even meet their costs\*, leave alone making the projects for further expansion and new creation of such services an economically viable proposition. We need therefore to give a further look to this problem of season tickets.

6.120 A basic question that may be raised is: as a season ticket holder is normally expected to perform 50 single journeys in a month, why should he not pay a charge for the season ticket on the basis of an equal number of single journeys, or perhaps a few journeys less, taking into account the fact that there is some saving to the railway in respect of ticket issue, resulting from having to issue only a single ticket once a month or once a quarter instead of fifty single journey tickets. It needs to be emphasised that the cost to the Railways of issuing a ticket is not as large as many people imagine, and the saving through the issue of a season ticket is small.\*\* It is however very convenient to the passenger as well as to the Railways that such a large number of passengers travel on season tickets. In fact it would be impossible for the Railways to make arrangements for the issue of single journey tickets if there were

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\* The NTPC comments on this: "This (revision of fares) will still leave the Railway with losses of Rs.10 crores a year on traffic level of 1976-77. A good case, therefore, exists for a further upward revision of suburban season ticket fares. The proposed upward revision of fares would help railways cater to increasing demand for traffic in metropolitan cities" (para 4.2.3).

\*\* According to a study made by RITES at Howrah station, the cost of issuing a Card Ticket was 6.79 paise. The issue of a Season Ticket would thus mean a saving of Rs.3.05 (assuming avoidance of issuing 50 single journey tickets) or Rs.1.36 (assuming avoidance of issuing 25 return journey tickets).

no season tickets; the numbers would be too large and the arrangements required too vast to be practical. The length of the queues and the delays would make the life of the passenger miserable. On these grounds, and also on the ground that commuter journeys, especially in peak hours, are performed in conditions which are far from comfortable - and this is so practically in any part of the world in the case of commuter travel - a certain concession in the issue of season tickets is certainly justified. The question however is how much the concession should be.

6.121 As pointed out in our Interim Report, the degree of concession in the past has been very high. Even now, after the increase in the season ticket fares with effect from April 1979, the season tickets are still issued on a basis which provides very substantial concessions. From whatever material we have been able to collect, these concessions are unique, and such large concessions are given by no other system in the world. A uniform concession of not more than 50% is the maximum that could be justified whatever the grounds offered in support of the concession. This would however imply that, for all distances, the season ticket fare should be equal to the fare for 24 or 25 single journeys. While such a proposal may not be impracticable for comparatively short distance commuters as the actual absolute amount of increase may not be very large, for longer distances the increase would be so large that it would be difficult to get it accepted. It is possible that a steady and persistent policy of increasing season ticket fares to bring them to this level could be pursued in such a manner that, in the course of five or ten years, the season ticket fares could be brought to this level. Some authorities advocate such a course of action. We suggest that the Government may consider if this can be achieved in the course of a decade or so. It would be highly desirable as it would make the financial position of <sup>the</sup> Railways in the running of such services vastly better and the investments

which are so essential to improve existing services, expand them and set up new services could be undertaken comparatively early. This will also be in keeping with the long term policy of controlling the growth of metropolitan and larger cities and if possible even to de-congest them.

6.122 We are not sure, however, that the Government would find it practicable to adopt such a policy at least immediately. There is also some ground for scepticism whether, even if such a policy is adopted at a particular point of time, it would be persistently and steadily adhered to. If this misgiving of ours is realistic, an alternative solution to the problem has to be thought of. While some increase in the existing fare structure may be adopted - and we are making our detailed proposal in this respect later in this Report - it will not be possible in this alternative strictly to limit the concession to 50% as suggested earlier. The new projects for expansion, improvement or development will therefore remain difficult to take up and implement.

6.123 Taking into account the fact that the commuters are finding the services on the existing suburban sections increasingly unsatisfactory, we think it necessary that early steps should be taken to improve and expand these services. If the growth of new industrial and urban centres is to be encouraged, and a proper infrastructure of transport facilities is to be created early - as seems to be the approach accepted by the Planning Commission - major investments for this purpose will have to be made. As the season ticket fares will be at rates which will not yield large enough revenues to make these investments fully economical, we recommend that the Government should consider the proposal that the capital investments in new or additional transport facilities on the suburban or suburban-like sections of Railways should be exempted from the payment of dividend. As explained in Chapter II above, such an approach is already accepted regarding railway developments undertaken for special reasons. The creation and maintenance of metropolitan railway services surely falls in a similar category. Such an approach is specially



important as the capital costs for modernisation and new construction of suburban services are bound to be very heavy. The economics of running such services would be very much eased if no dividend on the capital has to be paid.

6.124 It is well known that the growth of metropolitan areas leads to benefits the economic advantage of which largely goes to land owners in that area as well as to trade, industry, employers and the citizens of that area. This is the reason why in many parts of the world metropolitan transport services are subsidised by local authorities - municipal or regional. One difficulty in the way of directly attempting such an approach in India is that the Railways under our Constitution fall in the Union List while taxation of land as well as of employment and professions falls in the State List. In our Interim Report we had suggested that the Government might examine the possibility of making the employers pay for the commuting fares of their employees in the case of metropolitan areas when the employee has to bear a commuting charge exceeding a certain amount by public transport. We have been informed that the Government does not think it practicable to accept this proposal. The only practicable alternative is that the capital investment in such lines should be exempted from dividend payments so that the burden on the Railways from the construction, maintenance and operation of such lines gets lightened. This is important because we see no economic or social justification why the other users of Railway services should be made to bear the burden of providing such commuter services in the metropolitan areas, which is what in effect would continue to happen if the present position, even with the increases in season ticket fares which we suggest, is allowed to continue. This would be so even with the increases in season ticket fares which we are proposing, because the additional capital costs of improved and new services are very high.

6.125 If considered appropriate, the loss which the Central Exchequer may have to sustain as a result of this exemption may be taken into account by the Finance Commission when the question of Centre-State financial relations is periodically examined. If the Finance Commission considers it appropriate, it may indirectly make the concerned States bear a part of the burden which is initially borne by the Central Exchequer. This will both provide some relief to the Central Exchequer and would also be just in view of the fact that such services will not be provided equally in all the States.

Objectives to be Pursued

6.126 The Committee has kept in view the special stress in the Government Resolution appointing it to the effect that "The rapid inflation of recent years has.....particularly affected the railways.....Costs have risen faster than revenues; the railways have an accumulated liability of Rs.461.99 crores (as on 31.3.77) borrowed over the years....." The observation of the Public Accounts Committee that "there is need for rationalisation of the tariff policy vis-a-vis the cost of services provided by the Railways" has been specially quoted in the Resolution; so also the emphasis placed by the Railway Convention Committee on "the need for rationalising the freight and fare structure on the basis of traffic costing studies bringing charges in closer alignment with costs". These points specifically mentioned in the Government Resolution stress the importance which the Committee was expected to attach to ensuring that, without adopting a "cost plus" approach and taking into account the necessity for enforcing measures to improve operational efficiency, the tariff structure should be so rationalised as to make the Railways financially viable.

6.127 It has also been stressed in the Terms of Reference of the Committee that, while recommending the modifications in the tariff structure, the Committee should bear in mind "among other relevant considerations, the interest of the common man, the requirements of developing economy...." The interest of the common man as well as the requirements of the developing economy clearly indicate the importance of ensuring that the Railways are enabled to maintain and improve their performance and provide the necessary transport

facilities to meet the growing needs of the economic system. The difficulties faced by the Indian economy in the recent past due to transport bottlenecks (among other reasons) have highlighted the importance of improving the contribution of Railways to the functioning of the economic system. It is true that there is much that needs to be done to improve the Railways' operational efficiency. To the extent possible, the Committee proposes to deal with this aspect in its Final Report. But we are also convinced that making better provision for repairs and maintenance, replacement of assets as and when necessary, and building up of internal funds so that development outlays for further expansion become more easily possible, all require a significant addition to the earning capacity of the Railways; and this involves an upward revision of the Railways' tariff structure.

6.128 The interest of the common man would be served far better if economic growth can be ensured as well as a better and more efficient functioning of the economic system. This would enable the development of backward regions, better utilisation of existing and potential production capacities, and thus create more employment, and provide at least a minimum income to the really poor in the country who still constitute almost 40% of the total population. We think that keeping railway tariffs artificially low, thus reducing Railway finances to a poor state, while appearing to be in the interest of the common man, really affects his genuine interest adversely. If the matter is looked at dispassionately and not in terms of populist slogan-hungering, it will be seen that a financially sound railway system is a sine qua non of a healthy and growing economy which is the need of the country and its common people.

6.129 This is not to say that the Railways cannot do anything directly to ensure that its operations and even the tariff structure do not affect the poorer people adversely. In devising the new tariff structure, we have attempted to see that the burden of the additional tariffs falls less on the common people and more on those who can

bear it better. When considering this matter, however, it should not be forgotten that the really poor of this country are those whose incomes are less than Rs.100 to Rs.200 per month per family, and their interests are better served by ensuring economic growth, more employment, and the availability of essential supplies at appropriate prices. We have attempted to keep the incidence of increasing freight rates on the commodities consumed by the common people as low as possible. At the same time, it is important to note that trade in many parts of the country is so organised and entrenched that the margins secured by these interests are far larger than whatever freight charges\* at the old or the <sup>proposed</sup> rates have to be paid on such commodities. In such cases, the Railways can do little; increased freight rates may merely be used as an excuse by trade to exploit the consumers more. The Government will have to take other steps to ensure that this does not happen.

6.130 When thinking of passenger fares, we have attempted to ensure that the class of travel which the common people use, viz., travel by Second Class Ordinary trains for not very long distances, does not have to bear a large increase in rates. It needs to be remembered in this context also that the data available from our Passenger Survey as well as the National Sample Survey indicate that the number of journeys undertaken by the common people is quite small, and that the proportion of the family expenditure spent on railway travel is negligible. In the case of the poorest classes, therefore, the incidence of the small increases which are suggested by us will not prove to be a significant burden. When it comes to persons in organised employment, while one realises that they are also not well-off, it cannot be overlooked that they are among the higher income brackets in India. It is therefore not appropriate that their transport should be subsidised by the very common low-income passengers or by the ordinary tax payer. We have also attempted to devise a fare structure in which the upper class passengers pay more than their appropriate share of the overall costs as compared to the poorer categories of passengers. In this way, we think that we are doing justice in a balanced way to the major objectives set before us.

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\*In this connection, also see the discussion in the Report of the National Transport Policy Committee, 1980, Section 5.4. Op.cit.,

Comparison with Foreign Passenger Tariffs

6.131 In this context, it is interesting to make a comparison in terms of the work-time that a worker engaged in manufacturing industries has to put in so as to earn a wage equal to the fare required to travel one kilometre by the lowest class of travel available on the railway in his own country (see Statement 6.10). Such a comparison (see columns 7 to 9 of the Statement) shows that, while in richer countries travel is cheap in these terms probably because the wages are high, the relationship between wages and fares for the lowest class are comparable in USSR, China and India. While it takes wages earned in only 33 seconds in Japan, 39 seconds in USA, 51 seconds in Switzerland and 52 seconds in Sweden for a worker in manufacturing industry to pay the fare for one kilometre, in the USSR it takes wages for work ranging from one minute 53 seconds to two minutes 36 seconds, and in China, for work of 3 minutes 38 seconds, to pay the fare for that distance. Even in France, it takes wages of one minute nine seconds for a worker to pay for travelling one kilometre. In India, at the present wage rates, it would take a worker's wages for one minute 41 seconds to pay for travelling one kilometre by Second (Ordinary) Class and of one minute 58 seconds to pay for travelling one kilometre by Second (Mail or Express) Class, at the proposed rates.\* It cannot thus be said that we are suggesting fares in India which are very high in relation to the incomes of working class people. Countries which are interested in ensuring economic development concentrate more on developing goods traffic, and limit the facilities for passenger traffic, as the latter constitute a capital-intensive consumption item; and capital is scarce in developing countries. In any case the idea that, as a result of the proposed tariff increases, the common man is going to be burdened far more than appropriate can be discounted on the basis of this comparison.

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\*At the existing fares, an Indian worker would have had to pay the equivalent of the wage earned in one minute 28 seconds for travel of one kilometre by Second Class Ordinary train and that earned in One minute 29 seconds for travel of one kilometre by second class Mail or Express. It may also be noted that, at the proposed season ticket fares and assuming 50 journeys per month, a commuter - worker will have to pay an equivalent only of 35 seconds' wage for travelling one kilometre.

Tariffs as Incentives

6.132 We have also taken this opportunity to make tariffs serve the purpose of providing appropriate incentives and disincentives so as to sub-serve the interest of more efficient utilisation of national resources. The National Transport Policy Committee has indicated a certain inter-modal split as desirable in view of the overall resource cost of transporting goods and persons by different modes of transport. Through the tariff structure suggested by us, we have attempted to help such a distribution among different modes of transport. We think that it is not necessary for Railways to try to attract short-distance traffic from roadways by keeping short-distance tariffs low. Transport for short distances (except for bulk commodities and mass transportation) is best carried by roads. Similarly, by placing appropriate charges for transshipment in special cases, by giving concessions to movement in multiples of wagons and in rako-loads and such other methods, we are attempting to build up a system of incentives and disincentives which will ensure better use of railway facilities so that the Railways can serve their customers better. We believe that, while physical regulations may be unavoidable even in the railway system for some years to come when shortages continue, increasing reliance must be placed upon the use of tariffs to provide appropriate incentives and disincentives.\*

6.133 The questions relating to certain aspects such as booking and payments, etc., will be dealt with in our Final Report. Our preliminary view, which may be stated here, is that the Indian Railways need to be far more commercial and businesslike, and pay more attention to the needs of their customers, especially on the goods side, than they do at present. Apart from generally improving the quality of service, Railways, as a commercial organisation, should give due consideration to certain reciprocal obligations in dealing with their customers, especially those who give significant quantities of assured traffic and revenues to the Railways. This may be necessary, for example, when dealing with the question of provision of sidings and other facilities. We are recommending certain rebates when customers are called upon to load in open wagons covered with

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\*This is also the approach suggested by the National Transport Policy Committee (1980). See Report, op.cit., para 3.7.7.

tarpaulins commodities like cement and fertilisers which are normally loaded in covered wagons. The proposals in our freight structure including the concessions and facilities which we are proposing should be treated as a package deal which would enable Railways to deal with the increasing volume of traffic, get additional revenues and, at the same time, retain the goodwill of their customers.

#### An Integrated Tariff Structure

6.134 Because we have attempted to devise a tariff structure taking into account the various objectives mentioned earlier, and on the basis of the analysis of available cost data on the one side and our estimate of the financial requirements of the Railways on the other, it is necessary that the structure suggested by us should be looked upon as an integrated one. The relativities among the tariffs suggested for different classes of passengers are based on the data collected by the Committee, especially through Passenger Profile Surveys which were specially organised by the Committee for this purpose. Similarly, in addition to the data collected through interviews with a large number of individuals and organisations and the study of the memoranda received by the Committee, a number of commodity studies were undertaken, and the recommendations made about the relative freight charges for different commodities are based upon these studies. It is therefore necessary that, when our recommendations are examined and implemented, the fact that the structure has been worked out as an integral whole and the relativities as well as the tapering are based on a certain footing should not be overlooked. It is also necessary that, when further changes in the tariff rates are found to be necessary, these should be so undertaken that the overall structure and the relativities among different classes of passengers and goods and the tapering for different distances are not disturbed. This is not to say that, when better costing and other data become available to Government, and if the overall structure of railway services undergoes a change, the whole tariff structure should not be

given a fresh look. Perhaps, a gap of 20 years which has elapsed between the Freight Structure Enquiry Committee and our Committee may be too long; and a fresh look at the tariff rates may be necessary after a shorter gap of time. But until a thorough enquiry is again made into the tariff structure, it would not be desirable to tamper with the relativities, tapering and the tariff structure as a whole. It is with this in view that we also make some recommendations on tariff escalation.

#### Proposal for Tariff Escalation

6.135 Our analysis of the Railway finances in the past in Chapter II would indicate how a major difficulty in the healthy functioning of these Railway finances has been that the Railway tariffs have not kept pace with the increases in the costs of their major inputs. We think that, **to the extent possible, such a difficulty should be avoided in the future.** We are now recommending tariff rates which are calculated, according to the best cost and demand data available at the moment, on as sound a basis as possible. The structure and levels recommended by us are based upon a detailed examination of the various factors involved, the principles of which have been explained earlier in this Chapter. If the Government agrees with the basic approach recommended by us and adopts the tariff structure as proposed, it would also be desirable to ensure that the tariff levels are adjusted from time to time in such a manner that railway tariffs keep pace with changes in the prices of the major inputs in the production of railway services. We have therefore thought it necessary to propose a formula for escalation of tariffs.

#### Methodology of Tariff Escalation

6.136 The proposals relating to fares and freights have been formulated by the Committee with 1976-77 as the base year. The costs on fuel and other materials however have been escalated upto the anticipated level in 1980-81. After examining the details relating to the ordinary working expenses and contribution to



the Pension Fund for the last few years\*, the share of the major categories of expenditure in the total working expenses may be assumed to be approximately as follows:

1. Staff	55%
2. Fuel	
(a) Coal	9%
(b) Diesel	9%
(c) Electricity	<u>4%</u>
(d) Total fuel	<u>22%</u>
3. Other Stores & Materials	23%

6.137 On the basis of adjusted total costs for the year 1976-77, it has been observed that the working expenses excluding contribution to the Depreciation Fund and Dividend but including contribution to Pension Fund forms about 80 per cent of the total expenditure. It may be proper to allow ~~for~~ tariff escalation only on this part of the expenditure.

6.138 The escalation required in the future years can then be worked out on the basis of the following formula:

$$\text{Total escalation (per cent)} = 0.80 \left[ (0.55 \times s) + (0.09 \times c) + (0.09 \times d) + (0.04 \times e) + (0.23 \times os) \right]$$

Where s = per cent increase in staff cost

c = per cent increase in coal price

d = per cent increase in diesel price

e = per cent increase in electricity charges

os = per cent escalation in the prices of stores and other materials.

6.139 The escalation in staff cost may be related to the increase in the average per capita emoluments of Railway employees or the increase in the "Index Number of Wage Rates for selected occupations brought out by the Labour Bureau, Government of India,\*\* whichever is lower. The escalation in the costs of fuels can be arrived at on the basis of increases in the actual unit prices paid by the Railways for the respective items. The escalation

\* See Statement 6.11

\*\* Published in the "Indian Labour Journal", Labour Bureau, Ministry of Labour, Government of India.

for stores and other materials can be worked out on the basis of the index numbers of wholesale prices for the following items along with appropriate weights as indicated below:-

<u>Items</u>	<u>Weight</u>
Iron and Steel	50
Electrical machinery	20
Non-ferrous metals	10
Lubricating oils	10
Manufactured products	10

6.140 The percentage escalation in different items may be worked out on the above basis. As the costs of these inputs constitute only about 80% of the total expenditure of the Railways, and depreciation and dividend contribution would not escalate in this manner, the formula provides that the escalation percentage will be worked out accordingly. What is proposed is that the basic tariff rates

envisaged by us should be escalated at least once a year on this basis. The two most important such basic rates are:

- (i) For passengers, the second-class ordinary passenger fare at 100 kilometres;
- (ii) For goods, the freight rate for Class 100 at 100 kilometres.

The passenger fares for other classes and distances, as explained in the concerned chapter, are related to the Second-class Ordinary Passenger Fare in the form of an index. The rates for different classes of goods traffic are also related in percentage terms to the rates for Class 100. Therefore, once the escalation formula is applied to these **two** rates, the other fare and freight rates will be automatically adjusted. A similar method may be applied to other tariffs such as those for terminal charges, parcels and various other rates for passengers and goods suggested by us.

6.141 We have thought it fit to recommend such a provision for automatic tariff escalation so as to make the adjustment in tariffs easy, and avoid the financial difficulties of the type experienced by the Railways in the past. This is of special importance in view of the inflationary trends which have been experienced by the country over the last decade or so and which may continue for

sonetime to come. Railways constituting an essential infrastructure of the national economy, their finances should not be put in difficulties as a result of their tariff rates being sticky while the prices of their inputs rapidly increase.

6.142 We are aware of the fact that the proportion of expenditure incurred on different items does not remain stagnant in a rapidly changing situation. With more capital investments, the proportion of expenditure on staff may decline. With the planned change in the pattern of traction on the Railways, and also because of possible changes in the prices of different types of fuels, the proportion of expenditure on these may also undergo a significant change. The formula suggested by us would not be useful when some major changes of this kind take place. We therefore recommend that this matter should be examined again after a few years through an expert group and, if necessary, a new escalation formula may be arrived at.

#### Implementation of Proposals

6.143 We realise that there is a large difference between the existing tariff rates and the rates which are being proposed by us. We however feel that this is unavoidable. As has been pointed out earlier, the railway tariffs have all these years been kept at levels much lower than the general increases in prices. The result has been that the financial position of the Railways has been worsening. This has got to end, and we urge that the Government should take a bold step and remove this anomaly immediately. It is essential both for the health of the Indian Railways and for enabling them to play their proper role in the national economy that their finances should be put on a healthy footing. It is after careful consideration of all relevant aspects that we have come to the conclusion that a potential overall increase of about 40% in the earning capacity of the Railways should be ensured through the proposed tariff structure. As we have emphasised, we have made the actual increase conditional

on the Railways attaining the level of efficiency which they had attained in 1976-77 which, it is universally agreed, was one of the best years of Indian Railways' operation.

#### Social Burdens on Railways

6.144 In this connection, one of the points that is frequently mentioned is regarding the social burdens which the Railways have to carry. It may be recalled that the Government had appointed a Committee to examine this matter. The Committee's Report which was submitted in January 1979\* has been referred to us for consideration. We have studied this Report and taken into consideration the facts mentioned in it, and the views expressed by the majority in the Committee as well as by some individual members. As we have stated in Chapter II, we do not agree that some of the so-called social burdens are in any way special to the Railways and that any special consideration needs to be shown to them on that account. This is broadly in keeping with what that Committee had recommended. Regarding the Committee's view that, where the Railways were carrying certain goods below cost, the freight rates should be suitably enhanced, we have taken note of this matter and, in recommending our freight rates structure, attempted to ensure that no commodities are carried at below their direct costs. A certain degree of cross-subsidisation among commodities, from the point of view of their contribution to surpluses to be made by the Railways, is inevitable in a public utility organisation. On the passenger side, in making our recommendations regarding suburban fares and season tickets, we have taken into account the views expressed by that Committee. Broadly, the recommendations made by us are in line with the approach taken by that Committee. The views expressed by the Committee on various kinds of concessions to passengers have been kept in view by us when making our recommendations. It will thus be seen that in most matters relating to the fare and freight structure and the overall financial policy to be pursued by the Railways, the Committee

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\* "Report of the High Level Committee on Social Burdens on Indian Railways", Ministry of Railways, 1979.

has given thought to the recommendations made by the Committee on Social Burdens; and we find that, in many respects, the recommendations that we are making are similar to the view taken by that Committee. There are some aspects of the work of the Railways such as the question of uneconomic branch lines, charges for military and postal traffic, and miscellaneous services such as ferries which our Committee will deal with in the Final Report. The various views expressed by the Committee on Social Burdens on these and related matters will also be considered by our Committee at that time.

#### Possible Inflationary Impact?

6.145 One argument that may be made regarding the possible impact of our proposals is that it may add to the inflationary forces already operating in the economy. We agree that the timing of bringing about changes in tariffs, however justified they may be, is very important so that the changes do not aggravate the inflationary situation. It appears to us however that this is unlikely to result from the proposals made by us.

6.146 As regards the passenger fares, the large bulk of the Second Class passengers travel on their own; so also does a certain proportion of the passengers travelling in other classes. In their case, the increase in fares would be anti-inflationary rather than inflationary in its impact. In the case of suburban season ticket fares, the increases may enter the cost of living and therefore can possibly have an indirect impact on dearness allowances and therefore on costs; but the part played by season ticket fares in the total cost of living even in metropolitan areas is negligible. Regarding the increases in fares proposed for higher classes, as our Passenger Profile Survey shows, a substantial proportion of them meet these expenses from the business or employers' accounts. Again, the travelling expenses form such a small part of the total cost of an enterprise that the increases are hardly likely to make any impact on the cost of the businesses involved.

6.147 The position of freight rates is a little more complex. The bulk commodities which are carried by Railways on a large scale and constitute some three quarters of their total traffic are also commodities which either enter the cost of living of common people such as foodgrains or salt, or they are important raw materials or intermediate products which enter the costs of various industries. The examples of such commodities are coal, fertilisers, cement, and iron and steel. We have however taken care to see that, in spite of the increases that we have proposed, the total incidence of freight in respect of these commodities would not be unduly high, and would not create an undue burden on the concerned industries, or on the final consumer. In most cases, the increases proposed would also be small as compared to the trade margins or other similar expenses. They are therefore unlikely to have an inflationary impact on their own. Of course, in a sellers' market and with monopoly elements operating strongly in certain parts of the economic system, it does not infrequently happen that the trade or industry concerned uses any excuse to jack up prices.\* In such a case, increases in freight rates may provide as good an excuse as any other for effecting an increase; but there is little that the Railways can do about it. Recent experience in the case of some other prices should make it clear that postponing the rational increases in administered prices in public sector products or services merely worsens the financial position and growth potentiality, operating efficiency and morale of the concerned public enterprises, without making any long term impact on the inflationary or growth situation. We hope such a short-sighted policy is no longer pursued in the case of Railway tariffs.

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\*It may also be noted that, in many parts of the country, a seller's market develops many times because railways are not able to provide enough wagons for transporting commodities essential for consumption or otherwise, such as salt, foodgrains, sugar, cement, coal or fertilisers. It is thus inadequate capacity on the railways - which is at least partly the result of low tariffs, and the resulting inadequate replacements and additions - which is more hurtful than a reasonable increase in tariffs. Also see in this connection, the Report of the National Transport Policy Committee (1980), Sec.4.2.

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Allaying Possible Misgivings

6.148 It is very important that, when Government considers our proposals and implements them, it should be firmly announced that any additions to Railways' earnings that would accrue as a result of tariff increases would be wholly used for the purpose of Railway rehabilitation and development. With the Report of the National Transport Policy Committee\* emphasising the importance, especially in the context of the new fuel perspective, of developing railway transport and of additional investments in them, we are sure that the Planning Commission would agree with this approach. There are certain sections such as the suburban ones where, as we emphasised in our Interim Report, speedy rehabilitation as well as further development are essential. Other immediate improvements such as replacements of overaged assets are crying to be effected. Improvements which will ensure more line capacity and also increase the number of coaches and ~~special~~ wagons as well as help augment diesel traction and further electrification are necessary if Railways are not to be a bottleneck in the smooth functioning and growth of the economy.

6.149 We are sure that railway users will not mind the proposed increases in tariffs provided they are convinced that these increases would help speedy rehabilitation and development of the Railway system so that railway services undergo rapid improvement both qualitative and quantitative. This was the impression which we received in our extensive discussions in different parts of the country. What people apprehend is that the tariff rates may increase while the services will not improve. Now that the Government has decided on a productivity-linked bonus for Railway staff, with better management and labour cooperation, it should be possible to ensure that higher tariffs lead to larger earnings and better

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\* See, especially, Report, op.cit., Sec.9.33

quality of service; and further that these larger earnings lead to larger development outlays so as to carry out continuous improvements in the availability and efficient operation of railway services. A public commitment by Government that this would be its policy would go a long way in allaying any misgivings which the railway using public may have in this respect.



Trends in Financial Performance of Public Enterprises  
(Running Enterprises excluding Insurance Companies)

(Rs. crores)

	1974-75	1975-76	1976-77	1977-78	1978-79	1978-79 (Excl. Coal)
	1	2	3	4	5	6
A. Net profit earned by running enterprises (Number of enterprises shown in bracket)	332.34 (81)	255.13 (87)	394.37 (93)	384.85 (81)	484.75 (88)	484.75 (88)
B. Net loss incurred by running companies (Number of enterprises shown in bracket)	138.79 (39)	126.02 (34)	210.48 (56)	475.92 (73)	516.71 (69)	304.55 (64)
C. Total net profit (+)/loss (-) (Number of enterprises shown in bracket)	(+) (120)	(+) (121)	(+) (149)	(-) @(155)	(-) *(159)	(+) (154)
D. Total interest	246.73	362.81	606.86	755.13	882.46	818.20
E. Total corporate tax paid	128.93	176.54	236.86	250.61	225.41	225.41
F. Total Gross profit (C+D+E)	559.21	668.46	1027.61	914.67	1075.91	1223.81
G. Total capital employed (Fixed assets less depreciation plus working capital)	6627.15	8824.30	10887.14	12130.20	14173.38	12428.39
H. Gross profit (percentage) to capital employed	8.44	7.58	9.44	7.54	7.59	9.84
I. Depreciation	304.76	345.39	462.71	574.49	697.05	646.51
J. Gross Margin (F+I)	863.97	1013.85	1490.32	1489.16	1772.96	1870.32
K. Gross Margin (Percentage) to Capital Employed	13.04	11.49	13.69	12.27	12.51	15.04

@ Excluding Central Mine Planning & Design Institute which neither earned profit nor incurred loss in 1977-78.

\* Excludes Central Mine Planning & Design Institute which broke even during 1978-79 as well. Further, Central Fisheries Corporation which was in the process of liquidation had not compiled its accounts.

Source: Public Enterprises Survey 1978-79, Volume-I, Government of India, Bureau of Public Enterprises, Ministry of Finance, New Delhi, p.2.

Estimates of Additional Earnings Required in 1976-77

<u>Summary</u>		
<u>Items</u>	<u>Additional Amounts</u> <u>(Rs. crores)</u>	<u>Remarks</u>
1. Price escalation	484.19	Details in Statement 6.3
2. Appropriate Provisions		
2.1 Repairs & Maintenance	10.00	Statement 6.4
2.2 Depreciation Reserve Fund	102.47	Statement 6.4
2.3 Pension Fund	13.84	Statement 6.4
2.4 Sub-Total	126.31	
3. Total (1+ 2)	610.50	
4. Appropriate return	157.08	Statement 6.4
5. Total Additional Earnings Required (3+4)	767.58 <del>767.58</del>	
or, say	770.00	

Statement 6.3Estimate of Price Escalation, 1980-81 over 1976-77

(Rs. crores)

1. Ordinary Working Expenses in 1976-77	1548.75
2. Price Escalation upto 1980-81 over 1976-77 at 28.81 per cent*	446.19
3. Effect of Awards of Running Allowances Committee, Tandon Committee on Re-classification of Artisan Staff and one Additional D.A. instalment (not taken into account in 2 above)	38.00
4. Total	484.19

\* The price escalation was worked out by the Railway Board on the request of the Committee. The escalation was worked out so as to arrive at the best estimate of cost in 1980-81 of carrying the level of traffic in 1976-77 with the same level of efficiency. The price escalation was estimated by the Railway Board as follows:

On the basis of the proportions observed in the year 1979-80, the ordinary working expenses were distributed into three broad categories; (a) staff at 58% of the total expenses, (b) fuel at 21% of the total working expenses, and (c) other stores and materials at 21% of the total expenses. The staff cost escalation was assessed on the basis of cost per employee on the Railways taking into account the increase in the establishment cost including the provision of full impact of three DA instalments sanctioned during 1979-80 and provision for bonus during 1980-81. The escalation was estimated at 20% over the cost in 1976-77. The price escalation for ~~fuel~~ was estimated at 69% on the basis of the index number of wholesale prices as in February 1980 in comparison with the index for 1976-77. Similarly, the escalation in the price of diesel was estimated at 18% and that for electricity at 32% on the basis of the index number of wholesale prices. The actual expenditure on fuel for these three categories in 1979-80 was taken into account for arriving at the weights for the different categories of fuel. The price escalation for other manufactured items was estimated at 39% on the basis of the index numbers of wholesale prices for "iron and steel" and "cement".

The overall increase in the working expenses accounts for an escalation of roughly 28.81 per cent for 1980-81 over 1976-77 taking into account the existing cost levels and known commitments.

Appropriate Provisions in the Working Expenses of Railways

<u>Item</u>	<u>Additional Amounts (Rs. crores)</u>	<u>Remarks</u>
1. Repairs and Maintenance	10.00	Estimated on the basis of demands made by the different Zonal Railways.
2. Depreciation Reserve Fund	102.47	4.7% of the block value of assets (investment) as at the end of 1975-76 less accretions to the fund during 1976-77 (251.22 minus 148.75)
3. Pension Fund	13.84	30% increase on the total accretion to the fund in 1976-77 excluding transfers from Contributory Provident Fund to take care of the liberalisation in the pension scheme as advised by the Railway Board.
4. Appropriate Return	157.08	10% on Capital-at-charge as at the end of 1976-77 less actual gross surplus before payment of dividend in 1976-77 (453.37 minus 296.29)

Actual and Adjusted Costs in 1976-77

	Actual Expendi- ture	(Rs. Crores)		Adjusted Expendi- ture
		Estimated Appropriate % increase	Escalation/ provision Amount	
1	2	3	4	5
<u>I. Price Escalation</u>				
1. Ordinary Working Expenses	1548.75	28.81	446.19	-
2. Add effect of Awards* and additional DA instalment	-	-	38.00	
3. Total	1548.75	31.3	484.19	2032.94
<u>II. Appropriate Provisions</u>				
4. Repairs & Maintenance	-	-	10.00	10.00 <sup>£</sup>
5. Depreciation Provision	135.00	-	102.47**	237.47**
6. Pension Provision	34.40	-	13.84	48.24
7. Total (4+5+6)	169.40	-	126.31	295.71
III. Net Miscellaneous Expenditure	21.67	--	-	21.67
IV. Total Expenditure (3+7+III)	1739.82	35.1	610.50	2350.32
V. Dividend	209.05	-	-	209.05
VI. Total Costs (IV+V)	1948.87	31.3	610.50	2559.37
VII. Net Surplus	87.24	-	157.08	244.32 <sup>@</sup>
VIII. Gross Traffic Receipts (VI+VII)	2036.11	37.7	767.58	2803.69
IX. Additional earnings in relation to Total Costs.	1948.87	39.4	767.58	

\* Running Allowances Committee, Tandon Committee on Re-classification of Artisan Staff and additional DA instalment likely to be considered after the instalment sanctioned from 1.11.1979.

£ Additional provision

\*\* After allowing for contributions from the production units and interest on balances.

@ Return at 10% on Capital-at-charge (Rs.453.37 crores) less Dividend (Rs.209.05 crores)

Railways Development Plans as Proposed and Approved

(Rs. crores)

	As proposed by the Rlys		As suggested by the Plan- ning Commission		As approved by the Plan- ning Commis- sion		Actual Expendi- ture	
	A	B	A	B	A	B	A	B
<u>Five Year Plans</u>								
I Plan	NA		400		432		424	
II Plan	NA		1125				1044	
III Plan	NA		1325		1582		1686	
<u>Annual Plans</u> (1966-69)	NA		897		855		763	
IV Plan	1525		1525		1400		1420	1428
V Plan	(a)	2570	2980	2350	2550			
	(b)	3250	3550					
	(c)	2500	2570			2152	2202	1492* 1524*
VI Plan	4550	4700	3275	3400				
<u>Annual Plans</u>								
1969-70						255		192
1970-71						280		252
1971-72						280		310
1972-73						306		351
1973-74						338		323
1974-75		395		358		368		354
1975-76						328		400
1976-77		555		400		411		341
1977-78						501		429
1978-79						535		538
1979-80		847		650		650		

A: Outlay on Railway Schemes...

(a): As originally suggested

B: Including outlay on  
Metropolitan Transport Project.

(b): As revised in 1974

(c): As revised in 1976

\* Relates to the years 1974-78.

Source: (i) Five Year Plan Documents

(ii) Planning Commission.

Railways' Contribution of Resources to Development Plans -  
Expected and Realised

(Rs. crores)

	Plan provi- sion	Expec- ted contri- bution from Railways	Per- cen- tage 3+2	Actual outlay	Actual contri- bution by Rail- ways	Per- cen- tage 6+5	Loans taken by Rlys for divi- dend pay- ments	Per cent of Rly contri- bution excluding loans to total outlay (6-8)+5	
	1	2	3	4	5	6	7	8	9
<u>Five Year Plans</u>									
1st Plan	400	320	80.0	424	284	67.0	-		
2nd Plan	1125	375	33.3	1044	397	38.0	-		
3rd Plan	1325	485 <sup>+</sup>	36.6	1686	635	37.7	-		
Inter Plan	-	-	-	763	317	41.5	-		
4th Plan	1525	940	61.6	1420	555	39.1	134		29.6
5th Plan draft	2350	779	33.1	-	-	-	-		
Revised	2152	575 <sup>+</sup>	26.7	1492*	700*	46.9	550*		10.0
6th Plan draft	3275	847 <sup>+</sup>	25.9	-	-	-	-		
1978-79	525	238	45.3	522	226	43.3	-		
<u>Annual Plans@</u>									
1969-70	255	117	45.9	192	104	54.0			
1970-71	280	135	48.2	252	104	41.3			
1971-72	280	123	43.9	310	141	45.5			
1972-73	306	166	54.3	351	139	39.5			
1973-74	338	163	48.3	323	40	12.4			
1974-75	368	219	59.5	354	5	1.4			
1975-76	328	157	47.8	400	73	18.3			
1976-77	411	164	39.9	341	242	71.0			
1977-78	501	247	49.3	429	282	65.7			

+ Excluding additional mobilisation of resources.

\* Actuals for 1974-77 to 1977-78

@ On the basis of data supplied by the Planning Commission which includes outlay on Metropolitan Transport Projects also.

The estimates of contributions from Railways exclude interest on fund balances.

Source: 1) Five Year Plans - Explanatory Memorandum on the Railway Budget, 1980-81, Appendix X, pp.56,57.

2) Annual Plans - Planning Commission.

North-East Region - A Comparative Statement showing Distances between Selected Pairs of Stations via All-India routes and via Bangladesh.

Station from		Station to		Distance in Kms.		Difference
Indian Railways Station	Bangladesh Railway Stations	Bangladesh Railway Stations	Indian Railway Stations	Via Indian Railways	Via Bangla desh Railway	Col.6 (-) Col.5
1	2	3	4	5	6	7
Gede	Darshna	Benapole	Bangaon	89	107	(+) 18
-do-	-do-	Biral	Radhikapur	585	290	(-)295
-do-	-do-	Rohanpur	Singhabad	472	304	(-)168
-do-	-do-	Buri Mari	Changrabanda	728	407	(-)321
-do-	-do-	Mogalhat	Gitaldaha	781	346	(-)435
-do-	-do-	Chilahati	Haldibari	735	318	(-)417
-do-	-do-	Latoo	Maishashan	1498	410	(-)1088
Bangaon	Benapole	Biral	Radhikapur	581	398	(-)183
-do-	-do-	Rohanpur	Singhabad	468	197	(-)271
-do-	-do-	Buri Mari	Changra- banda	724	514	(-)210
-do-	-do-	Mogalhat	Gitaldaha	777	454	(-)323
-do-	-do-	Chilahati	Haldibari	731	425	(-)306
-do-	-do-	Latoo	Maishashan	1494	517	(-)977
Radhika- pur	Biral	Rohanpur	Singhabad	235	304	(+) 69
-do-	-do-	Buri Mari	Changra- banda	317	197	(-)120
-do-	-do-	Mogalhat	Gitaldaha	370	136	(-)234
-do-	-do-	Chilahati	Haldibari	259	139	(-)120
-do-	-do-	Latoo	Maishashan	1022	619	(-)403
Singha- bad	Rohanpur	Buri Mari	Changra- banda	370	420	(+) 50
-do-	-do-	Mogalhat	Gitaldaha	423	376	(-) 47
-do-	-do-	Chilahati	Haldibari	313	363	(+)471
Changra- banda	Buri Mari	Mogalhat	Gitaldaha	246	106	(-)140
-do-	-do-	Chilahati	Haldibari	178	224	(+) 46
-do-	-do-	Latoo	Maishashan	860	671	(-)189
Haldibari	Chila- hati	Mogalhat	Gitaldaha	178	195	(+) 17
-do-	-do-	Latoo	Maishashan	830	696	(-)134
Gital- daha	Mogalhat	-do-	-do-	742	610	(-)132

Howrah to Akhaura via Bangladesh Rail = 373 km.+Ferry 450 km. = 823 )  
 Howrah to Agartala via Indian Railways Rail 1501 km.+ Road )  
 200 km. = 1701 )  
 Difference in kms. = 878.



North-East Region - A Comparative Statement showing Distances between Important Stations in N.E. Region from Howrah via All-India Route and via Bangladesh. (Distances from Howrah in Kms.)

S.No.	Station	Via Indian Rlys through-out	Via Bangladesh Railways Via Gede-Darshana & Latoo-Maishashan	Difference between col. 6&3	Via Gede-Darshana and Gitaldaha - Mogalhat	Difference between col. 8&3		
1	2	3	4	5	6	7	8	9
1.	New Jalpaiguri	568	1341	(+)773	496	(-)72	634	(+)66
2.	Gauhati	990	926	(-) 64	948	(-)42	812	(-)178
3.	Luding	1169	746	(-)423	1129	(-)40	993	(-)176
4.	Dinapur	1240	815	(-)425	1198	(-)42	1052	(-)188
5.	Tinsukia	1503	1078	(-)425	1461	(-)42	1325	(-)178
6.	Dibrugarh	1551	1125	(-)426	1508	(-)43	1373	(-)178
7.	North-Lakhimpur	1223	1286	(+) 63	1171	(-) 52	1045	(-)178
8.	Silchar	1386	591	(-)795	1404	(+)18	1208	(-)178
9.	Badarpur	1356	561	(-)795	1314	(-)42	1178	(-)178
10.	Karinganj	1376	540	(-)836	1334	(-)42	1198	(-)178
11.	Dharnanagar	1442	596	(-)846	1400	(-)42	1264	(-)178

Howrah to Agartala by Indian Railways - Rail 1501 kms.+ Road 200 kms.)  
= 1701 Kms. )  
Howrah to Agartala via Bangladesh Railway - Rail upto Akhaura - )  
373 kms + Ferry 450 kms = 823 kms. )

Difference in kms. 878

Note: For interchange traffic between Indian Railways and Bangladesh Railways the following stations have been taken for working of distances.

Eastern Railway - Gede - Darshana (BDR)  
N.F. Railway - Radhikapur - Biral  
-do- - Maishashan - Latoo  
-do- - Haldibari - Chilahati  
-do- - Gitaldaha - Mogalhat

## International Comparison of Railway Fares

Country/Railways	Currency	Average Fares load (Kn) per Km -1977 (Lowest Class)	Fares (Lowest class)	Fare requi- red to travel average lead	Hourly wages in manufa- cturing indus- tries -1977	Work-time required by workers engaged in manufacturing industries to pay the fare for -					
						One Kn.			Average load		
1	2	3	4	5	6	7	8	9	10	11	12
1. Swiss Federal Railways (CFF)	Swiss Franc	36.2	0.18	6.516	12.80*	-	-	51	-	30	32
2. Japanese National Railways (JNR)	Yen	28.2	10.7	301.74	1176	-	-	33	-	15	24
3. Swedish State Railways (SJ)	Swedish Crown	76.0	0.39	29.64	27.01**	-	-	52	1	6	-
4. French National Railway Company (SNCF)	French Francs	68.9	0.24	16.536	12.55	-	1	9	1	19	12
5. U.S.A. (AMTRAK)	\$	60.9@	0.06	3.654	5.60	-	-	39	-	39	9
6. Australia	Australian Dollar	n.a.	0.0285	-	3.425	-	-	30	-	-	-
7. U.S.S.R.	Rouble	90.4	0.038	3.4352	0.88 - ) 1.21+ )	-	{ 2 { 1	36 53	3 2	54 50	- 24
8. Pakistan	Rupce	90.0	0.0324	2.916	1.59++	-	1	13	1	50	-
9. China	¥	n.a.	0.0170	-	0.28	-	3	38	-	-	-
10. India (Based on proposed fares)											
II-Ordinary	Rupce	49.9	0.0548	2.735	1.96 £*	-	1	41	1	24	-
II-M/E		313.8	0.0641	20.115	1.96	-	1	58	10	15	36

£ The data available on monthly wages was converted to hourly wages, assuming 25 working days and 8 hours of work per day in respect of Japan, USSR, Pakistan, China, and India.

\* Male earning/hour for 1976. \*\* 1976 @ for 1976 (all classes) £\* Updated from ASI data for 1976-77

+ inclusive of benefits from the social consumption funds & paid vacation.

++ relates to 1976 and has been worked out after inflating the monthly wage in 1972 by consumer price index nos. of that country

Source: i) International Railway Statistics, 1977, International Union of Railways (UIR)

ii) International Labour Yearbook, 1977, ILO (iii) Data on fares collected from different countries.

Broad Categorisation of Working Expenses of the Railways\*

(Percent to total)

	1977-78	1978-79	1979-80 (Revised Estimate)	1980-81 (Budget Estimate)
	1	2	3	4
1. Staff	50.5	51.1	50.5	50.2
2. Contractual Payments	2.9	4.4	4.9	5.0
3. Fuel				
Coal	8.6	8.0	9.0	9.1
Diesel	8.5	7.5	7.8	7.9
Electricity	3.1	3.3	3.5	3.6
Total Fuel	20.2	18.8	20.3	20.6
4. Other Stores and Materials	26.4	25.7	24.3	24.2
5. Total Working Expenses = 100	1602.89	1715.18	1916.70	2041.3.
(Rs. crores)				

\* Includes ordinary Working Expenses and contribution to Pension Fund, as given in new Demand numbers 4 to 13 of the Demands for Grants for Expenditure of the Central Government on Railways, Part I, 1979-80 and 1980-81.

## **PART II**

**Passenger and other Coaching Traffic**

## CHAPTER VII

### EVOLUTION OF PASSENGER FARES

#### Initial fare structure

7.01 The first railway line was commissioned in India in 1853 between Bombay and Thana in terms of a contract entered into between the Secretary of State in India and the Great Indian Peninsula Railways in 1849. Under the terms of the contract, the share holders of the company were guaranteed a rate of return of 5% on the capital invested. The freight rates and fares to be charged from the public, however, required prior approval of the Government. The mails and officials of the Postal Department were to be carried free, and troops and military stores at concessional rates. These terms were the basis of similar contracts entered into with other railway companies for the rest of the 19th century.

7.02 By 1858-59, there were three railway companies operating in India and the basis of passenger fares applicable on their systems were as under:-

Class	<u>Rate of passenger fare per mile in pias</u>		
	<u>G.I.P. Rly.</u>	<u>East Indian Rly.</u>	<u>Madras Rly.</u>
First Class	18	18	18
Second Class	6	9	6
Third Class	3	3	2

To protect the interest of the public against monopolistic exploitation by company railways, the following maximum limits for passenger fares were fixed by the Government:-

Railway	<u>Maximum fare per passenger per mile in pias</u>				
	<u>First Class</u>	<u>Second Class</u>	<u>Inter Class</u>	<u>Third Class</u>	<u>Fourth Class</u>
1. Madras	18	5		3	-
2. Great Southern	18	5		3	-
3. Great Indian Peninsula	24	12		8	3
4. B.B. & C.I.	24	12		8	4
5. Scinde	24	12		8	4
6. East Indian	18	9	4/2	3	-
7. East Bengal	18	9	4/2	3	-
8. Calcutta & South Eastern	18	9		3	-
9. Punjab	18	9		2 1/2	-
10. Delhi	18	9		2 1/2	-
11. Ovdh & Rohil Khand	18	9		2	-

These limits were <sup>notified</sup> for G.I.P. Railway in 1865 and other railway companies in 1869.

7.03 By 1870, eleven railway companies were in operation and a new class of passenger accommodation called 'Fourth Class' - also known as 'Coolie Class' - had been introduced on some of the Railways. The fare bases then existing on some of them were as under:

<u>Railway</u>	<u>Fare per passenger per mile in pies</u>			
	<u>1st Class</u>	<u>2nd Class</u>	<u>3rd Class</u>	<u>4th Class</u>
East Indian	18	9	3	-
G.I.P.	18	9	4	2½
Madras	18	5	3	-
B.B. & C.I.	15	7	3	-
Scinde & Punjab	18	9	2½	-
Great Southern of India	18	5	3	-
East Bengal	18	9	4½	3
Ovadh & Rohil Khand	18	9	4½	3

7.04 In 1891, Government of India fixed both the maximum and the minimum limits within which the operating Company could fix the fare with prior approval of the Government. These limits were as follows and they remained in force till 1918:-

<u>Class</u>	<u>Fares in pies per mile</u>	
	<u>Maxima</u>	<u>Minima</u>
First Class	18	12
Second Class	9	6
Inter Class	4½	3
Third Class	3	1½

It became necessary to fix the minimum limits for fares because some of the railway companies were fixing unremunerative fares due to competition. As the share holders were guaranteed the minimum return of 5%, the incidence of unremunerative fares ultimately fell on the Government.

7.05 During the period 1891 to 1918, the then Third Class was redesignated as Intermediate Class on many railways and provided with benches for sitting and the Fourth Class was renamed as Third Class and provided with bare open trucks in which the passengers sat on

the floor. Secondly, most of the railway companies reduced the fares within the range permitted, especially in the new Third Class, on account of limited capacity of the poorer population to pay, competition between different railway companies and non-existence of passenger amenities for Third Class passengers. Thus, by 1906 the fare basis of 3 pies per passenger per mile adopted in the initial stage of operation of Railway lines had come down to  $1\frac{1}{2}$  pies per mile on many systems.

#### Introduction of tapering

7.06 During the First World War (1914-18) and for some years thereafter, the railway companies adopted the policy of discouraging passenger traffic by increasing the fares. This approach was changed in the late twenties to arrest the decline in passenger revenue. One of the inducements, introduced for the first time, was to give the benefit of telescopic fares to Third Class passengers for long distance travel. For instance, in 1928-29 on the B.B. & C.I. Railway, for journeys over 150 miles by Third Class in Mail trains, the fare was reduced by  $\frac{1}{4}$  pies per mile.

7.07 The fares as they existed on various railway systems at the outbreak of Second World War (1939) are given in Statement 7-1. It will be seen that in most cases the rate per mile declined as distance increased. These fares were subjected to an ad hoc increase of 1 anna per rupee on the total passenger fare with effect from 1-3-40 and a flat increase of  $6\frac{1}{4}$  per cent on the total fare with effect from 1-3-1947.

#### Uniform fare structure

7.08 With the attainment of independence in 1947, for the first time a uniform basis of fares was adopted on entire Indian Railways from 1-4-1948. Air-conditioned Class of accommodation was introduced on important trains for the first time. The

basis of charge and the subsequent changes till 1951 are given below:-

Class	Pies per mile per passenger			
	From 1-4-1948	From 1-1-1949	From 1-12-1949	From 1-4-1951
Air-conditioned	36	36	30	30
First	30	24	24	27
Second	16	-	14	16
Inter (Mail)	9	9	9	10½
Inter (Ord.)	7½	7½	7½	9
Third (Mail)	5	5	5	6
Third (Ord.)	4	4	4	5

7.09 From 1-4-1955, the First Class was abolished and the then existing Second and Inter classes were designated as First and Second classes respectively. The basis of charge was revised as follows:-

Class	Pies per mile per passenger		
	1-150 miles	+151-300 miles	+301 miles and over
Air-conditioned	34	34	32
First	18	16	13
Second (Mail)	11	10½	9½
Second (Ord.)	9½	9	8½
Third (Mail)	6¼	6	5
Third (Ord.) above 50 miles	5¼	5	4½
Third (Ord.) upto 50 miles	5	-	-

#### Introduction of metric system

7.10 This basis was converted into metric system from 1-4-60 as follows:-

Class	Paise per kilometre per passenger		
	1-250 kms.	+251-500 kms.	+501 kms. and above
Air-conditioned	11.05	11.05	10.36
First	5.86	5.18	4.86
Second (Mail/Express)	3.58	3.40	3.08
Second (Ordinary)	3.10	2.92	2.76
Third (Mail/Express)	2.04	1.95	1.52
Third (Ordinary)	1.71	1.62	1.46
Third (Ord. upto 80 kms.)	1.64	-	-



Revision of fare structure in 1970-71

7.11 These fares were subject to ad hoc increases from 1962 to 1968 as per details given in Statement 7 -2. In the Budget proposals for 1970-71 the following revised basis of charge was proposed:-

Class	Basis for charge (in Paise)			
	1-100 kms. (per km.)	+101-600 kms. (per 5 km.)	+601-1600 kms. (per 5 km)	+1601 kms. and above (per 10 km.)
Air-conditioned	24	100	82	150
First	12	48	38	60
Second (Mail/Express)	7	28	22	36
Second (Ordinary)	6	24	18	32
Third (Mail/Express)	4	16	12	17
Third (Ordinary)	3	12	10	16

Third (Ordinary upto 50 kms.) existing fares to be increased by 5 paise upto 20 kms. and 10 paise from 21 to 50 kms.

During the Budget discussions, the proposed increase for Third Class - Mail/Express as well as Ordinary - was withdrawn but the increases for other classes were adopted.

7.12 Fares for all classes, however, were again subjected to ad hoc changes after 1970 with the result/<sup>that</sup>no clear basis for passenger fares exists. Details of the ad hoc changes made since 1970 are given in Statement 7 -3. Some of the highlights of these changes are -

- (i) The increases in upper classes were more than the increases in the Third class.
- (ii) The Third Class was exempted from the overall increase in passenger fares in April, 1972. In April, 1973 and September, 1974, Third Class passengers travelling upto 15 and 25 kms. respectively were exempted from fare increase.
- (iii) The former Second Class accommodation was abolished from 1-4-1974 and the former Third Class redesignated as Second Class.

- (iv) Concessional fare table for Third Class Ordinary passengers upto 50 miles was introduced in 1955, converted to metric unit of 80 kms. in 1960 and reduced to 50 kms. in 1962. It was abolished from 1.4.79 on the recommendations of Rail Tariff Enquiry Committee in its Interim Report.
- (v) Concessional fare table for Third Class Mail/Express passengers upto 50 kms. was introduced in July, 1962 and abolished from April, 1974.

### Passenger tax

7.13 On 15-9-57 the following tax on passenger fares was levied under the Railway Passenger Fares Tax Act, the proceeds of which were payable to the States:-

<u>Distance</u>	<u>Rate of passenger tax</u>
1 - 15 miles	Nil
16 - 30 "	5% of the total fare
31 - 500 "	15% of the total fare
Over 500 miles	10% of the total fare

This tax was merged in passenger fares from 1-4-61 with the arrangement that Rs.12.50 crores was to be paid annually by the Railways to the general revenues for making grants in aid to State Governments. This was increased to Rs.16.25 crores subsequently. From 15-11-71, a passenger tax was levied at the rate of 5% of the fare on all tickets costing Re.1/- or more, the proceeds being credited to the State Governments. This was, however, withdrawn from 1-4-73.

### Minimum fare

7.14 The <sup>minimum</sup> fares in force from time to time since 1960 are shown in Statement 7 -4. Existing minimum fares are as follows:-

<u>Class</u>	<u>Minimum fares (Rs.)</u>
Air-conditioned	34.00
First Class (Mail/Express)	13.50
First Class (Ordinary)	5.50
A.C. Chair Car	7.50
Second Class (Mail/Express)	0.65
Second Class (Ordinary)	0.50

} Revised nomenclature  
as Second Class  
w.e.f. 1.4.1974.

Distance blocks for charging fares

7.15 Upto March, 1965, passenger fares were quoted for each kilometre. From 1.4.65, however, the system of charging same fares for blocks of 5 kms., for journeys between 401 and 1600 kms. and for blocks of 10 kms. for journeys over 1600 kms. was introduced. The system as on 1.4.65 and the subsequent changes are summarised below:-

<u>Kn.</u>	<u>1.4.65</u>	<u>15.6.67</u>	<u>1.4.70</u>	<u>1.7.71</u>
1 - 100	One kn.	One kn.	One kn.	One kn.
101 - 200	One kn.	One kn.	5 kms.	One kn.
201 - 400	One kn.	5 kn.	5 kn.	5 kn.
401 - 1600	5 kn.	5 kn.	5 kn.	5 kn.
Over 1600	10 kn.	10 kn.	10 kn.	10 kn.

There is no change in distance blocks since 1.7.71.

Taper

7.16 As indicated earlier, initially the basis of fares was a flat charge per mile irrespective of the distance travelled. However, in inter-war period, the principle of charging a lower fare per kilometre with increase in the distance got incorporated in the tariffs of most of the railway companies. This position continued till 1948 when the telescopic principle was given up and uniform fares on the basis of a flat charge per kilometre irrespective of the distance were adopted for the entire Indian Railway system. This basis of flat charge was continued during the revisions of fares in January, 1949, December, 1949 and April, 1951. In April, 1955, however, the telescopic principle was reintroduced and it has now become an integral feature of our fare system.

7.17 The fare basis introduced in 1955 and converted into metric system in 1960 had three distance slabs for providing the taper, viz., 1 to 250 kms., +251 to 500 kms. and +501 kms. and above. From 1962 to 1968 ad hoc increases in fares were made with the result that the basis of taper got obscured. However, in 1970, a revised basis of charge was adopted in which four distance slabs were provided: 1 to 100 kms., +101 to 600 kms., +601 to 1600 kms., and +1601 kms. and above.

An interesting variation introduced in this system was that the unit for calculating per kilometre charge was 1 km. between 1-100 kms., 5 kms. between 101 - 600 and 601-1600 kms. and 10 kms., for over 1600 kms. As the proposal for Third Class fares proved unpopular in Parliament and was withdrawn, the distortion in telescopic structure due to ad hoc increases from 1962 onwards could not be rectified in respect of this class.

After 1970, the fare structure for all classes got distorted due to the ad hoc increases indicated in Statement 7-3. As a result, it is not possible to indicate today any clear basis for the taper provided at various distances.

7.18 Comparative analysis of the taper for selected distances in 1955, 1970 and at present is given in Statement 7-5. Taking the fare at 100 kms. as base = 100, the taper at 3000 kms. for First and Second Classes varied from 86 to 83 in 1955. In 1970 it had come down to between 74 and 61. Today it is in the range of 58 to 43. For A.C. Chair Car it has come down to 34. Thus, the taper at longer distances has been progressively getting steeper over the years.

#### A.C. Chair Car

7.19 Fully air-conditioned vestibuled trains were introduced in 1956-57, one each on New Delhi-Howrah and New Delhi-Bombay routes and A.C. Chair Car accommodation provided for the first time. The fare levied was the then Third Class Mail/Express fare plus a surcharge of 4 pies per mile converted into metric unit of 1.25 paise per km. from 1-4-60. From 1-4-68, the fare was brought on par with Second Class. However, from 1-4-70, the following separate fare basis was evolved for A.C. Chair Car as a distinct class of accommodation for the first time:-

<u>Distance</u> (in Kms.)	<u>Unit</u>	<u>Fare (In Paise)</u>
1 - 100	Per km.	9
+ 101 - 600	Per 5 km.	32
+ 601 - 1600	Per 5 km.	22
+1601 and above	Per 10 km.	36

Since then the fare has been subjected to ad hoc increases as indicated in Statement 7-3.

Rajdhani fares

7.20 Bi-weekly Rajdhani Express trains, which are much faster and provide more comfortable travel than any other train, were introduced on the New Delhi-Howrah route in 1969 and New Delhi-Bombay Central route in 1972. Only Air-conditioned and A.C. Chair Car accommodation was provided on these trains and the special fares charged included the cost of meals and reservation fee. Rajdhani fares between New Delhi - Howrah and New Delhi-Bombay Central, as they evolved from time to time, are given in Statement 7.6.

Sleeper surcharge

7.21 Sleeping accommodation in the Third Class (now Second Class) was first introduced on Indian Railways in 1954. Ordinary Third Class coaches were converted for this purpose and a charge of Rs.3/- per berth per night was levied on passengers availing this facility. These coaches had three-tier wooden berths. In 1956, Third Class sleeper coaches with 2-tier sitting-cum-sleeping arrangement were introduced on an experimental basis. The upper bunks were fitted with 2" thick foam cushions to be used as sleeping berths on payment of Rs.3/- per night; the lower berths **being** used for sitting accommodation. In 1959, the sleeping charge was withdrawn ~~for~~ all passengers travelling for more than 500 miles and a new design of Third Class 3-tier sleeper coach having a capacity of 75 on B.G. and 64 on M.G. was adopted. It was also decided to introduce such coaches on all Mail/Express trains having a total run of over 800 miles on B.G. and over 450 miles on M.G. The sleeping surcharge, however, was re-introduced in 1968 for passengers holding tickets for more than 500 miles.

The surcharge revised from time to time is given in the

details below:-

SECOND CLASS (2-tier & 3-tier) SLEEPER SURCHARGE  
FROM 1954 ONWARDS

Date	Second Class Sleeper Three-tier		Second Class Sleeper Two-tier	
	First night	Subsequent night	First night	Subsequent night
	Rs.	Rs.	Rs.	Rs.
April, 1954	3.00	3.00	-	-
July, 1956	3.00	3.00	3.00	3.00
April, 1959	3.00	-	3.00	3.00
April, 1962	3.50	3.50	3.50	3.50
April, 1968	4.00	1.00	4.00	4.00
April, 1974	5.00	3.00	5.00	5.00
April, 1978	5.00	-	5.00	-

7.22 An improved design of Second Class 3-tier sleeper coach consisting of cushioned berths/seats has been introduced on a number of important long distance trains starting in 1977 with Geotanjali Express between Calcutta and Bombay. Such coaches are being introduced on all Mail/Express trains involving night journeys on a programmed basis.

Supplementary charge

7.23 The concept of levying supplementary charge for travel on super fast trains was introduced for the first time on 1-4-1973 on 8 pairs of B.G. trains. The charges levied were as follows:-

<u>Class</u>	<u>Supplementary charge per ticket</u> Rs.
A.C.C.	10.00
First	5.00
A.C. Chair Car	3.00
Second	1.50

The charge for Second Class was reduced to Re.1/- from 1-4-1978.

7.24 The number of trains on which supplementary charge is levied has been increased from time to time consequent on introduction of new superfast trains. However, certain anomalies had arisen in the selection of the trains for levy of this charge

and a complete review of the subject was undertaken by Railway Board in 1978. At present there are in all 22 pairs of trains on which supplementary charge is levied out of which 2 are on M.G. and the rest on B.G. system.

#### Reservation fee

7.25 In 1958, a reservation fee of 4 annas per seat/berth was introduced for Second and Third Class and 8 annas per seat/berth for Air-conditioned and First Class. Subsequent changes made in the reservation fee are given below:-

Class	Reservation fee per seat/berth (in Rs.)			
	1958	15-6-67	1-4-74	1-4-78
A.C.C.	0.50	1.00	5.00	5.00
First	0.50	1.00	2.00	2.00
A.C. Chair Car	-	-	1.00	1.00
Second	0.25*	0.50*	0.50	0.25

\*Then Third Class.

#### Platform tickets

7.26 Charges for platform tickets from 1-4-55 onwards are given below:-

<u>Year</u>	<u>Platform charges (In Paise)</u>
1-4-55	6 (one anna)
1-4-60	10
15-6-67	15
1-4-68	20
1-4-70	25
1-4-74	50
1-7-77	30

#### Passenger fares - Certain aspects

7.27 An analysis of the changes in passenger fares brings out the following features:-

- (a) The increase in fares since 1960 has been much more in upper classes as compared to the existing Second Class. This is confirmed by Statement 7 -7 which compares the

existing fares with those prevalent in April, 1960 at selected distances. It shows that proportionate increase in A.C. and First Class fares has been more than in A.C. Chair Car or Second Class.

- (b) The increase in fares has not kept pace with the rise in cost of living. The average revenue earned per kilometre has increased at much slower rate than the prices generally with the result that the real cost of travel has been decreasing year by year in sharp contrast to the increase in other ingredients of the cost of living. This is brought in Statement 7-8 where average revenue per passenger kilometre realised over the years has been compared with the cost of living index. While the cost of living index with 1960-61 as the base year went upto 324 in 1978-79, the index of earnings per kilometre increased only upto 236 for Second Mail/Express and 187 for Second (Ordinary).



Basis of fares on various Railways in 1939

D - Distance in miles

F - Fare per mile in pies

1.	B.A. Railway				BB & CI Railway		B.N. Railway		E.I. Railway						
	A.B. Zone		E.B. Zone		D	F	D	F	D	F					
	D	F	D	F							2.	3.	4.	5.	6.
First	Any	13	1-150 +151 & beyond	24	1-300 +301 & beyond	24	1-300 +301 & beyond	24	1-300 +301 & beyond	24	1-300 +301 & beyond	24	1-300 +301 & beyond	18	1-300 +301 & beyond
Second	-	-	1-150 +151 & beyond	15	1-300 +301 & beyond	12	1-300 +301 & beyond	12	1-300 +301 & beyond	12	1-300 +301 & beyond	12	1-300 +301 & beyond	7 1/2	1-300 +301 & beyond
Inter (Mail)	1-300 +301 & beyond	5 4	1-300 +301 & beyond	5 4 1/2	1-300 +301 & beyond	6 5	1-300 +301 & beyond	7 5	1-300 +301 & beyond	5 1/2 4	1-300 +301 & beyond	5 1/2 4	1-300 +301 & beyond	4	1-300 +301 & beyond
Inter (Ordy)	1-300 +301 & beyond	5 4	1-300 +301 & beyond	5 4 1/2	1-150 +151 & beyond	5 4	1-300 +301 & beyond	5 3 1/2	1-300 +301 & beyond	5 1/2 4	1-300 +301 & beyond	5 1/2 4	1-300 +301 & beyond	4	1-300 +301 & beyond
Third (Mail)	1-300 +301 & beyond	4 3 1/2	1-300 +301 & beyond	3 1/2 2	1-50 +51-155 +156-300 +301 & beyond	4 1/2 4 3 3/4	1-300 +301 & beyond	4 1/2 3 1/2	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond
Third (Ordy)	1-300 +301 & beyond	4 3 1/2	1-300 +301 & beyond	3 1/2 2	1-50 +51-150 +151-300 +301 & beyond	3-3/4 3 3/4 3 2-3/4	1-300 +301 & beyond	3 1/2 2 1/2	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond	3 1/2 3 1/2 2 1/4	1-50 +51-250 +251 & beyond

Statement 7.1

Basis of fares on various Railways in 1939

D - Distance in miles

F - Fare per mile in pies

G.I.P. Railway		M.S.M. Railway		N.W. Railway		O.T. Railway				S.I. Railway		
D	F	D	F	D	F	B&W Zone		R&K Zone		D	F	
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24
1-300 +301 & beyond	24 15	Any	24	1-300 +301 & beyond	24 18	1-150 +151 & beyond	18 12	Any	36	Any	24	First
1-300 +301 & beyond	12 9	Any	12	1-300 +301 & beyond	12 9	1-150 +151 & beyond	9 6	Any	15	Any	12	Second
1-300 +301 & beyond	7 1/2 6	Any	6	1-50 +51-250 +251- & beyond	5 1/2 4-3/4 3-3/4	Any	4	-	-	Any	7 1/2	Inter (Mail)
Any	6	Any	6	1-50 +51-250 +251 & beyond	5 1/2 4-3/4 3-3/4	Any	4	-	-	-	-	Inter (Ordy)
1-50 +51 & beyond	5 3	1-50 +51-200 +201 & beyond	4 1/2 4 3 1/2	1-300 +301 & beyond	3 1/4 2 1/4	-	-	-	-	1-300 +301 & beyond	4 3 1/2	Third (Mail)
1-50 +51 & beyond	4 3	1-50 +51-100 +101-200 +201 & beyond	4 3 1/2 3 2 1/2	1-300 +301 & beyond	3 1/4 2 1/4	1-50 +51-300 +301 & beyond	2 1/2 2 1 1/2	-	-	-	-	Third (Ordy)

Ad hoc changes in passenger fares - 1962 to 1968

Date of increase in Passenger Fare	Air-conditioned Class	First Class	Second Class Mail/Express (Old)																
1.	2.	3.	4.																
1.7.1962	No increase	15% at all distances	10% at all distances																
1.4.1965	i) 1-1200 kms = 10% ii) Over 1200 kms = Rs.14.75 for each distance block	i) 1-1000 kms = 10% ii) Over 100 kms = Rs.6.75 for each distance block.	i) 1-300 kms = 10% ii) Over 300 kms = Rs.3.40 for each distance block.																
15.6.1967	15% at all distances	i) 1-1500 kms = 15% ii) Over 1500 kms = Rs.15.50 for each distance block.	i) 1-1500 kms=15% ii) Over 1500 kms= Rs.9.25 for each distance block.																
1.4.1968	10% at all distances	The increases were made as under:																	
		<table border="1"> <thead> <tr> <th>Value of ticket</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>i) Upto Rs.5/-</td> <td>5Paise</td> </tr> <tr> <td>ii) More than Rs.5/- but less than Rs.15/-</td> <td>10 "</td> </tr> <tr> <td>iii) More than Rs.15/-</td> <td>25 "</td> </tr> </tbody> </table>	Value of ticket	Increase	i) Upto Rs.5/-	5Paise	ii) More than Rs.5/- but less than Rs.15/-	10 "	iii) More than Rs.15/-	25 "	<table border="1"> <thead> <tr> <th>Value of ticket</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>i) Upto Rs.5/-</td> <td>5 Paise</td> </tr> <tr> <td>ii) More than Rs.5/- but less than Rs.15/-</td> <td>10 "</td> </tr> <tr> <td>iii) More than Rs.15/-</td> <td>25 "</td> </tr> </tbody> </table>	Value of ticket	Increase	i) Upto Rs.5/-	5 Paise	ii) More than Rs.5/- but less than Rs.15/-	10 "	iii) More than Rs.15/-	25 "
Value of ticket	Increase																		
i) Upto Rs.5/-	5Paise																		
ii) More than Rs.5/- but less than Rs.15/-	10 "																		
iii) More than Rs.15/-	25 "																		
Value of ticket	Increase																		
i) Upto Rs.5/-	5 Paise																		
ii) More than Rs.5/- but less than Rs.15/-	10 "																		
iii) More than Rs.15/-	25 "																		

Note: Concessional fare table for third class Mail/Express passengers travelling upto 50 kms was introduced from 1.7.62 and ultimately abolished from 1.4.1974.

Statement 7.2

Ad hoc changes in passenger fares - 1962 to 1968

Second Class (Ordy.)	Third Class Mail/Express	Third Class (Ordy.)	Date of increase in Passenger Fare.
5.	6.	7.	8.
10% at all distances	10% at all distances	10% at all distances	1.7.1962
i) 1-300 kms = 10% ii) Over 300 kms = Rs.2.95 for each distance block	i) 1-300 kms = 10% ii) Over 300 kms = Rs.1.90 for each distance block.	i) 1-300 kms = 40% ii) Over 300 kms = Rs.1.60 for each distance block.	1.4.1965
i) 1-500 kms = 12 1/2% ii) 501-1500 kms = 10% with marginal adjustment between 501-545 kms to obtain gradual drop in the rate of increase.	i) 1-1500 kms = 12 1/2% ii) Over 1500 kms = Rs.4.20 for each distance block.	i) 1-500 kms = 5% ii) Over 501 kms = Rs.0.60 for each distance block.	15.6.1968
iii) Over 1500 kms = Rs.5.45 for each distance block.			
The increases were made as under:	The increases were made as under:	The increases were made as under:	1.4.1968
Value of ticket	Increase	Value of ticket	Increase
Value of ticket	Increase	Value of ticket	Increase
i) Upto Rs.5/-	5 Paise	i) Upto Rs.5/-	5 Paise
ii) More than Rs.5/- but less than Rs.15/-	10 "	ii) More than Rs.5/- but less than Rs.15/-	10 "
iii) More than Rs.15/-	25 "	iii) More than Rs.15/-	25 "

Note: Concessional fare table for third class Mail/Express passengers travelling upto 50 kms was introduced from 1.7.62 and ultimately abolished from 1.4.1974.

Ad hoc changes in passenger fares after 1970

1.7.1971		Increase in fares per ticket							
		Distance zones							
Class		1-15	16-30	31-50	51-100	101-200	201-500	501-1000	1001 and above.
		Kms.	Kms.	Kms.	Kms.	Kms.	Kms.	Kms.	Kms.
Air-conditioned	No change	1.00	1.00	2.00	2.00	4.00	5.00	7.00	
Ist Class	"	0.50	0.50	1.00	1.00	2.00	2.50	3.50	
A.C. Chair Car	"	0.50	0.50	1.00	1.00	1.50	2.00	2.00	
Second (M/Exp)	"	0.50	0.50	1.00	1.00	1.50	2.00	2.00	
Second (Ord)	"	0.50	0.50	0.50	0.50	1.00	1.50	2.00	
Third (M/Exp.)	"	0.15	0.20	0.25	0.25	0.50	0.75	1.00	
Third (Ord.)	"	0.05	0.10	0.15	0.20	0.25	0.25	0.25	

15.4.1972

		Increase in fares per ticket.							
		Distance zones							
Class of Travel		1-19	20-50	51-100	101-200	201-500	501-1000	1001-1500	Beyond 1500
		Kms.	Kms.	Kms.	Kms.	Kms.	Kms.	Kms.	Kms.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Air-conditioned		1.00	2.00	2.00	3.00	4.00	6.00	8.00	10.00
First Class		0.50	1.00	1.00	1.50	2.00	3.00	4.00	5.00
A.C. Chair Car		Nil	0.50	0.75	1.00	1.50	2.00	2.50	3.00
Second (M/Exp)		Nil	0.50	0.50	0.75	1.00	1.25	1.50	2.00
Second (Ord)		Nil	0.25	0.50	0.50	0.75	1.00	1.25	1.50

No increase was made in Third Class.

1.4.1973

Fares were increased by 5% in all classes other than Third Class. For Third Class there was no increase for 1-15 kms. Over journeys exceeding 15 kms marginal increases were made in such a way that the total increase per ticket did not exceed 25 paise for ordinary and 95 paise for Mail/Express trains.

.....contd.

Statement 7-3 (contd.)

1.4.1974

Second class was abolished and the existing Third class was named as Second class. Fare increases were as follows:-

A.C. Class

<u>Distance</u> Kms.	<u>Increase per ticket</u> Rs. p.
1 - 50	15.00
51 - 400	21.00
401 - 500	35.00
501 - 750	50.00
751 - 950	65.00
951 - 1100	77.00
1101 - 1250	90.00
1251 - 1400	110.00
1401 - 1500	135.00
1501 - 1750	150.00
Beyond 1750	160.00

First Class

<u>Distance</u> Kms.	<u>Increase per ticket</u>	
	<u>First Class</u> Rs.p.	<u>A.C. Chair Car</u> Rs.p.
1 - 25	1.50	1.90
26 - 49	2.50	2.90
50 - 80	3.50	3.90
81 - 250	4.50	4.90
251 - 500	5.50	5.90
501 - 800	6.50	6.90
801 - 1000	8.50	8.90
1001 - 1500	10.50	10.90
1501 - 2000	12.50	12.90
Beyond 2000	15.50	15.90

.....contd.

## Statement 7-3 (contd.)

A.C. Chair Car

<u>Distance</u> Kms.	<u>Increase per ticket</u> Rs.
1 - 25	1.90
26 - 49	2.90
50 - 80	3.90
81 - 250	4.90
251 - 800	6.90
801 - 1000	8.90
1001 - 1500	10.90
1501 - 2000	12.90
Over 2000	15.90

Second Class (Mail/Express)

<u>Distance</u> Kms.	<u>Increase per ticket</u> Rs.
1 - 18	0.25
19 - 20	0.30
21 - 23	0.35
24 - 27	0.40
28 - 49	0.45
50 - 80	0.50
81 - 100	0.65
101 - 250	0.90
251 - 500	1.25
501 - 800	2.00
801 - 1000	3.00
1001 - 1500	4.00
1501 - 2000	5.00
2001 - 2500	6.00
2501 - 3000	7.00
Beyond 3000	8.00

..... contd.

Statement 7-3 (contd.)

Second Class (Ordinary)

<u>Distance</u> Kms.	<u>Increase per ticket</u> Rs.p.
1 - 25	0.05
26 - 49	0.10
50 - 80	0.25
81 - 100	0.35
101 - 250	0.50
251 - 500	0.60
501 - 800	0.70
801 - 1000	0.80
1001 - 1500	0.90
Beyond 1500	1.00

15.9.1974

<u>Class</u>	<u>Increase</u>
A.C.	25% for all distances
First and A.C. Chair Car	33 1/3% for all distances
Second (Mail/Exp.)	25% upto 250 kms. 20% over 250 kms.
Second (Ordinary)	No change upto 25 kms. 25% for 26-250 kms. 20% for over 250 kms.

1.5.1976

A.C. fares reduced to the level of 1.4.1974.

1.4.1979

Concessional Second Class ordinary fare table for 1 - 50 kms. was abolished on the recommendation of R.T.E.C. made in its Interim Report.



Statement 7.4

Changes in Minimum Fares for Passengers in Respect of Various Classes  
from 1-4-1960

Class	Minimum Fares									
	1-4-60	15-6-67	1-4-68	1-4-70	15-11-71	15-4-72	1-4-73	1-4-74	15-9-74	1-5-76
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Air-conditioned	5.00	10.00	11.00	15.00	15.75 Incl.tax	16.80 Incl.tax	19.00	34.00	43.00	34.00
First (Mail/Express)	0.20	5.00	5.05 incl.tax	6.00	6.30	6.30 incl.tax	7.00	10.00	13.50	13.50
First (Ordinary)	0.20	0.25	0.30	1.00	1.05 incl.tax	1.05 incl.tax	2.50	4.00	5.50	5.50
A.C. Chair Car	-	-	-	5.00	5.25 incl.tax	5.25 incl.tax	5.60	7.50	10.00	7.50
Second (Mail/Express)	0.15	3.00	3.05 incl.tax	3.50	3.70 incl.tax	3.70 incl.tax	4.00	Abolished w.e.f. 1-4-1974.		
Second (Ordinary)	0.15	0.20	0.25	0.50	0.50	0.50	1.00			
Third (Mail/Express)	0.10	0.15	0.20	0.20	0.20	0.20	0.25	0.50*	0.65	0.65
Third (Ordinary)	0.10	0.15	0.20	0.20	0.20	0.20	0.25	0.30*	0.30	0.30
Third (Upto 50 kms.)	0.10	0.15	0.20	0.20	0.20	0.20	0.25	0.30*	0.30	0.30

\*Revised nomenclature as Second Class with effect from 1-4-1974.

## Statement 7.5

Taper of Fares at selected distances (classwise)

Dis- tance Kms.	Second Class (Ordy;)			Second Class (M/E)			First Class			A.C. Chair Car			A.C. Class			Dis- tance Kms.
	1.4.55	1.4.70	Exist- ing	1.4.55	1.4.70	Exist- ing	1.4.55	1.4.70	Exist- ing	1.4.55	1.4.70	Exist- ing	1.4.55	1.4.70	Exist- ing	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
100	100	100	100	100	100	100	100	100	100	*	100	100	100	100	100	100
300	98	100	89	98	98	85	96	88	73	*	81	71	101	89	64	300
500	97	98	83	97	98	80	92	84	63	*	73	56	101	87	60	500
800	91	92	76	90	91	75	83	79	53	*	69	49	98	82	59	800
1000	89	87	72	83	86	72	87	75	55	*	66	46	93	79	57	1000
1200	89	84	69	86	82	70	86	74	54	*	63	44	97	77	56	1200
1600	87	73	64	84	77	65	85	71	51	*	59	41	97	75	57	1600
2000	87	73	61	83	73	60	84	67	47	*	55	38	96	73	53	2000
2400	86	76	60	83	70	58	84	64	45	*	53	36	96	71	49	2400
3000	86	74	58	82	68	55	83	61	43	*	50	34	96	69	46	3000

\* A.C. Chair Class  
introduced w.e.f.  
2.10.1956.

Rajdhani Fares

Statement 7-6

Date	New Delhi - Howrah				New Delhi - Bombay Central			
	A.C.C.		A.C. Chair Car		A.C.C.		A.C. Chair Car	
	Fares	Index	Fare	Index	Fare	Index	Fare	Index
1	2	3	4	5	6	7	8	9
	Rs.P.		Rs.p.		Rs.p.		Rs.p.	
1.3.1969	280.00	100	90.00	100	-	-	-	-
1.4.1970	300.00	107	100.00	111				
1.7.1971	307.00	110	102.00	113				
15.11.1971	322.35	115	107.10	119				
15.4.1972	335.85	120	117.60	131	-	-	-	-
17.5.1972	335.85	120	117.60	131	343.35	100	113.95	100
1.4.1973	378.00	135	124.00	138	348.00	101	120.00	105
1.1.1974	379.00	135	124.10	138	349.00	102	120.10	105
1.4.1974	520.00	186	148.00	164	465.00	135	144.00	126
15.9.1974	650.00	232	198.00	220	582.00	170	192.00	168
1.5.1976	520.00	186	148.00	164	465.00	135	144.00	126

## Statement 7.7

## Comparison of Fares on 1.4.1960 and 1.4.1980

Distance	A.C. Class			First Class			A.C. Chair Car			Second class (Mail/Exp)			Second Class (ord.)		
	1.4.60 Existing	Rs.p.	Index 1960=100	1.4.60 Existing	Rs.p.	Index 1960=100	1.4.60 Existing	Rs.p.	Index 1960=100	1.4.60 Existing	Rs.p.	Index 1960=100	1.4.60 Existing	Rs.p.	Index 1960=100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Kms.	Rs.p.	Rs.p.		Rs.p.	Rs.p.		Rs.p.	Rs.p.		Rs.p.	Rs.p.		Rs.p.	Rs.p.	
50	5.75	36.00	626	2.95	17.50	593	1.70	11.00	647	1.05	3.25	310	0.90	2.25	250
100	11.25	53.00	471	6.00	28.00	467	3.30	17.00	515	2.05	5.65	276	1.75	4.05	231
200	22.25	76.00	342	11.75	43.00	366	6.60	24.50	371	4.10	10.25	250	3.45	7.75	225
500	55.25	160.00	290	27.75	88.00	317	16.25	48.00	295	10.00	22.50	225	8.35	16.75	201
800	86.50	251.00	290	42.25	129.50	307	24.85	66.50	268	14.85	33.80	228	12.75	24.55	193
1000	107.25	300.00	280	52.00	153.50	295	30.60	78.50	257	18.10	40.45	228	15.65	29.00	185
1500	159.00	452.00	284	76.25	215.00	282	44.95	105.50	235	26.20	55.25	211	22.95	39.55	172
2000	210.75	563.00	267	100.50	265.00	264	59.30	128.00	216	34.30	68.15	199	30.25	49.80	165
2500	262.50	645.00	246	125.00	313.00	251	73.65	151.00	205	42.40	80.70	190	37.55	60.00	160
3000	314.25	728.00	232	149.25	357.50	226	88.00	171.00	194	50.50	93.00	184	44.85	70.20	157

Statement 7-8

Comparison of Average Rate charged per Km. with cost of living

Year	Average rate charged per passenger km.						Cost of living Index. Base 1960-61 = 100
	All classes suburban and non-suburban		Second class Mail/Exp.- Non-suburban		Second class (Ordinary) Non-suburban		
	Average rate per km.	Index	Average rate per km.	Index	Average rate per km.	Index	
	Paise		Paise		Paise		
1960-61	1.71	100	1.85	100	1.63	100	100
1965-66	2.28	133	2.68	145	2.07	127	136
1970-71	2.50	146	2.92	158	2.28	140	182
1975-76	3.46	202	4.25	230	3.10	190	306
1976-77	3.47	203	4.44	240	3.05	186	294
1977-78	3.52	205	4.48	243	3.07	188	317
1978-79	3.49	203	4.36	236	3.06	187	324

CHAPTER VIIITHE PROFILE OF THE RAILWAY PASSENGER

8.001 Railways compile a mass of statistics to monitor the volume of traffic, both passenger as well as goods. They run about 4000 trains everyday, carrying more than ten million passengers accounting for 525 million passenger kilometres. Each railway zone prepares detailed statistics in respect of passengers originating, passengers carried, and volume of traffic in various distance zones. These statistics are very useful, and were studied by us. No details were, however, available about the socio-economic profile of the railway passenger. Unlike in the case of suburban sections, where a preliminary survey had been earlier carried out by the Indian Institute of Management, Ahmedabad, no details in this regard were available in respect of the non-suburban passenger traffic. Even the analysis made by the Indian Institute of Management was not very comprehensive. The Committee had therefore to conduct a survey on its own, to analyse the profile of the suburban passengers as well as their requirements, and expectations. The results of that survey\* were made use of, while finalising our recommendations in the Interim Report in respect of the fare structure for season tickets, both suburban and non-suburban. They were again utilised by us, to frame our final recommendations.

8.002 While examining the fare structure of the non-suburban traffic, the Committee felt handicapped by the non-availability of any data regarding the general profile of the passenger - what his expectations are from the railways; what his difficulties are; what his paying capacity is; and most importantly, what are the improvements that he seeks from the railways.

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\*The details were given in Chapter VII of the Interim Report of the Committee. A further report on the survey is being submitted separately as Appendix X.

8.003 At present, there is no regular system by which the railway administration will know the nature and preferences of the users. While some inkling of the difficulties of the passengers can be gauged from the type of complaints which are received by the Complaints Cells of the various zonal railways, as well as the points raised in the meetings of the Divisional and Zonal Railway Users' Committees, no direct contact exists between the railway administration and its passengers. No organisation had, at any time, conducted surveys to analyse the socio-economic profile of the railway passengers.

8.004 Passenger traffic necessarily is the most sensitive area of railway operations, since almost every citizen in the country uses these services. While there is a general understanding of the difficulties faced by the passengers, there is no well documented report to indicate what exactly is the extent of the various problems faced by the passengers, and the nature of their expectations.

8.005 Since the Committee was entrusted, for the first time, with the task of looking afresh at the entire fare structure, it was felt that meaningful recommendations could be made only after this gap in information has been bridged. In view of the absence of information in this area, the Committee decided to carry out a Passenger Profile Survey of the non-suburban passengers throughout the country.

8.006 The principal objects of the survey could, therefore, be summarised as follows :-

- 1) To understand the socio-economic background of passengers travelling on different classes of the Indian Railways;
- 2) To ascertain the difficulties, priorities and preferences of passengers in connection with their rail travel.

8-007 The total number of non-suburban passengers in the year 1976-77 was 1498 million. The detailed statistics are placed at Statement 8.01. On examination of the distancewise statistics, it was found that, of the total non-suburban passengers, 58% were accounted for in the distance zone of 1 to 80 kms. If it is assumed that a large majority of these 58% travelled in short distance trains, we would get two distinct categories of passengers, viz.,

- 1) Those who travelled for short distances in short distance trains; and
- 2) Those who travelled longer distances in superfast, mail/express, and other long distance passenger trains.

Of course, there would be some passengers in the distance zone of 1 to 80 Kms who would be travelling in other than short distance trains.

8.008 We felt that the socio-economic profile, of the two categories of passengers were likely to be somewhat different. The expectations of the short distance passengers, who travelled on the railways for short durations, would certainly be of a different kind from those of passengers who travelled long distances on fast trains.

8.009 In view of these considerations, we felt that the survey could be divided into two parts, viz.,

- a) Survey of non-suburban passengers on short distance trains;
- b) Survey of passengers on superfast, Mail/Express, and long distance trains.

In fact, two separate surveys were conducted at different times to ensure that there was no confusion in the minds of Investigators, and the Questionnaire for one survey was not used for the other one.



8.010 Two separate questionnaires were therefore designed. They differed in one basic detail. The Questionnaire for passengers on the short distance trains was shorter and had eight questions. It was designed to elicit the basic information in regard to the profile of passengers travelling on short distance trains. The questionnaire for the long distance trains, included all the questions in the Questionnaire for short distance trains, but had a total of 13 questions. The additional five questions were designed to obtain information in regard to the special features which normally go with travel on long distances and fast trains. To differentiate the two questionnaires, the questionnaire for the short distance trains was printed on white paper, and the one for long distance trains was printed on yellow paper. Specimen copies of the two Questionnaires are given at the end of the Chapter.

#### Organisation

8.011 It was decided to organise and conduct the survey directly through the Railway organisation. For its implementation, a Passenger Profile Survey Cell was set up on each zonal railway. This Cell had one Assistant Commercial Officer, assisted by three Inspectors on each Railway. These Cells functioned under the direct control of the Chief Marketing Superintendents of the Zonal Railways. The conduct of the survey was organised by the Rail Tariff Enquiry Committee with the active co-operation of the Operational Research Cell of the Railway Board as well as the Chief Marketing Superintendent of the Northern Railway. The Joint Director, Operational Research and the Chief Marketing Superintendent, Northern Railway were nominated by the Railway Board to assist in the general organisation and conduct of the survey.

8.012 The experience gained by the Committee while conducting the survey on the suburban section, was made use of while organising this survey. Much emphasis was placed on the training of officers and staff who were charged with the responsibility for the actual conduct of the survey.

8.013 This effort paid good dividends. When the results of the survey were compiled, it was found that there had been very few mistakes.

Sampling

8.014 The details of the non-suburban population are given in the table given below -

The average daily number of non-suburban passengers on Indian Railways was of the order of 4,541,000 comprising of 24,000 Upper class passengers, and 4,517,000 Second class passengers.

Estimated daily Population of Non-Suburban PassengersUPPER CLASS

1. First Class	21,000
2. A.C. Chair Car	2,000
3. A.C. First Class	1,000
4. Total Upper Class	24,000

LOWER CLASS

5. Second Class Mail/ Express	6,33,000
6. Second Class Ordinary	3,884,000
Total Lower Class	4,517,000
Total Lower and Upper Class	4,541,000

These figures relate to 1976-77, inflated by 4% to 31% in various classes, keeping in view the rate of growth of daily traffic on the Indian Railways since that year.

8.015 From this large population, a representative sample had to be abstracted. Keeping in view the size of the population in various classes, it was felt that 25% of the Upper Class passengers, 1% of the Second Class Mail/Express passengers, and 1/2% of Second class ordinary passengers would constitute a reasonable sample.

8.016 The details of the size of the sample are indicated

in the table given below :-

Non-Suburban Sample Population

UPPER CLASS

1. First Class (at 25% of Population)	5,250
2. A.C. Chair Car -do-	500
3. A.C. First Class -do-	250
Total Upper Class	6,000

LOWER CLASS

4. Second Class Mail/Express (at 1% of population)	5,330
5. Second Class Ordinary (at 1/2% of population)	19,420
Total Lower Class	25,750
Total Upper & Lower Class	31,750

The total sample size, therefore, came up to a figure of 31,750. It was, therefore, decided to have a round figure of 32,000 enquiries, comprising 16,000 enquiries for short distance trains, and another 16,000 for Superfast, Mail/Express, and long distance passenger trains.

8.017 Having finalised the size of the total sample, it was further sub-divided into samples for various railways, trains, and classes. This was based on the volume of traffic in various classes on each railway.

8.018 In selecting the trains on which the survey was to be conducted, it was necessary to ensure that the survey covered passengers on streams of traffic from all parts of the country, so as to get a representative picture of the passenger profile. After careful consideration, it was decided to cover the trains in the following manner :

- 1) 100% of superfast trains;
- 2) 50% of Mail/Express trains;
- 3) 20% of long distance passenger trains;
- 4) 40% of short distance passenger trains.

8.019 To ensure that the sample was free from bias, a list of trains originating on each zonal railway was drawn up. All superfast trains were included in the survey, and the individual Mail/Express, long distance and short distance trains were selected on the basis of random sample to ensure that there was no bias.

Conduct of Survey

8.020 Though the Questionnaire was made as brief as possible, considerable care had to be taken while administering the Questionnaire and sufficient time had to be given, both to the passenger as well as to the Investigator, to ensure that answers were correctly filled in. Since the passenger is almost invariably in a hurry while he is buying a ticket, and while ontraining and detraining, it was felt that it would be impractical to get the Questionnaires answered during those portions of a passenger's journey. It was therefore decided that the answers to the Questionnaires should be filled in by the Investigators on the train during a journey. To ensure that a representative sample was selected, the Investigators were instructed to choose their passengers at random, choose passengers from different compartments and bogies, and administer the Questionnaires both to men and women.

8.021 Since considerable work was involved in getting the Questionnaire filled, it was decided to limit the volume of work assigned to each Investigator, to no more than 100 Questionnaires to be filled in 10 different trips. The Chief Marketing Superintendents had also been requested to have the working of the Investigators supervised by deputing a few Inspecting officials on the nominated trains, to ensure that the survey was being carried out according to the instructions issued. In addition, officials were also deputed during the period of survey to conduct on the spot checks.

8.022 To solicit the co-operation of passengers for answering the Questionnaire, an "Appeal to the passengers", indicating therein the object of the survey, was distributed to all the Investigators. They were instructed to hand over this 'Appeal' to any passenger who expressed doubts or suspicion while answering the Questionnaires. These 'Appeals' were got printed in English and also in all the regional languages, so that no difficulty in communication should arise. Printed instructions were also made available to individual

Investigators, which could be referred to by them in case any doubts arose, during the conduct of the survey.

8.023 The Committee was interested in obtaining the responses of passengers during a normal period of the year. The nature of the population could be vitiated by special circumstances like travel during vacations, bathing festivals, marriage seasons etc. Since schools closed for vacations at different times in different States, and special occasions which result in intensive travel occur with regularity in different parts of the country, we had to select the dates of the survey with care to ensure that the sample was a proper one. In view of these considerations, it was decided to conduct the survey between 20.3.1979 and 5.4.1979. The survey for the short and long distance trains was organised on different dates to ensure that the Questionnaire for one survey was not used for the other one.

8.024 The completed Questionnaires, after checking and punching, were forwarded to the Computer Centre, Railway Board, for analysis and print out of the results. The programmes for the Computer analysis were written and tested by the staff of the Computer Centre, Railway Board.

Results

8.025 The data obtained from the surveys were analysed and have been tabulated as follows :

Long distance Trains

1. Distribution of passengers railwaywise.
2. Distribution of passengers classwise.
3. Distribution of passengers travelling in second class only.
4. Object of journey categorywise of self-employed persons.
5. Self-employed passengers "Who is payingwise".
6. Nature of tickets held, by other than self-employed passengers.
7. Reasons for preferring rail travel in case of passengers travelling upto 80 Km.
8. Distribution of passengers - type of trainwise.
9. Distribution of passengers professionwise;classwise.
10. Distribution of passengers professionwise and distancewise.
11. Distribution of passengers distancewise and income wise.
12. Distribution of passengers by who is paying the fare, and how much more he is willing to pay if the train is further speeded up-wise.

Short distance Trains

13. Distribution of passengers railwaywise.
14. Distribution of passengers classwise.
15. Object of journey categorywise of self-employed persons.
16. Self-employed passengers "Who is payingwise".
17. Nature of tickets held by other than self-employed passengers.
18. Preferences for rail travel vis-a-vis Bus, by passengers travelling upto 80 Kms.
19. Distribution of passengers Professionwise;classwise.
20. Distribution of Passengers distancewise and income wise.

8.026 The details about the organisation of the Survey, its methodology and detailed results are given in Appendix X. We are confining ourselves here to the summary tables of direct relevance for the Committee's analysis and recommendations.

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10. Distribution of passengers professionwise and distancewise.
11. Distribution of passengers distancewise and income wise.
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8.026 The details about the organisation of the Survey, its methodology and detailed results are given in Appendix X. We are confining ourselves here to the summary tables of direct relevance for the Committee's analysis and recommendations.



### The Sample Population

8.027 Because of the varying proportions selected from different classes and trains, the sample size proportions are not the same as in the actual passenger traffic on the Railways (See Table 8.01). It may be noted that the choice was made as, otherwise, the number in the sample in the higher classes would have been too small to be representative.

8.028 Of the long distance passengers, the sample consisted of 9% passengers who travelled in superfast trains, 55% in Mail/Express trains and 36% in long distance passenger trains. The largest percentage, viz., 46% was of those who travelled in Second Class (sitting), followed by 23% who travelled in the Second Class Sleeper, 25% who travelled in the First Class, and 2% who travelled in the Air-conditioned Class. The A.C. Chair Car class accounted for 3% of the passengers in the sample.

8.029 Of the short distance passengers, 93% of all passengers interviewed travelled in Second sitting accommodation, while 6% travelled in First Class. Only 1% were travelling in Second Sleeper accommodation. The very large percentage in this Survey of passengers travelling in Second Sitting accommodation is mainly due to the fact that this is generally the kind of accommodation offered in short distance trains. Sleeper accommodation is normally not provided in short distance trains.

(Table 8.02)

8.030 As our understanding of the socio-economic profile as also the preferences and reactions of the passengers have to be related to the class of accommodation and type of train by which the passenger travels, the main aspects which were examined in the Survey are being described separately for these different types of classes. The main results of the Survey will be seen from the Tables given in this Chapter and the Statements following it. Some of the important points are being high-lighted and their implications pointed out below. Further details regarding the nature of the Survey, how it was organised, and the detailed results obtained are given in Appendix X.

Table 8.01

Table showing Passenger population during 1976-77  
and Sample passenger population Surveyed

	Total population 1976-77		Daily population 1976-77		Sample population	
	(In thousands)	%	(In units)	%	(In units)	%
A.C.	243.8	0.016	570	0.016	250	0.781
Ist	6301.8	0.421	17,270	0.421	5,250	16.406
AC Chair Car	446.3	0.030	1,220	0.030	500	1.563
II Mail/ Express	138,538.2	12.586	516,680	12.536	6,600	20.625
II Ordinary	1,302,807.1	86.947	3,569,330	86.947	19,400	60.625
Total	1,498,387.2	100	4,105,170	100	32,000	100

Table 8.02

Type of Train

Description	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Super fast	35.02	6.69	30.17	77.38	64.98	14.76	2.40	9.45
b) Mail/ Express	63.81	62.47	67.04	21.43	35.02	75.06	41.25	54.63
c) Long distance passenger	1.17	30.83	2.79	1.19	-	10.18	56.35	35.93
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	= 257	= 3869	= 179	= 84	= 474	= 3604	= 7212	= 15679

Classwise %age to total sample

a) Passengers on Long distance trains	1.64	24.68	1.14	0.54	3.02	22.99	46.00	100.00= 15679
b) Passengers on Short distance trains	-	5.93	-	0.01	-	0.91	93.14	100.00= 15428

LONG DISTANCE PASSENGERSReservations:

8.031. A vast majority of the long distance passengers in the higher classes and II class sleeper travelled with reserved accommodation. 97% of the Air-conditioned passengers, 59% of First Class Passengers and 99% of Second Class sleeper Passengers travelled in reserved compartments. Only 10% second class sitting passengers travelled in reserved compartments, while 90% of second class sitting passengers travelled in unreserved compartments. (Table No. 8.03)

Agewise Analysis:

8.032. Of the Air-conditioned passengers, 35% were in the age group of 25 to 40 years, and 57% were in the age group of 40 to 60 years. On the other hand, in the first class, 44% were in the age group of 25 to 40 years, and an almost equal proportion, 45%, in the age group of 40 to 60.

8.033. Of the second class sleeper passengers, 49% passengers were in the age group of 25 to 40 years, while 30% were in the age group of 40 to 60 years. A significant percentage, viz., 16% were in the age group of 18 to 25 years. The age distribution of the second class sitting passengers is not very different. (Table No. 8.04)

Table 8.03

Nature of accommodation

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
Reserved,	96.89	59.27	82.68	96.43	98.52	98.95	10.02	48.01
Unreserved,	3.11	40.73	17.32	3.57	1.48	1.05	89.98	51.99
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 = 15679

Table 8.04

Age-wise Analysis

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
Age:								
a. below 12 yrs.	-	0.26	0.56	-	-	0.11	0.36	0.26
b. 12 to 18	-	0.98	0.56	-	0.84	1.28	3.20	2.04
c. Over 18 to 25 yrs.	4.28	6.82	8.38	11.90	20.46	16.48	17.94	14.57
d. Over 25 to 40 yrs.	35.02	44.02	49.16	50.00	46.84	48.81	44.12	45.19
e. Over 40 to 60 yrs.	56.81	44.56	38.55	38.10	26.58	29.66	28.74	33.41
f. Over 60 years.	3.89	3.36	2.79	-	5.27	3.66	5.63	4.52
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 2712	100.00 = 15679

### SEX AND EDUCATIONAL QUALIFICATIONS

8.034. 95% of Air-conditioned passengers, 92% of first class passengers; 87% of second sleeper passengers, and 84% of second sitting passengers were males. It is interesting to note that the proportion of females increases in lower classes.

8.035. 43% of the Air-conditioned passengers were Graduates; while 46% were post-graduates and above.

8.036. In the case of first class, 27% were Matriculates or equivalent, while 45% were Graduates, and 22% were post-graduates.

8.037. In the case of second sleeper population, 19% were non-matriculates, 33% were Matriculates or equivalent, while 34% were Graduates and 11% were post-graduates or above.

8.038. Of the second sitting population, 13% were illiterates, 28% were non-matriculates, 33% were Matriculates or equivalent, while 21% were Graduates and 6% were post-graduates and above.

8.039. It may be noticed that <sup>of</sup> the A.C. Chair Car passengers, over 52% were graduates and over 22% post-graduates. ( Table No. 8.05)

Table 8.05

Sex and Educational Qualifications

	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitt- ing%	All Classes %
<u>Sex</u>								
a) Male	94.55	92.01	94.97	91.67	90.93	87.24	83.69	87.13
b) Female	5.45	7.99	5.03	8.33	9.07	12.76	16.31	12.87
Total	100.00 = 257	100.00 =3867	100.00 = 179	100.00 = 84	100.00 = 474	100.00 =3604	100.00 =7212	100.00 =15679

Educational Qualifications

a) Illiterate-		0.47	0.56	-	0.42	3.47	13.05	7.00
b) Non- Matriculate	1.17	6.00	2.23	2.38	4.64	18.76	27.83	18.79
c) Matri- -ulate/ SSC/HSC	10.12	26.75	17.32	16.67	20.25	33.21	32.83	30.40
d) Gra- -duate	42.80	44.64	49.16	53.57	52.11	33.77	20.56	31.36
e) Post- -Graduate and above	45.91	22.15	30.73	27.38	22.57	10.52	5.73	12.45
Total	100.00 =257	100.00 =3867	100.00 = 179	100.00 = 84	100.00 = 474	100.00 =3604	100.00 =7212	100.00 =15679

Nature of Employment

8.040. Among the ACC passengers, the largest single category is of those who belong to private service - 35%. Other major shares are taken by industrialists (13%), public sector (14%), Government service (13%), and professionals of different kinds (7%). It would thus be seen that a very large proportion of those who travel by this class are in employments which are well-paid. It will also be seen later that a very large proportion comes from those whose travel expenses are borne by someone else.

8.041. Among the First Class passengers, the largest single category is that of Government servants (47%), followed by private service and public sector service (11% each), traders (6%), housewives (4%), industrialists (4%),<sup>and</sup> professionals of different kinds (about 4% each). The very large <sup>of</sup> proportion of Government servants is probably due to various categories of Government servants being entitled to travel either for work or on travel concessions by this class. The distribution of AC 2-Tier passengers is somewhat similar. In fact, AC 2-Tier and First Class at present may be treated as a single category as the fares are the same, and who travels by which type of accommodation partly depends upon the availability of accommodation and partly on choice.

8.042. In AG Chair Car, the largest proportion of passengers is provided by traders (23%), followed by private service (19%), Government service (15%), industrialists (9%), public sector (7%), and teachers, students and housewives (about 5% each). It may be noted that, as compared to the two upper classes mentioned above, the proportion of teachers, students and housewives is larger in this class of accommodation.

8.043. Among the Second Sleeper passengers, Government servants, traders, and those in private service constitute significant proportions, and so also traders, students, housewives and industrialists. It may be noted that farmers constitute about 4% of the passengers in this class which is higher than their proportion in all the earlier mentioned classes. Similar is the position about retired persons. (Table No. 8,06)

Table 8.06

Nature of Employment

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Employment Service</u>								
Government Service	13.23	46.91	20.66	33.34	14.56	21.03	19.31	26.35
Public Sector Service	14.01	10.98	17.88	14.29	6.96	6.19	3.29	6.37
Private Service	35.02	11.24	24.02	11.90	19.42	16.48	12.12	13.64
Teacher/Professor	0.39	2.89	5.59	1.19	5.06	4.33	6.06	4.73
Student	-	2.51	2.79	1.19	4.85	5.11	6.13	4.80
Housewife	3.11	4.14	2.79	4.76	5.27	5.94	7.68	6.19
Retired	0.78	3.13	1.12	1.19	2.74	3.36	3.29	3.17
Unemployed	-	0.34	0.56	-	0.42	1.66	2.45	1.61
Others	2.33	1.14	0.56	-	0.84	2.03	1.98	1.73
<u>Self-employed</u>								
Trader/Hawker	9.34	5.61	6.70	15.48	22.79	19.87	15.71	14.17
Industrialist	13.23	3.70	8.38	11.90	9.28	2.94	1.76	3.06
Farmer	1.56	0.80	-	-	0.84	4.30	13.10	7.26
<u>Professional</u>								
Engineer/Architect	2.33	1.01	4.47	-	0.84	0.61	0.54	0.75
Doctor	0.39	1.78	1.12	-	0.84	1.58	1.01	1.31
Lawyer	2.33	1.45	1.12	1.19	1.48	1.28	1.58	1.48
Consultant	1.56	0.67	0.56	1.19	0.42	0.14	0.04	0.27
Social/Political worker	0.39	0.59	-	1.19	1.69	0.78	0.72	0.72
Others	-	1.11	1.68	1.19	1.69	2.50	3.23	2.39
Total	100.00 =257	100.00 =3869	100.00 =179	100.00 = 84	100.00 =474	100.00 =3604	100.00 =7212	100.00 =15679



8.044 When it comes to passengers travelling in the Second class sitting, the largest category is that of Government servants (19%), the other major categories being traders (16%), farmers (13%) and private service (12%); teachers, students and housewives also share substantial proportions in this category (about 6 to 8% each).

8.045 An important point to be noted in the overall employment categories of passengers is that a very substantial proportion of passengers are from Government services. They have contributed over a quarter of the passengers included in the sample, and their proportion is especially high in the First Class where it almost comes to a half of the total number. A classification of Government servants among the normal categories used in Government service shows that, while 97% of those who travel in ACC belong to Class I/Group 'A', over half of those who travel by the First Class belong to Class III/Group 'C'. Of course, over 60% among those Government servants who travel by Second Class also belong to Class III/Group 'C'.

8.046 It may also be noted that farmers still constitute a very small proportion of the total passengers (about 7% of the total sample), and they constitute a significant proportion of passengers only in the Second Class and especially in the Second sitting accommodation.

(Tables 8.05 & )  
( 8.07 )

Table 8.07

Class/Group of Government Servants

If Government Servant, State Class/Group	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitting %	All Classes %
a) Class I/ Group A	97.06	25.45	21.62	67.86	36.23	8.58	3.59	16.02
b) Class II/ Group B	-	23.14	29.73	17.86	37.68	20.05	10.92	18.53
c) Class III/ Group C	2.94	51.18	48.65	14.29	26.09	62.53	67.03	57.51
d) Class IV/ Group D	-	0.22	-	-	-	8.84	18.46	7.94
Total	100.00 = 34	100.00 = 1815	100.00 = 37	100.00 = 28	100.00 = 69	100.00 = 758	100.00 = 1392	100.00 = 4133

Income

8.047 Amongst the Air-conditioned passengers, 82% declared their incomes to be above Rs.2000, while 11% declared it to be between Rs.1001 and Rs.2000. Only 3% stated their incomes to be between Rs.500 and Rs.1000, while 4% claimed no income at all.

8.048 In the case of the First Class, 37% passengers claimed their incomes to be between Rs.1000 and Rs.2000, 36% between Rs.501 and Rs.1000 and 17% above Rs.2000.

8.049 Of the second sleeper passengers, the largest number claimed their incomes to be between Rs.501 and Rs.1000, and accounted for 35%. 25% stated their incomes to be between Rs.251 and Rs.500, and 20% claimed it to be between Rs.1001 and Rs.2000. Only 5% had incomes above Rs.2000.

Of the second sitting passengers, 33% had incomes between Rs.251 and Rs.500, while 26% had incomes between Rs.501 and Rs.1000. Only 2% had incomes above Rs. 2000.

8.050 We are aware that the statements about income which are elicited in a survey of this kind cannot be fully relied upon, as respondents usually tend to understate their incomes. It also happens that the meaning attached to the term "income" and its calculation may vary from individual to individual. Even then it is interesting that, for example, as many as 53% of I class passengers stated that their incomes exceeded Rs.1000 a month; and even some 25% of second class sleeper passengers stated their income to be above Rs.1000.

(Table 8.08)

Table 8.08Income categories

Income per month (In rupees)	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class sitting %	All Classes %
a) Nil	3.50	6.98	5.03	4.76	10.55	12.13	16.15	12.40
b) Below 250	-	0.49	1.12	-	0.63	4.58	14.82	8.02
c) 251 to 500	0.39	3.26	2.23	-	2.53	23.11	33.14	21.47
d) 501 to 1000	3.11	35.82	15.08	10.71	19.20	35.27	26.10	29.81
e) 1001 to 2000	10.89	36.85	41.34	45.24	41.77	19.51	7.95	19.39
f) Above 2000	82.10	16.59	35.20	39.29	25.32	5.41	1.84	8.91
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 = 15679

Object of Journey

8.051 Of the Air-conditioned passengers 85% were travelling on business or duty, 3% on vacation, 2% on religious pilgrimage, and 8% on family work connected with marriage/death etc.

8.052 Of the first class passengers, 58% were travelling on business or duty, 10% on vacation, 5% on religious pilgrimage, and 20% on family work.

8.053 Of the second sleeper passengers, 33% travelled on business or duty, 10% on vacation, 8% on religious pilgrimage etc., and 39% on family work connected with marriage /death, etc.

8.054 Of the second sitting passengers, 26% travelled on business or duty, and 48% on family work, meeting relatives etc.

8.055 From the above, it is apparent that amongst the higher class of passengers, the object of journey is mostly on business or duty, in which case the fare is paid by a third party. In case of second class passengers, however, a significant proportion travelled on family work, when fares have to be paid by the passengers themselves. One possibility also cannot be ignored; this is that, when it is a question of family business, especially in the case of farmers, the object of the journey may be stated to be family work, but at least partly it may be work related to the family farm. To some extent, similar might be the case of self-employed professionals like engineers, doctors and lawyers. It is in these categories that the object of the journey is stated to be family work in a substantial proportion of passengers.

(Table 8.09)

Table 8.09

8.23

Object of journey

Travel Profile - Object of the journey	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitti- ng. %	All Classes %
a) Business/ Duty	84.82	57.77	62.57	63.10	56.33	33.13	26.47	38.19
b) Vacation	2.72	9.69	4.47	16.67	9.49	9.96	7.10	8.42
c) Religious/ pilgrimage	2.33	4.88	1.68	3.57	3.38	8.24	8.53	7.20
d) Family work (Marriage, death, meeting relatives, etc.)	8.17	19.62	17.88	10.71	23.00	39.48	48.17	37.16
e) Educational, Seminar, Conference	1.17	4.45	8.94	4.76	4.64	3.91	2.47	3.42
f) Other	0.78	3.59	4.47	1.19	3.16	5.27	7.27	5.61
Total	100.00 = 257	100.00 =3869	100.00 = 179	100.00 = 284	100.00 = 474	100.00 =3604	100.00 = 7212	100.00 =15679

Number of Passengers Travelling Together

8.056 It may also be noted in this connection that an overwhelming proportion of passengers in all classes travelled by themselves, in keeping with the fact that quite a substantial proportion in all classes travelled for work or business. The proportion of those who travel with two or more family members is really large only in the II class. (Table 8.10)

Frequency of Travel

8.057 This is obviously related to the object of travel and also the income of the passengers. It is to be found that a significant proportion of II class passengers travel less frequently, as many as 22% using sleepers and 13% travelling sitting stating that they travel only once a year, and 5% and 3% respectively stating that they travel once in several years. The proportion of those who travel frequently is larger in the upper classes. Thus as many as 37% of the A.C.C. passengers state that they travel once a month; so also about one quarter of the passengers travelling in the I class and AC Chair Car. Similarly, as many as above 1/5th of the passengers in the ACC and I class stated that they travelled once in three months; so also did about one quarter of those using the AC Chair Car. What is interesting is that even in the II class (sitting), about 20% stated that they travelled once a week; 27% that they travelled once a month, and 19% and 16% that they travelled once in three months and once in six months respectively. It thus appears that, even in the lowest class, the number of those who travelled frequently is not very small. (Table 8.11)

Table 8.10

Number of passengers travelling together

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Self only	84.82	77.51	87.71	77.38	82.49	67.56	71.16	72.69
b) Self with one family member	12.84	12.41	10.06	14.29	14.77	17.65	15.50	15.10
c) Self with two family members	1.56	5.17	1.68	4.76	2.53	8.38	7.32	6.72
d) Self with three or more family members	0.78	4.91	0.56	3.57	0.21	6.41	6.02	5.50
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 = 15679

Table 8.11

Frequency of travel

Travel habits - The Passenger Travels	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Daily	1.95	7.00	2.79	1.19	0.84	1.42	2.93	3.50
b) Weekly	15.95	13.72	34.64	9.52	7.17	9.60	20.40	15.90
c) Once a month	36.96	24.04	25.70	28.57	25.32	22.53	26.53	25.13
d) Once in three months	22.18	21.79	15.64	27.38	25.74	18.62	18.68	19.71
e) Once in six months	12.84	13.22	11.17	16.67	22.15	20.56	16.03	17.69
f) Once in a year	9.34	12.56	7.82	13.10	15.82	21.81	12.51	14.66
g) Once in several years	0.78	2.66	2.23	3.57	2.95	5.47	2.94	3.41
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 = 15679



8.058 In this context it is interesting to note that as many as 70% of those travelling in II class (sitting) and 66% of those travelling in II class (sleeper) stated that they used to travel much less frequently ten years ago. Some 38%/39% stated that this was because of the nature of their job; about 13%/15% stated that this was because of their (presumably higher) income; about 1/5th that they travelled more because of better rail travel facilities; while about one quarter stated that they travelled more because of their age; presumably they were children ten years previously. Thus, the increase in travel habits even for the lowest class of passengers is clearly indicated by these data.

8.059 The proportion of those who felt that they travelled much less frequently ten years ago was less in the upper classes, especially in the ACC; in the I class, about 64% travelled more frequently now and in the ACC Chair Car about 66%. (Table 8.12 & 8.13)

#### Distance Travelled

8.060 Amongst the Air-conditioned class passengers; the largest number travelled for distances between 251 to 500 Kms. and accounted for 33%, while about 29% each travelled for distances between 501 and 1000 Kms., and above 1000 Kms.

8.061 In the case of first class passengers, the largest number of passengers travelled for distances beyond 1000 Kms. and accounted for 25%, while those travelling between 501 and 1000 Kms. accounted for 22%. 20% were travelling between 251 and 500 Kms., and 14% between 161 and 250 Kms.

8.062 Of the second sleeper population, the largest number travelled above 1000 Kms. and accounted for 37%, followed by 34% who were travelling between 501 and 1000 Kms. Of the balance, 20% were travelling between 251 and 500 Kms., and 5% between 161 and 250 Kms. The rest of the passengers accounted for shorter journeys upto 160 Kms.

8.063 As compared to this, amongst the second sitting population, the largest percentage, viz., 24% were travelling for distances between 81 and 160 Kms., followed by 21% who were travelling for distances between 251 and 500 Kms. Only 5% were travelling beyond 1000 Kms.

8.064 From these results it would appear that amongst the second class passengers, those travelling for longer distances were mostly travelling in sleeper coaches. (Table 8.14)

Change in Frequency of Travel

Did the Passenger travel by Rail much less frequently about 10 years age ?	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting.	All Classes
	%	%	%	%	%	%	%	%
a) Yes	58.37	63.50	56.42	58.54	66.38	65.84	69.60	66.74
b) No	41.63	36.50	43.58	41.46	33.62	34.16	30.40	33.26
Total	100.00 = 257	100.00 = 3853	100.00 = 179	100.00 = 82	100.00 = 473	100.00 = 3595	100.00 = 7200	100.00 =15644

Table 8.13Factors responsible for change in frequency

Change in which factor was responsible for it.	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Age	13.20	13.07	12.81	14.81	25.61	23.63	25.71	21.70
b) Job	55.20	62.15	49.12	69.14	40.40	39.19	38.39	45.08
c) Fare	0.40	0.99	1.77	2.47	0.66	1.95	2.23	1.77
d) Income	9.60	7.90	13.45	3.70	15.89	13.44	15.34	12.91
e) Rail travel facilities	21.60	15.90	23.39	9.88	17.44	21.80	18.34	18.54
Total	100.00 = 250	100.00 = 3749	100.00 = 171	100.00 = 81	100.00 = 453	100.00 = 3386	100.00 = 7041	100.00 =15131

Table 8.14Distance travelled

Distance Travelling	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) 0-25 Kms	0.78	1.58	-	1.19	-	0.22	3.69	2.16
b) 26-40 Kms	-	2.35	0.56	-	-	0.14	7.43	4.04
c) 41-80 Kms	-	5.74	1.12	-	-	0.72	13.88	7.98
d) 81-160 Kms	1.56	10.08	18.44	1.19	0.63	2.16	24.00	14.29
e) 161-250 Kms	5.45	13.83	30.17	5.95	2.11	5.49	17.61	13.30
f) 251-500 Kms	33.70	19.72	45.25	14.29	23.42	20.14	20.80	20.91
g) 501-1000 Kms	29.18	21.58	3.35	14.29	18.99	33.72	8.00	17.92
h) Above 1000 Kms	29.96	25.12	1.12	63.10	54.85	37.40	4.59	19.41
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 81	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 =15679

8.065 It will be seen (statement 8-8) that the proportion of persons who travel short distances below 80 km. is small in categories like industrialists, traders, engineers and doctors. The proportion is somewhat larger among Government and Public Sector and private sector servants, and housewives. It is still larger in the case of teachers and lawyers, in these two cases the proportion in the 41 to 80 kms. range being significant. As against this, the proportion of farmers travelling short distances is large, the proportion of these travelling between 41 and 80 kms. being quite substantial. When it comes to distances between 81 and 250 kms., among all categories, the proportion in this range of distances varies from 20% to 34%. In the range between 251 and 500 kms., the proportion varies around 25% except that, among industrialists, it is 27% and, among doctors, 30%. For distances between 501 and 1000 kms, the proportion among farmers is very small (11%), and also among teachers, students and housewives (12 to 15%), while in other categories it is around 20%. For distances above 1000 Kms, the proportion among farmers is very small (6%); similar is the case with lawyers (7%) teachers (12%) housewives and students (about 14%). Among traders and industrialists, the proportion of those who travelled distances exceeding 1000 kms. is 22% and 25% respectively, while in the employees of Government, public sector and private sector, it varies between 22% and 27%.

8.066 When we look at the distribution of passengers among different income groups and relate it to the distances travelled (Statement 8-9) among long distance passengers, we find a high correlation between income groups and distances travelled. The proportion of those who travel long distances is small in the low income categories and large in the high income categories. On the other hand, the proportion of those who travel short distances is small among the high income categories while it is larger in the low income categories. Thus, a very small proportion of those who travelled upto 25 kms. is from among those having incomes exceeding Rs.1000. All those whose incomes are below Rs.500 constitute only a small proportion of those who travelled over 1000 kms.

8.067 Even when we look at short distance passengers (Statement 8-16), we find that the bulk of the passengers whose income is below Rs.250 travelled distances less than 80 kms. Of course, this being a survey of short distances passengers, the total number of those who travelled long distances is itself quite small. But we find that the bulk of the passengers who travelled distances exceeding 250 kms. and especially 500 kms. come from those whose incomes exceed Rs.500 per month.

Payment of Fare

8.068 95% of Air-conditioned passengers, 66% of first class passengers, 90% of second sleeper, and 92% of second sitting passengers were travelling on payment of full fare. The rest, in various classes, travelled on different kinds of concessional fare. Thus, it is only in the First Class that almost 35% passengers travel on some kind of concession. It is found that, out of this, almost 25% are railwaymen (half of them travelling on duty) and 3% non-railwaymen who enjoy free pass, probably those belonging to Postal or Defence Services or members of legislatures. (Table 8.15)

8.069 If one looks at passengers belonging to categories other than self-employed, one finds that there are only three categories where a substantial proportion travel at less than full fare (Statement 8.4), viz., Government servants, students and retired persons. Among Government servants, 15% are those who travel on Railway Privilege Passes, 16% on Railway Duty Passes, and 4% on other free passes. Among students, as many as 17% travel on student concessions, 6% on Railway passes (presumably children of Railway employees), and 1% on other concessions. Among retired persons, a substantial proportion (about 21%) consist of those who travel on Railway Privilege Passes presumably because they are retired Railway employees. It may also be noted that the number of those paying concessional fare other than free passes was quite small. This was probably because the days on which the investigation was carried out did not belong to the normal vacation or holiday season.

Table 8.15

8-31

Payment of fare

Is the passenger travelling on	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitting %	All Classes %
a) Payment of full fare	94.94	65.86	92.18	90.48	94.30	90.09	91.96	85.20
b) Payment of concessional fare								
i) Hill Concession	0.39	0.26	-	-	-	0.36	0.14	0.22
ii) Circular ticket	-	0.93	-	1.19	0.21	0.33	0.25	0.43
iii) Student Concession	-	0.36	0.56	-	-	1.50	0.87	0.84
iv) P.T.O. Railwaymen	-	0.08	0.56	-	-	0.25	0.37	0.26
v) Other Concessions	0.39	3.57	2.23	3.57	0.84	1.39	1.43	1.93
c) Free pass-Privilege-Railwaymen	0.78	12.69	1.12	2.38	1.27	3.69	3.01	5.44
d) Free pass-duty-Railwaymen	3.50	12.79	2.79	1.19	2.32	1.55	1.40	4.32
e) Free pass non-Railwaymen	-	3.46	0.56	1.19	1.05	0.83	0.57	1.35
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	100.00 = 3604	100.00 = 7212	100.00 = 15679

Who Pays the Fare

8.070 Of the Air-conditioned passengers, 41% paid their own fares while 54% were travelling on fares paid by their employers. 3% were travelling on fares paid by their clients.

8.071 Of the first class passengers, 39% paid their own fares, while 42% were travelling on their employers' account; 2% were travelling on their clients' account.

8.072 These figures could be slightly misleading, since a very large proportion of higher class passengers have answered that the object of their journey was business/duty. Apparently, private entrepreneurs, or owners of business, who were also travelling on their business account, and charged their fares to their concern, have also claimed to be paying the fares themselves. It may be noted that as many as three quarters of traders and industrialists state that the object of their journey is business but 99% state that the payment is being made by self. (Statement 8.2 & 8.3)

8.073 Amongst the higher class passengers, therefore, the percentage of those travelling on their employers' account, or on self-owned-business, etc., would be higher.

8.074 Amongst the second sleeper passengers, 79% paid their own fares, while 11% were travelling on their employers' account.

8.075 Amongst second sitting passengers, 81% paid their own fares, while 7% had their fares paid by their employers.

8.076 Of the A.C. Chair Car passengers, 71% paid their own fares, while 23% were travelling on their employers' account.

(Table 8.16)

Table 8.16  
Who pays the fare

If not on Free Pass, who is paying	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitti- ng %	All Classes %
a) Self	41.06	38.78	43.27	42.50	70.58	78.65	81.26	70.33
b) Employer	54.07	42.03	46.20	41.25	23.23	10.75	6.74	16.87
c) Client	3.25	2.19	1.75	2.50	1.55	0.85	0.95	1.25
d) Leave Travel Concess- ion (LTC)		2.62	1.75	6.25	0.66	0.71	0.38	0.96
e) Defence- Armed Forces	0.41	9.86	1.75	5.00	0.66	2.44	1.53	3.41
f) Others	1.22	4.52	5.26	2.50	3.32	6.60	9.14	7.18
<b>Total</b>	<b>100.00</b> = 246	<b>100.00</b> = 2829	<b>100.00</b> = 171	<b>100.00</b> = 80	<b>100.00</b> = 452	<b>100.00</b> = 3396	<b>100.00</b> = 6852	<b>100.00</b> = 14026



Preference for Higher Class

8.077 Of the Air-conditioned class passengers, 40% travelled in that class because they found it more comfortable, while 37% did so because they were entitled to it, and somebody <sup>else</sup> was paying for it. Of the first class passengers, 28% travelled in that class because they found it more comfortable, 54% were doing so because they were entitled to that class and somebody else was paying.

8.078 These answers bring out that the preference for the higher classes is mainly because somebody else pays the fares; many of them also state that they do so because it is more comfortable. But the fact that someone else bears the cost must be considered as really important. This is also supplemented by the answers regarding sensitivity to increase in fares.

(Table 8.17)

Table 8.17

Preference for higher class

If a passenger is travelling by a class other than II class, why is he doing so? (Not to be answered if passenger is travelling in II Class	A.C.C.	First Class	First Class Chair Car	A.C. 2-tier	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Finds it more comfortable and usually travels in this class	40.08	27.55	37.99	44.05	40.93	-	-	30.19
b) Finds it easy to secure accommodation	7.78	6.38	8.94	2.38	12.03	-	-	7.03
c) Finds it safer	1.95	3.54	2.23	2.38	8.86	-	-	3.91
d) Can afford this Class	9.73	5.94	8.94	7.14	12.87	-	-	6.95
e) Entitled to this class and someone else paying	37.35	53.81	36.87	41.67	18.35	-	-	48.65
f) Did not get accommodation in lower class	1.95	2.35	2.79	2.38	5.70	-	-	2.67
g) Did not get accommodation in higher class	1.17	0.41	2.23	-	1.27	-	-	0.60
Total	100.00	100.00	100.00	100.00	100.00	-	-	100.00
	= 257	=3869	= 179	= 84	= 474	-	-	= 4863

SENSITIVITY TO FARE INCREASES

8.079 66% of Air-conditioned passengers, and 67% of first class passengers, stated that increase in fares would not affect them. It will thus be seen that, among the ACC and First Class passengers, a very substantial proportion do not mind paying higher fares because in most cases somebody else would bear the fare. Among the passengers travelling by AC Chair Car, only less than one-third stated that they were not affected by the increase, while as many as one-quarter showed their resistance to any increase by stating that they would not travel by this class at higher fares, and over 35% were willing to pay from Rs.5 to Rs.10 extra. (Table 8.18)

Table 8.18

SENSITIVITY TO FARE INCREASES

	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper- Class %	Second Class Sitti- ng %	All Classes %
For a passenger other than II Class if the fare is increased as follows, will he travel in this class ?								
a) No, He will not travel in this class	9.73	13.96	18.44	22.62	25.53	-	-	15.18
b) Yes upto Rs.5	5.45	9.90	15.64	8.33	20.25	-	-	10.86
c) Yes upto Rs.10	4.67	5.69	7.26	5.95	15.82	-	-	6.68
d) Yes upto Rs.20	8.56	2.74	1.12	4.76	5.91	-	-	3.33
e) Yes upto Rs.40	1.17	0.23	-	1.19	0.42	-	-	0.31
f) Yes upto Rs.50	4.67	0.70	1.12	1.19	1.05	-	-	0.97
g) Not affected by increase	65.76	66.79	56.42	55.95	31.01	-	-	62.68
Total	100.00 = 257	100.00 = 3869	100.00 = 179	100.00 = 84	100.00 = 474	-	-	100.00 = 4863

Reasons for Travelling in Super Fast/Mail/Express Trains

8.030 76% of Air-conditioned passengers, 78% of first class passengers, 66% of second sleeper passengers and 72% of second sitting passengers travelled in super fast, or Mail/Express trains because it saved time.

8.031 19% of Air-conditioned passengers, 16% of first class passengers, 25% of second sleeper passengers and 24% of second sitting passengers did so because they found these trains more comfortable. The rest did so because the reservations were easy to come by, or they get more convenient connections. (Table 8.19)

Preference between First Class, A.C. Sleeper Car and Chair Car

8.032 52% indicated their preference for ordinary first class, while 37% preferred the two tier A.C. Sleeper coach. 11% preferred First Class Chair Car. The preferences for the different types of first class accommodation offered would probably vary with the time of the year. While first class Ordinary may be considered more comfortable, in view of the large accommodation and privacy offered, the two tier A.C. would probably be preferred during hot season. First <sup>Class</sup> Chair Car accommodation is normally offered in comparatively short distance trains, having day runs. (Table 8.20)

Table 8.19

Reasons for travelling in Super fast/Mail/  
Express trains

	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitt- ing %	All Classes %
If a passenger is travelling in a Super fast, Mail/Express Train why is he doing so ?								
a) Save time	76.38	78.25	78.16	80.72	88.61	66.48	71.70	72.66
b) More Comfortable	19.29	16.48	14.94	16.87	7.81	25.24	23.79	21.23
c) Reservation is easy	1.57	2.17	5.75	1.20	2.11	4.20	0.76	2.42
d) Gets convenient connection	2.76	3.10	1.15	1.20	1.48	4.08	3.75	3.48
Total	100.00 = 254	100.00 = 2676	100.00 = 174	100.00 = 83	100.00 = 474	100.00 = 3237	100.00 = 3148	100.00 = 10046

Table 8.20

Preference between First Class, A.C. Sleeper Car  
and Chair Car

	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitt- ing %	All Classes %
For a passenger travelling in I Class which one of the following does he prefer								
a) 2-Tier AC Sleeper	-	36.21	37.43	82.14	-	-	-	37.20
b) I Class Chair Car	-	10.29	30.17	1.19	-	-	-	10.96
c) I Class Ordinary	-	53.50	32.40	16.67	-	-	-	51.84
Total	-	100.00 = 3869	100.00 = 179	100.00 = 84	-	-	-	100.00 = 4132

Willingness to Pay for Faster Trains

8.083 64% of Air-conditioned passengers, 59% of first class passengers, 19% of second sleeper passengers, and 13% of second sitting passengers stated that they would not be affected by any increase <sup>in fares</sup> as a result of speeding up of trains.

0.084 Of the balance, 12% of Air-conditioned passengers, 16% of first class passengers, 44% of second sleeper passengers and 64% of second sitting passengers were not willing to pay any extra fare, even if the train was further speeded up.

0.085 27% of second sleeper passengers, and 20% of second sitting passengers were willing to pay upto Rs.5 extra, while 8% of second sleeper and 2% of second sitting passengers were willing to pay upto Rs.10 extra. A very much smaller number of passengers were willing to pay additional fares of Rs.20 and above.

(Table 8.21)

Opinion Regarding Improvements on the Railways

8.086 72% of Air-conditioned class passengers, 65% of first class passengers, 66% of second sleeper and 50% of second sitting passengers were of the opinion that Railways had become steadily faster.

0.087 8% of Air-conditioned passengers, 11% of first class passengers, 10% of second sleeper passengers and 12% of second sitting passengers felt that the trains had become more punctual.

0.088 15% of Air-conditioned passengers, 16% of first class passengers, 13% of second sleeper passengers and 19% of second sitting passengers were of the opinion that the railways had not improved in any manner suggested to them in the questionnaire. The remaining passengers, in varying percentages, felt that railways had become cleaner, cheaper and safer.

(Table 8.22)

Table 8.21

8-41

Willingness to pay for faster train

	A.C.C. Class	First Class Chair Car	First Class Chair Car	2-Tier A.C. Sleeper	A. C. Chair Car	Second Class Sleeper	Second Class Sitt- ing	All Classes
	%	%	%	%	%	%	%	%
If the train is further speeded up how much more is he willing to pay?								
a) Nil	12.25	16.25	22.16	20.48	25.95	43.45	63.55	41.26
b) Rs.5	2.77	12.52	15.34	6.02	18.78	26.95	20.16	19.47
c) Rs.10	8.70	7.65	8.52	18.07	16.46	8.05	2.26	6.36
d) Rs.20	7.11	3.70	2.84	4.82	3.02	2.09	0.55	2.38
e) Rs.40	0.40	0.39	-	-	0.84	0.12	0.03	0.19
f) Rs.50	5.14	0.81	1.14	2.41	1.48	0.39	0.5	0.56
g) Not affected by increase	63.64	58.69	50.00	48.19	28.48	18.75	13.41	29.78
Total	100.00 = 253	100.00 = 3084	100.00 = 176	100.00 = 83	100.00 = 474	100.00 = 3354	100.00 = 3983	100.00 = 11407

Table 8.22

Opinion regarding improvement in Railways

	A.C.C. Class	First Class Chair Car	First Class Chair Car	2-Tier A.C. Sleeper	A. C. Chair Car	Second Class Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
In the last several years Railways have become steadily -								
a) Faster	71.98	65.24	71.91	80.72	64.56	65.76	50.17	56.68
b) More punctual	8.17	11.21	7.87	4.82	12.87	10.15	11.55	11.05
c) Cleaner	3.50	1.53	1.69	1.20	5.27	2.22	2.96	2.49
d) Cheaper	-	0.78	0.56	-	0.84	2.36	7.52	4.23
e) Safer	1.56	5.08	1.69	1.20	6.96	6.64	8.55	6.97
f) None of the above	14.97	16.16	16.29	12.05	9.49	12.87	19.24	16.58
Total	100.00 = 257	100.00 = 3861	100.00 = 170	100.00 = 83	100.00 = 474	100.00 = 3597	100.00 = 7192	100.00 = 15634



Difficulties regarding Reservations

8.089 A large number of passengers in all classes varying from 90% in Air-conditioned class, to 82% in second sleeper class, encountered no difficulties in obtaining reservations.

8.090 The difficulties regarding non-availability of Travelling Ticket Examiners, and illegible reservations chart, etc. were felt only by a small percentage of passengers in all classes. (Table 8.23)

Improvements desired

8.091 Of the Air-conditioned passengers, 23% wanted more trains, 21% wanted faster trains, 32% wanted more punctual trains.

8.092 Of the first class passengers, 30% desired more trains, 20% desired faster trains, while 41% desired punctual trains.

8.093 Of the second sleeper passengers on the other hand, 35% wanted larger number of trains, 39% wanted more punctual trains, while 20% wanted faster trains. Significantly 43% of second sitting passengers desired to have more trains, while 37% wanted more punctual trains, <sup>and</sup> 14% wanted faster trains. This underlines the importance of this large category of passengers attach to more train accommodation.

Table 8.23

Difficulties encountered in obtaining reservation

	A.C.C. First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes	
	%	%	%	%	%	%	%	
If reservation has been obtained for this journey which difficulty of the following if encountered in obtaining accommodation/reservation, Was this most troublesome ?								
a) Name not on Reservation Chart	2.81	3.88	3.38	7.41	2.36	2.27	2.07	2.84
b) Someone else occupying the seat/ berth	0.40	1.35	1.35	1.23	2.57	2.89	5.26	2.50
c) Attendant/ Conductor, TTE not available to help	0.40	4.97	1.35	4.94	4.71	3.17	2.77	3.67
d) Reservation Chart ille- gible	4.82	3.40	1.35	3.70	3.00	3.65	2.49	3.41
e) Coaches reduced so reservation cancelled	1.20	1.88	3.38	-	-	1.32	1.11	1.41
f) Extra money demanded/ paid	0.40	2.88	-	4.94	4.50	4.77	1.52	3.63
g) No difficulty	89.96	81.64	89.19	77.78	82.87	81.94	84.79	82.54
Total	100.00 = 249	100.00 = 2233	100.00 = 148	100.00 = 81	100.00 = 467	100.00 = 3566	100.00 = 723	100.00 = 7467

Table 8.24

Improvements desired in trains

Which improvement does a passenger consider the most important about trains ?

a) More trains	22.57	29.62	29.38	17.86	27.22	35.00	43.40	36.94
b) Cleaner trains	10.51	5.90	6.78	7.14	9.49	4.69	5.28	5.54
c) Faster trains	21.01	19.63	22.03	20.24	17.09	20.14	13.88	17.08
d) Air-conditioned trains	13.62	3.65	7.91	11.90	11.81	0.94	0.50	2.08
e) Punctual trains	32.30	41.20	33.90	42.86	34.39	39.22	36.94	38.36
Total	100.00 = 257	100.00 = 3862	100.00 = 177	100.00 = 84	100.00 = 474	100.00 = 3600	100.00 = 7200	100.00 = 15654

Amenities desired in Trains

8.094 Cold water facility was desired by 19% of Air-conditioned passenger, 36% of first class passengers, 22% of second class sleeper passengers, and 30% of second sitting passengers.

8.095 Cushioned berths were demanded by 22% of second sleeper and 21% of second sitting passengers, while more sleeper coaches was the choice of 40% second sleeper passengers, and 20% of second sitting passengers. The rest of the passengers, wanted other facilities like cleaner lavatories, more lights and fans etc.

(Table 8.25)

Table 8.25

8-45

Amenities desired in trains

Amenities in trains	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitt- ing	All Class- es.
	%	%	%	%	%	%	%	%
a) Cold Water facilities	18.82	35.90	29.21	21.43	12.90	21.69	30.29	28.93
b) Library facilities	18.04	15.80	28.65	16.67	16.70	7.03	6.25	9.60
c) Cushioned Seats/ berths	9.41	6.67	9.55	9.52	10.57	21.53	20.95	16.87
d) More lavatories	1.57	1.11	0.56	7.14	1.48	1.44	2.21	1.74
e) Cleaner Lavatories	24.71	15.05	12.92	5.95	17.34	5.97	10.16	10.87
f) More fans & lights	0.78	3.44	4.49	1.19	0.42	2.39	10.07	6.11
g) More sleeper coaches	26.67	22.01	14.61	38.10	40.59	39.95	20.07	25.88
Total	100.00 = 255	100.00 = 3866	100.00 = 178	100.00 = 84	100.00 = 473	100.00 = 3600	100.00 = 7203	100.00 =15659

Amenities Desired at stations

8.096 Amongst the facilities desired at stations, easy availability of tickets (29% A.C.C., 21% first class, 33% second sleeper and 47% second sitting) was the most important item. This was followed by demand for better food from 21% of air-conditioned passengers, 32% of first class passengers, 32% of second class sleeper passengers and 22% of second sitting passengers. More courteous service was another demand, made by 22% of Air-conditioned passengers, 19% of first class passengers, 16% of second sleeper passengers and 14% of second sitting passengers.

8.097 Other facilities, viz., better public address system, provision of bed rolls etc. was demanded <sup>by</sup> a comparatively smaller number in various classes.

(Table 8.26)

Table 8.26

Amenities desired at stations

Amenities desired at stations	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitting %	All Classes %
a) Easy availabi- lity of tickets	29.41	21.10	28.25	45.68	33.76	33.16	46.51	36.30
b) Easy availabi- lity of time- table	0.39	0.67	1.69	-	0.42	1.11	0.81	0.83
c) Better public address system	3.92	5.37	6.78	2.47	2.32	3.61	5.73	5.02
d) Better food	21.18	31.97	26.55	14.81	25.53	31.99	22.10	26.91
e) More Retiring/ Waiting rooms	18.82	18.80	16.38	12.35	12.66	12.14	10.59	13.24
f) Provision of bed rolls	4.31	2.64	-	2.47	0.63	2.05	0.56	1.48
g) More courteous service	21.96	19.45	20.34	22.22	24.68	15.94	13.70	16.22
Total	100.00 = 255	100.00 = 3857	100.00 = 177	100.00 = 181	100.00 = 474	100.00 = 3601	100.00 = 7203	100.00 = 15648
<u>For a passenger travelling in II Class only, what does he prefer ?</u>								
a) II Class 2-Tier Sleeper			-	-	-	16.65	32.63	27.30
b) II Class 3-Tier Sleeper			-	-	-	83.35	67.37	72.70
Total						100.00 = 3604	100.00 = 7212	100.00 = 10816

SURVEY OF PASSENGERS ON SHORT DISTANCE TRAINSAge Profile

8.098 Of the first class passengers, 32% belonged to the age group of 25 to 40 years, while 59% were in the age group of 40 to 60 years.

8.099 Of the second sleeper passengers, 38% were in the age group of 25 to 40 years, and 31% were in the age group of 40 to 60 years. A significant number accounting for 23% were in the age group of 18 to 25 years.

8.100 Of the second sitting passengers, 40% were in the age group of 25 to 40 years, while 28% were in the age group of 40 to 60 years. 19% were between 18 to 25 years of age.

(Table 8.27)

Sex and educational qualification

8.101 95% of first class, 89% of second sleeper passengers, and 83% of second sitting passengers were males.

8.102 Of the first class passengers, 43% were Matriculates or equivalent, 35% were Graduates and 11% were post-graduates and above.

8.103 Of the second sleeper population, 31% were non-matriculates, 27% were Matriculates or equivalent, while 25% were Graduates and 7% were post-graduates and above.

8.104 Of the second sitting population, 23% were illiterates, while 32% were non-matriculates. Only 3% were post-graduates and above.

(Table 8.28)

Table 8.27  
Age profile

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Passenger Profile</u>								
<u>Age</u>								
a) Below 12	-	0.11	-	-	-	-	0.79	0.75
b) 12 to 18	-	1.42	-	-	-	2.13	4.38	4.18
c) Over 18 Upto 25	-	4.92	-	50.00	-	23.40	19.49	18.67
d) Over 25 Upto 40	-	31.51	100.00	50.00	-	38.30	40.24	39.71
e) Over 40 Upto 60	-	58.64	-	-	-	31.21	27.86	29.71
f) Over 60	-	3.39	-	-	-	4.96	7.24	6.99
Total	-	100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 =141	100.00 =14370	100.00 =15428

Table 8.28  
Sex and Educational qualifications

<u>Sex</u>								
a) Male	-	95.19	100.00	100.00	-	88.65	82.92	83.70
b) Female	-	4.81	-	-	-	11.35	17.08	16.30
Total	-	100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428
<u>Educational qualifications</u>								
<u>Educational Qualifications completed</u>								
a) Illiterate	-	1.20	-	-	-	9.93	23.15	21.73
b) Non-matriculate	-	8.97	-	-	-	31.21	32.28	30.88
c) Matriculate/SSC/HSC	-	43.22	100.00	100.00	-	26.95	27.44	28.38
d) Graduates	-	35.34	-	-	-	24.82	14.08	15.44
e) Post-graduate and above	-	11.27	-	-	-	7.09	3.05	3.57
Total	-	100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428



Nature of employment

8.105 75% of first class, 39% of second sleeper passengers and 28% of second sitting passengers were in Government service.

8.106 Of the balance, 6% of the first class, 18% of the second sleeper class and 17% of the second sitting class were in private service. 4% of the first class, 11% of the second sleeper, and 11% of the second sitting were students. The balance was made up of retired and unemployed people etc.

8.107 Of the self-employed, 23% of the first class passengers, 63% of second sleeper, and 32% of second sitting passengers described themselves as traders/hawkers.

8.108 15% of the first class, 13% of the second sleeper and 3% of the second sitting passengers were Industrialists. Farmers accounted for 16% in the first class, 11% in the second sleeper and 45% in the second sitting accommodation. About 33% of the first class passengers were professionals, consisting of Engineers, Doctors and Lawyers, while they accounted for about 5% in second sleeper and almost 6% in second sitting.

(Table 8.29)

8.109 Among the Government servants, 8% in the first class and 21% in second sleeper and 3% in the second sitting were in class I service. 78% in the first class, 58% in the second sleeper and 67% in the second sitting were in class III/Group C. Balance were in Class II and Class IV.

(Table 8.30)

Table 8.29

## Nature of employment

	A.C.C. %	First Class %	First Class Chair Car %	2-Tier A.C. Sleeper %	A.C. Chair Car %	Second Sleeper %	Second Class Sitting %	All Classes %
a) Government service	-	74.69	-	100.00	-	38.71	28.13	32.54
b) Public Sector	-	2.81	-	-	-	4.84	4.55	4.39
c) Private Service	-	5.50	-	-	-	17.74	17.04	15.97
d) Teacher/Professor	-	3.91	-	-	-	3.23	9.28	8.74
e) Student	-	4.40	-	-	-	11.29	11.49	10.83
f) Housewife	-	2.69	-	-	-	17.74	14.46	13.39
g) Retired	-	5.26	-	-	-	1.61	5.82	5.74
h) Unemployed	-	0.37	-	-	-	3.23	5.00	4.56
i) Others	-	0.37	-	-	-	1.61	4.23	3.85
Total	-	100.00 =818	-	100.00 = 1	-	100.00 = 62	100.00 = 7918	100.00 = 8799

## Nature of self-employment

Self-employed								
a) Trader/Hawker	-	22.92	100.00	100.00	-	63.29	32.21	32.46
b) Industrialist	-	14.58	-	-	-	12.66	3.27	3.55
c) Farmer	-	15.63	-	-	-	11.39	44.78	43.94
d) Professional								
i) Engineer/Architect	-	4.17	-	-	-	-	0.79	0.83
ii) Doctor	-	18.75	-	-	-	2.53	2.93	3.15
iii) Lawyer	-	10.42	-	-	-	2.53	2.62	2.73
iv) Consultant	-	-	-	-	-	-	0.31	0.30
v) Social/Political Worker	-	7.29	-	-	-	3.80	1.55	1.66
vi) Others	-	6.25	-	-	-	3.80	11.55	11.37
Total	-	100.00 = 96	100.00 = 1	100.00 = 1	-	100.00 = 79	100.00 = 6452	100.00 = 6629

Table 8.30

## Class/Group of Government servants

If Government Servant State Class/Group -								
a) Class I/Group A	-	7.69	-	-	-	20.83	2.83	4.02
b) Class II/Group B	-	14.08	-	-	-	8.33	6.83	8.38
c) Class III/Group C	-	78.23	-	100.00	-	58.33	66.91	69.26
d) Class IV/Group D	-	-	-	-	-	12.50	23.44	18.34
Total	-	100.00 = 611	-	100.00 = 1	-	100.00 = 23	100.00 = 2227	100.00 = 2863

Income

8.110 Of the first class passengers, the largest proportion, viz., 58% were in the income group of Rs.501 to Rs.1000, followed by 25% whose incomes ranged between Rs.1001 and Rs.2000. 4% claimed their incomes to be above Rs.2000.

8.111 Of the second sleeper passengers, the largest percentage accounting for 30% were in the income group of Rs.501 and Rs.1000, while a significant percentage (28%) were in the income group <sup>between</sup> Rs.251 and Rs.500. 13% had incomes between Rs.1001 and Rs.2000, while 5% had incomes above Rs.2000.

8.112 Amongst the second sitting passengers, 34% had incomes between Rs.251 and Rs.500 while 25% had incomes below Rs.250. 17% had incomes between Rs.501 and Rs.1000, while a very small percentage (1%) had incomes above Rs.2000.

(Table 8.31)

Frequency of Travel

8.113 Frequency of travel for the first class passengers varied from 24% who travelled daily, to 10% who travelled once a year; 1% travelled once in several years.

8.114 In the case of second sleeper passengers, the frequency varied from 6% who travelled daily to 11% who travelled about once a year. The largest percentage comprising 25% stated that they travelled once a month.

8.115 Amongst the second sitting passengers, the frequency varied from 6% who travelled daily, to 7% who travelled once in a year. 2% travelled even less frequently.

8.116 The largest percentage, accounting for 30% travelled once a month, while another large chunk accounting for 29% travelled weekly.

(Table 8.32)

Table 8.31

Income categories

Income per month	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Nil	-	6.89	-	-	-	16.31	16.69	16.11
b) Below 250	-	0.44	-	-	-	7.09	26.21	24.50
c) 251 to 500	-	5.47	-	100.00	-	28.37	34.34	32.58
d) 501 to 1000	-	57.66	100.00	-	-	29.79	17.30	19.81
e) 1001 to 2000	-	25.38	-	-	-	13.48	4.65	5.96
f) Above 2000	-	4.16	-	-	-	4.96	0.81	1.04
<b>Total</b>		100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428

Table 8.32

Frequency of travel

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<b>Travel Habits - The Passenger Travels</b>								
a) Daily	-	23.63	-	-	-	6.38	6.40	7.42
b) Weekly	-	19.80	-	-	-	18.44	29.18	28.52
c) Once a month	-	20.35	-	100.00	-	24.82	29.93	29.32
d) Once in three months	-	14.00	-	-	-	21.99	14.79	14.80
e) Once in six months	-	10.72	100.00	-	-	14.89	10.46	10.52
f) Once in a year	-	10.07	-	-	-	10.64	7.45	7.63
g) Once in several years	-	1.42	-	-	-	2.84	1.80	1.79
<b>Total</b>		100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428

Object of Travel

8.117 60% of the first class passengers, 33% of the second class sleeper passengers, and 27% of second sitting passengers, were travelling on business or duty.

8.118 Of the second sleeper passengers, a large proportion, accounting for 48%, were travelling on account of family work connected with marriage/death etc.

8.119 Similarly, in <sup>the</sup> case of second sitting passengers, 47% were travelling on account of family work. As compared to this, only 18% of passengers in the first class were travelling on this account. The rest of the passengers undertook the journeys for various other reasons like vacation, religious pilgrimage, attending educational seminars etc. (Table 8.33)

8.120 It is interesting to note further that, of the passengers who were self-employed, as many as 75% among the traders, 68% among the industrialists and 34% among the professionals stated that they were travelling on business or duty (Statement 8.11). Among the farmers, 12% stated that they were travelling on business, and another 63% that they were travelling on family work. Among these, there would be obviously quite a number who would be going on work relating to the family farm. Similar would be the situation regarding the professionals of whom 39% stated that they were going on family work.

Size of Group

8.121 82% of first class passengers and second class sleeper passengers and 73% of second sitting passengers were travelling alone.

8.122 10% of first class passengers, 5% of second sleeper passengers, and 15% of second sitting passengers were travelling in groups of two. The rest were travelling in larger groups of three or more.

(Table 8.34)

Table 8.33

Object of journey

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Travel Profile</u>								
a) Object of this Business/Duty	-	60.18	-	-	-	32.62	27.45	29.43
b) Vacation	-	6.13	-	-	-	4.96	5.18	5.24
c) Religious/Pilgrimage	-	6.35	-	50.00	-	3.55	7.98	7.85
d) Family work/ (Marriage, death, meeting relative)	-	17.72	-	50.00	-	48.23	46.83	45.12
e) Educational, Seminar, Conference	-	5.36	100.00	-	-	4.26	2.32	2.51
f) Other	-	4.27	-	-	-	6.38	10.24	9.85
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
		= 914	= 1	= 2		= 141	=14370	=15428

Table 8.34

Size of group

How many persons travelling together	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
a) Self only	-	81.95	-	50.00	-	81.56	72.80	73.41
b) Self with one family member	-	9.96	-	-	-	4.96	15.33	14.91
c) Self with two family members	-	4.60	100.00	50.00	-	6.38	7.32	7.16
d) Self with three or more family members	-	3.50	-	-	-	7.09	4.55	4.51
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
		= 914	= 1	= 2		= 141	=14370	=15428

Distance and Duration of Travel

8.123 Of the first class passengers, the largest numbers accounting for 24% were travelling for distances between 41 and 80 Kms., while 19% were travelling for distances between 81 and 160 Kms. 15% and 17% were travelling for distances upto 25 Kms and between 26 and 40 Kms. respectively.

8.124 Of the second sleeper population, the largest numbers accounting for 57% were travelling between 251 and 500 Kms., while 21% were travelling for distances between 501 and 1000 Kms. 13% were travelling for distances above 1000 Kms. A large percentage of second sleeper passengers, travelling for such distances is probably accounted for by passengers who were travelling on short distance trains to connect with long distance trains at the next junction.

8.125 The percentage of passengers travelling for shorter distance upto 80 Kms. in second sleeper accommodation was as low as 5%.

8.126 Of the second sitting passengers, 32% were travelling upto 25 Kms., 29% between 26 and 40 Kms. and the rest were travelling for distances beyond.

8.127 The duration of travel time varied from upto half hour for 8% of first class passengers, to more than 24 hours for 3%. A large proportion accounting for 25% were travelling between 3 to 8 hours, while another large group accounting for more than 34% were travelling between half an hour and 2 hours.

8.128 Of the second sleeper passengers, the duration of travel time varied from 1 to 2 hours in case of 2% of passengers, to more than 24 hours for 25% of passengers. The largest numbers accounting for 35% were travelling between 8 to 12 hours.

These percentages reflect the results in regard to distance of travel also.

8.129 Of the second sitting passengers, the duration of travel time varied from less than half hour for 15% passengers, to more than 24 hours for 1% of passengers. The largest percentage accounting for 33% of passengers were travelling between 1 to 2 hours, while another 25% were travelling between half an hour and one hour.

Table 8.35

Distance and duration of travel

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Distance Travelling</u>								
a) 0- 25 Kms -	14.99	-	50.00	-	-	32.49	31.16	
b) 26- 40 Kms -	17.18	-	-	-	0.71	28.85	27.90	
c) 41- 80 Kms -	24.29	-	50.00	-	4.25	26.66	26.32	
d) 81 -160 Kms -	19.47	-	-	-	0.71	5.53	6.31	
e) 161- 250 Kms -	7.77	-	-	-	3.55	2.23	2.57	
f) 251-. 500 Kms -	10.18	100.00	-	-	56.74	2.61	3.56	
g) 501-1000 Kms -	3.94	-	-	-	20.57	0.95	1.31	
h) Above 1000 Kms -	2.19	-	-	-	13.47	0.67	0.88	
Total	100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428	
<u>Duration of Travel</u>								
a) Upto 1/2 hour -	8.10	-	50.00	-	-	14.81	14.28	
b) More than 1/2 hour upto 1 hour -	10.07	-	-	-	-	24.77	23.67	
c) More than 1 hour upto 2 hours -	23.63	-	-	-	2.13	32.71	31.88	
d) More than 2 hours upto 3 hours -	18.05	-	50.00	-	2.84	14.64	14.74	
e) More than 3 hours upto 8 hours -	25.27	-	-	-	9.22	8.35	9.30	
f) More than 8 hours upto 12 hours -	7.00	100.00	-	-	35.46	2.19	2.64	
g) More than 12 hours upto 24 hours -	4.92	-	-	-	25.53	1.60	2.21	
h) More than 24 hours -	2.95	-	-	-	24.82	0.93	1.27	
Total	100.00 = 914	100.00 = 1	100.00 = 2	-	100.00 = 141	100.00 =14370	100.00 =15428	



Type of Ticket

8.130 34% of first class passengers, 96% of second sleeper passengers and 94% of second sitting passengers were travelling on payment of full fare. The rest were travelling on one kind of concession or the other, viz., Hill Concession, Circular Concession Tickets, students' concessions, free pass etc.

8.131 48% of first class passengers, 38% of second sleeper passengers and 35% of second sitting passengers were paying the fares themselves. Of the balance, 32% of first class passengers, 5% of second sleeper passengers and 5% of second sitting passengers were travelling on their employers' account. The balance were travelling on clients' account, leave travel concessions etc.

8.132 Among the passengers who were self-employed (Statement 8.12), a very substantial proportion stated that they were paying for themselves. In a majority of cases of traders (99%), industrialists (99%) and professionals (86%), such a statement was made. About 10% professionals stated that their clients would pay. The amount involved in these journeys would be tax-deducted. 99% of farmers stated that they were themselves paying.

8.133 It may also be noted (Statement 8.13) that, among the passengers who were in employment, the largest category which enjoyed some kind of concession was that of Government servants, from among whom almost 41% enjoyed a concession of some kind. Of these almost 37% were Railway employees (21% travelling on duty). Among students, over 10% enjoyed some kind of concession, of which about 5% enjoyed a student concession and about 3% some kind of concession linked to their being related to Railway employees. Among retired persons, about 14% enjoyed some kind of concession, of which the largest proportion was of the retired Railway employees (11%).

(Table 8.36)

Table 8.36

## Type of Ticket

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Is the passenger travelling on</u>								
a) Payment of full fare	-	33.81	100.00	100.00	-	96.45	94.38	90.81
b) <u>Payment of concessional fare</u>								
i) Hill concession	-	0.11	-	-	-	-	0.09	0.09
ii) Circular Ticket	-	-	-	-	-	-	0.07	0.06
iii) Student Concession	-	0.11	-	-	-	-	0.32	0.30
iv) PTO-Railwaymen	-	-	-	-	-	-	0.38	0.35
v) Other Concession	-	0.66	-	-	-	1.42	0.42	0.44
c) Free pass Railwaymen	-	20.24	-	-	-	2.13	2.32	3.38
d) Free pass-duty Railwaymen	-	39.82	-	-	-	-	1.68	3.92
e) Free pass-Non-Railwaymen	-	5.25	-	-	-	-	0.35	0.64
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
	-	=914	= 1	= 2	-	=141	=14370	=15428

Who is paying fareIf not on free pass

a) Self	-	48.14	100.00	100.00	-	88.41	85.20	84.39
b) Employer	-	31.99	-	-	-	5.07	4.82	5.44
c) Client	-	2.17	-	-	-	0.72	0.84	0.87
d) Leave Travel Concession(LTC)-	-	0.62	-	-	-	-	0.08	0.09
e) Defence-Armed Forces	-	12.42	-	-	-	1.45	0.52	0.80
f) Others	-	4.66	-	-	-	4.35	8.53	8.40
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
	-	=322	= 1	= 2	-	=133	=13763	=14226

Preference for Rail Travel as Against Buses

8.134 Of the first class passengers, the largest numbers accounting for 66% were travelling by train in preference to bus, because they were travelling on some form of concession. Of the balance, 23% stated that they were travelling by railways, because they felt that it was more comfortable and better.

8.135 3% preferred trains, because the train timings at their destination or originating station was more convenient, while 2% felt that the rail travel was safer.

8.136 1% preferred railways because they could carry more luggage, while 1% did so because they found the railways cheaper.

8.137 1% preferred the railways because no room was available in the bus, while 2% did so because no bus service existed at all.

8.138 Of the second sleeper passengers, the largest numbers accounting for 74% preferred the railways because they found it to be more comfortable and better. 8% found it cheaper, 3% each found it faster and safer, while 5% did so because the train timings were more convenient, 2% did so because they could carry more luggage.

8.139 4% were travelling on some concession or a pass, and only 2% were travelling by railways because no bus service existed.

8.140 Amongst the second sitting passengers again, the largest numbers accounting for 38% preferred the railways because they found it more comfortable and better, while 26% felt that this mode of travel was cheaper.

8.141 4% preferred the railways, because they could carry more luggage. 5% were travelling on concessions and 4% felt that the railways were safer. 2% did so because the travel was faster. 4% travelled by railways because no room was available by bus, while a total of 10% had no choice, as no bus services were available.

8.142 The above statistics indicate very significant results. Only 2% of second sleeper passengers and 10% second sitting passengers, had no choice regarding the mode of travel.

8.143 Of the balance, a vast majority made a conscious decision to travel by the railways because they felt that the railways were more comfortable, and faster. Even among the second class (Sitting) passengers, only about one quarter emphasised that they preferred this mode of travel because it was cheaper (Table No. 8.37)

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Table 8.37

3-51

Reasons for preferring rail to bus

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Class Sitting	All Classes
	%	%	%	%	%	%	%	%
<u>Why did he travel by Rail and not by bus ?</u>								
a) No bus service exists	-	2.30	-	-	-	2.13	10.33	9.77
b) No Room available in bus	-	0.66	-	-	-	-	3.90	3.67
c) Railways is more comfortable & better	-	22.54	100.00	-	50.00	73.76	37.96	37.38
d) Railway is cheaper	-	0.77	-	-	-	7.80	26.22	24.53
e) Railway is faster	-	0.66	-	-	-	2.84	1.99	1.92
f) Railway is safer	-	2.30	-	-	-	2.84	3.69	3.60
g) Train's starting of destination timings are more suitable	-	3.17	-	-	-	4.96	7.07	6.82
h) Can carry more luggage	-	1.31	-	-	50.00	2.13	3.67	3.51
i) Travelling on Concession Pass/PTO	-	66.30	-	-	-	3.55	5.18	8.79
Total	-	100.00	100.00	-	100.00	100.00	100.00	100.00
		= 914	= 1		= 2	= 141	= 14362	= 15420

Change in Frequency of Travel

8.144. 66% of first class passengers, 74% of second sleeper passengers and 72% of second sitting passengers stated that their frequency of travel was at present more than what it was ten years ago.

8.145 The change in the frequency of travel in a large majority of cases in all classes was due to the nature of jobs held by them. Thus 66% of first class passengers, 44% of second sleeper passengers, and 31% of second sitting passengers stated that their job was the reason for the change in the frequency of travel.

8.146 Age was responsible for 9% of first class passengers, 35% of second sleeper passengers and 23% of second sitting passengers to increase their frequency of travel.

8.147 Fare, income, and rail travel facilities were the other reasons why there was a change in frequency of travel, as compared to what it was 10 years ago. (Table No. 8.38)

Table 8.38

Change in Frequency of Travel

	A.C.C.	First Class	First Class Chair Car	2-Tier A.C. Sleeper	A.C. Chair Car	Second Sleeper	Second Sitting	All Classes
	%	%	%	%	%	%	%	%
a) <u>Did the passenger travel by Rail much less frequently about 10 years ago?</u>								
i) Yes	-	66.30	-	-	-	73.76	71.87	71.54
ii) No	-	33.70	100.00	100.00	-	26.24	28.13	28.46
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
	-	=914	= 1	= 2	-	= 141	=14357	=15415
b) <u>Change in which factor was responsible for it.</u>								
i) Age	-	8.82	-	100.00	-	34.75	27.90	26.84
ii) Job	-	66.04	-	-	-	43.97	30.74	32.95
iii) Fare	-	0.66	-	-	-	2.13	3.61	3.42
iv) Income	-	7.61	-	-	-	8.51	16.68	16.06
v) Rail travel facilities	-	16.87	100.00	-	-	10.64	21.06	20.72
Total	-	100.00	100.00	100.00	-	100.00	100.00	100.00
	-	= 907	= 1	= 2	-	= 141	=14237	=15288

Some General Conclusions

8.148 A number of conclusions emerge from the Survey and some of these have been high-lighted in the above paragraphs. One of the points that clearly emerges is that a very substantial proportion of the passengers travelling in ACC and I class are those who travel on duty or business, or those who have some kind of concession for travel. The implication is that the elasticity of demand in relation to fares in these classes would be low. It is also seen that a substantial proportion among the passengers travelling by these classes belong to income groups which in our country's context can be considered to be well-to-do. Another point that is clear is that the poorer classes such as farmers mostly travel in the II class, especially in II (Sitting) and in short distance trains. The proportion of middle income groups is substantial in II class (Sleepers) passengers. The survey also suggests that the travel habit, largely due to change in the nature of work, has grown significantly in the last ten years and that people travel much more. This confirms the inference which can otherwise be drawn from statistical data that the number of railway passengers is increasing faster than population.

8.149 Another interesting point that emerges is that a very large proportion of those passengers who have a choice between bus and rail travel prefer Railways, not because they are cheaper but on other grounds such as that they provide services which are more comfortable, safer, faster or have other facilities. This also confirms the conclusion that the price elasticity (or the fare elasticity) of demand in the case of railway services is not very high and this is so both about the upper classes and the II class services.

8.150 A surprising conclusion from the survey of long distance passengers is that the proportion of passengers who found difficulties in obtaining reservations was small, about 83% of the respondents stating that they had no such difficulty. This is very heartening in view of the popular impression that reservations are very difficult to obtain, and that there is a great deal of corruption in this respect. Only about 4% of the respondents stated that they had to pay extra money. It is of course possible that some of the respondents might not have liked to state this openly.

8.151 One other point from the point of view of priorities for the future that emerges very clearly is that the maximum importance is given by respondents to having more train services. About 37% of all the respondents and over 40% of II class respondents state this to be the most important improvement which they seek. Punctuality and speed are other points that are emphasised by a substantial proportion, the former being specially stressed by the II class passengers.

8.152. Among the amenities which are stressed, II class sleeper passengers (about 40%) stress the importance of having more sleeper coaches, more cold water facilities, cushioned seats and cleaner lavatories are the other points that are stressed in that order. About facilities at the stations, the maximum stress is on easy availability of tickets which again emphasises that train services should be increased and perhaps also the booking facilities at stations. Another point which received much attention is regarding better food. More courteous service and additional retiring and waiting facilities are the other points that are stressed in that order. It may also be of interest to note that an overwhelming proportion of II class passengers prefer the three-tier to two-tier berth arrangements. It may be noted that this is the pattern which the Railways have adopted for the future.



8.153 Among the short distance travellers also, only about a quarter (even in the II class sitting accommodation) stated that they prefer to travel by railway because it is cheaper. Less than 10% stated that they travelled by railway because no bus service was available. The remainder preferred to travel by a railway train for other reasons such as that the railway service is more comfortable (37%), safer or faster, etc., Even in short distance travel, over 70% stated that they travelled by railway much more than what they did ten years back. About one-third stated that this was due to the nature of the job, 27% because of their age (this probably means that they are now in the employment age) and 16% because of their income. Only 21% stated they travelled more now because (better) rail travel facilities are available.

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NON-SUBURBAN PASSENGER

PROFILE SURVEY

Statements

8.01 To 8.16

## Statement 8.01

Analysis of Non-suburban Passenger Traffic  
(Excluding Military and Season Ticket)

(Number in millions)

1976-77

Class	1-25 km		26-49 km		50-80 km		81-250 km		
	No.	%	No.	%	No.	%	No.	%	
AC I	No.	-	-	-	-	-	-	-	
	origi- nating	-	-	-	-	0.001	0.4	0.030	13.3
	Pass km.	-	-	-	-	-	-	5	3.4
	Av.lead(km)					65		167	
AC 2-tier Sleeper	No.								
	origi- nating	0.146	3.4	0.113	2.6	0.180	4.1	0.998	22.9
I regu- lar	Pass km.	2	0.1	5	0.2	13	0.6	182	7.8
	Av.lead(km)	14		44		72		182	
I Chair Car	No.								
	origi- nating	-	-	-	-	0.002	0.5	0.028	6.5
	Pass km.	-	-	-	-	-	-	5	1.1
	Av.lead(km)					65		179	
II Sleeper	No.								
	origi- nating	21.442	11.8	20.907	11.5	21.242	11.7	53.699	29.5
II M/E regular	Pass km.	359	0.7	774	1.5	1,371	2.6	8,670	15.7
	Av.lead(km)	17		37		65		161	
II-Ordy.	No.								
	origi- nating	470.220	50.6	225.116	24.2	102.486	11.0	102.939	11.1
	Pass km.	6,987	14.2	7,898	16.1	6,171	12.5	14,603	29.7
	Av.lead(km)	15		35		60		142	
Total All Classes	No.								
	origi- nating	491.808	44.1	246.186	22.1	123.911	11.1	157.694	14.1
	Pass km.	7,348	7.1	8,677	8.4	7,555	7.3	23,465	22.6
	Av.lead(km)	15		35		61		149	

Analysis of Non-suburban Passenger Traffic  
(Excluding Military and Season Ticket)

Statement 8.01 (Contd.)

1976-77

(Number in millions)

251-500 km		500-800 km		801-1000 km		1001-1500 km		Over 1500 km		Total
No.	%	No.	%	No.	%	No.	%	No.	%	No.
0.113	50.00	0.033	14.6	0.018	8.0	0.026	11.5	0.005	2.2	0.226
46	33.4	23	17.1	17	12.7	35	25.7	10	7.6	136
407		697		944		1346		2000		602
1.502	34.5	0.576	13.2	0.248	5.7	0.323	7.4	0.263	6.0	4.349
578	24.8	380	16.3	227	9.7	417	17.9	522	22.5	2,326
385		660		915		1291		1985		535
0.082	18.9	0.030	6.9	0.029	6.7	0.207	47.8	0.055	12.7	0.433
32	6.7	119	4.1	27	5.7	279	58.9	112	23.5	474
390		633		931		1348		2036		1095
35.108	19.3	15.829	8.7	4.393	2.4	5.604	3.1	3.581	2.0	181.805
12,843	24.8	10,136	19.6	3,918	7.6	7,040	13.6	6,662	12.9	51,773
356		640		892		1256		1860		285
20.865	2.2	4.834	0.5	1.146	0.1	1.130	0.1	0.588	0.1	929.374
7,008	14.2	3,041	6.2	1,022	2.1	1,373	2.8	1,099	2.2	49,202
336		629		892		1215		1869		53
57.670	5.2	21.302	1.9	5.834	0.5	7.290	0.7	4.492	0.4	1116.187
20.507	19.7	13,599	13.1	5,211	5.0	9,144	8.8	8,405	8.1	103,911
356		638		893		1254		1871		93

Statement 8.02Non-Suburban Passenger Profile SurveyLong Distance TrainsObject of Journey Category-wise of Self-employed persons

	Busi- ness Duty	Vaca- tion	Reli- gious/ Pilgr- image	Family work	Educa- tional Seminar Confer- ence	Others	Total
	%age	%age	%age	%age	%age	%age	%age
a. Trader/Hawker	73.83	0.67	4.32	20.51	0.09	1.57	100= 2223
b. Industrialist	75.78	2.30	4.80	15.45	0.42	1.25	100= 479
c. Farmer	8.43	0.23	15.89	60.67	1.23	13.52	100= 1139
d. Engineer ) Doctor ) Lawyer ) Consultant ) & Others )	39.92	3.19	8.13	34.77	2.88	11.11	100= 972
e. Social/Political Worker	15.93	0.88	5.31	12.39	29.20	36.28	100= 113

NON-SUBURBAN PASSENGER PROFILE SURVEYLONG DISTANCE TRAINSSelf employed passenger " who is paying " wise

	Self	Emplo- yer	Client	Leave Conce- ssion	Defence Armed Force	Others	Total
	%age	%age	%age	%age	%age	%age	%age
a. Trader/Hawker	99.01	0.45	0.05	0.05	-	0.45	100= 2217
b. Industrialist	99.16	0.63	-	-	-	0.21	100= 477
c. Farmer	99.11	-	0.27	-	-	0.62	100= 1129
d. Engineer Doctor Lawyer Consultant & others )	79.96	2.38	14.15	-	0.10	3.41	100= 968
e. Social/Politi- tical worker	54.37	1.94	2.91	-	-	40.78	100= 103

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Statement 8.04

NON-SUBURBAN PASSENGER PROFILE SURVEY  
LONG-DISTANCE TRAINS

Nature of tickets held by other than Self-employed passengers

	Full Fare	Hill Conc- ession	Cir- cular Ticket	Student Conce- ssion	Rail- way P.T.O.	Other Conce- ssion	Railway Privi- lege Pass	Rail- way duty pass	Non- Rail- way pass	TOTAL
	%age	%age	%age	%age	%age	%age	%age	%age	%age	%age
<u>Employment</u> <u>Service</u>										
Government service.	58.29	0.12	0.41	-	0.56	5.42	14.88	16.35	3.97	100= 4133.
Public sector service	98.60	0.30	0.20	-	-	0.80	0.10	-	-	100= 998
Private service	98.64	0.37	0.33	0.05	0.09	0.47	-	-	0.05	100= 2133
Teacher/ Professor	95.55	0.54	-	0.27	-	3.10	0.40	0.13	-	100= 741
Students	73.14	0.13	0.13	16.62	0.53	0.80	6.38	0.13	2.13	100= 752
Housewife	89.07	0.10	0.31	-	0.82	1.75	7.63	-	0.31	100= 970
Retired	75.86	-	0.60	-	-	0.20	20.93	-	2.41	100= 497
Unemployed	96.05	0.40	-	1.19	-	-	1.96	-	0.40	100= 233
Others	95.57	0.37	0.74	-	-	1.85	0.74	-	0.74	100= 271

NON-SUBURBAN PASSENGER PROFILE SURVEY  
LONG-DISTANCE TRAINS

Distance travelled upto 80 Kms preferencewise for Railway Travel.

	No bus service	No Room in bus	Railway more comfortable & better	Rail-way Cheaper	Rail-way Faster	Rail-way Safer	Timings suitable	Carry more Luggage	Travel on concession	Total
	%age	%age	%age	%age	%age	%age	%age	%age	%age	%age
0-25 Kms	19.35	3.87	22.92	21.13	1.19	2.38	6.85	3.87	18.45	100=336
26-40 Kms	15.15	3.35	29.35	21.85	1.75	2.55	9.57	3.03	13.40	100=627
41-80 Kms	10.43	4.01	36.65	17.88	3.45	2.97	8.18	3.13	13.31	100=1247



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Statement 3.06Passenger Profile SurveyLong Distance TrainsStatement showing distribution of Passengers, type of trainwise

Sl. No.	Description	Super fast train %	Mail Express train %	Long distance passenger train %
<u>Profession</u>				
1.	<u>EMPLOYMENT SERVICE</u>			
(a)	Govt. Service	21.27	26.55	27.41
(b)	Public sector service.	9.86	7.39	3.89
(c)	Private Service	18.23	14.77	10.70
(d)	Teacher/Professor	5.20	4.06	5.61
(e)	Student	4.46	4.48	5.36
(f)	Housewife	5.06	5.88	6.94
(g)	Retired	2.84	3.21	3.20
(h)	Unemployed	1.01	1.47	1.99
(i)	Other Service	1.55	1.69	1.83
(j)	Trader/Hawker	15.53	15.06	12.48
(k)	Industrialist	6.75	3.37	1.60
(l)	Farmer	1.76	4.76	12.52
(m)	Engg./Architect	1.08	0.89	0.46
(n)	Doctor	0.54	1.61	1.07
(o)	Lawyer	1.22	1.55	1.44
(p)	Consultant	0.54	0.26	0.21
(q)	Social/Political worker.	0.81	0.70	0.73
(r)	Others self employed	2.30	2.28	2.57
2.	<u>INCOME PER MONTH</u>			
(a)	Nil	9.66	11.77	14.03
(b)	Below Rs.250	2.50	5.30	13.62
(c)	Rs.251 to Rs.500	10.13	18.26	29.33
(d)	Rs.501 to Rs.1000	25.19	30.81	29.50
(e)	Rs.1001 to Rs.2000	30.79	23.30	10.44
(f)	Above Rs.2000	21.74	10.55	3.04

Sl. No.	Description	Super fast train %age	Mail Express train %age	Long distance passenger train %age
<b>3. TRAVEL HABITS</b>				
(a)	Daily	1.96	2.12	5.98
(b)	Weekly	12.09	13.06	21.21
(c)	Once a month	24.65	23.93	27.07
(d)	Once in three months	21.54	19.86	19.01
(e)	Once in six months	18.57	19.60	14.56
(f)	Once in a year	17.42	17.14	10.15
(g)	Once in several years	3.78	4.27	2.01
<b>4. OBJECT OF THIS JOURNEY</b>				
(a)	Business/Duty	48.28	10.05	32.72
(b)	Vacation	11.48	9.08	6.60
(c)	Religious/Pilgrimage	4.73	7.02	8.13
(d)	Family work.	26.54	35.04	43.19
(e)	Education/Seminar Conference.	5.40	3.55	2.70
(f)	Others.	3.58	5.27	6.66
<b>5. DISTANCE (in km.)</b>				
(a)	0-25	0.27	0.26	5.54
(b)	26-40	0.14	0.95	9.76
(c)	41-80	0.14	3.01	17.59
(d)	81-160	1.35	9.34	25.21
(e)	161-250	10.20	12.84	14.82
(f)	251-500	18.57	24.73	15.71
(g)	501-1000	18.84	24.81	7.21
(h)	Above 1000	50.51	24.06	4.15
<b>6. IS THE PASSENGER TRAVELLING ON</b>				
(a)	Full fare	90.68	36.07	82.44
(b)	Hill Concession	0.27	0.23	0.18
(c)	Circular Ticket	0.20	0.48	0.43
(d)	Student Concession	1.22	0.93	0.60
(e)	PTO Railwaymen	0.20	0.27	0.25
(f)	Other concessions	1.76	2.28	1.46
(g)	Free Pass Privilege Railwaymen	2.30	5.38	6.36
(h)	Free Pass duty Rlymen.	2.30	3.09	6.73
(i)	Free pass others.	1.08	1.26	1.56

Sl. No.	Description	Super fast train %age	Mail Express train %age	Long distance passenger train %age
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7. IF NOT ON FREE PASS WHO IS PAYING.

(a) Self	62.52	67.90	76.49
(b) Employer	24.03	19.40	10.12
(c) Client	1.79	1.27	1.08
(d) Leave Travel Concession	2.22	1.05	0.46
(e) Defence Armed Forces	2.86	3.84	2.88
(f) Others	6.58	6.54	8.38

8. WHY TRAVELLING IN OTHER THAN IInd CLASS.

(a) Finds it comfortable	36.21	32.03	21.88
(b) Easy to secure accommodation	7.47	7.00	6.82
(c) Safer	4.77	4.02	3.08
(d) Car Afford	8.89	7.00	5.57
(e) Entitled to this class	37.11	46.69	60.82
(f) Did not get accommodation in lower class.	3.99	2.74	1.66
(g) Did not get accommodation in higher class.	1.55	0.52	0.17

9. FOR PASSENGER OTHER THAN II CLASS IF THE FARE IS INCREASED AS FOLLOWS WILL HE STILL TRAVEL IN THIS CLASS ?

(a) No, he will not travel by this class.	18.43	14.84	13.89
(b) Yes, upto Rs.5/-	12.76	12.48	5.74
(c) Yes, upto Rs.10/-	9.79	7.24	3.33
(d) Yes, upto Rs.20/-	5.80	3.60	1.08
(e) Yes, upto Rs.40/-	0.52	0.35	0.08
(f) Yes, upto Rs.50/-	1.42	1.01	0.58
(g) Not affected.	51.29	60.49	75.29

(4)

Sl. No.	Description	Super fast train %age	Mail Express train %age	Long distance passenger train %age
10.	<u>FOR A PASSENGER TRAVELLING IN I CLASS WHICH ONE OF THE FOLLOWING DOES HE PREFER !</u>			
	(a) 2-Tier AC Sleeper	61.90	38.71	26.19
	(b) Ist class chair car	8.20	11.55	26.19
	(c) Ist class ordinary	29.89	49.75	63.22
11.	<u>WHY BY SUPER FAST OR MAIL/EXPRESS TRAIN.</u>			
	(a) 'Save time'	81.57	71.36	-
	(b) More comfortable	14.11	22.46	-
	(c) Reservation is easy	2.09	2.48	-
	(d) Gets convenient connection.	2.23	3.70	-
12.	<u>IF THE TRAIN IS FURTHER SPEEDED UP HOW MUCH MORE IS HE WILLING TO PAY ?</u>			
	(a) Nil	32.25	41.66	48.13
	(b) Rs.5/-	17.17	19.98	18.82
	(c) Rs.10/-	9.13	6.49	2.78
	(d) Rs.20/-	5.14	2.19	0.63
	(e) Rs.40/-	0.68	0.14	-
	(f) Rs.50/-	1.35	0.45	0.42
	(g) Not affected.	34.28	29.09	29.24

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Statement 8.07Non-Suburban Passenger Profile SurveyLong Distance TrainsDistribution of Passengers Profession-wise Class-wise

	A.C.C.	First	First Class Chaircar	2-tier A.C.	AC Chair Car	Second class Sleeper	Second Class Sitting	All Classes
<u>Employment-Service</u>								
a. Government Services	13.23	46.91	20.66	33.34	14.56	21.03	19.31	25.35
b. Public Sector Service	14.01	10.98	17.88	14.29	6.96	6.19	3.29	6.37
c. Private Service	35.02	11.24	24.02	11.90	19.42	16.48	12.12	13.64
d. Teacher/Professor	0.39	2.89	5.59	1.19	5.06	4.33	6.06	4.73
e. Student	-	2.51	2.79	1.19	4.85	5.10	6.13	4.80
f. Housewife	3.11	4.14	2.79	4.76	5.27	5.94	7.68	6.19
g. Retired	0.78	3.13	1.12	1.19	2.74	3.36	3.29	3.17
h. Unemployed	-	0.34	0.56	-	0.42	1.66	2.45	1.61
i. Others	2.33	1.14	0.56	-	0.84	2.02	1.98	1.73
<u>SELF EMPLOYED</u>								
a. Trader/Hawker	9.34	5.61	6.70	15.48	22.79	19.87	15.71	14.17
b. Industrialist	13.23	3.70	8.38	11.90	9.28	2.94	1.76	3.06
c. Farmer	1.56	0.80	-	-	0.84	4.30	13.10	7.26
d. <u>Professional</u>								
i. Engineer/Architect	2.33	1.01	4.47	-	0.84	0.61	0.54	0.75
ii. Doctor	0.39	1.78	1.12	-	0.84	1.58	1.01	1.31
iii. Lawyer	2.33	1.45	1.12	1.19	1.48	1.28	1.58	1.48
iv. Consultant	1.56	0.67	0.56	1.19	0.42	0.14	0.04	0.27
v. Social/Political Worker	0.39	0.59	-	1.19	1.69	0.78	0.72	0.72
vi. Others.	-	1.11	1.68	1.19	1.69	2.39	3.23	2.39
Total	100= 257	100= 3869	100= 179	100= 84	100= 474	100= 3604	100= 7212	100= 15679

Non-Suburban Passenger Profile Survey  
Long Distance Trains

Distribution of Passengers professionwise and distancewise

Profession	Distance in Kms.							
	0 to 25	26-40	41-80	81-160	161-250	251-500	501-1000	Above 1000
	%age	%age	%age	%age	%age	%age	%age	%age
Government Service	2.40	3.29	7.07	13.11	12.94	18.85	19.33	23.01
Public Sector Service	1.10	1.50	3.41	10.62	10.52	20.84	24.65	27.35
Private Sector Service	0.89	2.10	7.02	13.24	12.52	22.45	19.88	22.17
Teachers/Professors	1.89	6.34	11.74	18.76	15.11	20.51	13.23	12.42
Student	5.59	7.05	8.91	18.35	14.63	18.62	12.37	14.49
Housewife	1.34	3.81	7.53	16.08	17.01	25.98	14.62	13.61
Retired	0.80	4.23	4.83	14.29	14.29	22.74	21.33	17.51
Unemployed	2.77	7.91	16.21	18.58	14.62	17.00	9.49	13.44
Other services	1.85	2.95	7.75	15.13	14.76	20.66	19.19	17.71
Trader/ hawkers	1.66	3.69	7.47	12.96	13.18	20.35	18.58	22.13
Industrialists	0.84	1.67	3.34	8.77	11.48	27.14	21.50	25.26
Farmers	5.62	9.66	16.15	21.60	11.94	17.30	11.33	6.41
Engineers/Architects	-	1.69	4.24	11.86	10.17	34.75	18.64	18.64
Doctors	0.49	4.85	8.74	13.59	12.62	30.10	17.48	12.14
Lawyers	1.29	6.90	13.36	16.38	14.66	22.41	18.10	6.90
Consultants	-	-	-	2.38	23.81	30.95	16.67	26.19
Social/Political workers.	2.65	5.31	3.54	16.81	14.16	21.24	19.47	16.81
Other self-employed	3.21	4.55	10.16	10.96	17.91	22.46	13.64	17.11
All Groups	2.16	4.04	7.98	14.29	13.30	20.91	17.92	19.41

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Statement 8.09

Non-Suburban Passengers Profile Survey  
Long Distance Trains

Distribution of Passengers distancewise and Incomewise

Income (in Rs) Distance (in kms.)	Nil	Below Rs.250	251 to 500	501 to 1000	1000 to 2000	Above 2000	All Income
	%age	%age	%age	%age	%age	%age	%age
0-25	3.24	6.52	2.55	1.90	0.33	0.57	2.16
26-40	5.76	10.49	5.88	3.06	1.11	0.36	4.04
41-80	9.08	15.66	11.44	7.60	3.72	1.86	7.98
81-160	16.92	22.58	19.16	13.97	8.32	5.44	14.29
161-250	15.95	11.69	13.73	13.84	12.11	10.88	13.30
251-500	22.22	15.18	19.61	20.09	22.04	27.63	20.91
501-1000	12.81	10.57	14.85	19.79	22.93	21.90	17.92
Above 1000	14.09	7.31	12.77	19.75	29.14	31.35	19.41
Total	12.40	8.02	21.47	29.81	19.39	8.91	100=15679

Non-Suburban Passenger Profile SurveyLong Distance Trains

Distribution of passengers by who is paying the fare and how much more he is willing to pay if the train is further speeded up

W H O I S P A Y I N G

How much more	Self	Employer	Client	Leave Travel Concession	Defence Armed Forces	Other	Total
	%age	%age	%age	%age	%age	%age	%age
Nil	52.72	14.48	25.53	17.09	15.57	70.01	44.45
Rs. 5	26.60	10.19	10.64	13.68	6.01	10.92	21.32
Rs. 10	8.19	4.59	10.64	5.13	1.64	3.20	6.94
Rs. 20	2.80	2.67	3.55	3.42	0.55	1.16	2.60
Rs. 40	0.20	0.30	0.71	-	-	-	0.20
Rs. 50	0.67	0.55	2.84	0.85	-	-	0.61
Not affected by increase	8.82	67.20	46.10	59.83	76.23	14.70	23.88
Total	68.13	19.18	1.36	1.13	3.54	6.65	100= 10334



Statement 8.11NON-SUBURBAN PASSENGER PROFILE SURVEYSHORT DISTANCE TRAINSObject of Journey Category-wise of Self-Employed Persons

	Business Duty	Vacation	Religions/ Pilgrimage	Family work	Educational Seminar Conference	Other	Total
	%age	%age	%age	%age	%age	%age	%age
a. Trader/Hawker	75.28	0.23	4.00	18.03	0.09	2.37	100= 2152
b. Industrialist	67.66	1.28	9.36	14.47	0.43	8.81	100= 235
c. Farmer	11.60	0.10	11.84	62.68	0.03	13.73	100= 2913
d. Engineer Doctor Lawyer Consultant & Others.	33.63	1.31	7.22	39.13	1.07	17.64	100= 1219
e. Social/Politi- cal worker	6.36	1.82	8.18	16.36	32.73	34.55	100= 110

NON-SUBURBAN PASSENGER PROFILE SURVEYSHORT DISTANCE TRAINSSelf-employed passenger "Who is paying" wise

	Self	Employer	Client	Leave Concession	Defence Armed Force	Others	Total
	%age	%age	%age	%age	%age	%age	%age
a. Trader/Hawker	98.70	0.79	-	-	-	0.51	100= 2150
b. Industrialist	98.72	1.28	-	-	-	-	100= 235
c. Farmer	99.45	-	-	-	-	0.55	100= 2913
d. Engineer Doctor Lawyer Consultant & others	85.78	1.07	9.53	-	-	3.62	100= 1217
e. Social/Politi- cal worker.	70.91	-	1.82	-	-	27.27	100= 110



Statement 8.14NON-SUBURBAN PASSENGER PROFILE SURVEY  
SHORT DISTANCE TRAINSDistance travelled upto 80 kms. preference-wise for Railway travel

	No. Bus service	No room in Bus	Rly. More comfort- able & better	Railway Cheaper	Railway Faster	Rail- way safer	Timi- ngs suit- able	Carry more lugg- age	Travel on conce- ssion	Total
	%age	%age	%age	%age	%age	%age	%age	%age	%age	%age
0-25 kms.	14.30	3.68	33.83	28.83	1.90	2.36	7.21	3.70	4.18	100= 4783
26-40 kms.	10.13	3.81	33.53	27.98	2.25	4.55	7.41	4.30	6.02	100= 4303
41-80 kms.	6.16	4.46	41.33	22.50	1.55	3.97	7.42	3.01	9.61	100= 4058

Statement 8.15Non-Suburban Passenger Profile SurveyShort Distance TrainsDistribution of Passengers Profession wise Class wise

	A.C.C.	First	First Class Chair Car	2-Tier AC	AC Chair Car	Second Class Sleeper	Second Class Sitting	All Classes
<u>Employment-Service</u>								
a. Government Service	-	66.84	-	50.00	-	17.02	15.50	18.56
b. Public Sector Service	-	2.52	-	-	-	2.13	2.51	2.50
c. Private Service	-	4.92	-	-	-	7.80	9.39	9.11
d. Teacher/Professor	-	3.50	-	-	-	1.42	5.11	4.98
e. Student	-	3.94	-	-	-	4.96	6.33	6.18
f. Housewife	-	2.41	-	-	-	7.80	7.97	7.64
g. Retired	-	4.70	-	-	-	0.71	3.21	3.27
h. Unemployed	-	0.33	-	-	-	1.42	2.76	2.60
i. Others	-	0.33	-	-	-	0.71	2.33	2.20
<u>SELF-EMPLOYED</u>								
a. Trader/Hawker	-	2.41	100.00	50.00	-	35.46	14.45	13.95
b. Industrialist	-	1.53	-	-	-	7.09	1.47	1.52
c. Farmer	-	1.64	-	-	-	6.38	20.10	18.88
<u>d. Professional</u>								
i. Engineer/Architect	-	0.44	-	-	-	-	0.35	0.36
ii. Doctor	-	1.97	-	-	-	1.42	1.32	1.35
iii. Lawyer	-	1.09	-	-	-	1.42	1.18	1.17
iv. Consultant	-	-	-	-	-	-	0.14	0.13
v. Social/Political worker	-	0.77	-	-	-	2.13	0.70	0.71
vi. Others	-	0.66	-	-	-	2.13	5.18	4.89

Non-Suburban Passengers Profile SurveyShort Distance TrainsDistribution of Passengers distancewise and Incomewise

Income (in Rs.) Distance in Kms.	Nil	Below	251 to 500	501 to 1000	1001 to 2000	Above 2000	All Incomes
0-25	51.38	41.03	29.68	23.40	18.93	21.12	31.10
26-40	24.48	29.39	28.78	26.15	21.98	22.36	27.70
41-80	16.21	21.90	27.51	29.52	30.03	27.95	26.31
81-160	2.76	3.81	5.25	9.98	10.88	6.21	6.28
161-250	2.76	1.75	2.39	3.34	4.90	4.35	2.63
251-500	1.72	1.40	4.20	4.65	7.40	10.56	3.75
501-1000	0.34	0.56	1.29	1.77	3.26	4.97	1.35
Above 1000	0.34	0.16	0.90	1.21	2.61	2.48	0.88
Total	2.19	28.56	37.99	23.09	6.94	1.22	100.00= 13233

# INDIAN RAILWAYS

## NON-SUBURBAN PASSENGER PROFILE SURVEY—MARCH, 1979

( LONG DISTANCE TRAINS ONLY )

### QUESTIONNAIRE

Serial No.

Punch Columns

1	2	3	4	5

### PART—I

#### CONTROL PARTICULARS

##### 1.01 GENERAL

RAILWAY ... ..

NAME OF INVESTIGATOR ... ..

DATE ... ..

STATION ... ..

##### 1.02 TRAIN PARTICULARS

TRAIN NO. ... ..

TRAIN NAME ... ..

STATION FROM ... ..

STATION TO ... ..

##### 1.03 SIGNATURE

SIGNATURE OF INVESTIGATOR ... ..

SIGNATURE OF STARTING  
STATION MASTER & STAMP ... ..

SIGNATURE OF DESTINATION  
STATION MASTER & STAMP ... ..

-  
PART—II  
MAIN QUESTIONNAIRE

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMN

**2. TYPE OF TRAIN**

- |                                    |   |
|------------------------------------|---|
| (a) SUPERFAST ... ..               | 1 |
| (b) MAIL/EXPRESS ... ..            | 2 |
| (c) LONG DISTANCE PASSENGER ... .. | 3 |

6—6

**3. CLASS OF TRAVEL**

- |                                          |   |
|------------------------------------------|---|
| (a) A.C.C. ... ..                        | 1 |
| (b) FIRST CLASS ... ..                   | 2 |
| (c) FIRST CLASS CHAIR CAR ... ..         | 3 |
| (d) 2-TIER A.C. SLEEPER ... ..           | 4 |
| (e) AIR CONDITIONED CHAIR CAR ... ..     | 5 |
| (f) SECOND CLASS SLEEPER - 3 TIER ... .. | 6 |
| (g) SECOND CLASS SLEEPER - 2 TIER ... .. | 7 |
| (h) SECOND CLASS SITTING ... ..          | 8 |

7—7

**4. NATURE OF ACCOMMODATION**

- |                       |   |
|-----------------------|---|
| (a) RESERVED ... ..   | 1 |
| (b) UNRESERVED ... .. | 2 |

8—8

**5. PASSENGER PROFILE**

- 5.01 AGE—**
- |                            |   |
|----------------------------|---|
| (a) BELOW 12 ... ..        | 1 |
| (b) 12 TO 18 ... ..        | 2 |
| (c) OVER 18 UPTO 25 ... .. | 3 |
| (d) OVER 25 UPTO 40 ... .. | 4 |
| (e) OVER 40 UPTO 60 ... .. | 5 |
| (f) OVER 60 ... ..         | 6 |

9—9

- 5.02 SEX —**
- |                   |   |
|-------------------|---|
| (a) MALE ... ..   | 1 |
| (b) FEMALE ... .. | 2 |

10—10

**5.03 EDUCATIONAL QUALIFICATIONS COMPLETED**

- |                                    |   |
|------------------------------------|---|
| (a) ILLITERATE ... ..              | 1 |
| (b) NON-MATRICULATE ... ..         | 2 |
| (c) MATRICULATE/SSC/HSC ... ..     | 3 |
| (d) GRADUATE ... ..                | 4 |
| (e) POST GRADUATE AND ABOVE ... .. | 5 |

11—11

*Season Ticket Holders are not to be covered by this Survey*



FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

5.04 EMPLOYMENT – SERVICE

- |                                  |   |
|----------------------------------|---|
| (a) GOVERNMENT SERVICE ... ..    | 1 |
| (b) PUBLIC SECTOR SERVICE ... .. | 2 |
| (c) PRIVATE SERVICE ... ..       | 3 |
| (d) TEACHER/PROFESSOR ... ..     | 4 |
| (e) STUDENT ... ..               | 5 |
| (f) HOUSEWIFE ... ..             | 6 |
| (g) RETIRED ... ..               | 7 |
| (h) UNEMPLOYED ... ..            | 8 |
| (i) OTHERS ... ..                | 9 |

12-12

5.05 SELF EMPLOYED

- |                                    |   |
|------------------------------------|---|
| (a) TRADER/HAWKER ... ..           | 1 |
| (b) INDUSTRIALIST ... ..           | 2 |
| (c) FARMER ... ..                  | 3 |
| (d) PROFESSIONAL                   |   |
| (i) ENGINEER/ARCHITECT ... ..      | 4 |
| (ii) DOCTOR ... ..                 | 5 |
| (iii) LAWYER ... ..                | 6 |
| (iv) CONSULTANT ... ..             | 7 |
| (v) SOCIAL/POLITICAL WORKER ... .. | 8 |
| (vi) OTHERS ... ..                 | 9 |

13-13

5.06 IF GOVERNMENT SERVANT, STATE CLASS/GROUP

- |                                |   |
|--------------------------------|---|
| (a) CLASS I / GROUP A ... ..   | 1 |
| (b) CLASS II / GROUP B ... ..  | 2 |
| (c) CLASS III / GROUP C ... .. | 3 |
| (d) CLASS IV / GROUP D ... ..  | 4 |

14-14

5.07 INCOME PER MONTH (IN RUPEES)

- |                         |   |
|-------------------------|---|
| (a) NIL ... ..          | 1 |
| (b) BELOW 250 ... ..    | 2 |
| (c) 251 TO 500 ... ..   | 3 |
| (d) 501 TO 1000 ... ..  | 4 |
| (e) 1001 TO 2000 ... .. | 5 |
| (f) ABOVE 2000 ... ..   | 6 |

15-15

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMN

**5.08 TRAVEL HABITS—THE PASSENGER TRAVELS**

- (a) DAILY ... .. 1
- (b) WEEKLY ... .. 2
- (c) ONCE A MONTH ... .. 3
- (d) ONCE IN THREE MONTHS ... .. 4
- (e) ONCE IN SIX MONTHS ... .. 5
- (f) ONCE IN A YEAR ... .. 6
- (g) ONCE IN SEVERAL YEARS ... .. 7

16-17

**6. TRAVEL PROFILE**

**6.01 OBJECT OF THIS JOURNEY**

- (a) BUSINESS/DUTY ... .. 1
- (b) VACATION ... .. 2
- (c) RELIGIOUS/PILGRIMAGE ... .. 3
- (d) FAMILY WORK (Marriage, death, meeting relatives, etc.) ... .. 4
- (e) EDUCATIONAL, SEMINAR, CONFERENCE ... .. 5
- (f) OTHER ... .. 6

17-17

**6.02 HOW MANY PERSONS TRAVELLING TOGETHER**

- (a) SELF ONLY ... .. 1
- (b) SELF WITH ONE FAMILY MEMBER ... .. 2
- (c) SELF WITH TWO FAMILY MEMBERS ... .. 3
- (d) SELF WITH THREE OR MORE FAMILY MEMBERS ... .. 4

18-18

**6.03 DISTANCE TRAVELLING**

- (a) 0 — 25 Kms. ... .. 1
- (b) 26 — 40 " ... .. 2
- (c) 41 — 80 " ... .. 3
- (d) 81 — 160 " ... .. 4
- (e) 161— 250 " ... .. 5
- (f) 251— 500 " ... .. 6
- (g) 501—1000 " ... .. 7
- (h) ABOVE 1000 " ... .. 8

19-19

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

4 DURATION OF TRAVEL TIME

(a) UPTO 1/2 HOUR	...	...	...	...	...	...	1
(b) MORE THAN 1/2 HOUR UPTO 1 HOUR	...	...	...	...	...	...	2
(c) MORE THAN 1 HOUR UPTO 2 HOURS	...	...	...	...	...	...	3
(d) MORE THAN 2 HOURS UPTO 3 HOURS	...	...	...	...	...	...	4
(e) MORE THAN 3 HOURS UPTO 8 HOURS	...	...	...	...	...	...	5
(f) MORE THAN 8 HOURS UPTO 12 HOURS	...	...	...	...	...	...	6
(g) MORE THAN 12 HOURS UPTO 24 HOURS	...	...	...	...	...	...	7
(h) MORE THAN 24 HOURS	...	...	...	...	...	...	8

20-20

6.05 FARE PAID PER PERSON IN RUPEES

(a) NIL (FREE PASS)	...	...	...	...	...	...	1
(b) 0 - 10.00	...	...	...	...	...	...	2
(c) 10.01 - 25.00	...	...	...	...	...	...	3
(d) 25.01 - 50.00	...	...	...	...	...	...	4
(e) 50.01 - 75.00	...	...	...	...	...	...	5
(f) 75.01 - 100.00	...	...	...	...	...	...	6
(g) 100.01 - 200.00	...	...	...	...	...	...	7
(h) 200.01 - 300.00	...	...	...	...	...	...	8
(i) 300.01 - 500.00	...	...	...	...	...	...	9
(j) ABOVE 500	...	...	...	...	...	...	0

21-21

6.06 IS THE PASSENGER TRAVELLING ON

(a) PAYMENT OF FULL FARE	...	...	...	...	...	...	1
(b) PAYMENT OF CONCESSIONAL FARE							
(i) HILL CONCESSION	...	...	...	...	...	...	2
(ii) CIRCULAR TICKET	...	...	...	...	...	...	3
(iii) STUDENT CONCESSION	...	...	...	...	...	...	4
(iv) P.T.O. - RAILWAYMEN	...	...	...	...	...	...	5
(v) OTHER CONCESSIONS	...	...	...	...	...	...	6
(c) FREE PASS - PRIVILEGE - RAILWAYMEN	...	...	...	...	...	...	7
(d) FREE PASS - DUTY - RAILWAYMEN	...	...	...	...	...	...	8
(e) FREE PASS - NON-RAILWAYMEN	...	...	...	...	...	...	9

22-22

Season Ticket Holders are not to be covered by this Survey

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH COLUMN

6.07 IF NOT ON FREE PASS, WHO IS PAYING

- (a) SELF ... .. 1
- (b) EMPLOYER ... .. 2
- (c) CLIENT ... .. 3
- (d) LEAVE TRAVEL CONCESSION (LTC) ... .. 4
- (e) DEFENCE — ARMED FORCES ... .. 5
- (f) OTHERS ... .. 6

23—23

7. WHY DID HE TRAVEL BY RAIL & NOT BY BUS

- (a) NO BUS SERVICE EXISTS ... .. 1
- (b) NO ROOM AVAILABLE IN BUS ... .. 2
- (c) RAILWAY IS MORE COMFORTABLE AND BETTER ... .. 3
- (d) RAILWAY IS CHEAPER ... .. 4
- (e) RAILWAY IS FASTER ... .. 5
- (f) RAILWAY IS SAFER ... .. 6
- (g) TRAIN'S STARTING OR DESTINATION TIMINGS ARE MORE SUITABLE ... .. 7
- (h) CAN CARRY MORE LUGGAGE ... .. 8
- (i) TRAVELLING ON CONCESSION/PASS, PTO ETC. ... .. 9

24—24

8. (a) DID THE PASSENGER TRAVEL BY RAIL MUCH LESS FREQUENTLY ABOUT 10 YEARS AGO ?

- (i) YES ... .. 1
- (ii) NO ... .. 2

25—25

(b) CHANGE IN WHICH FACTOR WAS RESPONSIBLE FOR IT.

- (i) AGE ... .. 1
- (ii) JOB ... .. 2
- (iii) FARE ... .. 3
- (iv) INCOME ... .. 4
- (v) RAIL TRAVEL FACILITIES ... .. 5

26—26

PART—III

9-01 IF A PASSENGER IS TRAVELLING BY A CLASS OTHER THAN II CLASS, WHY IS HE DOING SO ? (NOT TO BE ANSWERED IF PASSENGER IS TRAVELLING IN SECOND CLASS)

- (a) FINDS IT MORE COMFORTABLE AND USUALLY TRAVELS IN THIS CLASS ... .. 1
- (b) FINDS IT EASY TO SECURE ACCOMMODATION ... .. 2
- (c) FINDS IT SAFER ... .. 3
- (d) CAN AFFORD THIS CLASS ... .. 4
- (e) ENTITLED TO THIS CLASS AND SOMEONE ELSE PAYING ... .. 5
- (f) DID NOT GET ACCOMODATION IN LOWER CLASS ... .. 6
- (g) DID NOT GET ACCOMMODATION IN HIGHER CLASS ... .. 7

27—27

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

02 FOR A PASSENGER OTHER THAN II CLASS, IF THE FARE IS INCREASED AS FOLLOWS, WILL HE STILL TRAVEL IN THIS CLASS ? (NOT TO BE ANSWERED BY PASSENGERS TRAVELING IN SECOND CLASS)

- |                                                 |   |
|-------------------------------------------------|---|
| (a) NO, HE WILL NOT TRAVEL IN THIS CLASS ... .. | 1 |
| (b) YES, UPTO Rs. 5/- ... ..                    | 2 |
| (c) YES, UPTO Rs. 10/- ... ..                   | 3 |
| (d) YES, UPTO Rs. 20/- ... ..                   | 4 |
| (e) YES, UPTO Rs. 40/- ... ..                   | 5 |
| (f) YES, UPTO Rs. 50/- ... ..                   | 6 |
| (g) NOT AFFECTED BY INCREASE ... ..             | 7 |

28-28

03 FOR A PASSENGER TRAVELLING IN I CLASS ; WHICH ONE OF THE FOLLOWING DOES HE PREFER ( TO BE ANSWERED ONLY BY FIRST CLASS PASSENGERS )

- |                                 |   |
|---------------------------------|---|
| (a) 2-TIER A. C. SLEEPER ... .. | 1 |
| (b) I CLASS CHAIR CAR ... ..    | 2 |
| (c) I CLASS ORDINARY ... ..     | 3 |

29-29

0.01 IF A PASSENGER IS TRAVELLING IN A SUPER FAST, MAIL/EXPRESS TRAIN ; WHY IS HE DOING SO ?

- |                                       |   |
|---------------------------------------|---|
| (a) SAVES TIME ... ..                 | 1 |
| (b) MORE COMFORTABLE ... ..           | 2 |
| (c) RESERVATION IS EASY ... ..        | 3 |
| (d) GETS CONVENIENT CONNECTION ... .. | 4 |

30-30

0.02 IF THE TRAIN IS FURTHER SPEEDED UP, HOW MUCH MORE IS HE WILLING TO PAY ?

- |                                     |   |
|-------------------------------------|---|
| (a) NIL ... ..                      | 1 |
| (b) Rs. 5/- ... ..                  | 2 |
| (c) Rs. 10/- ... ..                 | 3 |
| (d) Rs. 20/- ... ..                 | 4 |
| (e) Rs. 40/- ... ..                 | 5 |
| (f) Rs. 50/- ... ..                 | 6 |
| (g) NOT AFFECTED BY INCREASE ... .. | 7 |

31-31

11. IN THE LAST SEVERAL YEARS, RAILWAYS HAVE BECOME STEADILY

- |                              |   |
|------------------------------|---|
| (a) FASTER ... ..            | 1 |
| (b) MORE PUNCTUAL ... ..     | 2 |
| (c) CLEANER ... ..           | 3 |
| (d) CHEAPER ... ..           | 4 |
| (e) SAFER ... ..             | 5 |
| (f) NONE OF THE ABOVE ... .. | 6 |

32-32

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH COLUMN

**6.07 IF NOT ON FREE PASS, WHO IS PAYING**

- (a) SELF ... .. 1
- (b) EMPLOYER ... .. 2
- (c) CLIENT ... .. 3
- (d) LEAVE TRAVEL CONCESSION (LTC) ... .. 4
- (e) DEFENCE — ARMED FORCES ... .. 5
- (f) OTHERS ... .. 6

23—23

**7. WHY DID HE TRAVEL BY RAIL & NOT BY BUS**

- (a) NO BUS SERVICE EXISTS ... .. 1
- (b) NO ROOM AVAILABLE IN BUS ... .. 2
- (c) RAILWAY IS MORE COMFORTABLE AND BETTER ... .. 3
- (d) RAILWAY IS CHEAPER ... .. 4
- (e) RAILWAY IS FASTER ... .. 5
- (f) RAILWAY IS SAFER ... .. 6
- (g) TRAIN'S STARTING OR DESTINATION TIMINGS ARE MORE SUITABLE ... .. 7
- (h) CAN CARRY MORE LUGGAGE ... .. 8
- (i) TRAVELLING ON CONCESSION/PASS, PTO ETC. ... .. 9

24—24

**8. (a) DID THE PASSENGER TRAVEL BY RAIL MUCH LESS FREQUENTLY ABOUT 10 YEARS AGO ?**

- (i) YES ... .. 1
- (ii) NO ... .. 2

25—25

**(b) CHANGE IN WHICH FACTOR WAS RESPONSIBLE FOR IT.**

- (i) AGE ... .. 1
- (ii) JOB ... .. 2
- (iii) FARE ... .. 3
- (iv) INCOME ... .. 4
- (v) RAIL TRAVEL FACILITIES ... .. 5

26—26

**PART—III**

**9-01 IF A PASSENGER IS TRAVELLING BY A CLASS OTHER THAN II CLASS, WHY IS HE DOING SO ? (NOT TO BE ANSWERED IF PASSENGER IS TRAVELLING IN SECOND CLASS)**

- (a) FINDS IT MORE COMFORTABLE AND USUALLY TRAVELS IN THIS CLASS ... .. 1
- (b) FINDS IT EASY TO SECURE ACCOMMODATION ... .. 2
- (c) FINDS IT SAFER ... .. 3
- (d) CAN AFFORD THIS CLASS ... .. 4
- (e) ENTITLED TO THIS CLASS AND SOMEONE ELSE PAYING ... .. 5
- (f) DID NOT GET ACCOMMODATION IN LOWER CLASS ... .. 6
- (g) DID NOT GET ACCOMMODATION IN HIGHER CLASS ... .. 7

27—27

# **INDIAN RAILWAYS**

**QUESTIONNAIRE**

**FOR**

**NON-SUBURBAN PASSENGER PROFILE SURVEY**

**MARCH, 1979**

**( SHORT DISTANCE TRAINS ONLY )**

# INDIAN RAILWAYS

## NON-SUBURBAN PASSENGER PROFILE SURVEY, 1979

### ( SHORT DISTANCE TRAINS ONLY )

### QUESTIONNAIRE

Serial No.

Punch Columns

1	2	3	4	5

### PART—I

#### 1. CONTROL PARTICULARS

##### 1.01. GENERAL :—

RAILWAY     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

NAME OF INVESTIGATOR     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

DATE             ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

STATION     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

##### 1.02. TRAIN PARTICULARS :—

TRAIN NO.     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

TRAIN NAME     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

STATION FROM     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

STATION TO         ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

##### 1.03. SIGNATURE :—

SIGNATURE OF INVESTIGATOR     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

SIGNATURE OF STARTING  
STATION MASTER & STAMP     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

SIGNATURE OF DESTINATION  
STATION MASTER & STAMP     ...    ...    ...    ...    ...    ...    ...    ...    ...    ...

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*Season Ticket Holders are not to be covered by this Survey*



PART—II

MAIN QUESTIONNAIRE

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS														PUNCH COLUMNS		
<b>2. TYPE OF TRAIN</b>																
(a) SUPERFAST ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	6-6	
(b) MAIL/EXPRESS ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2		
(c) LONG DISTANCE PASSENGER ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	3		
(d) SHORT DISTANCE PASSENGER ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	4		
<b>3. CLASS OF TRAVEL</b>																
(a) A.C.C. ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	7-7
(b) FIRST CLASS ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
(c) FIRST CLASS CHAIR CAR ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
(d) 2-TIER A.C. SLEEPER ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
(e) AIR CONDITIONED CHAIR CAR ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
(f) SECOND CLASS SLEEPER - 3 TIER ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
(g) SECOND CLASS SLEEPER - 2 TIER ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	
(h) SECOND CLASS SITTING ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	
<b>4. NATURE OF ACCOMMODATION</b>																
(a) RESERVED ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8-8
(b) UNRESERVED ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
<b>5. PASSENGER PROFILE</b>																
5.01. AGE—(a) BELOW 12 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9-9
(b) 12 TO 18 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
(c) OVER 18 UPTO 25 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
(d) OVER 25 UPTO 40 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
(e) OVER 40 UPTO 60 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
(f) OVER 60 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

5.02. SEX —(a) MALE ... .. 1  
(b) FEMALE ... .. 2

10—11

5.03. EDUCATIONAL QUALIFICATIONS COMPLETED

(a) ILLITERATE ... .. 1  
(b) NON-MATRICULATE ... .. 2  
(c) MATRICULATE/SSC/HSC ... .. 3  
(d) GRADUATE ... .. 4  
(e) POST GRADUATE AND ABOVE ... .. 5

11—11

5.04. EMPLOYMENT — SERVICE

(a) GOVERNMENT SERVICE ... .. 1  
(b) PUBLIC SECTOR SERVICE ... .. 2  
(c) PRIVATE SERVICE ... .. 3  
(d) TEACHER/PROFESSOR ... .. 4  
(e) STUDENT ... .. 5  
(f) HOUSEWIFE ... .. 6  
(g) RETIRED ... .. 7  
(h) UNEMPLOYED ... .. 8  
(i) OTHERS ... .. 9

12—13

5.05. SELF EMPLOYED

(a) TRADER/HAWKER ... .. 1  
(b) INDUSTRIALIST ... .. 2  
(c) FARMER ... .. 3  
(d) PROFESSIONAL  
(i) ENGINEER/ARCHITECT ... .. 4  
(ii) DOCTOR ... .. 5  
(iii) LAWYER ... .. 6  
(iv) CONSULTANT ... .. 7  
(v) SOCIAL/POLITICAL WORKER ... .. 8  
(vi) OTHERS ... .. 9

13—1

Season Ticket Holders are not to be covered by this Survey

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH COLUMNS

5.06. IF GOVERNMENT SERVANT, STATE CLASS/GROUP

- (a) CLASS I / GROUP A ... .. 1
- (b) CLASS II / GROUP B ... .. 2
- (c) CLASS III / GROUP C ... .. 3
- (d) CLASS IV / GROUP D ... .. 4

14-14

5.07. INCOME PER MONTH

- (a) NIL ... .. 1
- (b) BELOW 250 ... .. 2
- (c) 251 TO 500 ... .. 3
- (d) 501 TO 1000 ... .. 4
- (e) 1001 TO 2000 ... .. 5
- (f) ABOVE 2000 ... .. 6

15-15

5.08. TRAVEL HABITS—THE PASSENGER TRAVELS

- (a) DAILY ... .. 1
- (b) WEEKLY ... .. 2
- (c) ONCE A MONTH ... .. 3
- (d) ONCE IN THREE MONTHS ... .. 4
- (e) ONCE IN SIX MONTHS ... .. 5
- (f) ONCE IN A YEAR ... .. 6
- (g) ONCE IN SEVERAL YEARS ... .. 7

16-16

6. TRAVEL PROFILE

6.01. OBJECT OF THIS JOURNEY

- (a) BUSINESS/DUTY ... .. 1
- (b) VACATION ... .. 2
- (c) RELIGIOUS/PILGRIMAGE ... .. 3
- (d) FAMILY WORK (Marriage, death, meeting relatives, etc.) ... .. 4
- (e) EDUCATIONAL, SEMINAR, CONFERENCE ... .. 5
- (f) OTHER ... .. 6

17-17

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

**6.02. HOW MANY PERSONS TRAVELLING TOGETHER**

(a) SELF ONLY	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
(b) SELF WITH ONE FAMILY MEMBER	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
(c) SELF WITH TWO FAMILY MEMBERS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
(d) SELF WITH THREE OR MORE FAMILY MEMBERS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4

18-10

**6.03. DISTANCE TRAVELLING**

(a) 0 — 25 Kms.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
(b) 26 — 40 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
(c) 41 — 80 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
(d) 81 — 160 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
(e) 161— 250 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
(f) 251— 500 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
(g) 501—1000 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
(h) ABOVE 1000 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8

19-1

**6.04. DURATION OF TRAVEL TIME**

(a) UPTO 1/2 HOUR	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
(b) MORE THAN 1/2 HOUR UPTO 1 HOUR	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
(c) MORE THAN 1 HOUR UPTO 2 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
(d) MORE THAN 2 HOURS UPTO 3 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
(e) MORE THAN 3 HOURS UPTO 8 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
(f) MORE THAN 8 HOURS UPTO 12 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
(g) MORE THAN 12 HOURS UPTO 24 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
(h) MORE THAN 24 HOURS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8

20-1

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMNS

## 6.05. FARE PAID PER PERSON IN RUPEES

(a) NIL (FREE PASS) ... .. .	1
(b) LESS THAN 1.00 ... .. .	2
(c) 1.01 — 2.00 ... .. .	3
(d) 2.01 — 3.00 ... .. .	4
(e) 3.01 — 4.00 ... .. .	5
(f) 4.01 — 10.00 ... .. .	6
(g) 10.01 — 20.00 ... .. .	7
(h) 20.01 — 30.00 ... .. .	8
(i) 30.01 — 50.00 ... .. .	9
(j) ABOVE 50.00 ... .. .	0

21—21

## 6.06. IS THE PASSENGER TRAVELLING ON

(a) PAYMENT OF FULL FARE ... .. .	1
(b) PAYMENT OF CONCESSIONAL FARE	
(i) HILL CONCESSION ... .. .	2
(ii) CIRCULAR TICKET ... .. .	3
(iii) STUDENT CONCESSION ... .. .	4
(iv) P.T.O. — RAILWAYMEN ... .. .	5
(v) OTHER CONCESSIONS ... .. .	6
(c) FREE PASS — PRIVILEGE — RAILWAYMEN ... .. .	7
(d) FREE PASS — DUTY — RAILWAYMEN ... .. .	8
(e) FREE PASS — NON-RAILWAYMEN ... .. .	9

22—22

## 6.07. IF NOT ON FREE PASS, WHO IS PAYING

(a) SELF ... .. .	1
(b) EMPLOYER ... .. .	2
(c) CLIENT ... .. .	3
(d) LEAVE TRAVEL CONCESSION (LTC) ... .. .	4
(e) DEFENCE — ARMED FORCES ... .. .	5
(f) OTHERS ... .. .	6

23—23

*Season Ticket Holders are not to be covered by this Survey*

FOR ANSWERS ENCIRCLE ONLY ONE ANSWER WITHIN THE BLOCKS

PUNCH  
COLUMN

7. WHY DID HE TRAVEL BY RAIL & NOT BY BUS

(a) NO BUS SERVICE EXISTS ... ..	1
(b) NO ROOM AVAILABLE IN BUS ... ..	2
(c) RAILWAY IS MORE COMFORTABLE AND BETTER ... ..	3
(d) RAILWAY IS CHEAPER ... ..	4
(e) RAILWAY IS FASTER ... ..	5
(f) RAILWAY IS SAFER ... ..	6
(g) TRAIN'S STARTING OR DESTINATION TIMINGS ARE MORE SUITABLE ... ..	7
(h) CAN CARRY MORE LUGGAGE ... ..	8
(i) TRAVELLING ON CONCESSION/ PASS,PTO ETC. ... ..	9

24-24

8. (a) DID THE PASSENGER TRAVEL BY RAIL MUCH LESS FREQUENTLY ABOUT 10 YEARS AGO ?

(i) YES ... ..	1
(ii) NO ... ..	2

25-25

(b) CHANGE IN WHICH FACTOR WAS RESPONSIBLE FOR IT.

(i) AGE ... ..	1
(ii) JOB ... ..	2
(iii) FARE ... ..	3
(iv) INCOME ... ..	4
(v) RAIL TRAVEL FACILITIES ... ..	5

26-26

Season Ticket Holders are not to be covered by this Survey

## CHAPTER IX

### THE STRUCTURE OF PASSENGER FARES

9.01 Indian Railways provide an extensive national passenger network. The volume of passenger traffic has grown steadily over the years. In 1978-79, the Railways carried 3,719 million passengers for a total distance of 192,945 million kms. with the average journey covering 52 kms. It is expected that the passenger traffic will continue to increase.

#### Pattern of Traffic

9.02 The passenger business has two separate activities - the suburban services which operate in and around the metropolitan cities of Bombay, Calcutta and Madras, and the non-suburban services criss-crossing the rest of the country and providing services for the short distance, medium distance and long distance passengers. The non-suburban passenger travel has got two broad divisions - short distance passengers travelling between villages and/or villages and nearby towns served by Ordinary stopping passenger trains, and medium and long distance passengers served by Mail and Express trains. With some exceptions, all trains provide second class and first class accommodation; some of the Mail/Express trains also have A.C. Chair Car and Air-conditioned class accommodation. The second class passengers are by far the most numerous, accounting for over 97 per cent of the total. Table 9.1 shows the number of journeys undertaken, and the length of the average journey,

categorywise, in 1978-79.

Table 9.1 Pattern of traffic

Class	Suburban		Ordinary		Mail/Express		Total	
	No. of jour- neys	Length of the average journey	No. of jour- neys	Length of the average journey	No. of jour- neys	Length of the average journey	No. of jour- neys	Length of the average journey
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Million	KM	Million	KM	Million	KM	Million	KM
*Sub:2nd	2,016	21	-	-	-	-	2,016	21
1st	97	22	-	-	-	-	97	22
<b>Total Sub</b>	<b>2,113</b>	<b>21</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,113</b>	<b>21</b>
+ NS: 2nd								
Ordy	-	-	1,367	52	-	-	1,367	52
Exp.	-	-	-	-	230	323	230	323
AC Chair								
Car	-	-	-	-	0.6	1,043	0.6	1,043
1st Class	-	-	1.8	114	6.0	566	7.8	461
ACC	-	-	-	-	0.3	555	0.3	555
<b>Total NS+</b>	<b>-</b>	<b>-</b>	<b>1,369</b>	<b>52</b>	<b>237</b>	<b>332</b>	<b>1,606</b>	<b>93</b>
<b>Grand Total</b>	<b>2,113</b>	<b>21</b>	<b>1,369</b>	<b>52</b>	<b>237</b>	<b>332</b>	<b>3,719</b>	<b>52</b>

The revenues from suburban services do not cover their costs. The Ordinary stopping non-suburban passenger services also incur losses but this is offset partly by a profit on the Mail/Express services. Taken as a whole, the passenger business is not self-supporting.

#### Studies by the Committee

9.03 The Committee conducted two major passenger profile surveys - one for passengers travelling on season tickets in suburban areas, and ~~as also~~ non-suburban areas, and the other for non-suburban passengers in general - in order to get a clearer idea of the socio-economic profile of the different categories of passengers, their travel habits etc. The results of the surveys have been discussed in Chapter VII of the Interim Report and Chapter VIII of this Report. The Committee invited suggestions from rail users and held meetings with Passenger



Associations and other users all over the country. Detailed discussions were also held with Railway administrations and other concerned authorities. The Committee has taken into account the results of the passenger cost studies made by <sup>the</sup> Railway Board. In addition, some further costing analysis was done by the Committee, in some cases with the assistance of a Costing Consultant. Details of the costs of passenger services have been discussed in Chapter V. We have also made use of the Resource Cost Study of Passenger Traffic made by RITES for the Transport Policy Planning Project (Planning Commission), and taken note of the policy guidelines for inter-nodal split of passenger traffic suggested by the National Transport Policy Committee.

#### Objective of Rationalised Fare Structure

9.04 A history of the evolution of passenger fares is given in Chapter VII. It will be seen that the fare structure has grown haphazardly - the existing fare structure is the result of ad hoc changes made from time to time and there are many anomalies in the system. Moreover, the increase in fares (particularly for second class) has been artificially held down (specially in the '70s) against the trend in costs, as a measure of deliberate policy to keep down the cost of living of vulnerable sections of the society.+ At the same time, the proportion of traffic carried at less than full fares has been steadily increasing; in 1977-78 the number of journeys performed on season tickets (51.1%), or otherwise on reduced fares (2.3%), formed 53.4 per cent of the total. In consequence, the passenger services have been running at a loss since long; in 1976-77, the loss amounted to about Rs.75 crores.

9.05 As a basic principle, transport pricing should be cost based. Our Terms of Reference also envisage that we should develop a cost based tariff. In the past, passenger services have been subsidised by goods services but, as explained elsewhere, this is no longer possible. Ideally, the passenger services should not only meet their full costs including dividend (interest) on capital, but also earn something more as a

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+Para 2.69, Chapter II and Paras 7.11, 7.12, & 7.27, Chapter VII

contribution to the resources required for development. However, as already\* explained, in view of the fact that passenger services have so far been running at a loss, it is thought that in the first instance they should be made to cover at least their costs including dividend (interest). The passenger tariff which we propose to develop therefore aims at making the passenger services taken as a whole self-supporting, besides making it more rational.

9.06 We have carefully considered the question whether every sector of the passenger business should be self-supporting in the light of the costing data, the socio-economic profile of the passengers and the statement in our Terms of Reference that we should bear in mind the interests of the common man. If the revenue from each sector is to cover its fully distributed cost, the increase in the Ordinary train fares would have to be much more than in any other sector and so substantial as to cause hardship. The resultant fare level for Ordinary services would also be considerably higher than that for Mail/Express services; this would be manifestly unfair considering that, as our survey+ has shown, the second Ordinary passengers are relatively poorer than the second Mail/Express passengers, and further that the Ordinary trains provide a much less efficient service. Again, if the fare for each sector were to be based on its fully distributed cost, the fares for all the classes in Mail/Express trains would be lower than what the concerned passengers can bear which in our view would not be reasonable. All things considered, we have come to the conclusion that the objective should be that the passenger business as a whole should be self-supporting; while ensuring this, the fare levels for different sectors/classes should be fixed in as equitable a manner as possible taking into account all relevant considerations, including the cost, the standard of comfort and the ability of the passenger travelling in a particular class to bear the increase in the fare. The cross subsidisation between different sectors/classes, which is implicit in this, is unavoidable.

9.07 For the reasons explained in Chapter VI\*, about Rs.250 crores of the additional revenues required to meet all the necessary costs, including <sup>dividend</sup>(interest) on capital, will have to be raised from passenger

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\* Para 6.55, Chapter VI.

+ Table 8.08 & 8.31, Chapter VIII.

services. The fare structure must therefore be so designed as to augment the revenues by about Rs.250 crores from the passenger business as a whole. Only an increase of this order will enable the passenger services to meet their costs (including dividend), besides wiping out the existing loss. This would imply an increase of about 40 per cent in the passenger revenues. As already explained, however, the extent of increase in the fares for different services/classes would vary according to the circumstances of each case and will be tailored to what the particular stream of passengers can reasonably stand.

9.08 The net expenditure on catering services, i.e., the expenses incurred on provision of catering services less the income therefrom, is charged to the passenger business and forms part of its cost. The excess (Rs.6.70 crores in 1976-77) is due mainly to the fact that the pricing of meals and refreshments does not take account of the cost of provision and operation of the dining cars and the like, presumably on the ground that these are provided for the convenience of passengers. The excess of catering expenses over income could <sup>be</sup> allocated on some rough and ready basis to the appropriate class of passengers and covered by revenue from fares. It would, however, be more logical and equitable to recover this cost by suitable revision of the meal and refreshment tariff, which will enable the cost to be borne by the passengers who actually avail of the facility. We do not think that recovery of the cost of provision and operation of dining cars and the like through the price of meals and refreshments would vitiate against the principle of "no loss no profit" on which catering services are run, or inflate the price of meals and refreshments to an onerous level. Accordingly, in our calculations, we have ignored the net expenses on catering services. We recommend that the Railways should revise the meals and refreshment tariff in such a way that the income therefrom also covers all associated expenses including those on provision and operation of the dining cars and the like.

### Distance Based Structure

9.09 Historically, the Railways have been charging passengers on the basis of the distance travelled. Most Railways still follow this system although some (e.g., British Railways) have adopted the system of selective pricing under which different fares are fixed for each individual rail service in line with commercial judgement of the ability of the particular service to compete with alternative transport. Charging in proportion to the distance is a logical approach to pricing. Besides, the passenger net work of Indian Railways is spread over the length and breadth of the country and conditions vary from one part of the country to another. We therefore think that our fare structure should continue to be based on distance with standard rates per km, the same rates applying throughout the country. In determining the standard rates we would of course take cognizance of the fares generally charged by alternative transport - bus fares for the lowest class for example. The standard rates would also differ between different classes and between slower and faster trains.

### Tapering

9.10 We are also proposing that our long-standing practice of tapering, or reducing the rate per km as the length of the journey increases, should be continued. While therefore the fare system will be distance based, the fare per kilometre will gradually decrease on a sliding scale. Tapering is consistent with the cost structure. Certain journey costs such as information, ticket sale and collection etc. are similar whatever the length of the journey. Better utilisation of equipment and staff is possible on longer distance journeys. The taper reflects the fact that as the length of the journey increases, cost per kilometre decreases. Tapering also ensures that the fare at longer distances is not more than what a passenger can reasonably afford to pay.

9.11 The existing structure has separate patterns of taper for each class of accommodation and in some cases the decline is very steep. In our view, all classes should have the same pattern of taper, and the maximum reduction offered in this way should not be greater than 50 per cent. On cost considerations, the taper

in the fares for upper class. passengers who travel longer distances could be sharper than that in the case of second class passengers who travel comparatively shorter distances; on the other hand, the ultimate ability of this class of passengers to bear the charges is higher. All things considered, it will be reasonable to provide the same degree of taper in all classes, at least 50 per cent of the basic rate being charged at even the farthest stage. We have evolved a pattern of taper accordingly which should suit all classes. The objective which we have in mind would be secured if the scale of fares is constructed on the following basis:

1 to 150 kms	100%	of the basic rate
plus 151 to 400 "	80%	-do-
" 401 to 750 "	65%	-do-
" 751 to 1200 "	55%	-do-
" 1201 kms. onwards	50%	-do-

9.12 Table 9.2 shows the indices of the per km fare at different distances, with the fare at 100 km = 100, under the proposed uniform pattern of taper for all classes in juxta-position with the existing indices.

Table 9.2 Existing and Proposed Taper Patterns

Proposed pattern of taper (All classes)	Distance kms.	Existing patterns of taper for different classes				
		2nd (Ordy)	2nd (Mail)	1st Class	AC Chair Car	A.C.C.
100	100	100	100	100	100	100
88	300	89	85	73	71	64
80	500	83	80	63	56	60
73	800	76	75	58	49	59
69	1000	72	72	55	46	57
66	1200	69	70	54	44	56
61	1600	64	65	51	41	57
58	2000	61	60	47	38	53
57	2400	60	58	45	36	49
55	3000	58	55	43	34	46

Scale of Fares

9.13 Having designed the pattern of the taper, we have now to evolve scales of fares for the different classes based on it. The scales of fares for the different classes have to be progressively higher starting from the lowest (Second Ordinary) class and ending with the highest class (ACC). We have come to the conclusion that it would be most convenient if the fare for the second ordinary, which is the lowest class, is fixed as the norm or the base scale of fares and equated to 100, and the fares for all other classes above are expressed as a percentage of this class. Accordingly, instead of developing separate scales of fares for each class, we propose to develop only one scale for the second Ordinary class and then indicate the percentage relationship of the scales of fares for the other classes to this basic scale. The practical advantages of this approach are obvious. It will make calculations of fare scales for different classes simpler and ensure that they have the intended relationship with each other at all distances. It would also make easier the revision of fares which becomes necessary from time to time. We now proceed to discuss the scale of fares for the second Ordinary class. The relationship between this basic scale and the scales of fares for other classes is discussed subsequently. (Paras 9.21 to 9.29).

Basic Pass-km Rate (for the lowest class)

9.14 The basis fare for the lowest class (Second Ordinary) upto, say, 150 kms should be comparable to the bus fares. The second Ordinary passengers travel for short distances (the average journey covers 52 kms vide Table 9.1) and roadways are the alternative and often the more convenient mode of travel for such passengers. Besides, short distance traffic can generally be carried more economically by road except where very large numbers have to be transported within a limited time. Fare policy should therefore be so designed as to prevent artificial transfer of such short distance traffic to the Railways; this point needs to be underscored in the context of the energy situation.

9.15 Our enquiries have shown that State Road Transport Corporations generally charge 5 paise per passenger km for comparable (Ordinary) services; the rates actually charged are shown in Table 9.3. Accordingly, we propose that the basic rate for second Ordinary class should be 5 paise per kilometre.

Table 9.3

Basic Bus Fare (including Passenger Tax), charged by State Road Transport Corporation for ordinary bus services

<u>State</u>	<u>Paise per passenger km.</u>
Assam	5
Andhra Pradesh	5
Bihar	5
Gujarat	5
Karnataka	5.38
Kerala	5
Maharashtra	6
Madhya Pradesh	5.75
Orissa	5.18
Tamil Nadu	5.00
Uttar Pradesh	6.12
West Bengal	5

Fixed charge

9.16 In some cases the journey may be so short that the fare would not cover even the cost of such terminal services as ticket issue and collection which vary more or less directly with the number of passengers, leave alone other terminal costs. In the circumstances, we consider that a fixed charge of 25 paise should be added to the second class Ordinary fare, as worked out otherwise in terms of our recommendations, at each distance stage. The second Ordinary scale of fare will thus start with 25 paise at zero kilometre and then increase at the appropriate rate with increase in the distance. (Under the method of determining the fares for other classes explained in

paras 9.13 above and 9.21 below, a proportionately larger fixed charge will be automatically added in the fare scales for other classes.)

The Basic Scale of Fares (2nd Ordinary class)

9.17 Construction of the Fare Scale: The scale of the fares for the second Ordinary class - the basic scale - should be constructed as shown below. (The fare scales for other classes should be worked out by increasing the second Ordinary scale of fares suitably on the basis of the indices given in para 9.21).

<u>Distance</u>		<u>2nd Ordinary</u>
Zero	km.	25 paise (fixed charge)
plus 1 to 150	kms.	5 paise per kn.
plus 151 to 400	"	4 " " "
" 401 to 750	"	3.25 " " "
" 751 to 1200	"	2.75 " " "
" Over 1200	"	2.50 " " "

9.18 Distance stages over which the fares apply: At present fares are calculated in terms of distance stages of one kn. upto 200 kms., 5 kms. from 201 to 1600 kms. and 10 kms. thereafter, and the fare for the 5 km. and 10 km. stages is charged upto <sup>at</sup> the maximum distance of the stage. We would suggest two changes in the existing scheme on grounds of simplification and equity. First, fares may be quoted in terms of a kilometre upto only 100 kms. Second, fares for the longer distances should be quoted in terms of stages of 5 kms. upto 300 kms., 10 kms. from 301-1000 kms., 25 kms. from 1001-2500 kms., and 50 kms. thereafter, and the calculation of the fares should be based on half stages. The chargeable fare for a 10 km./50 km. stage would be equal to the appropriate fare for 5 kms./25 kms. In the case of a 5 km./25 km. stage, the chargeable fare would be equal to the appropriate fare for 3 kms./13 kms., the fraction at the half stages (2.1/2 kms./12.1/2 kms.) being rounded off to the next higher kilometre under the normal rule on the subject.



Rounding off Fraction

9.19 In certain cases, it will be necessary to round off fractions in the calculated fares. At present the manner in which a fraction is to be rounded off varies according to the class of accommodation and whether the ticket has been issued at full fare or at reduced rate, and it is rounded off to the nearest round unit in some cases and the next higher unit in others. The existing rules need to be rationalised and simplified. We propose that all fares - full fares as also the amounts chargeable on child tickets and concession (including P.T.O.) tickets - should be rounded off to the next higher round unit\*, as indicated below:

<u>Calculated fare</u>	<u>Should be rounded off to the</u>
Upto Rs.10.00	Next higher 5 paise
Rs.10.01 to Rs.50.00	" " 10 "
Rs.50.01 to Rs.100.00	" " 50 "
Rs.100.01 to Rs.500.00	" " one rupee
Rs.500.01 and above	" " five rupees.

In certain cases, terminal/pilgrim tax or Out-agency charge may have to be recovered in addition to the rounded off fare. In such cases, the total charges, i.e., the (rounded off) fare, terminal/pilgrim tax, Out-agency charge etc., taken together, should be rounded off to the next higher five paise.

Minimum Fare

9.20 The minimum fare for different classes in force at present does not seem to be based on any principle. The minimum fare should logically be equal to the fare for a certain distance rather than be a specific amount. Adoption of this system would have the added advantage that the minimum fares will stand automatically revised whenever the fare scales are revised. The distance to which the minimum fare is equated should of course be **longer** for Mail/Express trains, which

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\*The rounding off rule enunciated above should be applied to all coaching traffic including other coaching traffic.

travel faster and stop less often, than for other trains. Accordingly, we recommend that the minimum fare should be equal to the fare for five kms in the case of/suburban and Ordinary trains and 35 km in the case of Mail/Express trains. The minimum fare should be applicable, to all fare paying passengers regardless of age and irrespective of whether the ticket has been purchased on payment of full fare or at a concessional rate; child tickets and concession and PTO tickets should not therefore be issued where the full fare for a ticket is the minimum fare.

#### Relationship between Fares for Different Classes

9.21 As explained in paragraph 9.13, the fares for various classes other than second Ordinary would be derived from the second Ordinary fare scale, which is the base scale and is equated to 100, on the basis of prescribed percentage relationships. Accordingly, we propose that the fares for the various classes should be fixed on the basis of the indices shown below with the second Ordinary fare scale being equal to 100.

<u>Class</u>	<u>Suburban</u>	<u>Non-suburban</u>	
		Ordinary	Mail/Express
Second Class	100	100	140
A.C. Chair Car	-	-	300
First Class	400	400	500
A.C.C.	-	-	1100

At present the relationship between the fares for various classes varies from one distance stage to another. Details are given in Statement 9.1. Under the proposal made by us above, the fares for various classes will have the intended relationship with each other at all distances.

9.22 In suggesting the indices of fares for different classes given above, we have ensured that each class will meet its costs\* fully. Beyond that, however, the fare level for each class has been determined taking into account all other relevant factors such as the difference in the standard of comfort provided, energy consumed for available seat kilometre and the ability of the passenger to pay the fares.

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\*Statement 5.3, Chapter V

9.23 Suburban services have always had the same fare structure as Ordinary passenger services. The per passenger kilometre cost of EMU trains, which comprise the vast majority of trains for suburban areas, is lower than that of Ordinary passenger trains in non-suburban areas. However, the proportion of the journeys performed on season tickets, at highly concessional rates, in EMU trains (74%) is much larger than that in Ordinary passenger trains (28%); the long term marginal costs of EMU services are also estimated to be very much higher. We therefore hold the view that the present arrangement is reasonable and propose that it should continue.

9.24 The fares for second class Mail/Express should, in our view, be 40 per cent higher than second Ordinary fares. The average speed of Mail/Express trains is substantially higher than that of Ordinary trains, and Mail/Express trains running late generally get precedence over Ordinary trains. Besides, Mail/Express trains normally have newer and better maintained coaches than Ordinary trains; they are also being increasingly hauled by diesel locos and this involves use of scarce oil fuel.

9.25 We consider that first class Mail/Express fares should be fixed at five times the second Ordinary fares. This would mean that first class Mail/Express fares will be a little over 350 per cent of the second class Mail/Express fares and this is considered to be reasonable. While making this recommendation, we have taken note of the fact that, over the past decades, first class fares have risen much faster than second class Mail/Express fares (See Statement 9.2), while the standard of comfort provided has been enhanced in second class and reduced in first class (See Statement 9.3). In our view, the fare for first class Chair Car on Mail/Express trains should be the same as that for the conventional first class as at present.

9.26 At present first class fare is the same for both Ordinary and Mail/Express trains. It seems to us that a difference between the two would be justified for the same reasons which necessitate a difference in the second Ordinary and second Mail/Express fares. Taking into account

the differential in second and first class Mail/Express fares, first class Ordinary fare should be fixed at, say, 350 per cent of the second Ordinary fare. However, first class Ordinary is patronised largely by season ticket holders and season tickets are priced at highly concessional rates. Secondly, according to our survey\* there is not much difference in the income of first class passengers in Ordinary trains and Mail/Express trains. A higher differential would be justified by the circumstances of the case and, therefore, we recommend that first<sup>class</sup> Ordinary fares should be fixed at 400 per cent of the second class Ordinary fares.

9.27 A.C. 2-tier sleeper is treated as first class and the same fare is therefore charged for it as for first class Mail/Express. This is not unreasonable considering the relative costs and standards of comfort and provides some flexibility for both passengers and Railway administrations. Our survey\* has shown that 37 per cent of the passengers prefer AC 2-tier sleeper to the conventional first class. However, the preference for AC 2-tier sleeper is understandably more pronounced in the summer months and, following the 'peak-hour' approach, it would be justifiable to charge more for it in that period. Accordingly, we recommend that, while the fare scale for first class Mail/Express should continue to apply to AC 2-tier sleeper also, during the months of April to September, AC 2-tier passengers should be required to pay a supplementary charge at the rate of Rs.15/- (10 per cent of the fare for 800 kms) for journeys upto 1000 km and Rs.25/- (10 per cent of the fare for 1500 kms) for longer journeys.

9.28 Taking into account the fares we are suggesting for other classes, we consider that A.C. Chair Car fare should be 375 per cent of the second Ordinary fare. At this level, it will have the same relationship with first class Mail/Express fares as it had at 100 kms on 1.4.1970 when the fare structure for upper classes was rationalised. However, at this level, the increase in A.C. Chair Car fares will be relatively much more than in other classes. This situation (which has arisen from the increase in A.C. Chair Car fares in recent years having

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\* Table 8.20, Chapter VIII

been much less than in any other class except second Ordinary) is unavoidable. Our survey also shows that, of the A.C.

Chair Car passengers :

- 67 per cent had an income over Rs.1000/- (42 per cent from 1001 to 2000 and 25 per cent over 2000/-)\*
- 56 per cent were travelling on business/duty+
- 31 per cent stated that they would not be affected by increase in fares.®

It should be possible therefore for the majority of the A.C. Chair Car passengers to pay the higher fares proposed above although there may be a temporary decline in the demand for this class, or some 'trading down', i.e., shifting to second class, following the increase. Nevertheless, apprehensions have been expressed that the large increase in fares which the level of 375 per cent of second class Ordinary fares would entail would result in an unacceptable burden for a substantial segment of A.C. Chair Car passengers, and cause permanent decline in the demand for this class. It has been pointed out in this connection that 23 per cent of A.C. Chair Car passengers surveyed were travelling on family work (marriage, death, meeting relative, etc.)+ and 26 per cent had stated that they would not travel in this class if the fare is increased®. While we do not share the view that the fare increase suggested by us would result in a permanent decline, we are inclined to feel that the proposed increase could be made in phases, and thus the impact on the users reduced. Accordingly, we recommend that the A.C. Chair Car fares may be fixed at the level of 300 per cent of the second class Ordinary fares for the present, and later raised <sup>in stages</sup> to 375 per cent. We do not consider that it would be proper to suggest a separate taper pattern for this class only. If there is a decline in demand for this class even at the level of 300 per cent of second class Ordinary fare, and it continues, the accommodation provided should be reduced wherever necessary. It would not be proper to charge an unduly low price for such a service.

\* Table 8.03, Chapter VIII;  
 ® Table 8.18, Chapter VIII.

+ Table 8.09, Chapter VIII;

9.29 Passengers travelling in Air-conditioned class are comparatively much better off than others and more often than not travel on business/duty. Our survey revealed that 82 per cent\* had an income over Rs.2000/- per month and 85 per cent+ were travelling on business/duty. In the light of these data, we consider that ACC fare should be fixed at 1100 per cent of the second Ordinary fare. At the proposed level, ACC fares will also be broadly comparable with air fares although, as stated by us elsewhere@, airlines are not usually the alternative mode of transport for/<sup>the</sup>most of the people who travel ACC.

#### Comparison of Existing and Proposed Fares

9.30 Statement 9.4 shows the proposed second class Ordinary fares in juxtaposition with the existing fares at each km stage upto 100 kms.

Statement 9.5 compares the proposed fares classwise with the existing fares at certain distances from 100 to 3000 kms.

Statement 9.6 brings out the classwise difference between the proposed fares and existing fares between certain pairs of points where there is considerable traffic.

Statement 9.7 compares the proposed fare for each class with the existing fare at the distance covered by the average journey in the class.

#### Rajdhani Express

9.31 The Rajdhani Express, which is a class by itself in regard to both speed and comfort, has a separate fare structure of its own. The special Rajdhani fares (excluding meal charges and reservation fees which are included therein) are higher than the regular Mail/Express fares but the difference is only four to 11 per cent in the case of A.C.C., and 14 to 29 per cent in the case of A.C. Chair Car, for different pairs of points. It appears that the fares for Rajdhani Express have been fixed on an ad hoc basis. We consider that a higher fare differential between Rajdhani and Mail/Express trains would be justified by the differences in the costs and the standard of comfort provided. We also consider that the percentage difference between the special Rajdhani fares and the regular Mail/Express fares should be the same for all pairs of points. Accordingly, we recommend that Rajdhani Express fares (excluding meal charges and reservation fees) should be fixed on the following basis:

A.C.C. - Regular fare plus 20 per cent

A.C. Chair Car - Regular fare plus 33.1/3 per cent.

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\*Table 8.03, Chapter VIII. +Table 8.09, Chapter VIII.  
@Para 6.06, Chapter VI.

Superfast Train Surcharge

9.32 A supplement to the regular Mail/Express fare is charged for travel by certain specified "superfast" trains which are faster and provide a higher standard of comfort than other Mail/Express trains. The charge is levied to discourage passengers using these trains for short journeys (and is therefore at a flat rate irrespective of the distance travelled), besides covering the additional costs involved.

9.33 The existing rates date back to 1.4.1973 when the surcharge was first imposed except that the charge for second class was originally Rs.1.50 and was reduced to Re.1.00 with effect from 1.4.1973. In our view, the existing charge is not adequate. Our survey\* has shown that superfast train passengers attach considerable value to saving in time and standard of comfort - 73 per cent had selected a superfast train to save time and 21 per cent because it was more comfortable. Considering the marked consumer preference for these trains, we consider that the surcharge should be increased at least to an amount roughly equal to 10 per cent of the fare (including sleeper surcharge at 25 per cent of basic fare where applicable) for the average journey. Set out below is the amount of charge which we propose in juxtaposition with the existing charge:

<u>Class</u>	<u>Existing</u> Rs.	<u>Proposed</u> Rs.
A.C.C.	10.00	25.00
First Class	5.00	12.00
AC Chair Car	3.00	12.00
IIInd Sleeper	1.50	6.00
IIInd Sitting	1.00	2.00

Sleeper Charge

9.34 A second class passenger who travels in a sleeper coach during night hours is charged Rs.5/- in addition to the appropriate fare. This supplement to the regular fare is made

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\* Table 8.19, Chapter VIII

in consideration of the following:

- i) A sleeper coach entails loss of revenue because its carrying capacity is less than that of a general service coach; the additional facilities, including a TTE provided in it, also involve additional costs.
- ii) The passenger gets sleeping accommodation and certain other facilities which are not available in the general service coach; further, as only reserved accommodation is provided in the sleeper coach, there is less likelihood of over-crowding in it.

9.35 The demand for sleeper accommodation exceeds availability and there are usually long waiting lists. Of the sleeper coach passengers covered by our survey\*, 60 per cent had an income ranging from Rs.501/- to over Rs.2000/-. It was the general view of almost all we met in the course of our enquiry that the sleeper charges need to be increased substantially.

9.36 The charge is levied on a per journey basis and, therefore, a passenger pays the same amount irrespective of whether the journey covers one or more nights. We think that a passenger who enjoys the facility for more than one night should reasonably be expected to pay a larger amount. It is true that in some cases the journey can be performed in one night by one train whereas it takes two nights by another train. However, the passenger who travels by the latter train does so probably because it is the more convenient train for him (for example, in regard to the time of arrival or departure). In our view, the charge for the first night should be roughly equal to 25% of the Mail/Express fare for 500 kms which is about the distance which can be travelled in a twelve-hour period. The charge for subsequent night(s) could, however, be lower. Accordingly, we recommend that the sleeper surcharge should be enhanced to Rs.3/- for the first night and Rs.5/- for each subsequent night.

#### Reservation Fee

9.37 Reservation of seats/berths involves special arrangements and a fee is therefore levied therefor. It has been represented to us by Railway administrations and admitted by members of the public,



that the existing scale of reservation fees is very low , particularly in the case of the second class. We propose that the reservation fees be increased as shown below:

	<u>Existing</u>	<u>Proposed</u>
A.C.C.	Rs.5/-	Rs.8/-
Ist Class	Rs.2/-	} Rs.4/-
A.C. Chair Car	Rs.1/-	
2nd Sleeper Coach	25P	Rs.2/-
- General Service Coach	25P	Rs.1/-

9.38 In the course of our enquiry, we heard a number of complaints regarding the efficiency of the reservation system. The enhanced reservation fees we are suggesting above should make the reservation operation more or less self-supporting. It is our hope that this will enable the Railways to make effective arrangements for reservation and thus avoid complaints.

9.39 The sitting capacity of a first class compartment is more than the number of berths in it. It has, therefore, been laid down that when berths are reserved for passengers, the intention is to provide sleeping accommodation between 9-0 p.m. to 6-0 a.m. ~~during day time~~ and from 6-00 a.m. to 9-00 p.m. the passengers concerned must, if required, make room for other passengers in the compartment upto its marked seating capacity. In view of this, when a passenger holding tickets equal to the number of berths in the compartment wishes to have exclusive use of the compartment during the day time also, he can reserve the entire compartment on payment of the following charges. This facility is available only where the journey exceeds over 480\* kms; certain high Government officials can however reserve a compartment for shorter journeys:

2 berths compartment	Rs. 15/-
4 berths compartment	Rs. 24/-
5 or 6 berths compartment	Rs. 36/-

These charges have been in force since April, 1970, and have not been increased in spite of considerable increases in the fares since then.

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\*This (odd figure) may be rounded off to 500 km when the rules are revised.

9.40 We wonder whether, when the accommodation available in the trains is inadequate as at present, it is reasonable to reserve a compartment in this manner at all, thus reducing the available capacity during the day time. In any case, the reservation fee should broadly reflect the resultant loss of income during, say, a 6-hour period (including superfast train surcharge where due). Accordingly, we suggest that the fee be enhanced as follows:

	<u>Mail/Express trains</u>		<u>Ordinary trains</u>
	Superfast	Others	Rs.
	Rs.	Rs.	Rs.
2 berth compartment	80	60	30
4 berth compartment	160	120	60
5 or 6 berth compartment	240	180	90

#### General Provisions Governing Supplementary and Misc. Charges

9.41 Incidence of charges: In our view, the following general provisions should govern supplements to the regular fare for sleeping accommodation in second class and travelling in a superfast train, and the fee for reservation of seat/berth, where the relevant facilities are availed of:

- i) Every fare paying passenger shall pay the charge at the full rate, regardless of age and even when he is entitled to a concession in the fare. Accordingly, the supplementary charge should be paid in full by a child under 12 years of age, and also by a passenger who travels on a ticket purchased in exchange for any concession order including a P.T.O.
- ii) In each case the charge is for a continuous journey, including by connecting trains. A passenger who breaks journey en route must pay separate charges to and from each point of stop-over, each onward journey being treated as a fresh journey.

These provisions are generally observed but need to be fully incorporated in the tariff. Railway employees travelling in superfast trains on tickets purchased at reduced rates on the authority of Privilege Ticket Orders are, however, specifically exempted from paying the superfast train surcharge. While the amount of the

fare to be paid by such a person is a matter of privilege, once a ticket is issued it is treated as an ordinary ticket in all respects and this is made clear in the Conference Rules. Railway employees travelling on such tickets are required to pay the reservation fee and the sleeper charge; it would seem incongruous, to say the least, to exempt them from payment of the superfast train surcharge.

#### Accounting Practice

9.42 We understand that, in the case of traffic interchanged between Railways, the basic fare is apportioned between the Railways concerned in proportion to distance, and the supplementary charges (superfast charges and sleeper charges) and the miscellaneous charges (reservation fees) are retained by the forwarding Railway.

9.43 While the terminal expenses are entirely borne by the forwarding Railway, the line haul costs are incurred by the different Railways concerned in proportion to the distances over which the traffic is carried over each Railway. In the light of this position, we would suggest that :

- the fixed charge included in the basic fare (which is intended to cover the terminal expenses, such as ticket issue and collection, which vary more or less in direct proportion to the volume of traffic) as also the reservation fee, should be retained by the forwarding Railway;
- the superfast train surcharge and the sleeper charge should be apportioned between the Railways along with the basic fare less the fixed charge.

The fixed charge mentioned in the fare would amount to Re. 0.25 for second Ordinary, Re. 0.35 for second Mail/Express, Re. 1.00 for first Ordinary, Rs. 1.25 for first Mail/Express, Re. 0.75 for AC Chair Car and Rs. 2.75 for ACC per journey. The amounts to be retained by the forwarding Railway can easily be worked out by multiplying these amounts by the number of tickets issued.

9.44 It may also be considered whether it would not be more appropriate to allocate reservation fees to passenger earnings instead of to other coaching earnings as at present.

## Percentage relationship of existing fares for different classes to Second Class Ordinary fares

Distance	Second Class (Ordinary)		Second Class (Mail/Express)		Air-conditioned Chair Car		First Class		Air-conditioned Class		Distance
	Fare	Index	Fare	Index	Fare	Index	Fare	Index	Fare	Index	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Kms.	Rs.		Rs.		Rs.		Rs.		Rs.		Kms.
100	4.05	100	5.65	140	17.00	420	28.00	691	53.00	1309	100
200	7.75	100	10.25	132	24.50	316	43.00	555	76.00	981	200
300	10.80	100	14.50	134	33.50	310	61.50	569	102.00	944	300
400	13.75	100	13.40	134	41.00	298	75.00	545	121.00	902	400
500	16.75	100	22.50	134	48.00	287	88.00	525	160.00	955	500
600	19.40	100	27.00	139	56.50	291	107.00	552	200.00	1031	600
700	22.00	100	30.40	138	61.50	280	117.50	534	219.00	995	700
800	24.55	100	33.80	138	66.50	271	129.50	527	251.00	1022	800
900	26.80	100	37.75	141	73.50	274	143.00	534	270.00	1007	900
1000	29.00	100	40.45	139	78.50	271	153.50	529	300.00	1034	1000
1100	31.28	100	44.70	143	85.50	273	171.00	547	322.00	1029	1100
1200	33.40	100	47.45	142	90.50	271	181.50	543	353.00	1057	1200
1400	37.50	100	52.70	141	100.50	268	204.00	544	410.00	1093	1400
1600	41.70	100	58.80	141	112.00	269	229.50	550	487.00	1168	1600
1800	45.70	100	63.50	139	120.50	264	248.00	543	530.00	1160	1800
2000	49.80	100	68.15	137	128.00	257	265.50	533	563.00	1130	2000
2200	53.90	100	74.05	137	139.50	259	287.00	532	596.00	1106	2200
2400	57.95	100	73.50	135	147.00	254	304.00	525	629.00	1085	2400
2600	62.05	100	84.10	135	155.00	250	321.50	518	662.00	1067	2600
2800	66.10	100	88.55	134	163.00	247	340.00	514	695.00	1051	2800
3000	70.20	100	93.00	132	171.00	244	357.50	509	728.00	1037	3000

Statement 9.2

The ratio of I Class fares to IIClass M/E\* fares from time to time  
(Figures in brackets show the indices of fares)

Distance	1.4.51		1.4.60		1.4.70		1.4.79	
	2nd	1st <sup>(a)</sup>	2nd	1st	2nd	1st	2nd	1st
	M/E	Class	M/E	Class	M/E	Class	M/E	Class
1.	2.	3.	4.	5.	6.	7.	8.	9.
Kms.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
250	4.87 (100)	13.00 (267)	5.10 (100)	14.75 (289)	8.10 (100)	26.50 (327)	12.70 (100)	52.00 (409)
500	9.74 (100)	26.00 (267)	10.00 (100)	27.75 (278)	15.85 (100)	50.50 (319)	22.50 (100)	88.00 (390)
1000	19.48 (100)	52.00 (267)	18.10 (100)	52.00 (287)	27.80 (100)	90.50 (326)	40.45 (100)	153.50 (379)

(a) Second Class redesignated as 1st Class from 1.4.1955.

\*Mail/Express

Standard comforts and facilities in First and Second Class coaches in 1978  
as compared with those in 1948

	First Class Coaches				Second Class Coaches			
	1948		1978		1948		1978	
	B.G.	M.G.	B.G.	M.G.	B.G.	M.G.	B.G.	M.G.
1. Area of coach (Sq.m)	60.5	42.0	63.28	48.81	60.5	42.0	63.28	48.81
2. No. of passengers to seat	33	27	39	30	96	68	90	64
3. No. of passengers to sleep	22	18	26	20	38 (40%)	27 (40%)	75	48
4. Cushioned berths provided or not	Yes	Yes	Yes	Yes	No	No	These are gradually being provided.	
5. Hip width of seats (mm)	610	610	535	535	495	495	495	495
6. Depth of seats (mm)	660	660	660	660	440	440	535	535
7. Supply of electricity for coaches	Generators provided in all First Class coaches.				Generators provided in 50% of coaches.		Generators provided in all coaches.	
8. No. of fans	1-per berth	1-per berth	1-per berth	1-per berth	-	-	2-per bay	2-per bay
9. Lighting in compartments(Lux)	40	40	30	30	15	15	20	20
10. Water tank capacity(litres)	225 to 270	225 to 270	270 to 455	270 to 455	225 to 270	225 to 270	270 to 455	270 to 455
11. Wash basin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12. Mirror & shelf	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13. Body side door maximum clear opening (mm)	635	635	685	685	635	635	685	685
14. Window shutter	Ordinary glass and venetian shutter.		Balancing glass and venetian shutter		Ordinary glass and venetian shutter		Balancing glass and venetian shutter	
15. Bars on window	Yes	Yes	Yes	Yes	No	No	Yes	Yes

Statement 9.4

Second Class Ordinary fares upto 100 kms.

Second Class Ordinary			Second Class Ordinary		
Distance	Existing	Proposed	Distance	Existing	Proposed
1.	2.	3.	4.	5.	6.
Kms.	Rs.	Rs.	Kms.	Rs.	Rs.
1	0.30	0.50	26	1.25	1.55
2	0.30	0.50	27	1.25	1.60
3	0.30	0.50	28	1.30	1.65
4	0.30	0.50	29	1.30	1.70
5	0.30	0.50	30	1.30	1.75
6	0.30	0.55	31	1.45	1.80
7	0.35	0.60	32	1.45	1.85
8	0.35	0.65	33	1.55	1.90
9	0.35	0.70	34	1.55	1.95
10	0.45	0.75	35	1.65	2.00
11	0.45	0.80	36	1.65	2.05
12	0.50	0.85	37	1.70	2.10
13	0.50	0.90	38	1.75	2.15
14	0.55	0.95	39	1.75	2.20
15	0.55	1.00	40	1.80	2.25
16	0.60	1.05	41	1.80	2.30
17	0.65	1.10	42	1.90	2.35
18	0.65	1.15	43	1.90	2.40
19	0.75	1.20	44	1.90	2.45
20	0.75	1.25	45	1.95	2.50
21	0.85	1.30	46	1.95	2.55
22	0.85	1.35	47	2.00	2.60
23	0.85	1.40	48	2.00	2.65
24	0.90	1.45	49	2.05	2.70
25	0.90	1.50	50	2.25	2.75

Statement 9.4 (contd.)

Distance	Second Class Ordinary		Distance	Second Class Ordinary	
	Existing	Proposed		Existing	Proposed
7.	8.	9.	10.	11.	12.
Kms.	Rs.	Rs.	Kms.	Rs.	Rs.
51	2.45	2.80	76	3.25	4.05
52	2.50	2.85	77	3.30	4.10
53	2.50	2.90	78	3.30	4.15
54	2.55	2.95	79	3.30	4.20
55	2.55	3.00	80	3.45	4.25
56	2.70	3.05	81	3.55	4.30
57	2.70	3.10	82	3.65	4.35
58	2.70	3.15	83	3.65	4.40
59	2.75	3.20	84	3.70	4.45
60	2.75	3.25	85	3.70	4.50
61	2.90	3.30	86	3.70	4.55
62	2.90	3.35	87	3.75	4.60
63	2.95	3.40	88	3.75	4.65
64	2.95	3.45	89	3.80	4.70
65	2.95	3.50	90	3.80	4.75
66	3.00	3.55	91	3.90	4.80
67	3.00	3.60	92	3.90	4.85
68	3.05	3.65	93	3.90	4.90
69	3.05	3.70	94	3.95	4.95
70	3.15	3.75	95	3.95	5.00
71	3.15	3.80	96	4.00	5.05
72	3.15	3.85	97	4.00	5.10
73	3.20	3.90	98	4.05	5.15
74	3.20	3.95	99	4.05	5.20
75	3.25	4.00	100	4.05	5.25



## Fares for certain distances

Distance	Ordinary Trains				Mail/Express Trains								Distance
	Second Class		First Class		Second Class		First Class		A.C. Chair Car		Air-conditioned Class		
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
Kn.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Kn.
100	4.05	5.25	28.00	21.00	5.65	7.35	28.00	26.30	17.00	15.80	53.00	58.00	100
200	7.75	9.70	43.00	38.70	10.25	13.60	43.00	48.40	24.50	29.10	76.00	107.00	200
300	10.80	13.70	61.50	55.00	14.50	19.20	61.50	68.50	33.50	41.10	102.00	151.00	300
400	13.75	17.60	75.00	70.50	18.40	24.60	75.00	88.00	41.00	53.00	124.00	194.00	400
500	16.75	20.90	83.00	83.50	22.50	29.20	88.00	105.00	48.00	63.00	160.00	230.00	500
600	19.40	24.10	107.00	96.50	27.00	33.80	107.00	121.00	56.50	72.50	200.00	265.00	600
700	22.00	27.40	117.50	110.00	30.40	38.30	117.50	137.00	61.50	82.50	219.00	301.00	700
800	24.55	30.40	129.50	122.00	33.80	42.60	129.50	152.00	66.50	91.50	251.00	335.00	800
900	26.80	33.20	143.00	135.00	37.75	46.40	143.00	166.00	73.50	99.50	270.00	365.00	900
1000	29.00	35.90	153.50	144.00	40.45	50.50	153.50	180.00	78.50	108.00	300.00	395.00	1000
1100	31.25	38.50	171.00	154.00	44.70	54.00	171.00	193.00	85.50	116.00	322.00	423.00	1100
1200	33.40	41.20	182.50	165.00	47.50	58.00	181.50	206.00	90.50	124.00	353.00	453.00	1200
1400	37.50	46.20	204.00	185.00	52.70	65.00	204.00	231.00	100.50	139.00	410.00	509.00	1400
1600	41.70	51.50	220.50	205.00	58.80	72.00	229.50	256.00	112.00	154.00	487.00	564.00	1600
1800	45.70	56.50	248.00	225.00	63.50	79.00	248.00	281.00	120.50	169.00	530.00	619.00	1800
2000	49.80	61.50	265.50	245.00	68.15	86.00	265.50	306.00	128.00	184.00	563.00	674.00	2000
2200	53.90	66.50	287.00	265.00	74.05	93.00	287.00	331.00	139.50	199.00	596.00	729.00	2200
2400	57.95	71.50	301.00	285.00	78.50	100.00	304.00	356.00	147.00	214.00	629.00	784.00	2400
2600	62.05	76.00	321.50	304.00	84.10	107.00	321.50	380.00	155.00	228.00	662.00	835.00	2600
2800	66.10	81.00	340.00	324.00	88.55	114.00	340.00	405.00	163.00	243.00	695.00	890.00	2800
3000	70.20	86.00	357.50	344.00	93.00	121.00	357.50	430.00	171.00	258.00	728.00	945.00	3000

Fares between certain pairs of stations:

S. No.	Station		Distance	Ordinary trains			
	From	To		Second Class		First Class	
				Existing	Proposed	Existing	Proposed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		Km.	Rs.	Rs.	Rs.	Rs.	
1.	Bangalore	Mysore	139	5.70	7.15	35.00	28.60
2.	New Delhi	Agra Cantt.	195	7.55	9.50	43.00	37.90
3.	Delhi	Chandigarh	266	9.90	12.50	56.00	49.90
4.	Delhi	Jaipur	308	11.10	14.00	63.00	56.00
5.	Madras	Bangalore	358	12.55	16.00	69.50	64.50
6.	Delhi	Kanpur	435	14.80	18.90	80.00	76.00
7.	Howrah	Patna	533	17.75	22.20	97.50	89.00
8.	New Delhi	Allahabad	634	20.30	25.40	111.00	102.00
9.	Howrah	Varanasi	678	21.60	26.70	116.00	107.00
10.	New Delhi	Bhopal	701	22.25	27.70	117.50	111.00
11.	Delhi	Gorakhpur	766	23.80	29.60	125.50	119.00
12.	Madras	Secunderabad	781	24.10	30.10	127.00	121.00
13.	Amritsar	Lucknow	850	25.80	31.80	136.00	127.00
14.	Delhi	Ahmedabad	934	27.65	34.30	147.00	137.00
15.	Delhi	Patna	983	28.75	35.60	153.50	143.00
16.	New Delhi	Nagpur	1090	31.00	38.50	169.50	154.00
17.	Bombay	Bangalore	1114	31.60	39.20	172.00	157.00
18.	Bombay	Madras	1283	35.15	43.70	191.00	175.00
19.	New Delhi	Bombay	1384	37.20	46.20	203.00	185.00
20.	Delhi	Howrah	1437	38.30	47.50	208.00	190.00
21.	Howrah	Madras	1661	43.10	53.50	236.00	213.00
22.	New Delhi	Secunderabad	1666	43.10	53.50	236.00	213.00
23.	New Delhi	Bhubaneshwar	1795	45.70	56.50	248.00	225.00
24.	New Delhi	Gauhati	1923	48.35	59.50	259.00	238.00
25.	Bombay	Howrah	1968	49.20	61.00	263.00	243.00
26.	New Delhi	Madras	2185	53.70	66.50	285.50	265.00
27.	New Delhi	Bangalore	2544	61.00	75.00	317.50	299.00

Statement 9.6

Fares between certain pairs of stations

Mail/Express trains									Dis- tance
Second Class		First Class		A.C. Chair Car		A.C. Class		16.	
Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed		
8. Rs.	9. Rs.	10. Rs.	11. Rs.	12. Rs.	13. Rs.	14. Rs.	15. Rs.	Kms.	
7.70	10.10	35.00	35.80	20.50	21.50	63.00	79.00	139	
10.15	13.30	43.00	47.40	24.50	28.50	75.00	105.00	195	
13.45	17.50	56.00	62.50	31.50	37.50	95.00	138.00	266	
15.20	19.60	63.00	70.00	34.50	41.90	104.00	154.00	308	
16.90	22.40	69.50	80.00	38.00	47.90	115.00	176.00	358	
19.90	26.50	80.00	94.50	43.00	57.00	145.00	208.00	435	
25.10	31.00	97.50	111.00	52.50	66.50	186.00	244.00	533	
28.45	35.60	111.00	127.00	59.00	76.50	207.00	280.00	631	
29.80	37.40	116.00	134.00	61.00	80.50	215.00	294.00	678	
30.85	38.80	117.50	139.00	62.00	83.00	220.00	305.00	701	
32.90	41.40	125.50	143.00	65.00	89.00	246.00	325.00	766	
33.30	42.20	127.00	151.00	66.00	90.50	249.00	331.00	781	
36.50	44.50	136.00	159.00	71.00	95.50	260.00	350.00	850	
38.80	48.00	147.00	172.00	75.00	103.00	275.00	377.00	934	
40.25	49.90	153.50	178.00	78.00	107.00	297.00	392.00	988	
44.50	54.00	169.50	193.00	85.50	116.00	320.00	423.00	1090	
45.35	55.00	172.00	196.00	86.50	118.00	338.00	431.00	1114	
49.75	61.50	191.00	219.00	95.00	132.00	389.00	481.00	1283	
52.30	65.00	203.00	231.00	100.00	139.00	406.00	509.00	1384	
53.80	66.50	208.00	238.00	102.00	143.00	441.00	522.00	1437	
60.40	74.50	236.00	266.00	115.50	160.00	499.00	584.00	1661	
60.40	74.50	236.00	266.00	115.50	160.00	499.00	584.00	1666	
63.50	79.00	248.00	281.00	120.50	169.00	530.00	619.00	1795	
66.60	83.50	259.00	297.00	125.50	178.00	552.00	653.00	1923	
67.45	85.00	263.00	303.00	127.00	182.00	559.00	667.00	1968	
72.80	93.00	285.50	331.00	139.00	199.00	595.00	729.00	2185	
83.00	105.00	317.50	374.00	153.00	224.00	654.00	821.00	2544	

Statement 9.7

Fares for average journey distances

Non-suburban

Class	Length of average journey 1978-79.	F a r e s	
		Existing	Proposed
1.	2.	3.	4.
	Kms.	Rs.	Rs.
Second(Ordinary)	52	2.50	2.85
Second(Mail/Express)	323	15.70	20.70
First(Ordinary)	114*	31.00	23.60
First(Mail/Express)	566*	103.00	116.00
Air-conditioned Chair Car	1043	33.50	112.00
Air-conditioned Class	555	190.00	251.00

\*The average First Class journey covers 461 kms.  
Separate figures for Express and Ordinary are  
not compiled and have therefore been estimated.

## CHAPTER X

### SEASON TICKETS AND OTHER SPECIAL TARIFFS

#### Season Tickets

10.01 Housing and employment have become increasingly separated and people therefore need to travel to their work daily and often the journey is long. Where large numbers have to be transported in a limited time, the Railways are the best means of transport; it is not possible for buses to convey multitudes in a short time and in any case the large number of buses that would be required would clutter up the roads and use up relatively more scarce fuel and have harmful effects on the environment. The Railways are therefore, and will necessarily continue to be, a major carrier of people to and from work. So far the need for mass transport existed only in the metropolitan cities vast areas of workspots and dormitories; but now such situations are arising in many other conurbations such as Delhi, Bangalore, Ahmedabad, etc., and this trend is likely to be accentuated in the years to come.

10.02 Volume of Traffic:- The season ticket is a traditional method of daily travel to and from work and provides a practical means of buying tickets for the large numbers involved. In 1978-79 over half the journeys on Indian Railways were performed on season tickets. These comprised 1,562 million in the suburban services in and around Bombay, Calcutta and Madras (each for an average of 21 kms.) and 384 million in non-suburban services in the rest of the country (with 38 kms. as the average lead).

10.03 Season Ticket Revenue per Passenger km:- Season tickets are priced at reduced rates even though they produce lower revenue at a time of high demand when the trains are usually full. The magnitude of discount allowed has been progressively increasing, because of increase in the average length of the journey and tardy revision of fares, and is very high. Table 10.01 shows the revenue per passenger kilometre from season tickets in comparison with that from single journey tickets. The figures relate to second class passengers who form the vast majority.

Table 10.01

Year	Revenue (Paise) per second class passenger kilometre					
	Suburban			Non-suburban		
	Single journey tickets	Season tickets	Percentage of (3) to (2)	Single journey tickets	Season tickets	Percentage of (6) to (5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970-71	2.54	0.69	27	2.62	0.78	29
1971-72	2.69	0.68	25	2.67	0.78	29
1972-73	2.65	0.71	27	2.70	0.81	30
1973-74	2.73	0.75	27	2.86	0.82	29
1974-75	3.30	0.79	24	3.60	0.75	21
1975-76	3.44	0.81	24	3.95	0.71	18
1976-77	3.50	0.82	23	4.02	0.76	19
1977-78	3.48	0.82	24	4.09	0.74	18
1978-79	3.38	0.82	24	4.06	0.72	18

In 1978-79; revenue per kilometre from second class season ticket holders amounted to only 24 per cent in the case of suburban passengers, and 18 per cent in the case of non-suburban passengers, of the corresponding revenue from the single journey ticket holding passengers. To put it another way, the fare per kilometre paid by season ticket holders was lower than that paid by single journey passengers to the extent of 76 per cent in the case of suburban services and 82 per cent in the case of non-suburban services. This gives a quantitative idea of the magnitude of the discount allowed on the season tickets. From whatever material we have been able to collect, no other Railway system in the world gives such a large concession to season ticket holders.

10.04 . Loss on season ticket travel:- The unit revenue from season tickets is far less than the cost of operation. In the case of suburban services, for instance, the unit revenue from second class passengers was only 0.82 paise in 1976-77 against the average cost of 2.14 paise. It is therefore not surprising that the expenditure on suburban services in 1976-77 exceeded the revenue therefrom by Rs.25 crores. The position in the case of non-suburban Ordinary services used by non-suburban Season Ticket holders is worse as, for various reasons, they cost more.

As explained in Chapter VI, it has been computed that the cost of carrying 1976-77 volume of traffic in 1980-81 at the level of efficiency attained in 1976-77, making due allowance for all necessary costs, will be about 30 per cent higher than the actual cost in 1976-77. Allowing for this, the unit cost in 1980-81 would be about 30 per cent higher than that in 1976-77. Thus, the per passenger kilometre cost in suburban sections in 1980-81 would be of the order of 3 paise. The revenue per passenger kilometre in 1978-79 was the same as in 1976-77 (0.82 paise) but, as a result of the fare increase from 1.4.1979 (see para 10.06), it is roughly expected to be of the order of 1.29 paise in 1980-81. This shows the magnitude of the loss per passenger kilometre expected in 1980-81 in suburban sections if the present fare structure is not revised.

10.05 Need for Increasing Season Ticket Fares:- Journeys performed on season tickets on Indian Railways comprise more than half the total. Carrying such a large portion of traffic at continuous loss is bound to put added pressure on the Railways and affect the quality of service in the long run. Indeed there is already wide-spread dissatisfaction with the quality of service provided and we understand the concern of the season ticket travellers with the unsatisfactory state of affairs. In our Interim Report, we had drawn pointed attention to this situation and stressed the urgent need for improving and extending the facilities provided for carrying season ticket passengers. The long term marginal cost of providing the much needed better service-s is expected to be very high and the large investments required cannot be made unless the revenues are adequate to support them. It is, therefore, necessary to raise the season ticket fares substantially, simultaneously taking effective steps to make the urgently needed improvement in the services.

10.06 Interim Increase in Season Ticket Fares:- It is recognised that increase in season ticket fares directly increases the cost of living for those who use the Railways to get to their place of work. And our survey of season ticket holders\* showed that the vast majority of season ticket holders travel in second class and are relatively poor. At the very outset of our enquiry, therefore, the Committee decided to adopt a measured approach to season ticket fare increases in

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\*Results of the survey are given in Chapter VII of our Interim Report.

order to phase their introduction and reduce the impact on the users. Accordingly, pending a more detailed examination of the question in all its aspects, in our Interim Report (November, 1978) we recommended a certain increase in season ticket fares with a view to reducing, if not eliminating, the existing losses arising from season ticket travel, and for supporting investments which are essential if the present difficulties faced by suburban passengers and other commuters are to be reduced in the near future. However, as Table 10.02 shows, the increase actually made from 1.4.1979 was on the whole somewhat less than half of what we had thought reasonable.

Table 10.02

Distance Kms.	Second class monthly season ticket fares			RTEC interim proposal Rs. P.	Fares actually introduced w.e.f. 1-4-79 (6) Rs.
	Pre-existing fares 31.3.79				
	Bombay Rs. P.	Calcutta Rs. P.	Madras Rs. P.		
(1)	(2)	(3)	(4)	(5)	(6)
1-5	3.90	3.90	3.90	10.00	5.45
6-10	6.40	6.40	6.40	13.00	8.70
11-15	7.75	7.75	7.75	16.00	10.90
16-20	9.00	9.00	9.00	19.00	13.00
21-25	10.20	10.20	10.65	21.00	15.60
26-30	11.40	11.40	11.95	23.00	17.20
31-35	12.50	12.50	13.10	25.00	18.75
36-40	14.30	14.30	14.30	27.00	20.65
41-45	15.45	15.45	15.45	29.00	22.25
46-50	16.50	17.05	17.05	31.00	24.05
51-60	18.30	19.35	19.35	34.00	26.70
61-70	19.90	21.15	-	37.00	29.10
71-80	21.25	22.95	-	40.00	31.50
81-90	22.50	24.75	-	43.00	33.90
91-100	24.55	26.50	-	46.00	36.25
101-110	26.10	28.15	-	49.00	38.60
111-120	27.65	29.90	-	52.00	40.45
121-130	-	31.35	-	55.00	43.20
131-140	-	33.00	-	58.00	45.50
141-150	-	33.60	-	61.00	47.30



10.07 Inadequate Increase From 1.4.79:- Although an improvement over the position which existed earlier, season ticket fares introduced from 1-4-1979 are still inadequate. One way of judging the reasonableness <sup>of</sup> season ticket fare is to compare it with single journey fares. At the proposed rates for single journey fares recommended in Chapter IX, the existing monthly season ticket fares would be equal to only 13 to six single journey fares at different distances. This has to be seen in the context of the fact that, as our survey<sup>@</sup> has shown, a season ticket holder normally performs 50 journeys a month. Table 10.03 compares the number of single journey fares (at the rates recommended in Chapter IX) represented by the existing monthly season ticket fares with the corresponding position in U.K.<sup>+</sup> and Sweden.<sup>+</sup>

Table 10.03

Distance Km	No. of single journey fares equivalent to season ticket fare		
	U.K.+	Sweden+	Indian Rlys.
5	32	31*	11
20	31	20	11
35	24		10
50	19	16	9
70	16		8
90	14	13	8
110	13		7
130	12	12	7
150	11		6

It may be mentioned here that the monthly season ticket fare in Moscow underground is equal to 33 single journey fares. Against this, the existing season ticket fare for corresponding distance of, say, 20 kms., would be equal to only 11 single journey fares at the proposed rates.

@ Results of the survey are given in Chapter VII of our Interim Report.

+ Details given in Annexure VIII-1(a) & VIII-1(b) to our Interim Report.

\* Relates to 6 km.

10.08 Need for full implementation of our Interim proposal:- We have explained at length in our Interim Report why the interim increase in season ticket fares suggested by us was considered to be the minimum necessary and we do not wish to go over the same ground again. Suffice it to say that the Railways cannot provide the kind of services expected if they are to carry more than half the traffic -- journeys on season tickets account for more than 50 per cent of the total journeys on Indian Railways -- at such low rates. We would therefore urge that, as the next logical step in the phased development of a rational season ticket fare structure, the Government should implement fully and without delay the fare structure which we had suggested in our Interim Report. Table 10.04 shows the increase in second class season ticket fares which this would entail.

Table 10.04

Second class monthly season ticket fares			
Distance	RTEC's interim proposal	Fares actually introduced w.e.f. 1-4-79	Increase required to implement RTEC's proposal in full
Km.	Rs. P.	Rs. P.	Rs. P.
(1)	(2)	(3)	(4)
1-5	10.00	5.45	4.55
6-10	13.00	8.70	4.30
11-15	16.00	10.90	5.10
16-20	19.00	13.00	6.00
21-25	21.00	15.60	5.40
26-30	23.00	17.20	5.80
31-35	25.00	18.75	6.25
36-40	27.00	20.65	6.35
41-45	29.00	22.25	6.75
46-50	31.00	24.05	6.95
51-60	34.00	26.70	7.30
61-70	37.00	29.10	7.90
71-80	40.00	31.50	8.50
81-90	43.00	33.90	9.10
91-100	46.00	36.25	9.75
101-110	49.00	38.60	10.40
111-120	52.00	40.45	11.55
121-130	55.00	43.20	11.80
131-140	58.00	45.50	12.50
141-150	61.00	47.30	13.70

In our view the increase suggested above would not be so substantial as to cause undue hardship, even allowing for the fact that it will come within a year or so of the previous increase made on 1.4.1979. Higher fares are never welcome and we do not expect those who have to pay them to lend uncritical support to our proposal. The season ticket holders should, however, remember that there was no increase in their fares for a number of years ending March, 1979 and, in the circumstances, the increases in the 'catching up' period which follows have to be larger than they might have been otherwise. As it is, in percentage terms, the increase in season ticket fares that we are suggesting will be more or less the same as that in the fare structure for single journeys<sup>+</sup>. There is no reason why season ticket fares should not be increased more or less in step with the single journey fares.

#### Development of a Rationalised Season Ticket

10.09 Fare structure for the Future:- As stated in para 10.06 above, the proposal made for revision of season ticket fares in our Interim Report was in the nature of a stop gap arrangement. While full implementation of that proposal as suggested in para 10.08 above will take us one step forward, the season ticket fare structure would still be far from satisfactory. We had stated in our Interim Report that we will make our recommendations regarding the long term season ticket fare structure after we have completed examination of the fare structure for single journeys. We have now completed our examination of the entire fare structure and our proposals for rationalisation of single journey fares are given in Chapter IX. We now proceed to consider the question of development of a rational season ticket fare structure in the light of <sup>the</sup> single journey fare structure which we are recommending. As explained in Chapter IX (para 9.05), our aim is that passenger services as a whole should be self-supporting. The season ticket fare structure should be such as would make an appropriate contribution to the realisation of this objective and at the same time not impose an unacceptable burden on the daily travellers.

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+ Statement 10.1

10.10 Season Ticket Fare Should Be a Fixed Multiple of Single Journey Fares:- As indicated in our Interim Report, we consider that season ticket fares should be based on an appropriate number of single journey fares. The linkage of season ticket tariff with single journey fares in this way would:

- establish a rational relationship between what an occasional traveller, and a regular commuter, pays,

- be understandable to the commuter (he can readily see the extent of <sup>the</sup> concession involved), and

- provide a mechanism (which we trust will be used) for automatic increase in season ticket fares with increase in single journey fares when the latter are increased.

We are therefore of the view that the fare policy for season tickets should be designed on the basis of a multiple of single journey fares.

10.11 The question is what should be the multiple, i.e., how many single journey fares should be charged on a season ticket. In theory, the discount allowed on season ticket is supposed to reflect the savings in the Railways' costs resulting from the bulk purchase. In fact, however, it is much larger than the savings. A study made by RITES shows that the cost of issuing a card ticket on the suburban sections in Howrah is only 6.8 paise and the monthly savings on this account for the 50 journeys normally performed on a season ticket will at the most work out to Rs.3.40 even if we ignore the expenditure on issue of the season ticket. This is the proposed price of only three single journey tickets for 21 km., at the length of the average journey in suburban sections. At this rate, the monthly season ticket holder should be charged for 47 journeys against the 50 journeys he performs. However, the Season ticket is the only practical means of buying tickets for the large numbers involved and the true savings to the Railways may therefore be larger; for this reason, as also the fact that commuter journeys, specially in peak hours, are performed in conditions of severe over-crowding, a larger concession may be justified.

10.12 . Then, what should be the extent of <sup>the</sup> concession? A uniform concession of not more than 50 per cent is the maximum that could perhaps be justified whatever the grounds offered in support of the concession. This would however imply that, at all distances, the season ticket fare should be equal to the fare for 25 single journeys. While such a proposal is not impracticable for comparatively short distance commuters as the actual absolute amount of increase would not <sup>be</sup> very large, for longer distances the increase would be so large that it would be difficult to get it accepted. There is no evidence to show that people living at longer distances from the place of their work are relatively better off than those living nearer. It would seem that they stay far away from their workspot because they are unable to afford housing in the Central Business District even if it were available, although some of those who live very far away, say, beyond 100 km., from their workspot seem to do so because they have some special facility (as for example own house) where they live or a compelling reason (as for example spouse working in the neighbourhood) for living there. It is possible, however, that a steady and persistent policy of increasing season ticket fares to bring them to this level could be pursued in such a manner that in the course of five or ten years the season ticket fares could be brought to this level. We suggest that the Government may consider if this objective can be achieved in the course of a decade or so. In the meantime an alternative solution to the problem has to be thought of, and this will have to provide for suitable tapering in the per kilometre rate with the increase in distance.

10.13 Proposed Season Ticket Fare Structure for the Near Future:- After examining various alternatives, we have come to the conclusion that the most suitable MST fare structure (both on Suburban and Non-suburban section) for the near future would be to charge for 24 single journeys upto five kms and keep on reducing the number progressively till we reach 10 single journeys at 101 kms onwards. Table 10.05 shows the amount chargeable on this basis for second class and the increase in the proposed fare over the fare structure envisaged in our Interim proposal.

Table 10.05

Distance	No. of single journeys to be charged	Proposed MST fare	Increase over RTEC's interim proposal
kms.	No.	Rs. P.	Rs. P.
1-5	24	12.00	2.00
6-10	23	15.00	2.00
11-15	22	19.80	3.80
16-20	21	24.20	5.20
21-25	20	28.00	7.00
26-30	19	31.40	8.40
31-35	18	34.20	9.20
36-40	17	36.60	9.60
41-45	16	38.40	9.40
46-50	15	39.80	8.80
51-60	14	42.00	8.00
61-70	13	45.50	8.50
71-80	12	48.00	8.00
81-90	11	49.50	6.50
91-100	10.50	52.75	6.75
101-110	10.00	55.00	6.00
111-120	10.00	60.00	8.00
121-130	10.00	65.00	10.00
131-140	10.00	70.00	12.00
141-150	10.00	75.00	14.00

The taper in this proposal is as sharp as it could reasonably be considering all the circumstances of the case.

10.14 Assuming that MST fare structure suggested in our Interim Report will be fully implemented in terms of para 10.08 above from the summer of 1980, we would suggest that fare structure proposed above should be introduced from April, 1982 at the latest. Thereafter, the number of single journey fares to be charged as MST fares should be increased gradually so that by the end of the 80's at the latest the MST fare is equal to 25 single journey fares at every distance as envisaged in para 10.12 above.

10.15 Weekly Season Ticket:- While the Railways have gone to the extreme of issuing quarterly season tickets, they do not seem to have thought of issuing weekly season tickets. A large number of people come to metropolitan cities and other cities like Ahmedabad, Kanpur, Pune or Bangalore, for a few days and they travel in the trains serving commuters. Such a casual visitor would not obviously like to pay the price of a season ticket for a month while he is in the city only for a few days. We would suggest that the Railways may introduce a weekly season ticket at half the price of a monthly season ticket. To start with, this may be tried in the metropolitan cities of Bombay, Calcutta and Madras.

10.16 First Class Season Ticket Fares:- From April 1979, First class season tickets are priced at four times the Second class season tickets. In our view, no change is required in this arrangement.

10.17 Season Tickets for Students:-

(a) In Bombay and Madras, students are charged 50 per cent of the normal season ticket fare whereas in Calcutta they are charged -  $66\frac{2}{3}$  per cent. We recommend that students should be charged 50 per cent of the normal season ticket fare throughout the country.

(b) Under Rule 243.2 of I.R.C.A. Coaching Tariff No.22, Part I, (Vol.I), concessional season tickets to students can be availed by students of recognised educational institutions upto the age of 25 years, except in the case of the following categories where no age limit is applicable:-

- (1) Lady students;
- (2) Students of -
  - (a) Engineering institutes/colleges
  - (b) Medical colleges
  - (c) Law colleges
  - (d) Dental colleges
  - (e) Tata Institute of Social Sciences, Bombay
  - (f) Bombay Labour Institute (Govt. of Maharashtra)
  - (g) Veterinary colleges
- (3) Articled Clerks attached to practising Chartered Accountants for obtaining practical education.

We see no socio economic justification for making exception in the above cases which are apt to be misused and recommend that only students upto the upper age limit of 25 years should be entitled to season tickets at students' concessional rates.

(c) In our view, students' concession should be allowed to only full time students. Wage earners who are studying only part time in a day or night institution should not be eligible for students' concession.

10.18 Quarterly Season Tickets:- In para 8.36 of Chapter VIII of our Interim Report, it was recommended that quarterly season tickets should be charged three times the M.S.T. fares instead of charging 2-1/2 times, as at present, pointing out that our survey had shown that quarterly season tickets are generally purchased by the upper income groups who can afford to lay out the price for the whole quarter at one time. The facility is a great convenience to the higher paid and not really to the lower paid commuters and the saving to the Railways arising out of issue of such ticket, instead of monthly season ticket, is negligible. There is no justification for continuing it, and accordingly we reiterate our proposal.

10.19 Season Tickets for Distances Beyond 150 kms:- It was recommended in our Interim Report\* that, pending detailed examination of the question, issue of season tickets between pairs of points more than 150 kms apart should be continued where the facility has been enjoyed in the past. The issue has since been examined in detail and it is felt that, as the commuters have been used to this historical facility, it may be continued.

10.20 The basis of charge for Monthly Season Tickets for such pairs of points needs specific consideration. We have already stated in paras 10.06 and 10.07 above that our interim proposal for season tickets given in Chapter VIII

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\*See para 8.28, Chapter VIII of our Interim Report.



of the Interim Report was only partially implemented in April, 1979. We have also recommended in para 10.08 that our interim proposal should be implemented in full as the next step in the phased development of a rational season ticket fare structure. In our interim proposal, we had suggested<sup>†</sup> that the fare for second class MSTs at 141-150 kms should be Rs.61/- and thereafter Rs.4/- should be added for each subsequent slab of 10 kms. In actual fact, under the revised fare structure introduced from 1.4.1979, the MST fare for 141-150 kms was fixed at Rs.47.30 and subsequently only Rs.2/- was to be added for every 10 km slab. Hence, as the next step, the proposal for charging Rs.4/- per 10 km slab after 150 kms should be implemented from the date on which the fares for distances upto 150 km are raised in terms of para 10.08. Later on, when the proposal for charging 24-10 single journeys given in para 10.13 is implemented, the MST fare for such pairs of points should be 10 single journeys at Mail/Express fares for all distances beyond 150 kms. When the ultimate proposal of charging 25 single journey fares at every distance, as proposed in 10.12 and 10.14, is implemented, the basis of charge for over 150 kms. should be 25 single journey fares at Mail/Express fares. The justification for charging at Mail/Express fares is obvious - for such long distance journeys, the commuters invariably use Mail/Express trains.

10.21 Vendor tickets:- (a) The facility of vendors' monthly tickets is available between pairs of stations where season tickets are issued. To facilitate milk and vegetable vendors to carry their products for sale to the town, concessional tickets at 1-1/4 times the corresponding M.S.T. fare, known as "Produce Vendors Monthly Ticket", are issued in lieu of the usual M.S.T. 60 kg perishable goods are allowed to be carried free on this ticket in outward direction and 15 kg in the return direction. The charge was

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<sup>†</sup> See para 8.32 of our Interim Report.

fixed when free allowance of luggage allowed on an M.S.T. was 35 kg in Second class. In 1975, the free allowance was reduced to 10 kg. for Second class M.S.T. but no change has been made in the basis of charge of the vendors' ticket.

Zonal Railways have generally recommended increase of charges for 'Produce Vendors' Tickets'. The Commercial Committee consisting of all Chief Commercial Superintendents had earlier recommended in 1976 that, keeping in view the reduced free allowance and other relevant factors, the charge of 'Produce Vendors' Tickets' should be kept at twice the M.S.T. fare for the corresponding distance. Having examined this proposal from various viewpoints, including the amount which the vendor would have to pay if he booked his wares at the applicable parcel rate, we find ourselves in agreement with the resolution of the Commercial Committee and recommend that 'Produce Vendors' Monthly Ticket' should be charged at twice the applicable M.S.T. fare.

(b) On Central and Western Railways certain special varieties of vendor monthly season tickets have been in vogue historically under local instructions. Their charges may be revised locally by the Zonal Railway Administration keeping in view our recommendations in the preceding paragraph.

#### Platform Ticket

10.22 (a) The price of a platform ticket is normally, and understandably, the same as the minimum fare for the lowest class. Accordingly, the price of a platform ticket may be increased from 30 paise to 50 paise. (It should be made clear in the rule that children of fare paying age are not entitled to any concession in the price of <sup>a</sup> platform ticket).

(b) Railways also issue platform permits (which enable the holder to enter the platform without having to buy a platform ticket on each occasion) to persons whose business necessitates daily admission to platforms. The monthly charge for a platform permit is Rs.8/- for large stations and Rs.4/- for other stations which is equal to the cost of, say, 27 and 13 platform tickets

respectively at the existing rates. It may be left to the Railways to fix the charge for platform permits, taking into account all relevant considerations, subject to the condition that the charge for the monthly permit should be equal to the cost of at least 20 platform tickets. However, the existing provision for the issue of platform permits to the press representatives and newspaper agents at quarter of the normal rate may be deleted - it does not seem right for the Railways to subsidise <sup>particular</sup> business expenses. (see also para 10.64)

#### Journeys by the Normal and Reasonably Direct Route

10.23 Single Journey:- Tickets are ordinarily issued by the normal and reasonably direct route and are available for completion of journey only by that route. There is, however, no definition of the term "normal and reasonably direct" route in the Commercial Manual or Coaching <sup>@</sup>Tariff where the term has been used. This is liable to cause confusion and difficulty where a station does not consider the route selected by the passenger to be the "normal and reasonably direct" route. Secondly, where there are alternative reasonably direct routes, the passenger can travel by any route he selects irrespective of how much longer it is than the shortest route and still get the benefit of telescoping of the fare. It may be explained here that, under our telescopic fare structure, the rate per km decreases as the length of journey increases. In the circumstances, in the interests of simplification and equity, it may be laid down that "normal and reasonably direct" route is the shortest route or any longer route the distance by which does not exceed the distance by the shortest route by more than 15 per cent.

10.24 Return Journey:- A return journey is treated as two single journeys. Each half of the ticket is issued by the normal or a reasonably direct alternative route and charged for on the distance of that route. This is reasonable. Under the definition of the normal and reasonably direct route suggested above, each half of the ticket will be issued by the shortest route, or any alternative route selected by the passenger the distance by which does not exceed the distance by the shortest route by more than 15 per cent, and charged by the route travelled.

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<sup>%</sup> Para 251 Indian Railways Commercial Manual Vol.I

<sup>@</sup> Rule 206 IRCA Coaching Tariff No.22 - Part I

Circular Journeys

10.25 Consolidated Ticket:- A passenger who wishes to travel by other than the normal and reasonably direct route has to buy separate tickets for each segment of the journey. However, if permitted by the Divisional Office of the Railways, he may be issued a ~~consolidated~~ ticket for the entire journey by the circular route selected by him. Such a ticket, popularly known as Consolidated ticket, may be for a single journey or a return journey. The fare on a Consolidated ticket is charged on the continuous distance of the entire trip and, under our telescopic fare structure, the rate per km decreases as the length of the journey increases. A passenger travelling on a Consolidated ticket will, therefore, pay less per km (and sometimes also in the total) than what he would have to pay on a point-to-point basis. Two examples, the first relating to a single journey and the second to a round trip, are given in table 10.06; fares are for second class Mail/Express (existing).

Table 10.06

Nature of ticket	Route	Distance km	Fare Rs.	Total	Fare
				fare Rs.	per km Paisa
<u>New Delhi-Bombay-Madras</u>					
Two single journey tickets	New Delhi-Bombay	1384	52.30	102.05	3.82
	Bombay-Madras	1285	49.75		
		<u>2669</u>			
Consolidated ticket for entire journey	New Delhi-Bombay- Madras	2669	-	85.60	3.21
Difference				16.45	0.61
<u>Delhi-Pune and back</u>					
Ordinary return ticket by normal route	Delhi-Mathura-Agra-	1734	62.10	124.20	3.58
	Bhopal-Itarsi-Bombay-	1734	62.10		
	Pune & back.	<u>3468</u>			
Consolidated ticket by circular route	Delhi-Ratlam-Indore-	2019	-	117.25	2.90
	Vadodara-Ahmedabad-	2019	-		
	Bombay-Pune & back	<u>4038</u>			
Difference				6.95	0.68

10.26 Circular Tour Tickets:- Railways also issue Circular Tour tickets for standard itineraries as also itineraries suggested by intending passengers, for distances of 2400 kms and over, at 15 per cent less than the tariff rate on continuous distance basis. These tickets are issued only when the following conditions are satisfied:-

- (a) The ticket is from and to the same station.
- (b) Itinerary is circular in form and not merely a return journey by the same or alternative route.
- (c) The total chargeable distance for the tour is not less than three times the chargeable distance between the originating station and the farthest station in the itinerary by the shortest route.

The period of availability of the tickets is 30 days or 60 days or 90 days according as the distance covered is upto 3000 kms, 5000 kms or longer.

Break of journey is permitted as often and for as long a period as desired at any intermediate station on the route of the tour, provided that no part of the route shown on the ticket is traversed more than once, except where provided for in the itinerary, and that the period of availability of the ticket is not exceeded.

10.27 The holder of a Circular Tour ticket is not only charged on continuous (through) distance for the entire tour but allowed a further reduction of 15 per cent on such fare. This combined with the long distance covered by such tours (Northern Railway's standard circular tour No.11 extends to 10,405 kms) results in the passenger travelling on such a ticket paying much less per km than the passenger who pays for the same tour on point-to-point basis. The basis of charge for these tickets also create many more anomalies than those noticed in the case of Consolidated tickets (para 10.25 ~~is~~ above). Sometimes, the Circular tour fare works out to even less than the return journey fare by the normal route between the farthest stations in the itinerary. An example

is given below:-

Western Railway's Standard Tour No.31

Jaipur-Kishangarh-Sojat Road-Ahmedabad-Vadodara-  
Bombay Central-Virangan-Rajkot-Virpur-Porbandar-  
Junagadh-Keshod-Veraval-Jetalsar-Dhanduka-  
Ahmedabad-Jaipur.

The chargeable distance for this tour is 3383 kms. and the second class fare Mail/Express is Rs.87.40 (Rs.102.05 minus 15%). The farthest station in the itinerary from Jaipur (the originating station) is Bombay Central and the distance between these stations (via Ahmedabad) is 1118 kms. The single journey second class Mail/Express fare for this distance is Rs.45.50 and the return journey fare ex. Jaipur to Bombay Central and back at two single journey fares would therefore amount to Rs.91.00. Thus, while paying less than the normal/return journey fare between Jaipur and Bombay, the person undertaking this circular tour can not only travel between Jaipur and Bombay but also visit 14 other places travelling an additional 1147 kms.

10.28 Genesis of Consolidated Tickets & Circular Tour Tickets:-

Consolidated tickets were introduced as a convenience to the passengers. The intention was merely to save the passenger, who wished to travel by a circular route the botheration of buying enroute separate tickets for each leg of the journey, which would otherwise have been necessary, and to enable him to make advance reservations. There is nothing to show that it was intended to give him the benefit of telescoping of the fare on the continuous (through) distance of the entire journey; in fact, till 1971, Central, South Eastern, Southern and Western Railways were charging such passengers on the point to point basis. Circular Tour tickets appear to have been introduced as a measure of promoting internal tourism and have all along been given the benefit of charge on continuous (through) distance. In the present state of overcrowding in trains, however, the need of the hour is less travel and not more travel. As shown in the following para, both Consolidated tickets and

Circular·Tour tickets are being used mainly for travel for business purposes or otherwise at employers' cost, and there is no social ground for subsidising such travel.

10.29 Rationale of Telescoped Fares:- Telescoping of fares is justified by the economies inherent in the longer journeys; and the ultimate capacity of the passenger to pay the fare. Cost of transport can decrease as the distance increases only if the passenger travels by the same train, which is the unit of cost. This is not possible on a Consolidated ticket or a Circular Tour ticket. Regarding the capacity of passengers to pay, in 1977-78, 1694 Consolidated tickets (702 1st Class, 992 2nd Class) and 37,223 Circular Tour tickets (11,664 1st Class and 25,559 2nd Class) were issued by seven Railways from whom information could be obtained. The Railways have stated that these tickets are mainly utilised by self-employed businessmen and sales representatives of large firms, and to some extent by Government servants availing of LTC, tourists and others going on pilgrimage etc. Central Railway has stated that 90 per cent of the journeys on these tickets are undertaken for business purposes and only 10 per cent for other purposes. It would thus appear that circular journeys are generally undertaken at business or employer's expense.

10.30 Proposed Circular Journey Tickets:- The system, therefore, needs reform. We recommend that, in future, all circular journeys should be governed by the following provisions:-

- (a) All journeys other than those by the normal and reasonably direct route will be deemed to be circular journeys, and such journeys will be undertaken on Circular Journey tickets which will replace both the Consolidated tickets and Circular Tour tickets in vogue at present.
- (b) A circular journey will be charged for as two single journeys, the length of each single journey being taken as half the total distance. The following two examples illustrate the basis of charge:-
  - (i) In the case of the journey from

Delhi to Madras via Bombay (2669 kms) mentioned in para 10.25 above, the 2nd class Mail/Express fare to be charged will be Rs.102.10 which is double the fare (Rs.51.05) for half the distance (1335 kms).

(ii) In the case of circular tour<sup>(3383 kms)</sup> mentioned in para 10.27 above, the chargeable 2nd class Mail/Express fare will be Rs.122.30 which is double the fare (Rs.61.15) applicable to half the distance (1692 kms).

(c) All rules and regulations (including those for break of journey) applicable to Ordinary tickets will also apply to Circular Journey tickets.

The nomenclature of Circular Journey tickets will clearly distinguish these tickets for Circular journeys from Ordinary tickets for journeys by the normal and reasonably direct route. The per km revenue from circular journeys under the proposed basis of charge will also be nearer to that paid by passengers travelling by the normal and reasonably direct route. Finally, the basis of calculation of fare for circular journeys will be simpler than at present, and there will be no difference between Circular Journey tickets and Ordinary tickets in regard to the rules and regulations including that for break of journey.

10.31 Consolidated tickets and Circular Tour tickets (except for standard itineraries) can at present be issued only on the authority of the Divisional Office in the case of the former and Headquarters Office in the case of latter and, because of the cumbersome regulations governing these at present, it often takes a long time for the necessary authority to be issued. We hope that, with the simplification in the procedure for circular journeys suggested by us, the Railways will make arrangements for passengers intending to undertake such journeys to get their tickets speedily. Unless there are insuperable difficulties, at least the important stations should be authorised to issue circular journey tickets.



### Charge by Shorter Route for Journey by Longer Route

10.32 Where a passenger has a choice between several alternative routes one shorter than the other(s), he should logically be charged the fare appropriate to the route (distance) actually travelled. At present on 58 sections on the Eastern (27) Northern (23) and North Eastern (8) Railways the fare is charged by the shorter route even when the journey is actually performed by the longer route. For example, a passenger travelling from Delhi to Ambala via Meerut, Saharanpur and Jagadri (262 kms) is charged by the shorter route via Panipat and Karnal (198 kms). This practice which dates back to olden days, appears to have been introduced under the compulsions of inter-railway competition. It lost its economic raison d'etre when all railways became part of <sup>integrated common</sup> one/Government system over 40 years ago, but has somehow continued. That apart, the practice:

- entails loss of revenue to the Railways;
- results in certain anomalies in that the (distance related) fare to certain stations on the longer route short of the common destination is more than the fare to the common station, and this makes certain malpractices possible;
- creates invidious distinctions between different parts of the country since on comparable sections elsewhere the passenger is charged <sup>for</sup> by the longer route by which he actually travels.

In the circumstances, we recommend that on these 58 sections also the passenger should be charged by the route actually travelled.

### Uniform Fares for All Stations Serving an Important City

10.33 Our fare structure is based on distance. The fare for a journey therefore depends on the distance between the originating and the destination stations. Sometimes the fares to adjoining stations, situated within a few kms of each other, are different. For example, <sup>the</sup> Second class express fare from

Bombay Central is Rs.52.30 to New Delhi (1384 kms) and Rs.52.45 to Delhi (1388 kms).

10.34 In some cases, as in the example given above, the adjoining stations serve the same city. In these cases, passengers face genuine difficulty in buying tickets to the correct destination as they may not be fully aware of the relative location of different stations or because of the deceptive similarity in the names of the stations. In such cases, a passenger is liable to be penalised if the fare for the station at which he detrains is higher than that for the station for which he holds the ticket. For example, if a passenger holding a ticket from Bombay Central to New Delhi goes past New Delhi and gets down at Delhi, he is liable to be charged the difference in the fare (Rs.0.15 for second class Mail/Express) plus a penalty (Rs.10/-). This situation results in inconvenience to, and sometimes harassment of, the passengers. A number of railways and passenger associations have suggested to us that uniform fares should be charged to all stations which serve an important city in order to avoid difficulties of the kind explained above which passengers experience at present.

10.35 Short distance passengers would generally be familiar with the geography of the city to which they are travelling and the names of different stations in the neighbourhood and would thus generally buy the ticket for the particular station to which they wish to travel. The problem would, therefore, normally arise only in the case of long distance passengers or passengers coming from beyond, say, 300 kms. We have suggested elsewhere that fares beyond 100 kms should be charged on the basis of distance stages of 5 kms upto 300 kms., 10 km between 301 and 1000 km., 25 km between 1001 and 2500 km., and 50 km thereafter. This should solve the problem in quite some cases. It may, however, still happen that of the two or three stations involved, one falls in one distance stage and another in the next distance stage and in such cases the fare for the two stations concerned will still be different.

10.36 The practice of charging uniform fare in such cases is already in vogue in a few cases. Thus <sup>the</sup> Southern Railway

charges the same fare for Bangalore Cantt. and Bangalore City for traffic from Madras coming via South west line. What is needed is a two fold extension of this practice. First, it should be extended to tickets to all important cities in the country which are served by more than one station. Second, all stations situated beyond, say, 300 kms from these cities should charge the same fare in each such case. As already explained, the problem of buying a ticket for, or detraining at, the wrong station arises generally only in the case of long distance passengers. Passengers coming from within, say, 300 kms can reasonably be expected to know the exact station they wish to travel to. The distance for charge could be the distance to the farthest station, or the nearest station, or the principal station in the city, or the mean distance of all these stations. In our view, the fare should be charged to the principal station in each case. (e.g., Bombay Central or Bombay VT as the case may be in the case of Bombay.) If the system is to have any practical value, it is necessary that the passenger should be fully aware that his ticket is valid not only for the principal station of the city but also <sup>for</sup> the other stations serving it. Accordingly, either (a) the names of all the stations in question should be shown on the front of the ticket, or (b) the ticket may show the name of only the principal station but the back of the ticket should contain a remark "also valid for.....stations").

10.37 The question of uniform fares for all stations serving an important city arises only in the context of the inward traffic as explained above; outward passengers from the city would not face any difficulty if the fares for different stations serving it are different. However, it would be odd if the fares between a pair of points are different for inward and outward journeys and, therefore, it is necessary that the same fares be charged for a journey in either direction. Accordingly, wherever the system of uniform fares for stations serving an important city is introduced, the uniform fare should apply to both inward and outward traffic.

#### Provisions applicable to children

10.38 Children "five years of age and under" are carried free and children "over five and under 12 years" of age are charged

half fare. The lower age limit was three years until 31.3.1979 and was increased to five years from 1.4.1979 to commemorate the International Year of the Child. We find it difficult to understand the connection between the age limit for free travel and the objectives of the International Year of the Child. The increase in the age limit of free travel is also bound to affect the revenues of the Railways; adequate data regarding the impact of the change is however not available.

10.39 The rules do not guarantee accommodation to a passenger except where a seat/berth is reserved and a seat/berth may be reserved for a child only if he holds a child's ticket. Thus a child travelling free by reason of age is expected to ride in the lap of or sleep with the adult with whom it is travelling. Even a mother can perhaps conveniently carry only a babe-in-arms or a child under, say, three years in this way, especially on a long journey, and the average second class express journey (323 kms) would extend over eight hours. The problem would be accentuated if she is accompanied by more than one child under the fare paying age -- and this is possible if the age limit is as high as five years -- or the child is travelling in the company of an older child over 12 years of age and not an adult as such. Besides, in the case of older children there can always be an argument, between the person in whose company the child is travelling and Railway officials, as to whether the child is within the free age limit or not.

10.40 The State Road Transport Corporations generally carry children upto three years of age free and charge half fare for older children upto 12 years. On Airlines, a child under two years is charged 1/10th fare, and for a child between two and 12 years a half ticket is required. The position in this regard on some of the Railways abroad is as shown in Table 10.07.

Table 10.07

Area	"Free" under				"Half fare" under			
	2 years	3 years	4 years	5 years	7 years	10 years	12 years	14 years
North America	USA			Canada			USA Canada	
Western Europe		Spain U.K.	France Germany Italy		Spain.		France Germany Italy	U.K.
Eastern Europe			Poland Hungary Yugos- lavia		Poland Hungary		Yugos- lavia	
			USSR Czechos- lavakia Rumania		USSR Czechos- lavakia Rumania			
Africa		Egypt				Egypt		
Asia		Iraq				Iraq		

It will be seen that our revised age limit of five years for free travel is higher than that generally prescribed elsewhere, while the age limit of 12 years for half fare is more or less the same as that of others.

In the circumstances explained above, we consider that the status quo ante should be restored and the age limit for free travel reduced to three years. While making this change, the internal disharmony in the wording of the existing rule should be removed. Since the upper age limit is under 12 years, the lower age limit should be under three years and not "three years and under".

There is an ancient rule\* in the tariff in regard to attendants travelling in sole charge of children. (It dates back to at least 1929). The conditions in which the rule was made have changed greatly and hardly exist at present. It is not necessary to have this provision any longer and the rule may therefore be deleted.

\*Rule 241, I.R.C.A. Coaching Tariff No.22, Part I, Vol.I.

Break of Journey

10.41 A passenger holding a journey ticket for a distance of more than 320 kms is permitted to break journey at any station on the way at the rate of one day for every 160 kms or part thereof. For example, a passenger holding a ticket for 1000 kms may break his journey enroute at any one station for six days or at six different stations for one day each. The first break of journey can be made only after a distance of 240 kms has been travelled; however, a passenger detraining enroute within 240 kms for catching a connecting train is not treated as having broken the journey provided he resumes the journey within 24 hours. Sample checks conducted by us have shown that the facility is availed of very infrequently.

10.42 The distance limits of 320 kms, 240 kms and 160 kms mentioned above are the metric equivalents of 200 miles, 150 miles and 100 miles laid down long ago. In the light of the existing pattern of traffic, we suggest that these odd figures may be rounded off<sup>+</sup> to 400 kms, 300 kms and 200 kms respectively.

10.43 The rules provide that a passenger breaking his journey must get his ticket endorsed by the staff of the station where the journey is broken. In case a journey is broken but the ticket is not so endorsed, the passenger travelling on such a ticket will be considered as travelling without ticket. In practice, compliance with this rule causes a lot of inconvenience to the passenger and the procedure therefore needs to be simplified. It is suggested that a passenger wishing to break journey enroute may be enabled to buy a "Break of Journey" ticket (showing particulars of the journey ticket and place at which the passenger wishes to break the journey), at a nominal price of, say, Re.1/- along with his journey ticket, at the starting station, and allowed to break journey enroute on the authority of that ticket, thus obviating the bothersome need for getting the journey ticket endorsed at

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+ Similar action may also be taken in other such cases of which there are a number.

the stopover point. A Break of Journey ticket should not of course be issued for a station short of the one for which the passenger has reserved accommodation or a concession ticket (para 10.55(f) or hill return ticket (para <sup>10.63(c))</sup> on which break of journey is not permissible.

### Mela Specials

10.44 On the occasion of Kumbh Mela, Railways run hundreds of special trains to carry the over-flow of traffic. In the past, passengers travelling by such specials have been charged Ordinary train fares in each case. Ordinary train fares are applicable to short distance trains which run at slow speed, stopping at road-side stations. Some of the specials, however, cover relatively long distances and are run at more or less Mail/Express speeds, skipping halts at most if not all the road-side stations; passengers travelling by such fast mela specials could be appropriately charged Mail/Express train fares. It may be mentioned here that the Railways have to spend a lot of money on the infrastructure required for dealing with mela traffic. In the circumstances, we consider that fares for mela specials should not be automatically charged at Ordinary train rates; Mail/Express train fares should be charged where justified.

### Refund of Fares etc. on Unused Tickets

10.45 The existing rules for refund of fares etc. on unused tickets, as amended in December, 1979, are by and large reasonable. We have, however, two amendments to suggest.

- (a) In the case of all trains other than Rajdhani Express, when a ticket on which a reservation has been made is surrendered less than six hours before the scheduled departure of the train and upto twelve hours after its actual departure, the cancellation fee charged is 30 per cent of the fare subject to certain minima and maxima, and for this purpose the fare includes not only the basic fare but also the supplementary charges for superfast trains and for second class sleeper

coaches. In principle, the fee for last minute cancellation or non-utilisation of reserved accommodation in superfast trains and sleeper coaches, which are more popular, should be higher than that for other trains and general service coaches. That apart, it has been brought to our notice that the present scale of cancellation fee in these cases leads to certain malpractices, the scope of which would be reduced if the fee is enhanced. Accordingly, we propose that in these cases the supplementary charges for superfast train and/or second class sleeper should not be refunded at all, i.e., the cancellation fee should be 30 per cent of the basic fare (subject to the prescribed minima and maxima) plus the superfast surcharge and/or sleeper charge, as the case may be.

- (b) Certain important stations have been authorised to issue tickets for journeys commencing from other stations. For example, Bombay Central can issue a ticket for a journey from New Delhi to Bombay Central, and Ajmer can issue a ticket from Vadodara to Anritsar. In some cases the issuing station (Bombay Central in the example given above) can also make confirmed reservation for the journey against a quota provided to it for this purpose. In other cases, the passenger gets reservation from the starting station or the train originating station under the normal rules. It may be that such a passenger cannot perform the journey. In that event he cannot get refund on his unused ticket from the starting station, as the rules provide that refund on an unused ticket can be granted only by the station which issued the ticket. It would however be reasonable for the refund to be granted by the station from which the journey is to commence,



at least where the cancellation of the journey is due to the fault of the Railway.

The refund rules already permit refund by stations other than the stations issuing the tickets, under the following circumstances:-

- (i) discontinuance of journey due to late running of trains and consequent missing of connections - refund can be given by the Station Master of the junction station;
- (ii) discontinuance of journey due to dislocation of train services - refund by the station at which the journey is terminated;
- (iii) failure of air-conditioning equipment - refund at the destination station on production of the necessary certificate issued by the Conductor;
- (iv) when passengers are compelled to travel in a lower class - refund at the destination station on production of a certificate from the Conductor or Guard.

In view of the foregoing, we recommend that a passenger who is unable to perform the journey for which he bought the ticket from another station, may be granted refund by the station from which the journey is to commence provided that the journey is cancelled for any of the following reasons:-

- (a) the train is cancelled or is running late by more than three hours;
- (b) where the ticket is for air-conditioned accommodation, the air-conditioning equipment fails and he is unwilling to travel in another class;
- (c) he has been given confirmed reservation for the journey, either by the ticket issuing office against its quota or by the starting or train originating station, but finds on arrival at the starting station that he has not been provided reservation.

Indrail Pass

10.46 Indrail Passes were introduced in June, 1977 as a tourist promotion measure. The fares were revised upward in February, 1979. The passes can be purchased not only by foreigners as such but also by Indians living abroad while they visit this country, but the price has to be paid in convertible foreign currency. The pass is good for unlimited travel on all trains (on which accommodation of the class for which the pass is held is provided) and this includes the Rajdhani Express. No extra charge is levied for reservation, sleeper (in Second Class), superfast trains, and meals in Rajdhani Expresses. The scheme has proved to be a success. In the three months' period June-August 1979 (Off season), 3494 passes were sold for a total of US \$ 2,03,749.

10.47 Indrail pass makes travel easier for tourists and this is the basic reason why it has been introduced. Development of tourism can bring large benefits to the country - not only in terms of earning foreign exchange (which should be welcome even if we are not so short of it now as we used to be) but also in terms of tourism's spin-off benefits in generating employment, income and in the transformation of the local economy; it also generates international good-will. Transport plays an important development role in furthering tourism and it is right that the railways should recognise this and do their bit in the matter.

10.48 In view of the foregoing, we should continue to make this facility available to tourists. The pass should, of course, be sold at an economic price. Our fares are very low in comparison with what the majority of tourists are used to paying in their countries (even for bus travel), and will remain so even after the increase in the fare level we are proposing. Tourist Agencies have told us that the price of Indrail Pass could be raised without detrimental effects on tourism. The existing price could therefore bear an increase.

10.49 The first class/A.C. Chair car pass for 30 days seems to be the most popular. In a month a tourist is unlikely to be able to perform more than, say, nine journeys of 700 kms each and it would be proper to charge for these (at Mail/Express fares

for first class) on a point to point basis. Assuming that seven journeys would be performed in first class and two in A.C. Chair car and some of these would be in superfast trains, and allowing for reservation fees, the price of a one month first class/A.C. Chair car pass may be fixed at US \$ 150.00. The price of an A.C.C. pass should be double, and of a second class pass 44 per cent, of the first class pass. A 7-day pass will be priced at 53%, 14-day pass at 66.66%, 21-day at 80%, 2 months at 150% and 3 months at 200% of the price of corresponding one month pass, the fare being rounded off suitably. Table 10.08 shows the proposed rates in comparison with the existing rates.

Table 10.08

Existing				Proposed			
Period	A.C.C.	First class/AC Chair car	Second Class	Period	A.C.C.	First Class/AC Chair car	Second Class
7 days	80	40	15	7 days	160	80	35
14 "	120	60	25	14 "	200	100	45
21 "	160	80	30	21 "	240	120	55
30 "	190	95	40	One month	300	150	65
60 "	260	135	60	Two months	450	225	100
90 "	300	165	75	Three "	600	300	130

#### Concession in Fares, etc.

10.50 Indian Railways allow concession in fares to various categories of passengers like students, Scouts and Guides, N.C.C. cadets, sportsmen and artistes, T. B. and Cancer Patients, Orthopaedically handicapped persons, blind people, kisans and industrial workers, delegates to conferences, etc. These are listed in I.R.C.A. Coaching Tariff No.22, Part I, Vol.II. Statement 10.2 shows in summary form particulars of the persons, etc., eligible for the concession, circumstances in which the concession is admissible, nature/element of concession, etc.

10.51 Volume of traffic:- It has been estimated by the Railways, by a study of the concessions granted in April - June 1977 and in April - June 1978, that the total value of these concessions amounts to about Rs. five crores per year. Table 10.09 shows the categorywise details of the value of concessions. Students - mostly over 12 years old - are by far the biggest beneficiaries; concessions availed of by them accounted for over

80 per cent of the total revenue foregone.

Table 10.09

S.No. of concession entitled in the Tariff	Category	Amount foregone during April to June 1977		Amount foregone during April to June 1978 on C, S, SC & NF Rlys.	
		Amount(Rs.)	%age	Amount(Rs.)	%age
4, 4-A, 4-B, 4-C, 5, 6, 6-A, 6-B, 6-C and 7	Students	1,07,64,822	87.44	42,26,756	74.93
1, 2	Sportsmen	1,57,122	1.28	1,53,993	2.73
3	Artistes	1,47,906	1.20	2,85,407	5.06
9	NCC Cadets	2,06,181	1.67	1,51,683	2.69
11	Blind	1,76,775	1.44	1,05,196	1.86
12	TB Patients	2,31,263	1.88	93,405	1.66
13	Cancer Patients	2,29,280	1.86	1,75,738	3.12
14	Scouts	28,074	0.23	9,710	0.17
19	Kisans	31,084	0.25	7,968	0.14
20	Nurses	1,43,563	1.17	99,455	1.76
21	Teachers	72,414	0.59	90,109	1.60
22	Conferences	19,865	0.16	1,62,468	2.88
29	Handicapped	8,938	0.07	5,586	0.10
30	Leprosy Patients	91,220	0.74	73,805	1.31
	Total	1,23,11,112	100.00	56,41,279	100.00
Estimated Total for a year.		4,92,44,448	--	5,15,36,356	--

Statements 10.3 to 10.6 analyse the concession orders exchanged for tickets at certain stations by the category/age of the beneficiary, distance travelled, etc. It will be seen that generally the concession is availed of by adults in second class and the journeys cover relatively long distances.

10.52 Comparison with other Railways etc.:- None of the concessions are granted on commercial considerations. We also find that Indian Railways are more liberal than other transport agencies in granting concessions. Railways abroad generally allow concessions on social grounds to only the blind, the physically handicapped and elderly citizens; some Railways also give limited concessions to students

and circus parties. They have concessional tariffs for party travel but these are normally based on commercial considerations.

10.53 Committee on Social Burdens:- The Railway Convention Committee, 1973, observed that the Railways give concessions to students, sportsmen, artistes, blind persons, Defence personnel, etc. and recommended that, while such travel concessions may continue, the Railways should be reimbursed the cost thereof and, with this end in view, the necessary financial arrangements may be worked out by the Government. The matter was subsequently examined by the High Level Committee on Social Burdens set up by the Railway Board. Relevant extracts from the Committee's report (January 1979) are reproduced below:

"The Railways also incur substantial losses as a result of various travel concessions, which include concessions to students, teachers, kisans..... These concessions date back to a period, when the railways wanted to attract passenger traffic by giving various concessions so that the accommodation on the trains was fully utilised. In the present situation when there is over-crowding in most of the trains, giving of concessions appears anamolous. Without passing any value judgement on the need for subsidy for any specific group the committee are of the view that these subsidies should not be given by the Railways and having considered all aspects the Committee feel that all such concessions should be abolished. In case any subsidy in the case of travelling of any of these categories is considered desirable on broader socio economic consideration it will be more appropriate if these are provided by the concerned department/organisation such as Agriculture, Labour, Community Development, Education etc.

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As regards travelling concessions to Kisans, industrial labour etc., the Committee recommend that these concessions should also be immediately withdrawn. The Railways do not have adequate coaching stock for running special trains and special bogies and even if they have such stock the exiguous resources should be utilised in dealing with the normal traffic.

The concessions to students and teachers, however, have a long history. The Railways encourage travelling among students so that they can see the country. The Committee recommend that this concession should be given only to such students and teachers as go on educational tours and not for travelling to their home towns and back to the place of their education. The concessions given to students at present for other than educational tours should accordingly be withdrawn.

The only concessions where continuation is justified in the view of the Committee are: concessions to Cancer patients,

T.B. patients, disabled and handicapped persons, leprosy patients, Red Cross and Nurses, NCC and Bharat Scouts & Guides going in parties or for camps."

10.54 General recommendations:- After examining the matter in all its aspects, we have come to the conclusion that while concessions may by and large continue to be granted to those eligible for it at present, the conditions on which the concessions are granted and the extent of the concessions should be modified to make the system more rational and to prevent abuse. As already stated, the principal beneficiaries are students. The other categories entitled for concessions include the blind, orthopaedically handicapped, cancer patients, boy scouts, girl guides, artistes, sportsmen, etc. We consider that these classes of our society need help and encouragement, and the magnitude of the revenue which has to be foregone as a result of the grant of concessions is not unbearably high. Considering the circumstances in which the concessions were introduced and the fact that most of them have been enjoyed for many decades, we do not think it will be practicable, even if it were entirely logical, to arrange for the cost of the concessions to be borne by other ministries.

10.55 In our view, the following basic changes should be made in the existing scheme of concessions:-

- (a) As a general rule, concessions should be granted only in Second Class. As an exception to this, however, the blind, orthopaedically handicapped and cancer patients, may be allowed concessions in higher classes also, as at present\*.
- (b) While students, the blind, orthopaedically handicapped and cancer patients may be allowed 50 per cent concession, the concession for all other categories should be limited to 25 per cent. No one should be allowed a concession of more than 50 per cent of the basic adult fare in any case. Wherever a larger concession is allowed at present, the rule should be amended suitably.

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\* The existing rule (Rule No.233, IRCA Coaching Tariff No.22, Part I, Vol.I permitting a concession holder to change his ticket to a higher class by paying the difference, treating the concessional ticket as a fully paid ticket, should be amended to allow this facility only to these three categories and they may be granted the facility in respect of AC Chair Car class also.

- (c) The concessions listed at S.No.6-B(3)(4), S.N.6-C(2)(3)(5), S.N.8, S.N.16 and S.N.18 of IRCA Coaching Tariff No.22 - Part I (Volume II), which have remained suspended since 1966 in some cases and 1972 in other cases, should be discontinued.
- (d) Concession should not be granted for any journey, the cost of which is borne by the Central or any State Government or a local authority, or a Statutory body, or a Corporation, or a Government undertaking or a University.
- (e) The rules should spell out that the concession applies only in respect of basic fares, and no concession is admissible in other charges such as sleeper charge, supplementary charge for superfast trains and reservation fee. In practice these are charged extra but the rules are not specific on the subject.
- (f) Break of journey enroute should not be allowed on a concession ticket for a journey for a specific purpose, e.g., a student travelling to/from an examination centre, a cancer patient travelling to/from a hospital, a professor travelling to/from a conference. It should be allowed only in cases of round tour tickets for students and other similar cases where a break of journey would be a natural event.
- (g) To guard against misuse, the Railways should acquire authority to check the concession orders issued by a school/college or the issue of which has been recommended by an organisation, with the records of the school/college or the organisation concerned, to see that only those eligible for the concession have been issued concession orders/recommended for grant of the concession, and make some test checks from time to time in terms of this authority.

10.56 Students' concessions:- The conditions for grant of concession to students should be modified as follows:-

- (a) Students' concession should be admissible to only full time students in educational institutions recognised by the Government. Concession should not be admissible to students who are wage earners and are studying in any institution, including day or night institution, in spare time. Nor should it be granted to members of an institution like Balkan-ji-Bari which is not an educational institution.
- (b) Only students (including research scholars) upto the age of 25 years should be eligible for concession. In the case of Scheduled Castes and Scheduled Tribes, the upper age limit could be relaxed to 27 years.
- (c) To prevent misuse, rules should provide that a student availing of the concession should show his identity card (issued by his school/college or, failing that, the Post Office\*) to the booking clerk/TTE, if and when demanded. The identity card should show the student's home station; for this purpose, the term home station would connote any of the following selected by the student.
  - (a) native place of the student;
  - (b) the place where either of the parents or the guardian of the student normally resides;
  - (c) the place where either of the parents or guardian of the student is residing at the time.
- (d) Students' concession should be subject to a minimum distance limit of 100 kms, except in the case of travel in connection with educational tours in parties of not less than ten.
- (e) At present, students between five and 12 years of age travelling to sit for merit scholarship

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\*It is understood that Post Offices issue identity cards.



examination are granted concession only if their parents have a gross income of less than Rs.100/- per month and they travel at their own expense. These unusual restrictions should be removed and students appearing for merit scholarship examination granted concession on the same conditions as other students. They should also be entitled to escorts at concessional fares as in the case of other students.

- (f) The revised scale of escorts for students should be as follows:-

Girls - One escort for every four girls upto 12 years of age and one for every 10 girls between the ages of 12 and 25;

Boys - One escort for every four boys upto 12 years of age and one for every 10 boys of ages between 12 and 18 years.

However, the above scale will be subject to the condition that if a party of girls between the ages of 12 and 25 consists of at least four but less than 10, one escort will be still permitted at concessional rates.

- (g) The scale of attendants for parties of students on educational tours should be uniformly fixed at one for every 10 students irrespective of the fact whether they are local or foreign students.

10.57 Concessions for other categories:- The rules and regulations governing the grant of concessions to other categories may be modified in the light of the following:-

- (a) Athletes/Sportsmen:- While concessions now granted to athletes/sportsmen may be retained, no concession should be granted for participation in departmental tournaments of, say, Posts and Telegraphs Department, Indian Airlines, etc., which are open only to staff of those organisations.

- (b) Circus parties:- The luggage and property (including animals) booked by circus parties in separate vehicles should be charged for at half the public tariff rates for bulky parcels fully occupying a vehicle. The existing vehicle kn rates are much below cost; in any case it is not advisable to lay down concessional vehicle kn rates as the revision of such rates is apt to be overlooked when other rates are revised.
- (c) Artistes:- Amateur artistes (theatrical, music and dancing groups) are entitled to the concession only on the condition that:-
- (i) the specific performance is exempted from payment of entertainment tax; and
  - (ii) an undertaking is given that the performance will be given either free of any entrance fee or, if the entrance is regulated by the sale of tickets, the net sale proceeds will be donated to a recognised charity.
- There is no such condition attached to concessions granted to professional entertainment companies. In our view, these conditions should be made applicable to professional entertainment companies also.
- (d) Kisans & industrial workers:- Kisans are allowed 25 per cent concession when they travel one way but 50 per cent (separately on outward and inward journey) when they buy a return ticket. It is not clear why they should get more concession on return ticket. It is also not clear why industrial labour get the former concession (on single journey) but not the latter concession (on return journey). Both categories should be allowed 25 per cent concession on single or return journey.
- (e) Trainee nurses/wid-wives:- They should be granted concessions on the same conditions as other

students and not under the different conditions applicable to them at present.

- (f) Conferences:- In certain cases of concessions for attending conferences, the applicant is required to produce a certificate that his/her emoluments do not exceed Rs.1800/- per month. Imposition of such a condition is apt to result in submission of not entirely correct certificates, it should therefore be withdrawn.
- (g) Orthopaedically handicapped persons:- These persons should be granted concessions for all travel and not only for journeys on medical grounds; as at present.
- (i) Distance restrictions:- Except for the blind, orthopaedically handicapped and cancer patients, grant of concessions should be subject to a minimum distance limit of 400 kms. in each case.
- (h) Polo teams:- The horses booked by Polo teams should be charged for at half the public tariff rate for horses instead of at the special rates provided for the purpose at present which are inadequate and inappropriate.

10.58 Miscellaneous:- We have also to make the following suggestions in connection with the grant of concessions:-

- (i) The distance limit for travel in Mail/Express trains should be changed from the present odd figure of 480 kms to 500 kms.
- (ii) Second class Mail/Express fares are charged for travel in second class. After separate scales of fares are introduced for first class in Ordinary and Mail/Express trains, first class Mail/Express fare should be charged for travel in first class.

10.59 Concessions in freight charges:- In addition to the concessions in fares referred to earlier, in certain cases the Railways allow concessions in freight charges for carriage of certain articles by passenger trains and in some of these cases

no charge at all is made. We consider that nothing should be carried free; the concession should not exceed 50 per cent of the public tariff rate in any case; and the concessions should be subject to a minimum distance limit of 400 km.

#### Hill concession return tickets

10.60 In addition to granting <sup>the</sup> concessions mentioned in para 10.50, the Railways issue concessional return tickets at 1-1/2 times the single journey fare to certain hill stations. These were introduced in 1951, at the suggestion of <sup>the</sup> Department of Tourism, with a view to reviving the languishing economy of the hill stations. The concession has been extended from year to year with some changes (mainly in 1970s) in the period of availability, distance restrictions and class of accommodation. The holder of a concession ticket is not required to stay at the hill station for any particular period before commencing the return journey. Further, he is allowed to break journey enroute, under the normal rules, on the return trip.

10.61 In 1977-78 the concession was allowed throughout the year from all stations beyond 500 kms in both first and second classes. Table 10.10 shows the number of tickets issued in 1976-77 and 1977-78 and the element of concession therein:

Table 10.10

	1976-77		1977-78	
	No. of tickets	Element of concession Rs. lakhs	No. of tickets	Element of concession Rs. lakhs
1st Class	6,780	7.33	8,094	11.21
2nd Class	40,062	9.40	55,563	10.11
	<u>46,842</u>	<u>16.73</u>	<u>63,657</u>	<u>21.32</u>

10.62 The High Power Committee on Social Burdens appointed by Railway Board recommended (January 1979) that:-

"the hill concessions should be withdrawn forthwith during the busy season. If at all any hill concession is to be given it should be given only for the period from November to March, i.e., during the off season."

RTEC recommended in its Interim Report (November 1978) that no

concession should be granted in First Class. Taking both these into account, the Government decided that with effect from 1.4.79 hill concession tickets should be issued only in Second class and subject to the following conditions in regard to period of availability and distance restrictions:-

	<u>Period of availability</u>	<u>Distance restriction</u>
J & K )	April - June	800 kms
Sikkin )	July - March	500 "
)	April - June	Not issued
Others )	July - Sept	800 kms
)	Oct. - March	500 "

10.63 Passengers who go to the hill stations for a holiday come from relatively higher income groups and can afford to pay the hotel charges and the expenses of long distance travel for pleasure. Railway trains are running to full capacity throughout the year and during summer months over 1500 special trains are run to clear the extra rush. Thus, there is no social or commercial justification for allowing the concession. It is therefore recommended that this concession should be abolished altogether. If, however, the Government do not find it possible to abolish the concession altogether, it is recommended that at least the following modifications should be made in the existing scheme:-

- (a) Concessions should be given only in the months of November-March, subject to a minimum distance limit of 800 kms. If it is felt that they deserve special treatment, concession for Jammu & Kashmir and Sikkin may be made available during July-October subject to a distance restriction of 1200 kms. Also Nagaland, Arunachal Pradesh, Mizoram, Manipur, Meghalaya and Tripura should be included in this special dispensation as and when out-agencies are established in these States.
- (b) The holder should be required to stay at the hill station for, say, a week, before commencing

the return journey. This is necessary if the objective of the concession - helping the economy of hill stations - is to be achieved in a meaningful way.

- (c) The concessional fare to be charged should be 1-3/4 single journey fare, as was being done for concessional return tickets for Dussehra, Diwali, etc., upto mid 1960's.
- (d) The privilege of allowing break of journey at one or more stations enroute, on the return journey, should be withdrawn. It does not seem proper that a concession granted for visiting a hill station should be used for visiting other places also. Foreign railways generally do not allow any break of journey on such reduced fare tickets and airlines allow one break of journey on such (excursion) tickets in certain cases on payment of a surcharge. If, therefore, the privilege of break of journey enroute is to be continued, the least that should be done is to provide that (i) the journey may be broken at only one station enroute on the return trip, and (ii) the passenger should make an extra payment of, say, Rs.8/- for this privilege.

#### Concession to Press Correspondents

10.64 Under Rule 245 of I.R.C.A. Coaching Tariff - Part I (Vol.I), accredited press correspondents are sold rail travel coupons at 50 per cent of the face value of the coupon books. The coupons are exchanged for tickets at the booking office before commencement of the journey. The facility of rail travel coupons is also extended to Members of Legislative Assemblies, touring government officials and representatives of commercial firms, but no concession is given.

The journeys by press correspondents, for which tickets are purchased in exchange for coupons, are presumably made in connection with their journalistic assignments on behalf of newspapers/news agencies. Expenditure on purchase

of coupons is therefore essentially a business expense which is reimbursed by the employer. We see no social justification for the Railways subsidising business expenses of another organisation, Government or private, and therefore recommend that, although the coupon facility may be retained, the concession should be discontinued. (see also para 10.22).

#### Reserved carriages and tourist cars/saloons

10.65 We have examined the tariff for reserved carriages and tourist cars/saloons hauled by regular trains for the general public. The separate provisions made for reserved carriages for high Government officials may be revised by the Government in the light of our comments and proposals in the following paragraphs:

10.66 Pattern of traffic:- When required by a customer, the Railways provide a regular passenger coach or a tourist car/saloon, as the case may be, for exclusive occupancy by the customer. The vehicle is hauled by regular train services, including Mail/Express trains (except a few) according to the programme proposed by the customer and approved by the Railways. This is, of course, subject to operating convenience of the Railways but a large number of passenger coaches and some tourist cars - almost invariably second class - are in fact run for the exclusive use of customers in this manner. On the Southern Railway, 370 passenger coaches and 83 tourist cars/saloons were run in 1978:

<u>Tour organised by</u>	<u>Reserved carriages</u>	<u>Tourist cars</u>
Travel Agents	98	26
Private parties	129	22
Individuals	125	35
Railway employees	<u>18</u>	<u>-</u>
Total:	<u>370</u>	<u>83</u>

We were told by tourist agents all over the country that the demand far exceeds the supply. While confirming this, Railway officials stated that the satisfaction of even partial demand places severe strain on their resources.

10.67 Some case studies made by us of 2nd class reserved carriages and tourist cars/saloons on Central & Southern Railways showed that these are used normally for long tours. Table 10.11 shows the salient features of the sample:-

Table 10.11

	Sample Profile		
	Unit	Range	Weighted average
Total distance covered	KM	384 to 9300	4540
Total number of days	Days	3 to 48	19
Vehicle km per vehicle day	KM	183 to 366	230
Number of halts	No.	1 to 26	10½
Average distance between halts	KM	240 to 1097	395
Fare per vehicle day	Rs.	128 to 543	214
Total income per vehicle day	Rs.	138 to 621	240

The average earnings of Rs.214 from fares per vehicle day were much lower than the all India average of Rs.395/- from all passenger coaches. This unsatisfactory position is due partly to the low utilisation of coaches but mainly to the improper basis of charge.

10.68 Existing basis of charging fares:- Fares are charged for the actual number of passengers travelling or the carrying capacity of the coach, whichever is higher (rightly at Mail/Express rates in the case of 2nd class, although there is no specific provision to this effect in the tariff). The fares are applied on continuous distance. The fares for 2nd class reserved carriages, and all tourist cars and saloons are subject to a minimum charge at the following per km rates:

2nd class reserved carriages			Tourist cars/Saloons		
Kms.	Rate per km per bogie		A.C.C.	Rate per km per bogie	
	B.G. Rs.	M.G. Rs.		B.G. Rs.	M.G. Rs.
1-200	4.50	3.50	A.C.C.	2.80	2.40
+201-1000	3.25	2.50	Ist	2.60	2.20
+Over 1000	2.15	1.75	2nd	2.00	2.00

There is no minimum distance for charge in either case.



10.69 Proposed basis of charge:- The main defect in the present basis of charge is that the fare charged is appropriate to the total distance covered by the tour and not the sum of the fares to and from each stopover point. This made no practical difference, and saved time in calculation, upto 1955 when the fare was proportional to the distance, i.e., it increased at the same rate as the distance. With effect from 1955, however, the fare structure is telescopic and the per km rate decreases as the distance increases; the degree of taper has also progressively increased. Charge on the basis of continuous distance is therefore now much less than what it would be on point to point basis. To counterbalance this, it has been laid down that in the case of Second class carriages and all Tourist Cars/Saloons the fare would be subject to a minimum charge at prescribed per km rates. However, while the minimum charge is generally higher than fare on continuous distance, the revenue realised is still inadequate; the earnings per vehicle day (Rs.214/-) are much lower than those from regular passenger carriages (Rs.395/-) vide para 10.67 above.

10.70 In an average tour extending over 4540 km, the journey is broken at more than 10 stations and, subject to the approved programme, the party can stay at each station as long as it desires. At each stopover, the coach is detached from the train, shunted to a siding for the duration of the halt, and then re-shunted and attached to another train for onward journey to the next halt. The tapering in the rate reflects the fact that as the length of journey increases, the cost per km decreases. It is obvious that cost can decline in this manner only in the case of a continuous journey. In the circumstances explained above, each segment of the tour is, for all practical purposes, a fresh journey. It is not therefore consistent with the cost structure to charge the fare on the basis of continuous distance of the entire tour, treating it as one journey. It will be much more logical and, otherwise appropriate, to reckon the fare to and from each stopover point separately and charge the sum of all these fares. Once the fare is charged on this basis, it will no longer be necessary to subject the amount recoverable to a minimum charge on per km basis. In the case of tourist cars/saloons, however, even

charge on point to point basis as proposed above would not yield adequate revenue as their carrying capacity is only about half of the capacity of corresponding passenger coaches. To compensate for this, we consider that fares for tourist cars/saloons should be charged at double the normal rates.

10.71 Charge on the basis proposed by us would be sufficient to cover the costs projected by us for 1980-81 and also bring the income from reserved carriages/tourist cars nearer the earnings from coaches used by regular passengers. Accordingly, we recommend that the basis of charge be revised as suggested above. It would also be appropriate to prescribe a minimum distance for charge in each case. In our view the minimum distance to be charged for should be 250 kms.

10.72 Sleeper surcharge:- When a sleeper coach is run as a reserved carriage for a party, a surcharge is levied at the rate of 10 per cent of the full adult fare on the carrying capacity, in consideration of its lower carrying capacity, the additional costs involved and higher standard of comfort provided. Bearing in mind our recommendations elsewhere regarding sleeper surcharge to be paid by regular passengers, we are of the view that sleeper surcharge for reserved carriages should be levied at the rate of 25 per cent of the full adult fare on the carrying capacity.

10.73 Hire charges:- (a) When a party halts at a station, the passengers generally stay in the coach for the period of the halt. The Railways have provided special facilities for stabling the coaches, charging the batteries in the coaches etc., at important stations which are visited regularly by parties travelling in such coaches. The charges levied on this account at present are:

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\*In the period October 78 - March 79, 343 reserved coaches/tourist cars visited Madurai. (GSX/GSY-293, GSCN-30, OW-3, CTS-5, FC-7, FS-5). The period of the halt was upto 3 days.

Existing charges per bogie vehicle					
Reserved Coaches			Tourist Cars		
Per hour after allowing 5 hours free time at each halting station			Per calendar day or part thereof after allowing 5 hours free time		
	B.G.	M.G.		B.G.	M.G.
Non A.C. Coach	Rs. 5	Rs. 5	Non-A.C. Coach	Rs.20	Rs.20
A.C. Coach	Rs.15	Rs.15	A.C. Coach	Rs.40	Rs.30

10.74 The Railways do not make any separate charge to cover the expenses for the services mentioned above. Further, particularly in the case of reserved coaches, the Railways lose some revenue which they might have earned otherwise. On the other hand, the passengers save the cost of staying in retiring rooms or other suitable accommodation. In the circumstances of the case, the existing charges are considered to be too low. We recommend that the hire charges should be levied at the following rates separately in respect of each stopover point, without giving any free allowance. The amounts suggested are about the same as the passengers would have to pay for appropriate accommodation in the Railway retiring rooms:

	Per 12 hours or part thereof	
	B.G.	M.G.
Non AC Coach	250	200
Partial AC Coach	325	260
AC Coach	400	320

This charge should be payable by railway employees also travelling in reserved coaches for the period of <sup>the</sup> halt. The privilege passes held by them which are accepted as equivalent to fully paid tickets cover the cost of transportation only; lodging facilities provided at halting stations should appropriately be charged for.

10.75 Students' Concession:- Students are charged concessional fares and also given a concession in detention charges. They pay either 50 per cent of the fare for the actual number of persons travelling subject to minimum carrying capacity of the bogie or full fares for 60 per cent of the carrying capacity whichever is less. The standard students' concession is 50 per cent of the

fare. Accordingly, they may be charged fare at 50 per cent in every case; the alternative formula of full fares for 60 per cent of the carrying capacity should be deleted. As regards detention charges, students pay only 20 per cent of the charges due at tariff rates and that too after allowing free time of 24 hours at each station against 5 hours allowed to others. It does not seem appropriate that they should get any concession in this respect and it may therefore be withdrawn.

10.76 Service Charge:- The Railways have represented to us that making arrangements for tours of parties in reserved carriages or tourist cars/saloons involves considerable extra work and expense - much beyond the savings in terminal costs, such as in ticket issue, which may be reasonably set off against this. Besides, members of the party are provided reserved accommodation throughout the trip but they are not required to pay the reservation fee which passengers in regular trains pay. For these reasons, we consider that it will be reasonable to levy service charge at 10 per cent of the total amounts otherwise payable.

10.77 Empty Haulage/Demurrage Charges:- In certain cases, charge is made for empty haulage in reserved carriages/tourist cars. Further, when a reserved carriage/tourist car is ordered but not utilised, a demurrage charge is levied. The rates for these need to be revised in the light of the projected cost of haulage/provision and maintenance of the carrying unit in 1980-81. The charges may be revised as follows, applicable on all gauges:-

Empty haulage charge		Per bogie	
		Per km	Minimum
	Non AC Coach	Rs. 3.00	Rs. 125
	Partial AC Coach	Rs. 3.50	Rs. 150
	AC Coach	Rs. 4.00	Rs. 175
		Per bogie	
		Per hour	Minimum
Demurrage charge	Non AC Coach	Rs. 10	Rs. 50
	Partial AC Coach	Rs. 13	Rs. 65
	AC Coach	Rs. 16	Rs. 80

10.78 Minimum Charge:- At present there is an overall minimum charge of Rs.500/- in each case. If a minimum distance for charge is prescribed as proposed in para 10.71, there would be no need for an overall minimum charge.

### Special Trains

10.79 Railways provide special trains, when possible, at the request of customers. On an average, each railway runs about 8 such special trains in a year. These need to be distinguished from special trains run by the Railways on their own to clear extra rush of traffic which are treated as part of the regular train services.

10.80 Charges for special trains vary according to the purpose for which the train is required. There are separate rules for special trains for -

- i) Public (including circus specials)
- ii) Pilgrimage/excursions
- iii) Students' educational tours
- iv) Tours of kisan sponsored by the Government
- v) Tours of industrial labour sponsored by the Government
- vi) Trade exhibitions
- vii) High officials
- viii) Shooting of films.

We see no advantage in having separate sets of rules for the first five categories. Accordingly, we are proposing a unified set of rules which should be made applicable to all of them. The remaining three varieties of special trains have some peculiar features and are run very infrequently. Government may revise the rules for these in the light of our proposals regarding the first five categories.

10.81 The Average Special Train:- A special train may be run from one point to another. But very often it stops at a number of intermediate stations as desired by the party and the halt at each station is anything upto four to five days. A sample study of itineraries of 15 special trains run on four railways (Central, Northern, Southern & Western) has revealed the following

profile of an average special train:-

	<u>Range</u>	<u>Average</u>
Distance covered	643 to 12498 km	6154 km
Number of bogies	10 to 19	12
Period of tour	2 to 67 days	27.5 days
Number of halts enroute	Nil to 57	15
Distance per halt	219 to 1183	385
Vehicle km per vehicle day	187 to 1132	227

An analysis of 14 special trains (8 Central Railway and 6 Southern Railway) showed that 8 were organised by travel agents and 6 by private parties.

10.82 Basis of Charge:- The present basis of charge for the various kinds of special trains under consideration are shown in Statement 10.7. Fares are charged at Mail/Express rates and apply on continuous distance. On this basis, the revenue from fares for a special train is lower than its cost based on the average cost of running passenger trains; it would not cover the updated costs even if the scales of fares is revised in line with our proposals. This is brought out in the attached Statement 10.8.

10.83 Costs of special trains:- The earnings from special trains should not only cover their costs but leave a positive surplus because, for the reasons explained below, it costs more to run a special train than an average passenger train:-

- i) It requires special arrangements to collect the rolling stock for a special train; in the existing conditions of shortage of passenger stock, provision of stock for a special train can be to the detriment of the interests of the regular passengers.
- ii) Utilisation of rolling stock on special trains is lower than that on regular trains. In the case of 15 special trains mentioned above, the average distance covered per vehicle day was only 227 km against <sup>the</sup> all India average of 316 km in 1976-77.

- iii) Special trains require extra shunting at halting stations as compared to normal trains;
- iv) at selected stations, railways have provided special facilities for stabling the special trains, charging the batteries of the coaches on the trains, etc. On Central Railway, for instance, such facilities have been provided at Bombay VT, Jabalpur, Jalgaon, Akola, Bhopal and Mathura. Western Railway have provided special facilities at Ujjain.

10.84 Charge on Discontinuous Milage Basis:- The earnings can be increased sufficiently to cover the cost of special trains fully and to earn something more only if the fares are calculated on point to point basis instead of on continuous distance of the entire trip, as at present. Our tariff is distance based and the rate per km declines as the length of journey increases. Special trains generally cover long distances (in the sample of the 15 trains mentioned above one of the trains covered 12,498 kms) and per km revenue realised in such cases is very low. It is considered that, in future, the special trains should be charged on the point to point basis. In other words, for the purpose of charge, the distance to and from each stopover point should be treated as a separate journey. This will be conceptually proper. The cost declines as the distance increases. However, this economy is secured only in the case of a continuous run. In the case of a special train, such economy can result only for the distance run between each pair of points. This is obvious since, in most cases, when a special train halts at a particular station, for practical purposes a new train is started from there.

10.85 Minimum Number of Fares:- The rules lay down the minimum number of fares to be charged in each case. This is, however, expressed in terms of number of bogies in the case of special trains for public (10), kisan (9), and pilgrims/excursions (8) and number of adult fares in the case of students (720) and industrial workers (400). If a special train is to earn as much as a regular train, if not more, the number of fares to be charged should be at least equal to the carrying capacity

of a regular train. On the Broad Gauge, the average train has 12 bogies. However, traction-wise position is different - there are  $9\frac{1}{2}$  bogies <sup>on an average</sup> on steam trains, 15 bogies on diesel trains and  $13\frac{1}{2}$  bogies on electric trains. All things considered, it is thought that we should charge at least for 10 bogies. This minimum can conveniently be applied to all categories of special trains mentioned above. There is no reason why it should be less in the case of pilgrims or kisans, or why in the case of students and industrial workers, the minimum should be expressed in terms of number of fares rather than bogies. If any concession is to be given in any case, it should be in the form of reduction in the fare which is already provided for separately (para 10.90).

10.86 Sleeper Charge:- When a sleeper coach is provided on a special train, a supplement to the basic fare is also charged to cover the additional costs/facilities provided and this is calculated at 10 per cent of the adult fare on carrying capacity of the coach. Considering the revised basis of sleeper charge we are suggesting, the sleeper surcharge may be enhanced to 25 per cent of the basic fare.

10.87 Dining Car/Kitchen Car:- The minimum limit of 10 bogies should not include dining car as also kitchen car/iron floor wagon if provided at the request of the party. A dining car may be charged for at the rate of Rs.4/- per km against the existing rate of Rs.2.50 fixed in 1969. The system of providing a kitchen car or iron floor wagon free of charge for pilgrim/excursion, student, kisan and industrial labour specials, should be discontinued; if required by the party, these should be charged for at Rs.3.50 per kilometre.

10.88 Minimum Distance for Charge:- The rules also provide a minimum distance for charge. This is 500 kms (each way in the case of return trip) for public and 2500 kms for others except industrial workers for whom there is no such minimum. We consider that 500 kms for one way trip and 1000 kms for round trip prescribed for public specials to be a reasonable minimum distance for charge in each case.



10.89 Hire Charges:- When a train stops at an intermediate station, people travelling in it continue to live in the coaches. These coaches are stabled for the period of the halt at the special sidings provided for this purpose. The fare covers only the transportation. When passengers live in coaches like this, the railway loses the income from the coaches, and also incurs extra expenditure on shunting the coach to and from the siding and providing necessary stabling, watering and charging facilities. At present, we realise what is called "detention charges" at hourly rate after giving free time at every halt. This is, however, grossly inadequate. The charge should be at least equal to the amount that the party will have to pay in a third class hotel or in a dormitory type of accommodation in railway retiring rooms, if not the loss in earnings to the Railways due to the coach remaining out of use and the extra costs involved. Considering all aspects of the matter, we recommend that instead of detention charges, hire charges should be levied at the rates shown below per coach for the duration of its halt at a station at the request of the party, without giving any free time:-

Hire charges per coach for every 12 hours or part thereof		
<u>Class</u>	<u>B.G.</u>	<u>M.G.</u>
Non-AC Coach	Rs.250.00	Rs.200.00
Partially Air-conditioned	Rs.325.00	Rs.260.00
AC Coach	Rs.400.00	Rs.320.00

10.90 Service Charges:- The railway incurs various costs in addition to those on transportation and provision of facilities (including coaches) at halts. Some examples are:-

- (a) Empty haulage of coaches collected from various points to the starting station where necessary, and return after termination of tour;
- (b) Detention of locomotive in steam at halt stations (for which a separate charge is levied at present);
- (c) Telegrams/telephone calls between Zonal Railways' Headquarters for coordinating the timings and finalising tour programme.

The Railways also do not get any reservation fees though reserved accommodation is provided. It is suggested that an overall charge of 10 per cent on the total amount of charges otherwise payable should be levied in consideration of the above.

10.91 Concessions:- Students, kisans and industrial workers are charged at concessional rates. The concession is allowed both in fares and in detention charges but the extent of the concession varies from category to category. We consider that while students may continue to be granted 50 per cent concession, there is no sufficiently strong social reason for granting a concession to other categories. It may be mentioned that kisans and industrial workers are not granted any concession in fares for reserved carriages. Even students should be allowed concession only in the fares; there is no justification for allowing the concession in other charges such as hire charges.

10.92 Empty Haulage Charges:- When a coach which has been requisitioned is not used, the Railways charge empty haulage in one direction at the rate of 0.80 P per kilometre per bogie for the distance hauled empty, subject to a minimum charge of Rs.50/-. This was last revised in 1967 and is very inadequate. We recommend that the charge may be revised as follows for all gauges:-

	<u>Per Bogie</u>	
	<u>Per Km</u>	<u>Minimum</u>
Non-AC Coaches	Rs. 3.00	Rs.125
Partial AC Coach	Rs. 3.50	Rs.150
AC Coaches	Rs. 4.00	Rs.175

10.93 Cancellation Charges:- If the application for a special train is withdrawn less than 60 days in advance of the commencement of the journey, a cancellation charge of Rs.1000/- is levied. This is intended to discourage frivolous applications. In practice, the amount has been found to be inadequate. We propose that whenever an application is withdrawn by the party, cancellation charges should be levied at the following scale:-

	<u>Cancellation charge</u> Rs.
If cancellation is done-	
More than 90 days in advance of departure of train	200
61-90 days in advance	500
31-60 days in advance	1000
10-30 days in advance	2000
Less than 10 days in advance	3000

The cancellation charge should not be levied if the Railway does not confirm the finalised programme at least 10 days in advance of the scheduled date of departure. If the Railway fails to do so, the party may cancel the programme without any cancellation charge provided intimation of such cancellation is received by the Railway on which the train originates not less than 7 days in advance of the due date of departure.

10.94 Deposit:- In view of the enhanced cancellation and hire charges, the present deposit of Rs.5000/- will have to be raised to Rs.10,000/-. Out of this deposit, Rs.5000/- may be adjusted at the time of preparation of the special ticket.

## Statement 10.1

Comparison of the proposed immediate increase in Season-Ticket fares with that proposed in single journey fares.

Distance stage	RTEC's interim proposal No. II for MST fare.	MST fare w.e.f. 1.4.79.	Further increase per MST required (Col.2 - Col.3)	Percentage increase (Col. 4 over Col.3)	Existing single journey fare	Proposed single journey fare	Increase per single journey fare	Percentage increase (Col.8 over Col.6)	Distance stage
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Kms.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.		Kms.
1-5	10.00	5.45	4.55	83	0.30	0.50	0.20	67	1-5
6-10	13.00	8.70	4.30	49	0.35	0.65	0.30	86	6-10
11-15	16.00	10.90	5.10	47	0.50	0.90	0.40	80	11-15
16-20	19.00	13.00	6.00	46	0.65	1.15	0.50	77	16-20
21-25	21.00	15.60	5.40	35	0.85	1.40	0.55	65	21-25
26-30	23.00	17.20	5.80	34	1.30	1.65	0.35	27	26-30
31-35	25.00	18.75	6.25	33	1.55	1.90	0.35	23	31-35
36-40	27.00	20.65	6.35	31	1.75	2.15	0.40	23	36-40
41-45	29.00	22.25	6.75	30	1.90	2.40	0.50	26	41-45
46-50	31.00	24.05	6.95	29	2.00	2.65	0.65	33	46-50
51-60	34.00	26.70	7.30	27	2.55	3.00	0.45	18	51-60
61-70	37.00	29.10	7.90	27	2.95	3.50	0.55	19	61-70
71-80	40.00	31.50	8.50	27	3.25	4.00	0.75	23	71-80
81-90	43.00	33.90	9.10	27	3.70	4.50	0.80	22	81-90
91-100	46.00	36.25	9.75	27	3.95	5.00	1.05	27	91-100
101-110	49.00	38.60	10.40	27	4.75	5.50	0.75	16	101-110
111-120	52.00	40.45	11.55	29	5.00	6.00	1.00	20	111-120
121-130	55.00	43.20	11.80	27	5.25	6.50	1.25	24	121-130
131-140	58.00	45.50	12.50	27	5.65	7.00	1.35	24	131-140
141-150	61.00	47.30	13.70	29	5.90	7.50	1.60	27	141-150

## Details of concessions admissible under Rule 101 of IRCA Coaching Tariff No.22, Pt.I(Vol.II)

S.No. of the Tariff	Person (s) eligible.	Nature/Element of Concession allowed				Minimum distance limit	Remarks.	
		In fares. I Class (basic fare)	II Class (Mail fare)	Attendant/Escort/ Manager/Coach	Luggage Cycle etc.			
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5
1(a)	Athletes /Sportsmen participating in tournaments open to individuals and Referees or Umpires at such tournaments.	15%	50%	--	--	Bicycles allowed with players competing in cycling contests, chargeable at full tariff rate for outward journey and free on return journey.	--	The concessional fare payable will be subject to a minimum of full(mail) fare for 150 kms. for class travelled for each journey.
(b)	Athletes /sportsmen participating in tournaments open to teams and Referees and Umpires at such meets.	15%	50%	A Manager and a Coach allowed with each team at concessional fare admissible to other members. Also for each member travelling in I class one attendant in II Class on 50% concession, is allowed.	--	-- do --	--	-- do --
2(a)	Athletes ./Sportsmen travelling in connection with International Contests, open to individuals; and Referees and Umpires.	15%	50%	--	--	-- do --	--	-- do --
(b)	Athletes/Sportsmen travelling in connection with International Contests open to teams; and Referees and Umpires.	15%	50%	Members travelling in First Class are allowed one attendant each in Second Class on 50% concession in fare.	--	-- do --	--	-- do --

## Statement 10.2 (contd.)

S.No. of the Tariff.	Person (s) eligible.	Nature/Element of Concession allowed				Minimum distance limit	Remarks.	
		In fares. I Class (basic fare)	II Class (Mail fare)	Attendant/Escort/ Manager/Coach.	Luggage Cycle etc.			
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5
3(1)	Professional artistes in parties of not less than five.	15%	50%	--	Ordinary luggage rate with free allowance due or half the ordinary luggage rates without free allowance at the option of the party. Luggage and property (including animals) booked in a separate vehicle chargeable at 75 p. per km. per 4 wheeled BG vehicle and 60 p. per 4 wheeled M.G./N.G. vehicle subject to minimum charge for the distance limit prescribed for the party.	--	More than 300 kms.	
3(2)	Professional circus parties in parties of not less than 5	15%	50%	--	- do -	--	160 kms. & over.	
3(3)	Amateur artistes in parties of not less than 5	15%	50%	--	- do -	--	--	
3(4)	Artistes participating in Republic Day celebrations in New Delhi.	15%	50%	--	- do -	--	Over 160 kms.	
3(5)	Artistes participating in National Programmes of All India Radio.	15%	50%	--	- do -	--	More than 320 kms.	This concession stands temporarily withdrawn.

S.No. of the Tariff.	Person(s) eligible	Nature/Element of concession allowed					Minimum distance limit.	Remarks.
		In fares.		Attendant/Escort/ Manager/Coach.		Luggage Cycle etc.		
		I class (basic fare)	II Class (Mail fare)					
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5
4,4-A,	Students of recognised educational institutions	15%	50%	One escort for every four girl students of any age and boy students under the age of 12 years at same concession as for students.	Full free allowance in accordance with class of carriage occupied. Excess chargeable at ordinary luggage rates.	---	---	Return tickets are not allowed.
4-B,	travelling for examination or educational purpose between home and institution/ examination centre etc. including students upto 3 months after completing examinations, students appearing as private candidates and trainee students.	15% of half fare	75% of half fare	Students of Scheduled Castes/Tribes. 50% of concessional fare for students in general.	50% of concessional fare for students in general.			Students of SC/ST should produce also a certificate from the State Govt. that they belong to SC/ST.
5.	Candidates of age between 5 and 12 years, travelling to appear at tests for award of Merit Scholarships <u>Provided income of their parents does not exceed Rs. 100 per month.</u>	Not allowed.	50%	--	--	---	---	Only return tickets are allowed.
6.	Students/trainees travelling in parties to visit places of educational and artistic importance.	15%	50%	One escort for every four girl students of any age and for boy students under the age of 12 years. One escort for every 15 boy students of over 12 years. Concessional fare as for students	Luggage in excess of free allowance according to class of carriage travelled in, at one-fourth the luggage rates upto two tonnes and at full luggage rates in excess of two tonnes.	--	--	As in S.N.4.
6A,		Students below 12 and over 3 years						
6-B,		15% of half fare.	75% of half fare.	Students of SC/ST 50% of concessional fare for students in general.	80% of concessional fare for students in general.			

## Statement 10.2(contd.)

S.No. of the Tariff.	Person(s) eligible.	Nature/Element of concession allowed			Attendant/Escort/ Manager/Coach.	Luggage Cycle etc.	Minimum distance limit.	Remarks.
		I Class (basic fare)	II Class (Mail fare)					
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5
7.	Foreign students studying in India	15%	50%	--	Luggage in excess-- of free allowance according to class of carriage travel- led in, at one-fourth the luggage rates upto two tonnes and at full luggage rates in excess of two tonnes.			
8.	Apprentices-at-law.	15%	50%	--				Return tickets are not granted.(The concession is with- drawn temporarily).
9.	Cadets/Officers of NCC	15%	50%	One escort for every four girl students and every 15 boy students.	Luggage in excess of free allowance applicable to the class of carriage chargeable at ordinary luggage rates.			
10.	Cadets/Marine Engineer Apprentices	15%	50%	--				
11(1)	Blind person accompanied by escort. Escort ) Blind	50%	50%	One escort and the blind person to- gether pay one full fare, Escort accompany- ing blind child aged 3 years and less allowed 50% concession.				
11(2)	Blind person travelling alone.	75%	75%	--				



## Statement 10.2 (contd.)

S.No. of the Tariff.	Person(s) eligible.	Nature/Element of concessin allowed.				Luggage	Cycle etc.	Minimum distance limit	Remarks.
		In fares.		Attendant/Escort/ Manager/Coach.					
		I Class (basic fare)	II Class (Mail fare)						
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	6	
11(3)	Blind person under the care of recognised institutions, accompanied by escort, availing season ticket.	25%	25%	50% concession for escort in season ticket fares, i.e., the blind person and his escort together pay 1 1/2 season ticket fares.	--	--	--	--	
11(4)	Blind pupils of recognised schools/colleges in parties of not less than four.	40%	50%	One escort allowed free with every two pupils in the same class.	--	--	--	--	
			Children below 12 and over 3 years.						
		70%	75%						
12(1)	TB patients, accompanied by attendant. Escort Patient)	50%	50%	Attendant and Patient together pay one fare. Attendant accompanying a child patient aged 3 years and less allowed 50% concession.	--	--	--	--	
12(2)	TB patient travelling alone	75%	75%	--	--	--	--	--	
13(1)	Cancer patient accompanied by attendant. Escort Patient)	50%	50%	Attendant and Patient together pay one fare. Attendant accompanying child patient aged 3 years and less allowed 50% concession.	--	--	--	--	
13(2)	Cancer patient travelling alone.	75%	75%	--	--	--	--	--	
14.	Bharat Scouts and Girl Guides, in parties of not less than four.	<del>15%</del>	50%	Children below 12 and over 3 years.	--	--	--	--	
		15% of half adult fare.	75%						
15.	Members etc. of St. John Ambulance Brigadc.	15%	50%	--	--	--	--	--	

S.No. of the Tariff.	Person(s) eligible.	Nature/Element of concession allowed.				Attendant/Escort/ Manager/Coach.	Luggage Cycle etc.	Minimum distance limit.	Remarks.
		In fares		3(b)	3(c)				
		I class (Basic fare)	II Class. (Mail fare)						
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5	
16.	Volunteers of Community Projects.	15%	50%	-	Luggage in excess of free allowance appli- cable to class of carriage travelled in, at one-fourth of luggage rates upto 2 tonnes and at full luggage rates in excess of 2 tonnes.	--	--	--	
17.	Volunteers of Service Civil International	Not allowed	50%	--	--	--	--	--	
18.	Volunteers of National Extension Service	15%	50%	--	Ordinary luggage rates for luggage in excess of free allowance applicable to class of carriage occupied.	--	--	--	
19(1)	Kisans in parties of not less than twenty.	Not allowed.	25% On return journey ticket 50%	--	--	--	--	--	
19(2)	Industrial labourers in parties of not less than twenty.	Not allowed.	25%	--	--	--	--	--	
20.	Trained Nurses, Midwives, student Nurses.	15%	50%	--	--	--	--	--	
21	Teachers in parties of not less than four.	15%	50%	One attendant for every 10 teachers at same concession as applicable to to teachers.	Luggage in excess of free allowance due, at 1/4 of the luggage rates upto 2tonnes and at full luggage rate in excess of 2 tonnes.	--	--	Return tickets are not granted.	

S.No. of the Traffi.	Person(s) eligible.	Nature/Element of concession allowed				Minimum distance limit.	Remarks.	
		In fares.		Attendant/Escort/ Manager/Coach.	Luggage-Cycle etc.			
1	2	I Class (Basic fare)	II Class (Mail fare)	3(b)	3(c)	3(d)	4	5
		3(a-i)	3(a-ii)					
22(1)	Persons with earnings not exceeding Rs.1800/- per month attending annual session of all India bodies of educational, cultural, social importance.	15%	50%	--	--	--	400 kms. for bodies listed in Group A of App.1/49 tickets are 250 kms. for bodies listed in Group B of app.1/49. 160 kms. for bodies listed in Group C of app.1/49.	Only return journey tickets are allowed.
22(2)	Persons attending All India Conference of social or educational kind with Railway Board's permission.	15%	50%	--	--	--	--	-- do --
22(3) (a)	Persons with earnings not exceeding Rs.1800/- per month attending All India Women's Conference.	15%	50%	--	--	--	Beyond 400 kms.	Only return journey tickets are allowed.
22(3) (b)	Persons with earnings not exceeding Rs.1800/- per month attending the meeting of Standing Committee of All India Women's Conference.	15%	50%	--	--	--	-- do --	-- do --
23.	Articles (including excepted articles valuing not more than Rs.500/- in each parcel) and dogs, poultry etc. for exhibition and shows.	Outward journey)	Full tariff rate	--	--	--	--	--
		Return journey)	Free (at OR)				Not more than 250 kms.	
24.	Stores belonging to All India St. Dunstan's Committee for war blinded (booked to training centre at Bhra Dun).		Free (at OR)	--	--	--	--	--
25.	Stores belonging to Indian Red Cross Society.		Free (at OR)	--	--	--	--	--

S.No. of the Tariff.	Person(s) eligible.	Nature/Element of concession allowed.					Minimum distance etc. limit.	Remarks.
		In fares.		Attendant/Escort/ Manager/Coach.	Luggage	Cycle		
		I Class (Basic fare)	II Class (Mail fare)					
1	2	3(a-i)	3(a-ii)	3(b)	3(c)	3(d)	4	5
26.	Educative material for TB Association of India.	Free (at OR)	-	-	-	-	-	-
27.	Consumable goods sent by New Zealand Council etc. to Welfare Organizations of India.	Free (at OR)	-	-	-	-	-	-
28(1)	Multi-purpose food booked by Meals for Million Association.	Free	-	-	-	-	-	-
28(2)	Multipurpose food booked by M/S Chandra Corporation Coimbatore.	Free	-	-	-	-	-	-
29.	Orthopaedically handicapped persons accompanied by escort.	Escort - 15% Patient - 15%	50%	Escort allowed 15% concession in I class and allowed free in II Class (Allowed 15% concession in I Class and 50% in II Class when accompanying an orthopaedically handicapped child aged 3 years or less)	-	-	-	-
30.	Non-infectious leprosy patients.	15%	75%	-	-	-	-	-
31.	Members of Polo Teams subject to a maximum of six members.	15%	Not allowed	Each member allowed one attendant at 50% concession in II Class only.  vehicle per km. for MG minimum of Rs.50/-per vehicle each way. Two attendants allowed free in each vehicle.	Return ticket allowed at 63p. per vehicle per km.(On one way distance)for BG and 47p per vehicle each way.	Horses and ponies allowed on 50% concession subject to a minimum of Rs.50/-per horse-box each way.  One attendant allowed free with each animal.	(i) This concession is subject to a minimum of 4 concessional fares. (ii) Concessional fare payable by Member/Attendant is subject to a minimum of 150 kms. for the Class travelled in for each journey.	-

## A U R A N G A B A D

variety of concession orders exchanged at Aurangabad B/O to the stations as per distances given below during August 1979.

S.No. of Concession in the Tariff Distance	1	4	11(1)	11(2)	13(1)	30	Total
Kms.							
1-100		32					32
101-200		4		1			5
201-300	19 persons	16	1				36
301-400		9			10		19
401-500		1					1
501-600	7 persons	4					11
601-700		28				1	29
701-800		13					13
801-900							
901-1000							
1001-1100							
1101-1200							
1201-1300		8					8
1301-1400		5					5
1401-1500		4					4
1501-2000		1					1
2001-2500							
2501-3000							
Total	26 persons	125	1	1	10	1	164

Notes: Items 1 & 4 charged <sup>at</sup> Half M/Exp. fare.

Items 11(1), 11(2) & 13 charged <sup>at</sup> 1/4 M/Exp. fare.

No First Class ticket was issued on concession during August 1979.

All concession holders travelled in 2nd class.

S I M L ASummary of concession tickets issued from Simla in September, 1979

	<u>Nurses</u>	<u>Teachers</u>	<u>Students*</u>	<u>Total</u>
Number	7	5	61	73
Class of travel	II	II	II	II

\*Distribution of Students distancewise

	<u>251-500 km</u>	<u>501-1000 km</u>	<u>1001-2000 km</u>	<u>Above 2000 km</u>
Students	63	316	62	22
Escorts	8	23	2	-

All of these tickets were issued for Second Class

Note: Difference between two sets of figures relating to students is due to the fact that some tickets were for more than one passenger.

Details of Students Concessions

<u>S. No.</u>	<u>Concession Order No.</u>	<u>Station From To</u>	<u>Class</u>	<u>No. of stu- dents.</u>	<u>No. of escorts</u>	<u>Age of students</u>	<u>Age of escorts</u>	<u>School or College</u>
1.	63057	Simla-Delhi	II	25	3	13-17	25-48	School
2.	184718	Simla-Delhi	II	1		24½		College
3.	47612	Simla-Bareilly	II	3		22-25		College
4.	21006	Simla-Mukerian	II	19	2	13-20	27-43	College
5.	206916	Simla-Delhi	II	1		26		University
6.	140801	Simla-Kanpur Central	II	1		14½		School
7.	208232	Simla-Jammu Tawi	II	4		19 each		College

Contd....

## Statement 10.4 (Contd.)

S. No.	Concession Order No.	Station From To	Class	No. of students	No. of escorts	Age of students	Age of escorts	School or College
8.	28390	Simla-Kurukshetra	II	1		19		College
9.	74310	Simla-Bikaner	II	3		18-20		College
10.	46804	Simla-Prayag	II	1		22		University
11.	13636	Simla-Dhuri	II	12	2	11-15	28-38	School
12.	13634	Simla-Dhuri	II	16	2	14-15	28-50	School
13.	68335	Simla-Jammu Tawi	II	4	-	18-20		College
14.	13635	Simla-Dhuri	II	19	2	14-16	36-42	School
15.	28226	Simla-Jammu Tawi	II	1		18		College
16.	374526	Simla-Jammu Tawi	II	3		16-18		College
17.	139727	Simla-Moradabad	II	13	2	20-22		College
18.	31187	Simla-Taran Taran	II	52	6	16-18	30-41	School
19.	76154	Simla-Delhi	II	4		17-18		School
20.	76156	-do-	II	3		17-18		School
21.	141907	-do-	II	20		12-15		School
22.	141908	-do-	II	17		12-16		School
23.	176152	-do-	II	4		17-18		School
24.	74933	-do-	II	11	1	18-19		School
25.	15685	Simla-Moradabad	II	12	1	16-18		College
26.	140361	Simla-Delhi	II	2		6-8		School
27.	80263	Simla-Narela	II	10	1	15-16		School
28.	80264	-do-	II	10	1	15-17		School
29.	80265	-do-	II	10	1	15-17		School
30.	80266	-do-	II	10	1	15-18		School
31.	80267	-do-	II	10	2	15-17		School
32.	133555	Simla-New Delhi	II	2		10-14		School
33.	270862	Simla-Allahabad	II	1		20		College

Contd.....

Statement 10.4 (Contd.)

S. No.	Concession Order No.	Station From To	Class No.	No. of stu- dents	of es- corts	Age of stu- dents	Age of escorts	School or College
34.	320423	Simla-Dehra Dun	II	4		17-20		School
35.	30879	-do-	II	3		22-24		Universtiy
36.	68333	Simla-Jammu Tawi	II	2		21 each		College
37.	80377	Simla-Muzaffar- nagar	II	20		14-19		College
38.	017141	Simla-Ambala Cantt.	II	11	2	19-25		College
39.	181770	Simla-Ambala City	II	4		22 each		College
40.	181762	Simla-Meerut City	II	4		21-23		College
41.	181764	-do-	II	4		22-23		College
42.	184736	Simla-Delhi	II	1		21 1/2		College
43.	53756	Simla-Mathura	II	1		21		College
44.	14358	Simla-Loharu	II	23	2	12 each		School
45.	40008	Simla-Miraj	II	1		18		School
46.	265170	Simla-Gorakhpur	II	1		40		University
47.	670107	Simla-Rourkela	II	1		19		College
48.	687014	Simla-Tata	II	1		22		College
49.	576838	Simla-Rourkela	II	1		18		College
50.	318801	Simla-Gorakhpur	II	4	1	14-17	45	College
51.	158335	Simla-Tata	II	19		15-20		College
52.	83298	Simla-Udaipur	II	1		19		College
53.	298111	Simla-Gorakhpur	II	4		15-16		College
54.	093787	Simla-Gorakhpur	II	4	1	13-17	47	College
55.	659655	Simla-Babanpur. Jn.	II	4		22-23		College
56.	659657	-do-	II	3		22-23		College
57.	97124	Simla-Jaipur	II	1		18		College
58.	186020	Simla-Bhagalpur	II	11		18-24		College
59.	079448	Simla-Behram- pore	II	1		29		College
60.	065620	Simla-Manpur Nagaria	II	11		14-18		College
61.	065624	Simla-Manpur Nagaria	II	12		9-16		College



AMBALA CANTT., JULLUNDER CITY, MORADABAD, ALLAHABAD,  
LUCKNOW (Local and Foreign) AND JODHPUR AND BIKANER (Foreign only)

Distribution of passengers, concessionwise and  
distancewise for selected stations for the month of February, 1979  
and May, 1979.

Monthly average of February 1979 and May 1979

Category of Concession	Sports Men	Artistes	Students	Private students for exa- mination	Research students	Industrial workers
Distance (Kms.) ↓	S.No. 1.	3.	4.	4-B	6(c)4	6(c)6
0-25	-	-		-	1	-
26-40	-	-	37.5	-	-	-
41-80	-	-	58.5	-	-	-
81-160	8	-	73.5(1)	-	-	-
161-250	8	-	239.5(1)	-	1	-
251-500	28	-	51.5(7)	-	-	-
501-1000	38	15	1157.0(18)	5.5	23	12.5
1001-2000	107	-	459.5(27)	0.5	1	10.5
2001 and above	23.5	-	95.5(4)	-	-	13
Total	212.5	15	2172.5(58)	6.0	25	36

(a) All the concession vouchers pertain to Second Class

(b) Regarding First Class, the information is nil.

(c) Figures shown in brackets are the number of tickets  
issued to children under 12 years of age.

Statement 10.5

AMBALA CANTT., JULLUNDER CITY MORADABAD, ALLAHABAD,  
LUCKNOW(Local and Foreign) AND JODHPUR AND BIKANER(Foreign only)

Distribution of passengers, concessionwise and distancewise for selected stations for the month of February, 1979 and May, 1979.

Monthly average of February 1979 and May 1979

Foreign students	NCC Cadets	Blind Persons	TB Patients	Cancer Patients	Scouts	Nurses	Nurse students	Teachers	Delegates for Conferences	Handicapped Persons	Legrosy Patients	Category of concession Distance (Kms.)
7	9	11	12	13	14	20	20(3)	21	22	29	30	S.No.
-	-	-	-	-	-	-	-	-	-	-	-	0-25
-	-	-	-	-	-	-	-	-	-	-	-	26-40
-	-	4	-	4.5	-	0.5	-	-	-	-	-	41-80
-	-	0.5	1	1	0.5	-	-	-	-	0.5	-	81-160
-	-	6	32.5	1	-	3	-	0.5	-	2	6.5	161-250 (1)
4	51.5	5.5	6	2.5	9	25.5	2.5	1.5	7	-	2.5	251-500
4	3.5	6.5 (1)	1.5	9	11.5	49.5	-	23	19	-	12	501-1000
-	3	1	-	10.5	-	47	-	69	28.5	11	3	1001-2000
-	1	-	-	2	1	26	2.5	2.5	10	-	0.5	2001 and above
8.0	59.0	23.5	41.0	30.5	22.0	151.5	5.0	96.5	64.5	13.5	25.5 (1)	

(a) All the concession vouchers pertain to Second Class.

(b) Regarding First Class, the information is nil.

(c) Figures shown in brackets are the number of tickets issued to children under 12 years of age.

Statement 10.6

Weighted average distance travelled by holders  
of concession tickets mentioned in Statements.

S.No. of Tariff	Category entitled	Aurangabad (Stt.)	Sinla (Stt.)	Fullunder, Ambala, Allahabad, Lucknow, Moradabad, Jodhpur and Bikaner (Stt.)
		Kms.	Kms.	Kms.
1	Sportsmen	331		1254
3	Artistes			750
4 to 7	Students	442	862	872
6-C(6)	Industrial workers			1684
9	N.C.C. Cadets			495
11	Blind persons	200		425
12	T.B. patients			248
13	Cancer p patients	350		968
14	Scouts			673
20	Nurses			586
20(3)	Nurse (Student)			1553
21	Teachers			1329
22	Delegates for Conferences			1348
29	Handicapped persons			1258
30	Leprosy patients	650		285

VARIOUS CHARGES FOR SPECIAL TRAINS

Specials for Kisans	Specials for Industrial Labourers	Charges
<p>Concessional fares at the 2/3rd II Class Mail/Express fare for each adult and 1/3rd II Class fare for each child for actual number of persons travelling or CC of the bogies, whichever is more.</p>	<p>Concessional fare @50% of the II Class Mail/Express fare when only sitting accommodation is provided and full fares when sleeping accommodation is required for night journey.</p>	<p><u>Fares</u> <u>chargeable</u></p>
<p>1/3rd concession.</p>	<p>50% of fare when seats are provided; Nil when sleeping accommodation is provided.</p>	<p><u>Concession</u> <u>if any.</u></p>
<p>Charges for a minimum number of 9 bogies including an SLR for a minimum distance of 2500 kms.</p>	<p>Minimum charge is for 400 adults.</p>	<p><u>Minimum</u> <u>charge</u></p>
<p>50% of the normal detention charges applicable to Public Specials.</p>	<p>Charges @ 20% of those for Special Trains for Public at each halting station.</p>	<p><u>Detention</u> <u>charges</u></p>
<p>First 24 hours at each halting station.</p>	<p>24 hours at each halting station.</p>	<p><u>Free time</u> <u>allowed</u></p>
<p>As for pilgrim specials.</p>	<p>Only two 4-wheeled iron floor wagons/a bogie iron floor covered wagon free.</p>	<p><u>Dining Car</u> <u>Kitchen Car</u></p>
<p>One conductor and four cooks free. Also not more than 10 rural artisans (not kisans) at the same concession as for kisans.</p>	<p>One conductor and four cooks free.</p>	<p><u>Other</u> <u>facility</u></p>

VARIOUS CHARGES FOR SPECIAL TRAINS

<u>Charges</u>	<u>Specials for Public including Circus Specials</u>	<u>Pilgrim Specials Excursion Specials</u>	<u>Student Specials</u>																				
<u>Fares chargeable</u>	Fares for actual number of passengers travelling or minimum of fares on full CC of the bogies, whichever is more. II Class Mail/Express fares will be charged.	Same as for Public Specials.	Fares on 50% concession of the normal tariff fare. Only II Class Specials are permitted.																				
<u>Concession if any</u>	No concession.	No concession.	50% concession.																				
<u>Minimum charge</u>	Subject to minimum number of 10 bogies including dining car, if requisitioned and an SLR chargeable for minimum distance of 500 kms. applicable separately for outward and inward journeys.	Charges for minimum 8 bogies including an SLR for a minimum distance of 2500 kms.	Minimum charges for 720 adults (2 children being considered as one adult) chargeable for a minimum distance of 2500 kms.																				
<u>Detention charges</u>	(I) Rate per hour or part of an hour	Same as for Public Specials.	50% of the normal detention charges applicable to Public Specials.																				
	<table border="1"> <thead> <tr> <th></th> <th><u>ACC</u></th> <th><u>Others</u></th> <th><u>Min.</u></th> </tr> <tr> <th></th> <th>Rs.</th> <th>Rs.</th> <th>Rs.</th> </tr> </thead> <tbody> <tr> <td>4-wh.</td> <td>7.50</td> <td>2.50</td> <td>10.00</td> </tr> <tr> <td>6-wh.</td> <td>11.25</td> <td>3.75</td> <td>15.00</td> </tr> <tr> <td>Bogie</td> <td>15.00</td> <td>5.00</td> <td>20.00</td> </tr> </tbody> </table>		<u>ACC</u>	<u>Others</u>	<u>Min.</u>		Rs.	Rs.	Rs.	4-wh.	7.50	2.50	10.00	6-wh.	11.25	3.75	15.00	Bogie	15.00	5.00	20.00		
	<u>ACC</u>	<u>Others</u>	<u>Min.</u>																				
	Rs.	Rs.	Rs.																				
4-wh.	7.50	2.50	10.00																				
6-wh.	11.25	3.75	15.00																				
Bogie	15.00	5.00	20.00																				
	(II) <u>For keeping the Engine in steam</u>																						
	BG Engine - Rs.12/- per hour or part thereof.																						
	MG/NG - Rs.10/- per hour or part thereof.																						
<u>Free time allowed</u>	Nil	First 12 day-light hours at each halting station. Day-light hours reckoned from 6.00 hours to 18.00 hrs.	First 24 hours at each halting station.																				
<u>Dining Car Kitchen Car</u>	Rs.2.50 per km.	Kitchen/Iron bogie wagon free. Dining car if requisitioned - Rs.2.50 per km.	As for Pilgrim Specials.																				
<u>Other facility</u>	Nil	One conductor in highest class in Special train and 4 cooks/servants free.	Four cooks/servants and a conductor free. Escort at the same concession as for a student, at the rate of one escort for every 15 boys.																				

Statement showing earnings per B.G. train of 10 Bogies (CC.760) at Second Class Mail/Express fares on continuous distance compared with total cost on the basis of cost per train km. (1976-77).

Distance		Earnings/cost of existing rates			Earnings/cost at proposed rates			Distance
	Existing II Class (Mail/Exp.) fares (C.C. 760)	Total cost @ Rs.30.87 per train km. for 1976-77 for BG	Loss (-)/Gain (+)	Proposed II Class (Mail/Exp.) fares (C.C. 760)	Total cost based on cost per train km. for 1976-77 i.e. Rs.30.87 (BG) escalated by 30%	Loss(-)/Gain (+)		
1	2	B.G. 3	4	5	6	7	8	
kms.	Rs.	Rs.	Rs.	Rs	Rs	Rs	kms.	
200	7,790	6,174	(+) 1,616	10,336	8,026	(+) 2,310	200	
500	17,100	15,435	(+) 1,665	22,192	20,066	(+) 2,126	500	
1,000	30,742	30,870	(-) 128	38,380	40,131	(-) 1,751	1,000	
1,500	41,990	46,305	(-) 4,360	52,060	60,197	(-) 8,137	1,500	
2,000	51,794	61,740	(-) 9,946	65,360	80,262	(-) 14,902	2,000	
3,000	70,680	92,610	(-) 21,930	91,960	1,20,393	(-) 28,433	3,000	
5,000	1,05,336	1,54,350	(-) 49,014	1,45,160	2,00,655	(-) 55,495	5,000	
10,000	1,89,696	3,08,700	(-) 1,19,004	2,78,160	4,01,310	(-) 1,23,150	10,000	
15,000	2,74,056	4,63,050	(-) 1,88,994	4,11,160	6,01,965	(-) 1,90,805	15,000	

- Note: 1. Carrying capacity of 10 bogies will come to 800. Allowing for SLR the chargeable Carrying capacity will be 760.
2. The gain will be lower/loss higher where concession is allowed in fares (e.g., in the case of students.)

## CHAPTER XI

### HISTORICAL REVIEW OF OTHER COACHING RATES

#### Parcels

11.01 Introductory:- Movement of goods<sup>and animals</sup>/by rail - both wagon-loads and less than wagon-loads (smalls) - is mostly by freight trains. However, a small proportion is also carried by parcel services which may be either a parcel express or a passenger train. The parcel rates are higher than the corresponding goods rates as parcel services provide a comparatively faster transit and involve less handling enroute.

The nature of function performed by parcel and freight services being the same, parcel rates have generally increased whenever goods rates have increased. For instance, when freight rates were increased in 1940 and 1942 and again when a freight rate structure was drawn up in 1948, parcel rates were also subjected to similar changes. Till 1958, however, the relativity between goods and parcel rates was not uniform at all distances. The terms of reference of <sup>the</sup>/Railway Freight Structure Enquiry Committee, which gave its report in 1958, did not cover parcel rates. However, while pointing out that the freight structure they were suggesting would have a bearing on parcel traffic also, the Committee suggested that the parcel rates should be reviewed in the light of <sup>the</sup>/revised freight structure recommended by them. After a review, from 1.10.1958, full parcel rates, rates for betel leaves etc. and rates for newspapers were fixed as a percentage of goods freight rates Class 100-B. From 1.4.1970, all the parcel rates including Half and Quarter parcel rates were divided into 8 scales and their relativity established with Class 100 goods rate. Subsequently, however, this relativity was disturbed as the increases in parcel rates were neither commensurate with the increases in goods rates nor were they uniform for all commodities. This position, however, was rectified from 1-9-1979 on the basis of the recommendations of the Rail Tariff Enquiry Committee in its Interim report. Details of the changes in parcel rate structure from 1.10.1948 onwards are given in the succeeding paragraphs.

Basic rate structure

11.02 Full Parcel/Scale 1 Rates:- Upto 1.10.1948, parcel rate structure consisted only of the table giving chargeable parcel rate per maund for different distances. No basis of charge on distance basis was indicated. From 1.10.1948, 'per mile' rate was quoted on a telescopic basis as under:-

<u>Distance</u> (Miles)	<u>Pies per mile per maund</u>	
1 - 100	4	100%
101 - 200	+ 3	75%
201 - 700	+ 2	50%
Over 700 miles	+ 1/2	37.5%

11.03 As indicated earlier, the goods freight rate structure was rationalised in 1958 on the basis of <sup>the</sup> recommendations of the Railway Freight Structure Enquiry Committee. In line with this rationalisation, Full parcel rates were also revised from 1-10-1958 and linked to Class 100-B Scale for goods traffic. The parcel rate was fixed at 300% of Class 100-B Scale upto 300 miles and 280% beyond 400 miles. The rates for distances between 300 and 400 miles were suitably adjusted to provide a gradual increase.

11.04 With the change-over to metric system from 1.4.1960, full parcel rate was made 300% of Class 100-B goods Scale upto 500 kms., and 280% beyond 500 kms. From 1.4.1970 it was made 300% at all distances and called Scale-1 rate. However, supplementary charges levied on Full Parcel/Scale I rate after 1970 (Details at para 11.12 below) were not commensurate with increases in goods rate. As a result, for distances beyond 500 kms., relativity between goods and parcels rate was disturbed. To restore the same, a 10% ad hoc increase was made in Scale-I rate beyond 500 kms. from 1.7.1979 on the basis of <sup>the</sup> recommendations of R.T.E.C. in the Interim Report.

Concessional Parcel Rates

11.05 In the parcel rate structure introduced on 1.10.1948, vegetables and fruits were to be charged at 50% and seeds/seedlings at 25% of the Full Parcel rate. These rates were known as Half Parcel and Quarter Parcel rates. Besides, special scales of rates



were prescribed for betel leaves, handloom products and newspapers. For betel leaves, the charge was above Half Parcel rate if carried at owner's risk (O.R.) and Full Parcel rate if carried at Railway risk (R.R.). For handloom products, the charge was Half Parcel rate at O.R. If carried at R.R., the following special scale was leviable:-

<u>Distance stage</u> (Miles)	<u>Pies per mile per maund</u>	
1 - 100	3	100%
101 - 200	+ 2	66.66%
201 - 700	+ 1/2	50%
Over 700 miles	+ 1	33.33%

11.06 From 1.10.1958, when Full Parcel rates were linked with Class 100-B Scale of goods traffic, Half Parcel rates and Quarter Parcel rates were, however, excluded from this linkage. Their charges were calculated at  $\frac{1}{2}$  and  $\frac{1}{4}$  of the Full Parcel rate in vogue from 1.10.1948. As a result, they actually became less than 50% and 25% of the Full Parcel rate then existing. Rates for betel leaves and newspapers, however, were linked with the 100-B goods scale as follows:-

<u>Commodity</u>	<u>Upto 300 miles</u>	<u>Beyond 400 miles</u>
Betel leaves, etc.	220%	205%
Newspapers	100%	95%

Books, Khadi and milk were to be charged at Half Parcel rates.

11.07 From 1.4.1960, when metric units were adopted, the following basis was adopted for arriving at Half and Quarter Parcel rates:-

<u>Distance stage</u> (Kms.)	<u>Rate per quintal per km.</u> (Paise)
1 - 160	3.469
161 - 320	+ 2.602
321 - 1130	+ 1.735
Beyond 1130	+ 1.301

The Half Parcel and Quarter Parcel rates were to be  $\frac{1}{2}$  and  $\frac{1}{4}$  of the above rates. To these, a supplementary charge

of 12-1/2 was also to be added except in the case of newspapers, books, milk and Khadi where this supplementary charge was not to be levied.

11.08 From 1.4.1970, all the parcel rates were divided into 8 scales and linked to Class 100 goods rate as shown below:-

<u>Particulars</u>	<u>Scale</u>	<u>%age to 100 Class goods rates.</u>
i) Full parcel rates.	1	300
ii) Betel leaves, butter, cream and khoa (dried milk).	2	240
iii) Expensive fruits (apples, anars, cherries, grapes).	3	160
iv) Half parcel rates.	4	140
v) Vegetables, books, khaddar.	5	120
vi) Milk (as prior to 1.4.70)	6	-
vii) Newspapers.	7	80
viii) Quarter parcel rates	8	70

As certain articles of parcels traffic were exempted from the supplementary charges introduced from 1.4.1974 and 15.9.1974, it became necessary to split up Scales 4 and 5 into sub-parts to reflect the supplementary charges applicable to different commodities which were earlier chargeable at the same basic scale.

The commodities chargeable under the split-up scales were:-

- Scale 4A - Eggs, bread, fish, meat frogs, ice cream, etc.
- " 4B - Fresh fruits (except expensive fruits chargeable under Scale 3).
- " 4C - Amla green, chillies green, garlic green, leaves green, potatoes, onions.
- " 5A - Books & Khaddar.
- " 5B - Vegetables.

Since then there has been no revision of basic parcel rate structure; but supplementary charges, discussed in para 11.11 below, have been levied from time to time.

11.09 After April, 1970 the relativity between goods and parcel rates was disturbed as the supplementary charges levied on parcel rates were neither to the same extent as those levied on goods rates nor were they levied uniformly over all commodities, when such a levy was actually imposed on parcel rates. Accordingly, on the basis of the recommendations of the Rail Tariff Enquiry Committee in its Interim Report, the following increases were made in the existing concessional parcel rates, inclusive of supplementary charge, with a view to restoring the relativity of various concessional parcel rates with goods rates as established on 1-4-1970:-

Scale	Description of articles	Approximate increase required over existing rates	
		Upto 500 Kms.	Beyond 500 Kms.
1	Betel leaves, butter, cream and khoa.	-	10%
3	Expensive fruits (apples, anar, cherries, and grapes).	8%	20%
4A	Ice, eggs, bread, fish, meat and handloom products.	-	10%
4B	Fresh fruits except expensive fruits.	8%	20%
4C	Amla green, chillies, garlic, ginger, potatoes and onions.	25%	40%
5A	Books and Khaddar.	-	10%
5B	Fresh vegetables (including lime and tomatoes).	25%	40%
6	Milk	25%	40%
7	Newspapers.	-	10%
8	Seeds for agricultural purposes, fish spawn etc.		10%

#### Treasure and Other Valuable Consignments

11.10 Treasure consignments consist of specie (gold, silver, copper, bronze and nickel coins), bullion, currency notes, defaced notes, Government stamps and Postal Orders. Prior to 1.9.1979, they were carried at special rates indicated in IRCA Coaching Tariff No.22, Part IV, which were often lower than Scale I parcel rates, particularly at shorter distances. In view of the value and extraordinary nature of these consignments, Railways are required to take extra care at the forwarding station, in transit and at the destination station, such as keeping them in a separate room under guard, providing an armed escort if the value of treasure

is Rs.5000/- or more. It was, therefore, felt that treasure should be charged at a rate higher than Scale I rate and, on the recommendations of R.T.B.C. in its Interim Report, from 1-9-1979 the rates for such consignments were fixed as a percentage of Scale I rate, viz., 300% for gold, bullion and coin and 200% for other treasure consignments.

Besides treasure, there are other valuable/extraordinary consignments like precious stones, jewellery, narcotics, etc. for which Railways have to make special arrangements for safe handling. Prior to 1.9.1979 these were all charged at Scale 1 rate. On the basis of recommendations in the Interim Report, rates for such consignments were also fixed as a percentage of Scale 1 rate varying from 150% for ivory, silver plated articles, etc., to 300% for opium, platinum, precious stones, etc.

#### Terminal Charge:

11.11 Prior to 1.10.1948, no separate terminal charge was leviable on parcels. From 1.10.1948, in line with the changes in freight rate structure, a separate terminal charge at the rate of 16 pies per maund was levied on all parcels carried at Full, Half or Quarter Parcel rates. From 1.10.1958, terminal charge was abolished on Full Parcel rates, on the ground that separate terminal charge on freight rates stood abolished on <sup>the</sup> basis of the recommendations of the Freight Structure Enquiry Committee and the Full Parcel rate was linked with goods rate Class 100-B. As Half and Quarter Parcel rates were not directly linked with the goods rate, the levy of a separate terminal charge on them was retained. It was converted into 22 paise per quintal when the metric units were adopted from 1.4.1960 but discontinued from 1.4.1970 when the Full Parcel rate as well as the concessional parcel rates were linked to goods rate Class 100. Since then parcel rates are inclusive of terminal charge.

Supplementary charges

11.12 Since the revision of the basic rates in October, 1948, supplementary charges were levied on an ad hoc basis from time to time, as under:-

1-4-1956:- A supplementary charge of 6 $\frac{1}{4}$ % was levied on the rates in force on 1.10.1948.

1-7-1957:- The supplementary charge of 6 $\frac{1}{4}$ % was enhanced to 12 $\frac{1}{2}$ %. This additional supplementary charge was, however, not levied on milk, newsprint, books, newspapers and khadi.

After the revision of the basic rates of parcels from 1.10.1958 as a result of the recommendations of the Freight Structure Enquiry Committee, the following supplementary charges were levied:-

1-4-1963:- 10% on all parcels except vegetables, milk and newspapers.

1-4-1968:- The supplementary charge of 10% was enhanced to 20%; vegetables, milk, and newspapers continued to be exempted.

These charges were superseded by the revised parcel rate structure brought in force from 1-4-70. Subsequently, the following supplementary charges on the basic parcel rates of 1970 were levied from time to time:-

15-4-1972:- 5% charge on all parcels traffic.

1-4-1974:- 5% charge enhanced to 15% except fruits, vegetables and milk on which only 5% charge continued to be levied.

15-9-1974:- 15% charge over and above the supplementary charge levied in April, 1974. Fruits, vegetables and milk, however, were exempted.

1-9-1979:- As mentioned earlier, the parcel rates, including the supplementary charges mentioned above, were enhanced by various percentages in order to restore their relativity with the goods rate Class 100.



Pre-payment of Parcels

11.15 Prior to 1.4.64, charges for **only** perishable parcels like betel leaves, fruits and vegetables and milk were required to be prepaid. From 1.4.64, prepayment of freight has been made compulsory for all parcels upto 500 kms.

Luggage

11.16 Luggage was charged at Full Parcel rate till 31.3.69. From 1.4.69, luggage rate was fixed 10 per cent higher than Full Parcel rate. From 1.4.70, it was fixed at 320 per cent of goods rate Class 100 as against 300 per cent for Scale 1 parcel rate. Since then it continues to be charged on this basis.

The luggage rate was subjected to all the supplementary charges levied from time to time on parcels. With effect from 1.9.79, the luggage rate has been increased by 10 per cent beyond 500 kms. to restore its relativity with the goods rates as established on 1.4.70.

Bulky Articles

11.17 On 1.10.43, bulky articles were subjected to a minimum charge as for 100 maunds per vehicle (4-wheeled) of any gauge; for a six-wheeler, the charge was as for 1½ vehicles and, for a bogie, the charge was as for two vehicles. With the adoption of metric units from 1.4.60, the minimum weight for charge as for 100 maunds was changed to 35 quintals. From 1.3.77, separate minimum weights for charge of 45 quintals for BG and 35 quintals for MG/NG were quoted. They were enhanced to 60 quintals for BG and 40 quintals for MG/NG from 1.9.79.

Livestock

11.18 Basic Rate Structure:- The changes made from time to time since 1948 in the tariff for livestock in vehicle loads are given in Statement 11.2. Livestock are charged at vehicle kilometre rate except camels and elephants which are charged at "Per Animal" rate. The charge was at a flat vehicle kilometre rate for all distances till September, 1978. From 1.10.78, rates on telescopic basis have been adopted for all types of livestock.

Terminal charge

11.19 From 1-10-1948, the following terminal charges were levied in addition to the charges for carriage of the livestock by passenger train:-

	<u>Per 4 wheeled wagon at each end</u>
	Rs. As. P.
B.G.	5 - 0 - 0
M.G.	3 - 8 - 0
N.G.	2 - 0 - 0

The charges for 6 wheeled and the bogie wagon were increased in the following proportions, viz., bogie as for two 4 wheeled wagons, 6 wheeled as for 1/2 4 wheeled wagons.

This terminal charge was totally abolished from 1-10-1958.

Motor cars, etc.

11.20 Basic rate structure:- The chargeable rates for aeroplanes, motor cars, motor boats, etc., levied since 1948 are summarised in the Statement 11.3. They have been charged at a flat vehicle kilometre rate irrespective of distance, except in case of motor cars etc., where a lower rate was introduced for over 100 miles from 1-10-1958.

Terminal charges

11.21 From 1-10-1948, a terminal charge of Rs.3/- per 4 wheeled vehicle used was levied at each end in addition to the freight charges.

This charge was abolished from 1-10-1958.

Excepted Articles

11.22 Articles of value listed in Schedule II of Indian Railways Act, 1890 are called 'Excepted Articles'. If any package containing these articles is booked for carriage by rail, no claim for loss or damage in transit is payable if the value of such articles in a package exceeds Rs.500/- unless the contents and their value are declared at the time of booking and a percentage charge paid on the value declared. The list of articles



in Schedule II has been revised since Independence, in 1951, 1953, 1960, 1961, 1963, 1970 and 1975. Prior to 1962, the percentage charge was payable if the value of 'Excepted Articles' exceeded Rs.300/-. It was raised to Rs.500/- with the assumption of 'common carriers' liability by the Railways from 1.1.1962.

The percentage charge on value payable is as follows, subject to a minimum of Rs.2/- and a maximum of 1 per cent of the declared value:-

Articles	Percentage charge on value at 160 kms or part thereof
1. All art pottery, and all articles made of glass, china, marble etc.	25 paise per 100 rupees or part thereof.
2. Gold, silver and other 'Excepted Articles'.	13 paise per 100 rupees or part thereof.

This rate of percentage charge has been in vogue since Independence, except that it was converted into metric units in 1960.

Statement 11.1

Full/Scale 1 Parcel Rates as on 1.10.1948, 1.10.1958,  
1.4.1970 and 1.9.1979 and percentage increase over the previous rates.

Distance		Full parcel rate as on 1.10.1948			Full parcel rate as on 1.10.1958			Scale 1 rate as on 1.7.1970			Scale 1 rate as on 1.9.79					
		Rate per maund	Rate per qtl.	Rs.P.	Rate per maund	Rate per qtl.	% increase over the rates of 1.10.48	Rate per qtl.	% increase over the rates of 1.10.48	Rate per qtl.	% increase over the rate of 1.10.48	Rate per qtl.	% increase over the rate of 1.10.48	% increase over the rate of 1.4.70		
Miles	Kms.	Rs.	A.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.		Rs.P.		Rs.P.				
100	160	2	2	8	2.16	5.79	2.43	6.51	12.4	9.29	60.5	42.7	12.28	112.1	88.6	32.2
200	320	3	11	8	3.73	9.99	4.20	11.25	12.6	14.87	48.9	32.2	19.67	96.9	74.8	32.3
300	480	4	12	4	4.77	12.78	5.91	15.83	23.9	19.91	55.8	25.8	26.34	106.1	66.4	32.3
500	800	6	13	8	6.85	18.35	8.46	22.66	23.5	29.36	60.0	29.6	42.70	132.7	88.4	45.4
600	960	7	14	4	7.89	21.14	9.58	25.66	21.4	34.10	61.3	32.9	49.61	134.7	93.3	45.5
800	1280	9	11	6	9.72	26.04	11.93	31.96	22.7	42.56	63.4	33.2	61.91	137.8	93.7	45.5
1000	1600	11	4	6	11.28	30.22	14.06	37.67	24.7	49.76	64.7	32.1	72.38	139.5	92.1	45.5
1200	1920	12	13	6	12.84	34.40	16.18	43.35	26.0	56.81	65.2	31.1	82.64	140.2	90.6	45.5
1500	2400	15	3	0	15.19	40.69	18.59	49.80	22.4	65.36	60.6	31.2	95.07	133.6	90.9	45.5

Half/Scale 4 parcel rates per maund/ctl. as on 1.10.1948, 1.10.1958  
1.4.1970 and 1.9.1979 and percentage increase over the previous rates.

Distance		Half parcel rate as on 1.10.1948				Half parcel rate as on 1.10.1958			Scale 4 rate as on 1.4.1970			Scale 4 rate as on 1.9.79.				
		Rate per maund		Rate per qtl.	Rate per maund.	Rate per qtl.	% increase over the rates of 1.10.48	Rate per qtl.	% increase over the rates of 1.10.48	% increase over the rates of 1.10.58	Rate per qtl.	% increase over the rate of				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Miles	Kms	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.		Rs.	P.	P.			
100	160	1	2	0	1.12	3.00	1.24	3.32	10.7	4.44	48.0	33.7	5.88	96.0	77.1	32.4
200	320	1	14	6	1.90	5.09	2.12	5.68	11.6	7.05	38.5	24.1	9.33	83.3	64.3	32.5
300	480	2	6	10	2.42	6.48	2.72	7.29	12.5	9.40	45.1	28.9	12.43	91.8	70.5	32.2
500	800	3	7	6	3.47	9.30	3.89	10.42	12.0	13.81	48.5	32.5	20.09	116.0	92.8	45.5
600	960	3	15	10	3.99	10.69	4.46	11.95	11.8	16.02	49.9	34.1	23.30	118.0	95.0	45.4
800	1280	4	14	5	4.90	13.13	5.49	14.71	12.0	19.97	52.1	35.8	29.06	121.3	97.6	45.5
1000	1600	5	10	11	5.68	15.22	6.37	17.07	12.2	23.33	53.3	36.7	33.94	123.0	98.8	45.5
1200	1920	6	7	5	6.47	17.33	7.26	19.45	12.2	26.62	53.6	36.9	38.72	123.4	99.1	45.5
500	2400	7	10	2	7.63	20.44	8.57	22.96	12.3	30.61	49.8	33.3	44.53	117.9	94.0	45.5

## Statement 11-1(contd.)

Quarter/Scale 8 parcel rate per maund/ctl. as on 1.10.1948, 1.10.1958, 1.4.1970 and 1.9.1979 and percentage increase over the previous rates.

Distance		Quarter parcel rate as on 1.10.1948			Quarter parcel rate as on 1.10.1958			Scale 8 rate as on 1.4.1970			Scale 8 rate as on 1.9.79			
		Rate per maund	Rate per ctl.	Rate per maund.	Rate per ctl.	% increase over the rates of 1-10-48	Rate per ctl.	% increase over the rates of 1.10.48	Rate per ctl.	% increase over the rate of 1.10.58	Rate per ctl.	% increase over the rate of 1.4.70		
Miles	Kms.	Rs.A.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	
100	160	0 9 8	0.60	1.61	0.67	1.79	11.2	2.32	44.1	29.6	3.07	90.7	71.5	32.3
200	320	0.15 11	0.99	2.65	1.11	2.97	12.1	3.62	36.6	21.9	4.78	80.4	60.9	32.0
300	480	1 4 1	1.26	3.38	1.41	3.78	11.8	4.80	42.0	27.0	6.35	87.9	68.0	32.3
500	800	1 12 5	1.78	4.77	1.99	5.33	11.7	7.00	46.8	31.3	10.19	113.6	91.2	45.6
600	960	2 0 7	2.04	5.47	2.28	6.11	11.7	8.11	48.3	32.7	11.80	115.7	93.1	45.5
800	1280	2 7 11	2.49	6.67	2.80	7.50	12.4	10.08	51.1	34.4	14.66	119.8	95.5	45.4
000	1600	2 14 2	2.88	7.72	3.23	8.65	12.1	11.76	52.3	36.0	17.11	121.6	97.8	45.5
200	1920	3 4 5	3.28	8.79	3.67	9.83	11.8	13.41	52.6	36.4	19.50	121.8	98.4	45.4
500	2400	3 15 9	3.86	10.34	4.34	11.63	12.5	15.40	48.9	32.4	22.41	116.7	92.7	45.5

## Changes in Freight rates per mile/km. in respect of live stock in vehicles

Date of change	Elephant / Elephant Calves.					
	First full grown animal	First Elephant Calf.	Additional grown animal	Elephant calf loaded with parent animal	Additional elephant calf	Minimum charge per vehicle/bgoic.
1	2	3	4	5	6	7
	Rs.As.P.	Rs.As.P.	Rs.As.P.	Rs.As.P.	Rs.As.P.	Rs.As.P.
1.10.1948 (4 Wh.)	1-8-0	1-0-0	-	0-8-0	0-12-0	50/-
(8 Wh.)	3-0-0	2-0-0	1-8-0	0-8-0	0-12-0	50/-
	(Single or two)		(In excess of two)	(Each)	(In excess of two)	
1.4.1956*	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.P.	Rs.
1.7.1957*						
1.10.1958 (4 Wh.)	1.50	1.00	-	0.50	0.75	50/-
(Bogie)	3.00	2.00	1.50	0.50	0.75	50/-

1.4.1960 Rates converted into metric units.

1.4.1963\*

1.4.1968\*

1.3.1969.

15.4.1972\*

1.4.1974\*.

15.9.1974\*

1.10.1978.

Distance in Kms.	Elephants & elephant calves (per animal)
	Rs.P.
1 - 250	1.85
251 - 500	1.65
501 - 800	1.60
801 - 1800	1.55
1801 - 2400	1.50
Over 2400	1.45

75/-

\* Supplementary charges levied. Please see for the details at the end of the statement.

## Changes in Freight rates per mile/km. in respect of Live Stock in vehicles

Date of change	Cannels			Horses, Ponies, Mules, Donkeys, Horned Cattle		
	First animal	Additional animal	Minimum charge	First animal	Additional animal	Minimum charge
1	2	3	4	5	6	7
	Rs.As.p.	Rs.As.P.	Rs.	Rs.As.P.	Rs.As.P.	Rs.
1.10.1948 (4 Wh.)	1-0-0	0-8-0	50/-	0-6-0	0-2-0	50/-
(8 Wh.)	2-0-0	0-12-0	50/-			(Per 4 wheeled wagon)
(Single or two)		(In excess of two)				
1.4.1956 *						
1.7.1957*	Rs.p.	Rs.p.		Rs.p.	Rs.p.	
1.10.1958 (4Wh.)	1.20	0.60	50/-	0.50	0.15	50/-
Bogie.	2.40	1.00	50/-			
1.4.1960	Rates converted into metric units.					
1.4.1963 *						
1.4.1968*						
1.3.1969.			75/-			75/-
15.4.1972 *						
1.4.1974 *						
15.9.1974.*						

1.10.1978	<u>Distance in Kms.</u>	<u>Canal (per animal)</u>	<u>Horses, ponies horned cattle etc.</u>	
		Rs.P.	Rs.P. (BG)	Rs.P. (MG/NG)
	1 - 250	1.78	1.85	1.50
	251 - 500	1.10	1.65	1.30
	501 - 800	1.05	1.60	1.29
	801 -1800	1.03	1.55	1.22
	1801 -2400	1.00	1.50	1.00
	Over 2400	0.97	1.45	0.95

\* Supplementary charges levied. Please see for details at the end of the statement.

Changes in Freight rates per mile/km. in respect of live stock in vehicles.

Date of change	Calves, Sheep, Goats Pigs.		Dogs in packs in Horse box or other vehicle		Wild animals and birds	
	Rate per mile	Minimum charge	Rate per mile	Minimum charge	Rate per mile per vehicle.	Minimum Charge.
1	2	3	4	5	6	7
	Rs.As.P.	Rs.	Rs.As.P.	Rs.	Rs.As.P.	Rs.
1.10.1948	B.G. 1-0-0	50/-	1-0-0	50/-	1-0-0	50/-
	M.G. 0-12-0	50/-				
	Special van of CC for 50 or more animals.	1-8-0	50/-			
1.4.1956*						
1.7.1957*						
1.10.1958	Rs.p. B.G. 1.20	50/-	Rs.p. 1.20	50/-	Rs.p. 1.20	50/-
	M.G. 0.90	50/-				
	Special vans 1.80(OR)	50/-				
	25% more (RR)					
	Excess No. of animals charged @ 7 paise/km. per head.					
1.4.1960						
1.4.1963*						
1.4.1968*						
1.3.1969		50/-		50/-		50/-
15.4.1972*						
1.4.1974*						
15.9.1974*						
1.10.1978						

Rates converted into metric units.

Distance Kms.	Calves, sheep, goats, pigs & Dogs(in packs)			Wild animals.
	B.G. Rs.P.	M.G. Rs.P.	Spl. Van. Rs.P.	Rs.P.
1 - 250	1.78	1.40	2.80	1.78
251 - 700	1.10	1.00	2.00	1.10
501 - 800	1.05	0.75	1.50	1.05
801 - 1800	1.03	0.73	1.46	1.03
1801 - 2400	1.00	0.71	1.42	1.00
Over 2400	0.97	0.68	1.36	0.97

\* Supplementary charges levied. Please see for details at the end of the statement.

Changes in Freight rates per mile/km. in respect of live stock in vehicles.

\* SUPPLEMENTARY CHARGE:

- 1.4.1956 A supplementary charge of 6 $\frac{1}{4}$ % was levied.
- 1.7.1957 The supplementary charge of 6 $\frac{1}{4}$ % was enhanced to 12 $\frac{1}{2}$ %.
- 1.4.1963 A supplementary charge of 10% was levied over the rates introduced from 1.10.1958 and converted into metric units from 1.4.1960.
- 1.4.1968 The supplementary charge of 10% was raised to 20%.
- 15.4.1972 A supplementary charge of 5% was levied in addition to 20% supplementary charge introduced from 1.4.1968 and both the supplementary charges were merged in the basic rate and a rate table was introduced w.e.f. 15.4.1972.
- 1.4.1974 A supplementary charge of 10% was levied over the rates in force from 15.4.1972.
- 15.9.1974 An additional supplementary charge of 15% was levied.



Changes in freight rates for carriage of Aeroplanes, Motor boats, Motor cars, Motor tractors etc. in a 4 or 6 wheeled vehicle per mile/Km.

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Dates Year.	Type of vehicle	Aeroplanes, Motor boats and Motor Trolleys.		Boats	Motor cars.	
		OR	RR		OR	RR
		3(a)	3(b)		5(a)	5(b)
1	2	Es.As.p.	Es.As.p.	Es.As.p.	Es.As.p.	Es.As.p.
1.10.1948	4 Wh.	1-0-0	1-4-0	0-12-0 (4Wh. or 6 wheeled) (Single) 0-6-0 (Every addl.)	0-12-0 ( - Single -) 0-9-0 ( - Additional -)	0-15-0
	Bogie	1-4-0 (-one or two -)	1-9-0 (one or two)	1-0-0 (one or two)	1-0-0 (- one or two -)	1-4-0 (Every addl.)
		0-10-0 (-Every addl.)	0-12-6 (Every addl.)	0-6-0 (Every addl.)	0-6-0 (Every addl.)	0-7-6 (Every addl.)
1.4.1956*						
1.7.1957*		Es.p.	Es.p.	Es.p.	Es.p.	Es.p.
1.10.1958	4 Wh. or 6 wheeled	1.40	1.60	1.00 (Single) 0.50 (every addl.)	1.20 (single - ) 1 - 100 miles, 0.60 (-single-) Over 100 miles)	1.40 (-single-) Over 100 miles)
	Bogie.	1.60 (-one or two-)	2.00 (one or two)	1.20 (one or two)	2.40 (- one or two -) 1 - 100 miles 1.20 (-one or two-) Over 100 miles.)	2.80 (-one or two-) Over 100 miles.)
		0.80 (-Every addl.-)	1.00 (every addl.)	0.50 (every addl.)	0.50 (-every addl.-) For all distan- ces.	0.50 (every addl.) For all distan- ces.)
1.4.1960	Rates were converted into metric units and were notified.					
1.4.1963*						
1.4.1968*						
15.4.1972*						
1.4.1974*						

.....contd.

Statement 11-3

Change in freight rates for carriage of Aeroplanes, Motor boats, Motor cars, Motor tractors etc. in a 4 or 6 wheeled vehicle per mile/km.

Motor car and a carriage loaded together in a truck.		Motor Tractor with or without a plough on wheels attached.		Type of vehicle.	Dates Year.
OR	RR	OR	RR		
6(a)	6(b)	7(a)	7(b)	8	9
Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.		
1-0-0	1-4-0	0-10-0 (- Single -)	0-12-6	4Wh.	1.10.1948
		0-6-0 (Every Addl.)	0-7-6		
		1-0-0 (-one or two-)	1-4-0	Bogie.	
		0-6-0 (Every addl. in excess of two)	0-7-0		
1-100 miles	1-4-0			4 Wh.	1950
Over 100 miles.	0-12-0		0-15-0		
					1.4.1956*
					1.7.1957*
1-100 miles	Rs. p. 1.20	Rs. p. 1.60	Rs. p. 0.80	Rs. p. 1.00	4Wh. 1.10.1958
			(- single -)		or
Over 100 miles	1.00	1.20	0.50	0.60	6 Wh.
			(-Every addl.-)		
			1.20	1.60	Bogie
			(one or two)		
			0.50	0.60	}
			Every addl. in excess of two)		

Rates were converted into metric units and were notified.

1.4.1960

1.4.1963\*

1.4.1968\*

15.4.1972\*

1.4.1974\*

.....contd.

Statement 11-3 (contd.)

Change in freight rates for carriage of Aeroplane, Motor boats, Motor cars, Motor tractors etc. in a 4 or 6 wheeled vehicle per mile/Km.

Dates Year.	Type of vehicle	Aeroplanes, Motor boats and Motor Trolleys.		Boats	Motor cars.		Motor car and a carriage loaded to- gether in a truck		Motor Tractor with or without a plough on wheels attached.	
		OR	RR		OR	RR	OR	RR	OR	RR
1	2	3(a)	3(b)	4	5(a)	5b)	6(a)	6(b)	7(a)	7(b)

15.4.1974\*

1.9.1979 The freight rates were increased by 15% for distances upto 500 kms. and by 25% beyond.

i) Aeroplanes are charged at double the rates applicable to motor cars.

ii) Trucks are charged as for motor boats.

\* Supplementary charge

1.4.1956: A supplementary charge of 6 1/4% was levied.

1.7.1957: The supplementary charge of 6 1/4% was enhanced to 12 1/2%.

1.4.1963: A supplementary charge of 10% was levied over the rates introduced from 1.10.1958 and converted into metric units from 1.4.1960.

1.4.1968 The supplementary charge of 10% was raised to 20%.

15.4.1972: A supplementary charge of 3% was ~~introduced~~ in addition to 20% supplementary charge introduced from 1.4.1968 and both the supplementary charges were merged in the basic rates and a rate table was introduced w.o.f. 15.4.1972.

1.4.1974: A supplementary charge of 10% was levied over the rates in force from 15.4.1972.

15.9.1974: An additional supplementary charge of 15% was levied.

Minimum charge for vehicle.

<u>Date</u>	<u>Rate of charge</u>
1.10.1948	Rs.50/-
1.3.1969	Rs.75/-

## CHAPTER XII

### TARIFFS FOR OTHER COACHING TRAFFIC

12.01 In this chapter, it is proposed to deal with the tariff for passengers' luggage, parcel and other traffic such as motor cars and livestock, carried by passenger and parcel trains. Collectively, these are popularly known as 'other coaching' traffic.

#### Nature and Volume of Traffic

12.02 Commoditywise statistics of the volume of the 'other coaching' traffic, the distance over which the traffic is carried and earnings therefrom, are not compiled. The only data available are the total tonnage of parcel traffic. In 1976-77 this added upto 2.3 million tonnes. It has been roughly estimated that the volume of luggage carried in 1976-77 aggregated 0.44 million tonnes; motor car and livestock traffic is relatively insignificant. Some idea of the nature of 'other coaching' traffic and the relative importance of different goods, articles and animals comprising it has, however, recently become available as a result of the sample studies for six days in a year ~~in~~ three days in April and three days in October-77- conducted by certain Railways at the instance of the Railway Board. Statement 12.1 gives an ABC analysis of the weight, average distance carried, tonne km, and earnings, of the more important goods and articles and livestock, carried in the sample period on six Railways. The Committee also made extensive studies of its own to get a clearer idea of the nature and volume of "other coaching" traffic.

#### Unit Costs

12.03 The Railway Board has not worked out the unit costs of the 'other coaching' traffic. As explained in Chapter V, the only cost figure relating to 'other coaching' traffic developed by the Railway Board as a result of the coaching cost study is the cost per vehicle km. We have, therefore, worked

out the cost of carrying 'other coaching' traffic per quintal-km with the aid of other relevant data collected by the Committee. We have used both the cost per vehicle-km developed by the Railway Board as a result of the coaching cost study and the unit costs calculated by us, duly escalated by 30 per cent for the reasons explained in Chapter VI, for formulating our proposals.

#### The Conceptual Framework

12.04 In 1976-77, Railways earned Rs.60.79 crores from the 'other coaching' traffic (Rs.51.59 crores parcels, Rs.8.05 crores luggage, Rs.0.64 crores motor cars, Rs.0.51 crores livestock). It has been estimated that the revenues fell short of expenses by at least Rs.25 crores. The loss was due to the fact that the increase in the rates for these categories of traffic has trailed behind the increase in the costs of operation: details are given in statement 12.2. That the loss was inevitable can be seen from the fact that, as shown in statement 12.3, even the highest (Scale 1) rate for parcels in 1976-77 was lower than the cost upto 300 kms and again after 1000 kms and in the intervening stages it barely covered the cost. The rates were revised from 1.9.1979 in line with the recommendations in our Interim Report; but even the rates so revised do not cover the 1976-77 cost upto 300 kms and again after 2000 kms (vide statement 12.4). It is necessary to correct this distortion in the tariff.

12.05 The loss will increase further if due provision is made for all necessary costs. This matter has been examined in Chapter VI. Of the additional revenues required to meet all necessary costs, it is considered that about Rs.35 crores will have to be raised from 'other coaching' traffic. Accordingly, the rate structure for 'other coaching' traffic would have to be so designed as to augment the revenue therefrom by about Rs.35 crores. Only an increase of this order would enable 'other coaching' services to meet their costs, including dividend (interest) on capital. It is considered that they must at least meet these costs, even if they do not generate any further resources as a contribution to the pool of

investible resources. As a basic principle, transport pricing must be cost-based and our Terms of Reference also envisage this. We do not see any logic in running 'other coaching' services at a loss when there are no compelling social grounds for it.

12.06 The rate structure we envisage would cover the costs fully at every stage except perhaps at far away distances where there is hardly any traffic. However, every variety of parcels -- vegetables and milk for instance which have low unit value and are daily necessities of the common man -- cannot bear its full cost while some valuable goods -- cinema films to take an example -- can bear more than their proportionate share of costs. It is, therefore, necessary to so distribute the burden of the additional revenue required as to make it consonant with the capacity of different goods and articles to bear the increase. The policy aim, therefore, must be to charge for each variety of traffic what it can bear, while ensuring that the revenues from 'other coaching' traffic taken as a whole cover their full costs. The costs referred to are, of course, the costs expected in 1980-81 after making due provision for all necessary costs as explained in Chapter VI

12.07 The goods and articles carried by the parcel service can also be carried by roadways. Taking into account the relative fuel efficiencies of road and rail and the environmental aspect, it is the national objective that, while short distance traffic should be carried by road, the medium and longer distance traffic should be carried by rail. For short distances, therefore, parcel rates must be comparable with the road rates while for longer distances they should be lower than road rates. This national objective has been kept in view in designing the structure of parcel rates.

12.08 It has been observed that some consumable articles -- milk (406 kms), vegetables (549 kms), fish (733 kms) and eggs (837 kms) -- are being carried over long distances (figures in bracket show the average distances over which a consignment is carried vide statement 12.1). The long distances over which such traffic is carried reflects mainly the imports in the metropolitan areas. In our view, the tariff structure should encourage the development of production of these nearer the metropolitan areas, and we have borne this in mind in designing the tariff structure.

12.09 The history of evolution of 'other coaching' rates is given in Chapter XI. It would appear that rates for the parcel service have been derived from rates for goods service and no effort has been made at any time to develop an independent rate structure for it. When the parcel rates were linked with goods rates in 1958 and again in 1970, it was expected that the parcel rates would be concurrently revised on each occasion when the goods rates are revised, and thus a rational relativity between the two would be constantly maintained. This expectation was, however, not fulfilled; parcel rates were increased at a slower rate and on an ad hoc basis. The rates for motor cars and livestock carried by passenger trains have developed independently and have no direct link with goods rates.

12.10 As indicated above, in the past an attempt had been made to maintain a certain relationship between parcel rates and goods rates. In our view, this is neither necessary nor desirable. Parcels are carried in passenger trains (and in a few cases in parcel trains). The cost structure of passenger trains is entirely different from that of goods trains. The nature of goods and articles and animals carried as parcels is also entirely different from that of the bulky goods which comprise the main goods traffic at present. Parcel traffic comprises newspapers and magazines; milk, vegetables and fruits; eggs, fish, poultry and meat; cinema films; manufactured consumption goods with relatively high unit value. All are highly perishable or, for other reasons, require quick transit which cannot be provided by goods trains and, therefore, such goods are normally not carried by goods trains at all

even as "smalls". The structure of rates we are developing for 'other coaching' traffic, is therefore, based on the costs of operating passenger trains.

12.11 In general, our approach is that, while covering its costs the brakevan or other vehicle in which 'other coaching' traffic is conveyed should, by and large, earn the same amount as a second class sleeper coach in a Mail/Express train, and the rate structure has been designed to ensure this. Passenger trains are meant primarily for passengers and, taking into account the volume of passenger traffic expected in future, a brakevan or other vehicle could easily be replaced by a second class sleeper coach and that coach would have a full load. It is, therefore, only reasonable that the income from a brakevan or other vehicle attached to a passenger train for carrying 'other coaching' traffic should not be less than that of a second class sleeper coach in a Mail/Express train.

12.12 The <sup>present</sup> tariff has also many anomalies and it is difficult to see the rationale for some of its provisions in the existing conditions. While bringing the rates in alignment with future costs with a view to making the 'other coaching' services more or less self-supporting, we have also attempted to rationalise the other provisions of the tariff.

### The Structure

12.13 The tariff structure for passengers' luggage and parcels traffic we are recommending has four sets of sliding scales:

- A sliding scale according to the economic value of the consignment; all goods and articles would be divided in different classes according to the transportation characteristics and value of the goods and each class charged at a different scale.
- A sliding scale according to the weight of the consignment; the rate for a consignment of lower weight would be relatively more than that for a consignment of higher weight.



- A sliding scale according to the distance; the charge will be based on the distance but the per km rate would decrease as the length of the haul increases.
- A sliding scale according to the quality of service; goods and articles carried by faster trains would be charged relatively more than those carried in slower trains.

All of these except the first are justified by reasons of cost; tariff distinctions according to the value of goods is necessary on wider social grounds.

12.14 Motor cars and livestock will be charged at an appropriate parcel rate as explained subsequently.

Sliding Scale According to Economic Value

12.15 The number of Scales (Classes) in which parcels and luggage are divided for the purpose of charge has been increasing -- in 1978 there were 13 Scales as against 10 in 1970, six in 1958 and five in 1948. The following chart shows how the five Scales in 1948 have been progressively broken up:

1948	1958	1970	1978
Full parcel	Full parcel	( Luggage Scale 1	Luggage Scale 1
Special	Special	Scale 2 ( Scale 3	Scale 2 Scale 3
Half parcel	Half parcel	Scale 4	( Scale 4A Scale 4B Scale 4C
		Scale 5	( Scale 5A Scale 5B
		Scale 6	Scale 6
		Newspapers	Scale 7
Quarter parcel	Quarter parcel	Scale 8	Scale 8
Small parcels	Small parcels	Small parcels	Small parcels

12.16 The proliferation of the Scales after 1970 is due to the exemption to certain articles charged at Scale 4 and 5 from supplementary charges introduced on 1.4.1974 and 15.9.1974 - Scale 4 was subdivided into 4A, 4B and 4C, and Scale 5 into 5A and 5B, to reflect the supplementary charges applicable to different commodities which were earlier charged at the same basic Scale. The rates have since been increased (from 1.9.1979) in terms of the recommendation in our Interim Report and this has, in effect, resulted in the withdrawal of the exemptions from the supplementary charges referred to above. Therefore, there is now practically no difference among Scales 4A, 4B and 4C on the one hand and between 5A and 5B on the other; however, formally they are still treated as separate Scales. The rate for small parcels has been abolished from 1.9.1979 in terms of the recommendation in our Interim Report. Thus, at present there are 12 Scales on paper but nine Scales for practical purposes.

12.17 The difference in the transportation characteristics, and value, of the goods or articles booked as parcels and luggage is not such as to justify so many classes. It would appear that five or six Classes would be adequate to have a proper application of the principles of cost of service and value of service. Accordingly, it is proposed to divide luggage and different varieties of parcels into six Classes for the purpose of charge and prescribe a separate scale of rates for each.

12.18 It is also proposed that one of these Scales of rates should be treated as the base scale or the norm and equated to 100, and all the other scales of rates (above or below it) derived from it on the basis of the percentage relationships indicated in Table 12.1 (see also para 12.43). For the reasons explained in para 12.53, however, one of the Scales - the NM Scale which will apply to newspapers and magazines - will be kept out of this scheme of the percentage scales. Such a percentage system of scales of rates would have obvious advantages. It would simplify calculation of the different scales of rates,

ensure that they have the intended relationship with each other at all distance stages, and also make easier the revision of the rates whenever an increase in cost makes that necessary.

12.19(a) Table 12.1 shows the proposed scales in juxtaposition with the scales which each would replace. The index shown against the proposed scales indicates the percentage relationship of each to the base Scale GP. The index shown against the existing Scales is the index of their existing rates at 100 kms. in relation to the Scale 1 rate which will be replaced by the proposed base Scale GP.

Table 12.1

Proposed Scales			Existing Scales	
Description		Index of Proposed Rates	Description	Index of rates at 100 Kms.
Luggage Scale	(L)	110	Luggage	106
General Parcel Scale	(GP)	100	Scale 1	100
Concessional Parcel Scale 1	(CP1)	80	Scale 2	80
Concessional Parcel Scale 2	(CP2)	50	Scale 3	53
			Scale 4A )	
			Scale 4B )	48
			Scale 4C )	
			Scale 5A	42
Concessional Parcel Scale 3	(CP3)	40	Scale 5B	42
			Scale 6	27
			Scale 8	26
Newspapers and Magazines	(NM)	Special rate	Scale 7	29

(b) Daily necessities such as vegetables and milk, newspapers and magazines, greatly affect the life of the people. Of these, newspapers and magazines would be charged at the lowest (special) Scale and vegetable and milk at the next higher CP3 Scale. Bread, eggs, fish, poultry and meat as also fruit, which have higher

income elasticity and are normally consumed by the relatively better off people, will be charged at the next higher Scale CP2; books and khadder will also be charged at this rate. Betel leaves, butter and cream will be charged at the next higher Scale CP1 as at present; handloom products will also be charged at this scale. All goods and articles not otherwise mentioned (machinery parts, medicines, cinema films, textiles, leather goods, aluminium wares, cigarettes, radios, etc) will be charged at the next higher GP Scale which will be the basic Scale. Passengers' luggage will be charged at the L Scale.

12.20 The traffic proposed to be charged at CP2 and CP3 scales comprises mainly perishable goods. These have generally low loadability which makes it difficult to make full use of the carrying capacity and have relatively greater incidence of compensation claims.+ On cost considerations, therefore, the rates for perishables should be at least the same, if not higher, than those for 'hard' parcels to be charged at GP scale. However, in view of their comparatively low value and the fact that they affect the budget of the common man to a larger extent, these are at present charged at lower rates which are roughly equal to 48 per cent and 40 per cent of the Scale 1 rate. It is considered that, even allowing for the factors mentioned above, the rates for (eggs, fish, meat, etc, to be charged at) Scale CP2 and (fresh vegetables, milk, etc, to be charged at) Scale CP3 should be equal to at least 65 per cent and 50 per cent respectively of the basic (GP) scale. A lower equation - 50 per cent and 40 per cent respectively - has, however, been suggested to avoid too steep an increase at one shot (particularly in the case of books and khadder which are proposed to be charged at CP2 scale instead of the replacement Scale CP3 and milk which is proposed to be charged at 40 per cent of GP Scale instead of 27 per cent as at present). This is suggested specially in view of the fact that the rates for these varieties of traffic have been raised

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+ see statement 12.5

12-10

considerably from 1.9.1979 in terms of our Interim recommendations. We would, however, recommend that the Government should increase these rates to the appropriate levels of 65 per cent for CP2 Scale and 50 per cent for CP3 Scale in two or three stages as shown below:

	<u>Proposed</u>	<u>To be raised to</u>		
		<u>1st stage</u>	<u>2nd stage</u>	<u>3rd stage</u>
CP2	50%	55%	60%	65%
CP3	40%	45%	50%	-

Changes in Classification

12.21 Subject to certain changes in classification proposed below, all articles charged at various existing Scales of rates will automatically be charged at the replacement Scales shown against each in Table 12.1 above.

12.22 Under-mentioned fertilisers/insecticides are charged at Scale 4A subject to production of a certificate that the movement is for agricultural purposes, and at Scale 1 otherwise:

64 Can Sonpest  
Copper Sulphate  
DDT Powder  
Methyl Bromide

These fertilisers/insecticides are costly. The concessional rate for Copper Sulphate is only marginally higher, and that for Methyl Bromide considerably lower, than the corresponding goods rate which is anomalous. It is therefore considered that in future they should be charged at CP1 Scale instead of the replacement Scale CP2 when booked for agricultural purposes on production of a certificate, and at GP Scale (which will replace Scale 1) otherwise. Even this arrangement would result in a concession of 20 per cent when the goods are booked for agricultural purposes, and this is considered to be adequate.

12.23 Khaddar and Handlooms: Khaddar is charged at Scale 5A. Handloom products (tailored or untailored and including wearing apparel, handkerchiefs and towels) are charged at Scale 4A on production of a certificate from the Civil Authority that they are manufactured on handlooms (and not power looms), and otherwise at Scale 1 which is also applicable to power loom products. In practice all handlooms products are booked at Scale 4A (on production of the required certificate). The existing parcel rates for khaddar are only marginally higher, and for handloom products (charged at Scale 4A) in fact lower, than corresponding goods rates and this distortion needs to be corrected. In both the cases, the rates being paid for road transport are also much higher than the existing parcel rates (see statement 12.6) which shows that they can bear higher freight charges. In the case of handloom products, it has also been brought to our notice that the need for production of a certificate is resulting in certain hardships in genuine cases and malpractices in other cases, and therefore the rate structure should be revised so as to eliminate the need for the certificate. In the circumstances, it is proposed that khaddar should be charged at Scale CP2 instead of the replacement Scale CP3, and handloom products should be charged at Scale CP1 in all cases (instead of the replacement Scale CP2 on production of the certificate and GP Scale otherwise) thus doing away with the need for the certificate. Apart from bringing the rates in line with what they can bear, this will correct the anomalies in the rates for these commodities vis-a-vis the goods rates mentioned above without upsetting their existing relativity; in the case of handloom products it would also simplify procedure and avoid possible malpractice.

12.24 Books: Books are proposed to be upgraded in the existing terms from Scale 5A to Scale 4A and charged at the proposed Scale CP2 instead of the replacement Scale CP3.

This upgrading is justified by the increase in the price of books (consequent on increase in the price of paper and other production costs); the freight charges being actually paid by road are also much higher than existing parcel rates (see statement 12.6) and this shows that they can bear higher rail freight charges. The upgrading is also necessary to maintain a proper relativity between the rates for books, magazines and newspapers. At present the rate for books (Scale 5A) is higher than that for newspapers and magazines (Scale 7). It is proposed to charge for newspapers at a special rate which will be lower than CP3 Scale and for magazines at a special rate which will be roughly equal to scale CP3. It is therefore proper that books be charged at Scale CP2 as proposed above.

12.25 Fruits: At present expensive fruits (apples, anars and cherries) are charged at scale 3 and other fruits (bananas, oranges, pincapples, etc.) at scale 4B. It is proposed that the former be down-graded in existing terms from scale 3 to scale 4B and both charged at scale CP2 which will replace scale 4B. In our view, the difference in the prices and demand elasticity of the two groups of fruits does not justify the former being charged at higher rates than the latter. The alternative would be to charge the so-called expensive fruits at CP1 rate which would be too high.

12.26 At present all vegetables are charged at scale 5B. In future, only fresh vegetables should be charged at the replacement scale CP3; de-hydrated vegetables which are costlier would be charged at CP1 Scale equivalent to the existing Scale 2.

12.27 Of the various articles charged at scale 8 at present empty Government treasury boxes will be charged at scale CP2 (which will replace scale 4A) at which <sup>other</sup> returned empties are charged. There is no justification for charging a lower rate for empty Government treasury boxes.

12.28 Milk, now charged at scale 6, and the articles other than empty Government treasury boxes referred to ~~above~~ charged at scale 8, will be charged at the replacement scale CP3 (which is the lowest of the new percentage scales). However, in effect their classification will be upgraded as CP3 scale would be relatively higher than a mere replacement scale would have been. However, for the reasons given ~~below~~, this is fully justified:

- (a) parcel rates for milk have increased by only 31 to 47\* per cent since 1957 against 135 per cent for others; in the interval, the price of milk has gone up substantially; with 1970-71 = 100, the index number of price of milk in 1978-79 was 165 against 39 in 1956-57. The increase in the 'catching up' period which follows such an inadequate increase in rates is inevitably more than what might have been otherwise. Even so, the incidence of the proposed rates in the price of milk will be only 2.83 per cent, to 5.18 per cent (Table 12.2)
- (b) scale 8 is applicable to seeds, plants, etc. Seeds cover not only perishable seeds, but seeds of all kinds the price of which is even more than that of other commodities, e.g., fresh vegetables, to which CP3 Scale will apply. The plants for agricultural/horticultural purposes, as also plants for fruit trees, charged at this Scale also take up more than their due share of space in the brakevan.

#### Incidence of Parcel Freight in the Price

12.29 Table 12.2 shows the incidence of parcel freight charges at <sup>the</sup> rates proposed in para 12.43 below, in comparison with the existing rates, in the price of certain important commodities carried as parcels. Annexure 12.1 gives similar information in regard to a much larger list of commodities.

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\* There was no increase from 1957 to 1971. The rates were increased by 5 per cent from 15.4.1972 and by 25 per cent upto 500 kms., and 40 per cent for distances beyond, from 1.9.1979.



Table 12.2

Commodity	Average length of haul	Price per qtl.	Parcel rate per quintal		Incidence of freight on the price at the	
			Existing	Proposed	Existing rate	Proposed rate.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Kms.	Rs.	Rs.	Rs.	Rs.	%
Medicine (Vitamin C)	894	10,400	45.63	61.48	0.44	0.59
Tyres (Cycle)	467	1,360	25.93	33.86	1.91	2.86
Betel leaves (Maghai)	844	700	35.80	43.72	5.11	6.96
Handloom Products						
Bed Sheets	1029	3,200	24.67	57.23	0.77	1.79
Jacard	1029	2,750	24.67	57.23	0.90	2.03
Curtain cloth	1029	2,400	24.67	57.23	1.03	2.33
Towel	1029	950	24.67	57.23	2.60	6.03
Fish (Rohu-Calcutta)	733	1,300	13.39	27.55	1.45	2.12
Text books	821	3,800	13.04	30.16	0.43	0.79
Khadder(Shirting)	500	1,313	11.03	20.30	0.26	0.47
Tomatoes	549	193	13.12	17.40	6.63	3.79
Milk						
Nagpur	406	273	7.66	14.15	2.31	5.13
Bombay	406	340	7.66	14.15	2.25	4.16
Calcutta	406	500	7.66	14.15	1.53	2.83
Language newspapers	429	600	6.67	11.00	1.11	1.83

Note: 1. Prices shown in Col. 3 are wholesale prices except in the case of newspapers.

Note: 2. The average distance for which khadder is transported is not known, the figure of 500 kms. shown in Col.2 is estimated.

Valuable Goods and Articles

12.30 The Railways make special arrangements for the safe handling and transit of articles of specially high value. It was recommended in our Interim Report (paras 9.34 to 9.40) that, such articles mentioned therein should be charged at 1.1/2 to 3 times the applicable rate and this recommendation has been accepted and implemented. It is now proposed that the following other goods and articles of very high value should be charged at the applicable scale plus 50 per cent in each case:

- Examination answer books
- Cardamom
- Cinema films
- Essential oils
- Kesar
- Titanium
- Any other goods or articles the value of which is declared (in connection with percentage charge on excepted articles or otherwise) at more than Rs.70 per kg.

Sliding Scale According to Weight

12.31 The weight for charge of a parcel is at present reckoned in terms of 5 kgs. This practice has been in force for over 50 years now. (The weight for charge was 5 seers upto 31.3.1960 when it was converted in decimal terms of 5 kgs). Conditions have changed considerably in the interval -- the average weight of a consignment has grown steadily and it is now over 1 quintal. Under the present system, the tariff has 20 weight divisions for a quintal and shows a separate rate for each. In the interest of simplification, it is necessary that the number of weight divisions should be as small as possible. In view of the foregoing, we propose that in future, the weight for charge should be reckoned in terms of 10 kgs.

12.32 At present, the rate for a fraction of a quintal is proportionate to the rate for a quintal. Thus the rate for 10 kgs and 20 kgs is 10 per cent and 20 per cent of the rate for a quintal. Certain costs, as for example issue of parcel way bill, are more or less the same irrespective of the weight of the consignment. It is therefore only reasonable that the rate for a smaller consignment should be relatively more, and not in proportion to its weight, to the rate for a quintal. Accordingly, we recommend that rates for consignments of less than 50 kg should be equal to the percentage indicated below of the quintal rate.

<u>Chargeable weight of consignment</u> kg	<u>L Scale/CP Scale/ CP 1 Scale</u>	<u>CP2 Scale/ CP3 Scale</u>
10	14	18
20	23	26
30	32	34
40	41	42

A higher differential in the case of consignments chargeable at CP2 and CP3 Scales is justifiable as these rates are lower and therefore the fixed costs (of issuing a Parcel Way Bill etc) form a higher proportion of the freight charges.

In the case of a consignment weighing over a quintal, the additional charge for every 10 Kg in excess of one quintal will be equal to one tenth of the rate for a quintal.

#### Sliding Scale According to Distance

12.33 The rate structure will, as at present, be distance-based. However, the rates will be constructed in accordance with the well established practice of tapering or reducing the rate per kilometre as the distance increases. While therefore the rates will increase with the distance, they will not increase in exact proportion to the distance. Tapering is consistent with the cost structure. Certain costs eg., issue of a Parcel Way Bill, loading and unloading, etc., are the same regardless of the length of the haul -- the longer the haul, the greater the distance over which such fixed costs can be spread. Secondly, better utilisation of equipment and staff is possible on longer distance of

hauls. The taper reflects the fact that as the length of the haul increases, the cost per kilometre decreases. The practice of tapering also prevents the rates from restricting the movement of long distance traffic. If the rates increase in proportion to the distance, they may soon become so high as to prevent the movement of traffic; longer distance rates must therefore be low enough to enable the traffic to move. However, the taper must not be so sharp as to induce the movement of long distance traffic which would not otherwise be carried.

12.34 The pattern of the taper should reflect the cost structure and at the same time subservise the policy objectives of the tariff revision. While, therefore, the taper in the per kilometre rate should follow the cost curve, it may diverge from it to an extent to serve the broad objectives of the tariff policy. It will be desirable that, as at present, all the percentage Scales (L, GP, CP1, CP2 and CP3) have the same pattern of taper, so that they have the intended relationship with each other at all distance stages.

12.35 The unit rate is composed of the terminal charge and the line haul charge. In the case of goods traffic we have suggested that the terminal charge should be levied separately. However, taking into account the differences in the nature of parcels and goods traffic, we consider that the parcel rate should as at present be a composite rate comprising both the terminal charge and the line haul charge.

12.36 The composite unit rate will have the desired taper if the line haul charge portion of it is calculated on the following basis:

	1 to 100 kms	100 percent of the basic rate	
plus	101 to 200 "	95	-do-
plus	201 to 300 "	80	-do-
plus	301 to 900 "	72.1/2	-do-
plus	901 to 1500 "	65	-do-
plus	1501 kms onwards	50	-do-

and, to the linchaul charge so calculated is added a fixed charge, representing the terminal costs, at each distance stage. In effect, the rate will start with this fixed charge at zero kilometre and then increase as indicated above with increase in the distance.

#### Sliding Scale According to the Quality of Service

12.37 In the present-day world, speed of transit and dependable arrival dates are of importance for high value goods with a quick turnover. The Committee has been repeatedly told by Trade and Industry interests that what is required is speedy and damage-free service and for this they will be willing to pay a "Quality extra" It is therefore necessary to make suitable provisions in our tariff in this regard.

12.38 Our present tariff does not make any distinction based on the quality of service. In fact, in actual practice, the rate varies in inverse proportion to the quality of service. Newspapers and magazines, and perishables (vegetables and fruits, eggs, fish and meat), all of which are low rated, are given priority for carriage by Mail/Express trains; and as these generally take up all the space in the fast trains, other goods and articles which are charged at higher rates are normally carried in slow Ordinary trains or the still slower Parcel trains. Carriage by slower trains entails not only greater transit time but also multiple handling (due to transshipment etc. enroute) and consequently is more prone to damage, pilferage, etc. This increases the users costs, and high rated parcel traffic is therefore not developing as it should.

12.39 Many people would like to send their high rated goods by fast trains to avoid the high inventory cost entailed in longer transit, or to avoid damage etc. enroute, or because they are urgently needed at the destination. It appears that at present some of these people 'manage' somehow to have their goods sent by fast trains. Examination of the records of a large station in a 10-day period showed that on an average 325 such parcels were despatched by Mail/Express trains as a 'special' case while similar parcels booked earlier were awaiting despatch.

12.40 It is clear that two policy changes are necessary and we consider that these could be aided by suitable tariff provisions. Firstly, high rated traffic rather than low rated traffic should be given preference for despatch by fast trains. Secondly, arrangements should be made for despatch of some consignments as desired by the consignor on priority by fast trains. We would like to make the following proposals to achieve these objectives:

- a(i) Perishable traffic for distances upto 500 kms\* should normally be carried by only Ordinary trains (and, if considered necessary, some relatively unimportant Mail Express trains in areas where adequate high rated traffic is not available). Older tariffs show that many Railways did not carry any perishable commodities at all in Mail/Express trains or unless the destination was at least 300 miles (500 kms) away; it may not, therefore, be difficult to arrange that perishable traffic upto, say, 500 kms. is normally carried by Ordinary trains (or certain specified Mail/Express trains as mentioned above). If any consignor wishes to have his goods sent by a fast train, it should be done only on levy of a surcharge of 20 per cent of the basic freight (subject to a suitable minimum).
- a(ii) For longer distances, the Railways should discourage carriage of perishable traffic by fast trains by suitable regulation of quotas for different varieties of traffic/stations. It may be considered whether, say, a 50 per cent cut could be made in the existing quotas. Even where allowed by the quota, a surcharge of 10 per cent of the basic freight (subject to a suitable minimum) should be levied for despatch by fast trains.

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\*The distance limit of 500 kms may be suitably reduced for M.G., if considered appropriate, and N.G.

- (b) The Railways should organise a **QTS** type of service for carriage of other than perishable traffic by Mail/Express trains other than those mentioned in a(i) above. A surcharge at the rate of 10 per cent of the basic freight (subject to a suitable minimum) should be levied in each case of carriage by this service.
- (c) All goods and articles - perishable or non-perishable - carried in Super Fast trains/Rajdhani Express should be subject to a special surcharge. Only consignments specially offered for carriage by these trains should be carried in them and they should be carried by the particular train nominated by the consignor. The surcharge for carriage by Super Fast trains/Rajdhani Express should be levied at two and-a-half/five times the appropriate rate for Mail/Express trains as mentioned in a(i), a(ii) and (b) above. If considered necessary, in order to avoid hold ups enroute, the special service by Superfast trains and Rajdhani Express could first be introduced only between the originating and destination stations.
- (d) The surcharge should be collected only at the destination to avoid the need for refund where traffic is not carried as stipulated.
- (e) Wherever considered necessary, the Railways may prescribe the maximum weight of a consignment and/or maximum size of a package which will be carried on payment of the surcharge.
- (f) The following articles should not be allowed to be carried by the nominated Mail/Express trains on which **QTS** service is provided and by the Superfast

trains/Rajdhani Express even on payment of surcharge.

- articles which are not allowed to be booked under QTS scheme
- Returned empties
- Any package which exceeds the maximum permissible weight and dimensions of a parcel.

12.41 If these proposals are implemented.

- (i) No perishable traffic would be carried by Mail/Express trains (excluding a few unimportant specified trains) except on payment of a surcharge.
- (ii) there will be no extra charge for non-perishable traffic carried by Mail/Express trains except when a consigner wishes to have a guarantee of transit time
- (iii) all traffic - perishable or non-perishable - carried in Superfast trains/Rajdhani Express will be charged a surcharge at two-and-a-half/five times the appropriate rate of surcharge applicable for carriage by Mail/Express trains.

12.42 We understand that certain customers would be willing to send their products frequently if not regularly by the parcel service if they could be guaranteed the required space in the brake van. Examples of goods which could move under such conditions by parcel service are pharmaceutical products and components for motor vehicles which are either high valued with a quick turnover, or are required on a day to day basis for assembly line production. We would suggest that the Railways investigate the possibility of attracting such traffic and make necessary arrangements for carrying it on a reserved space basis. We feel quite confident the consignors would be willing to pay an extra charge, in consideration of the reserved space facility, over and above the 'quality extras' proposed in paras 12.40-12.41 above.



Scales of Rates

12.43 We have now to evolve a suitable base scale of rates. The scale must be a composite scale comprising both the terminal or the fixed charge and the line haul charge, conform to the desired pattern of taper and subserve the policy objective we have explained earlier. Having regard to all these, we consider that the base scale of rates should be constructed as follows:

<u>Distance</u>		<u>Per quintal</u>
	Zero km	Rs.7 (fixed charge)
plus	1 to 100 km	8.00 paise per km
"	101 to 200 "	7.60 " "
"	201 to 300 "	6.40 " "
"	301 to 900 "	5.80 " "
"	901 to 1500"	5.20 " "
"	Beyond 1500"	4.00 " "

This will be the GP Scale which will replace the existing Scale 1. Other percentage Scales (CP1, CP2 and CP3) will be derived from it on the basis of the prescribed percentage relationship vide para 12.18.

12.44 In a distance based system, the rates do not change with each additional kilometre. Instead a distance-block system is used, with blocks varying in length. The blocks of distances over which the rates would apply should be revised as shown below; as at present, the rates for each block being the rate applicable to the highest distance of the block.

<u>Existing</u>		<u>Proposed</u>	
<u>Zone</u>	<u>Distance blocks for which same rate is charged</u>	<u>Zone</u>	<u>Distance blocks for which same rate is charged</u>
Upto 40 kms	40 kms	Upto 50 kms	50 kms
41 to 250 kms	5 "	51 to 800 kms	10 "
251 to 800 kms	10 "	801 to 2000 kms	25 "
801 to 2400 kms	25 "	2001 kms onwards	50 "
2001 kms onwards	50 "		

12.45 In certain cases it will be necessary to round off fractions in the calculated rates. At present the rounding off rule applicable to other coaching traffic is different from that applicable to passenger traffic. With a view to simplifying the tariff, we propose that the rounding off rule enunciated in para 9.19 in respect of passenger fares should be applied to the charges for other coaching traffic also.

12.46 Following the proposed increases in rates, the existing minimum charges per consignment may be revised upwards as indicated below.

Existing		Proposed	
Scale	Rs.	Scale	Rs.
'A'	5.00	L	8.00
1	4.50	GP	
2	4.00	CP1	
3, 6 & 8	3.00	CP2 CP3	5.00

12.47 Statement 12.4 compares the proposed basic (GP) Scale of rates with the costs expected in 1980-81, and the corresponding (Scale 1) existing rate (in force from 1.9.1979) at various distances of 100 kms to 3000 kms. The statement shows the difference between the proposed rates, and the costs on the one hand and the existing rates on the other, in absolute terms as also in percentage terms.

12.48 Statement 12.7 compares the rates of all percentage scales (L, GP, CP1, CP2 and CP3) with the existing rates for the scales which each one will replace.

#### Special Station to Station Rates for Parcel Traffic

12.49 Railways are permitted to reduce parcel rates under Scale 1 to Scale 7 to the extent justified in the interests of retention and promotion of traffic subject to the condition that the rate thus reduced does not fall below the rate chargeable under Scale 8 for the corresponding distance. It has been clarified that the reduction in rates for commercial consideration will mean quotation of special rates with a view to retaining/attracting traffic to the Railways and securing additional earnings.

12.50 We have proposed earlier (para 12.19-a) that the existing percentage Scales 1 to 6 and 8 should be replaced by four percentage Scales -- GP Scale, CP1 Scale, CP2 Scale and CP3 Scale. The existing Scale 7 (which is applicable to newspapers and magazines) would be replaced by a special Scale NM which will be outside the scheme of percentage Scales vide para 12.55

12.51 It will be seen from para 12.48 above that the intention is that the special rate should not be lower than the existing Scale 8 rates. Under the tariff structure we are recommending, the existing Scale 8 will be replaced by CP3 Scale. Accordingly, the extant orders should be revised to make it clear that the parcel rates may be reduced in terms of the orders quoted above provided that the reduced rate does not fall below CP3 Scale of rates.

12.52 In certain cases fresh fruits in wagon loads between points where there is relatively heavy traffic move at such special rates introduced by the Railways. The existing rates in question should be reviewed simultaneously with the introduction of the revised parcel tariff structure proposed by us, and increased wherever necessary to CP3 Scale level.

#### Newspapers and Magazines

12.53 The existing rate for newspapers and magazines (Scale 7), which is about 29 per cent of the basic rate (Scale 1) is too low, specially as this traffic has larger incidence of loss enroute resulting in claims. Besides, magazines (which are issued once a week or less often and are higher priced) should appropriately be charged at a higher rate than newspapers (which get out of date within a few hours and are low priced). In view of the foregoing, we consider that the magazines should be charged at about 40 per cent, and newspapers at about  $33\frac{1}{3}$  per cent, of the GP Scale (which will replace Scale 1).

12.54 80 per cent of the newspapers and 97 per cent of magazines have a circulation of less than 15,000 each and they account for 23 per cent and 51 per cent respectively of the total circulation of newspapers and magazines (statement 12.8). The tariff should therefore be so structured as not to cause hardship to small newspapers and magazines.

12.55 Under the percentage scales, weight for charge will be reckoned in terms of 10 kgs (para 12.31) and the rates will change at every 10 kms upto 800 kms (12.44). In the circumstances explained below, such a percentage scale would not be suitable for

newspapers and magazines:

- a) test checks have ~~xxxx~~ shown that the bulk of news-  
paper and magazine parcels weigh upto five kgs and  
the proportion of parcels weighing over 10 kgs is  
relatively small; some examples are given in  
statement 12.9.
- b) the average lead is 429 kms for newspapers and 821 kms  
for magazines and the existing freight charges on five  
kgs upto 1600 kms and for 10 kgs upto 650 kms are  
below the minimum of Re.1/-. For practical purposes,  
therefore, the freight charges on most of the news-  
paper/magazine parcels are paid at a flat rate (of  
Re.1/-)

It is therefore considered that newspapers and magazines  
should be charged at a special scale outside the scheme of  
percentage scales, and this should provide for charge in terms  
of five kgs and change of rates at long intervals of, say,  
250 kms or more.

12.56 In the light of the foregoing, we propose the follow-  
ing rate structure for newspapers and magazines. Freight  
charges will be subject to a minimum of Re.1/- for newspapers  
(as at present) and Rs.1.50 for magazines.

Distance Zone kms	Per 5 kgs	
	Newspapers (Paise)	Magazines (Paise)
1-250	30	35
251-500	55	65
501-750	80	95
751-1000	105	125
1001-1500	135	165
1501-2000	175	210
Over 2000	210	250

Acids and other corrosive substances

12.57 Certain goods and articles are not allowed to be loaded with other goods. Of these offensive articles and wet skins are not accepted for despatch as parcels and luggage. However, acids and other corrosive substances which are another such group are not debarred from being as parcels or luggage.

12.58' It has been observed that often a full wagon (in a parcel train) is used to convey a few quintals of acids or other corrosive substances resulting in considerable loss of carrying capacity. The staff explained that this could not be helped as no other such consignment had been offered within a reasonable period and the consignment already booked had therefore to be despatched by itself, loading of other goods and articles in the same wagon being forbidden. We also observed that in certain cases consignments of acids and other corrosive substances were lying on platforms in close vicinity of other goods and articles which we understand is dangerous. The staff explained that this could not be avoided as the parcel sheds were generally full. In the circumstances, we recommend that <sup>acids and other</sup> corrosive substances should not be permitted to be booked as parcels or luggage. If anyone wishes to send such an article by rail, it may be booked by goods train. This will incidentally provide better loads per wagon carrying such traffic by goods train.

Luggage

12.59 Under the existing rules,\* bulky articles which on account of their bulk would be chargeable on measurement if accepted as parcels (e.g., furniture) cannot be booked as luggage; they have to be booked as parcels and charged for accordingly. It has been suggested to us that this causes hardships in certain cases and therefore such articles should be allowed to be booked as luggage on payment of freight charges at luggage rates. We agree that, in future, such articles may be permitted to be booked as luggage subject to the condition that the charge is made on the "computed" weight (actual weight + 50 per cent vide para 12.66 below) and further that the computed weight per article does not exceed 150 kgs. However, no free allowance should be allowed on such articles and they should automatically be considered to be excess baggage and charged for accordingly.

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\* Rule 505(3) IRCA Coaching Tariff No. 22 - Part I (Vol.I)

12.60 (a) Each ticket holding passenger is allowed to carry a certain amount of luggage free of charge (A.C.C. 70 kgs; 1st Class 50 kgs; A.C.Chaircar 40 kgs; Second Class 35 kgs; children being allowed half these quantities). Under the existing rules, cycles are not allowed to be counted against this free allowance; they are automatically considered to be excess baggage and charged for. In the context of the present day energy situation, we consider this to be far from appropriate. Accordingly, we recommend free allowance should be allowed on a cycle also.

(b) For the purpose of determining the weight of the baggage including the cycle in excess of the free allowance which should be charged for, the weight of the cycle may be taken at 40 kgs which is its minimum weight prescribed in the rules at present. This would eliminate the need for weighing the cycle and thus avoid delay in the booking of luggage, and at the same time enable the Railways to charge for it on the basis of the same weight at which it is charged at present.

12.61 (a) All trains are crowded at present - the Mail/Express trains more so than others. The most acute overcrowding is in Second class. Carrying large quantities of luggage in a passenger compartment is therefore apt to cause particular discomfort and inconvenience to other passengers. In this context, it is necessary to devise measures which will discourage the carriage of excessive quantities of luggage, particularly in the passenger compartments.

(b) As a step towards achieving this objective, we would suggest that a passenger who wishes to book luggage in excess of a quantity equal to his free allowance should be required to pay a surcharge thereon at the following rates:

Mail/Express trains ..	10 per cent
Superfast trains ..	25 -do-
Rajdhani Express ...	50 -do-

If considered necessary, a limited number of Mail/Express trains with a relatively low load factor may be exempted from the operation of the rule.

(c) Rules prescribe the nature/size of the articles which may be carried in a compartment. It is also necessary to regulate the total quantity of baggage which a passenger can carry in his compartment. The proposal made by us in sub para (b) above should help in achieving this objective to an extent, in that it will discourage carriage of larger quantities of luggage than necessary. However, it would apply to only Mail/Express trains and, in any case, the passenger will still have the right to take as much luggage as he desires. It is therefore necessary to make some other regulations also for preventing carriage of excessive luggage in the compartment. As this is a matter of administrative detail, we would leave it to the railways to make suitable rules in this connection.

12.62 It has been brought to our notice that, in many cases, passengers carry not only their personal belongings but also goods intended for sale as luggage and often the latter involve large quantities. It has been stated that this causes discomfort and inconvenience to other passengers when the goods are carried in the passenger compartment and/or pre-empt space in the brakevan which could otherwise be used for carrying parcel traffic booked earlier. We understand that this practice has grown due to delays in transit suffered by 'hard' parcels resulting from all luggage space in Mail/Express trains being used up by perishables and the like and this entails further delay in transit of 'hard' parcels. We have suggested a solution for this problem earlier (para 12.40) and we trust that in the course of time the practice of booking commercial goods as luggage would die down. In the meantime, the proposal made by us in para 12.61 above should mitigate the problem to an extent.

#### Basis of charging for Parcels and Luggage

12.63 Rule 613 of IRC, Coaching Tariff No.22 Pt.1 Vol.1 lays down that parcels should be charged "either by weight or by measurement whichever gives the greater charge, 28 cubic decimetres being considered equal to 4 kilograms". With the change suggested in para 12.59 above, in future this rule will apply to luggage also.

12.64 Low density goods, i.e., goods which are light in weight in relation to their volume take up more than their due share of space and thus do not allow the capacity of a vehicle to be utilised adequately. Fragile goods often fall in this category, and they also have to be handled more carefully. It is only proper that the Railways should compensate themselves for the loss of carrying capacity and/or additional expenses involved by charging for such goods on volumetric weight instead of the actual weight.

12.65 We found, in the course of our enquiry, that the Railway staff experienced some difficulty in detecting cases in which there should be a question as to whether actual or volumetric weight would be greater. The physical task of taking the measurements in such cases and determining the volumetric weight therefrom also involves extra work and some staff are not always anxious to undertake it if it could be avoided. It was also noticed that there were frequent mistakes in taking measurements and in computing the volumetric weight. We gathered that the staff would prefer to be supplied with a list of articles which are bulky in relation to weight and/or fragile and have a simpler formula for determining the chargeable weight in such cases.

12.66 In the circumstances, we recommend that staff should be supplied with a list of bulky/fragile goods and articles which should be charged on a "computed" weight and in all these cases the charge should be based on the actual weight increased by 50 per cent. (It has been found in our test checks that the volumetric weight was generally about 50 per cent more than the actual weight). We have drawn up a list of the goods and articles which should be charged on this basis, in consultation with the Railways, and this is attached (Statement 12.10).

12.67 Although Rule 613 quoted above does not refer to any exceptions, in fact in certain cases the prescribed basis of charging laid down in the tariff is different. Some examples



are given below : (Rules quoted in brackets are from IRCA Coaching Tariff No.22, Pt. I Vol.I)

- (i) Cut flowers and returned empties are charged on actual weight and not by measurement [Rule 628(1)].
- (ii) Live poultry (Rule 821), and cycles, rikshaws, etc. (Rule 901) are charged on actual weight subject to the prescribed minimum weight.
- (iii) Charpoys (Rules 513 & 612) are charged on a unit (standard) weight.
- (iv) Canoes are charged by measurement only (Rule 1009).
- (v) In the case of certain extra large/extra heavy packages, the freight charges are increased by 25 per cent (Rules 504 & 609).

12.68 The exceptions to the basic rule listed above are reasonable. We consider however that, in keeping with the general scheme of things, it will be more appropriate to increase the weight for charge of the extra large/heavy packages referred to in item (v), rather than increase the freight charges thereon. We would also like to make the following other suggestions:

i) Explosives of certain varieties which are allowed to be booked as parcels should be charged on actual weight increased by 50 per cent and not the actual weight as at present. The rules require that when such explosives are loaded in brakevans they should be separated from other goods and articles as a safety precaution, and this results in incomplete use of the loading capacity of the brakevan. It would only be fair for the Railways to compensate themselves for this loss by increasing the weight for charge.

ii) Chapter IX of IRCA Coaching Tariff No.22- Part I (Vol.I) lists certain articles e.g., cycles, scooters, motor-cycles, invalid chairs, which are to be charged on actual

weight subject to the minimum weight indicated against each. All these articles are of standard size and shape and their weight should not therefore in any case exceed the prescribed weight. In the circumstances, it will be simpler to charge for them on a unit or per article basis at the standard weight laid down, thus eliminating the need for weighing, rather than on actual weight subject to the minimum weight indicated. As pointed out above, charpoys are already charged on a unit or per article basis at the weight prescribed in the rules, instead of actual weight subject to a minimum weight. Secondly, the list of the articles given in this chapter should be expanded by addition of other similar items e.g., steel almirahs, refrigerators, etc., and the following (figures in brackets against each show standard weights laid down by certain State Road Corporations):

Truck tyres (60 kgs Karnataka and Maharashtra)

Car tyres (45 kgs Karnataka/40 kgs Maharashtra)

Empty can upto 20 litre capacity (15 kgs Karnataka,  
10 kgs Maharashtra)

iii) Baby cot consisting of a bed and a stand made of cane and/or bamboo, should be charged on the same basis as a charpoy.

12.69 In conclusion we would suggest that the existing Rule 613 may be re-worded as follows. This would clarify the position and make simpler the application of the rule :

" The basis for charging luggage/parcels shall, depending on each specific case, be :

- unless otherwise specified, the actual weight.
- the actual weight, increased or reduced in cases in which provision is made elsewhere in the tariff for such increase or reduction.
- the actual weight, subject to a minimum weight where prescribed.
- unit (standard) weight."

Parcel/luggage traffic in wagon loads

12.70 Household effects when sent in full vehicle loads are charged at the normal luggage rates (free allowance being given), subject to a minimum charge for 45 qtls. (BG)/30 qtls.(MG)/22½ qtls. (NG) for four-wheeled vehicle. Bulky parcels fully occupying a vehicle are charged at parcel rates subject to a minimum charge for 60 qtls.(BG)/40 qtls.(MG)/35 qtls.(NG) per four-wheeled vehicle. It will be seen from para 12.11 that we consider that a (bogie)/(vehicle (or two four-wheeled vehicles) conveying goods and articles by a passenger train should earn the same amount as a sleeper coach on a Mail/Express train. It has been calculated that in these cases the objective can be achieved only if the minimum charge is for 60 qtls.(BG)/45 qtls. (MG)/35 qtls.(NG) per four-wheeled vehicle. We therefore recommend that the rules may be amended accordingly. Incidentally, these are also the minimum weights already prescribed for household effects in the Goods Tariff, and the same weights are proposed to be prescribed for all other bulky articles in Goods Tariff.

12.71 As stated above, household effects are charged at luggage rates after allowing free allowance while bulky goods booked as parcels are charged at parcel rates. The transportation characteristics of household goods are, by and large, the same as those of all other bulky goods booked at parcel rates. The luggage rate is somewhat higher than parcel rate in consideration of the fact that, as laid down in the rules, luggage of a passenger will generally be despatched by the same train by which he travels. A vehicle load of household effects is, however, unlikely to be despatched by the train by which the owner travels specially if it is a Mail/Express train; such vehicles are usually despatched by a Parcel train or an Ordinary train at the operating convenience of the Railways. It may also be mentioned here that the vehicle loads of household effects are booked in the parcel office. In the circumstances of the case, it would be appropriate to charge for household effects sent in

vehicle loads at the proposed GP scale of parcel rates instead of luggage rates. At the same time, of course, it will only be reasonable to lay down that:

- (i) no free allowance will be allowed on vehicle loads of household effects; and
- (ii) the rule\* laying down that the luggage of passenger will be normally conveyed by the same train by which he travels does not cover personal effects booked at vehicle load rates.

#### Human remains

12.72(a) A corpse is charged on a unit i.e., per corpse per km basis. Such unit rates are apt to be lost sight of - the corpse rates have not been revised for many years although it is subject to some surcharges imposed in the interval. It would be advisable to charge for a corpse also on the same basis as other goods conveyed by parcel service. A corpse needs a separate compartment by itself as nothing-else is allowed to be loaded along with it and this results in some loss of carrying capacity. All things considered, we recommend that a corpse should be charged at the GP Scale on a standard weight of 200 kgs.

(b) Parts of/<sup>a</sup>human body are charged at scale 1 on actual weight or volumetric weight whichever gives the greater charge. We have suggested elsewhere ( Para 12.66) that all consignments charged on this basis should in future be charged on the actual weight increased by 50 per cent. Accordingly, parts of/<sup>a</sup>human body may also be charged at GP Scale on actual weight plus 50 per cent.

#### Rates for birds/animals carried in brakevan(dog box) and/or passenger compartment

12.73 Certain birds/animals are conveyed in the brakevan and/or, where permitted under the rules, with the passenger in his compartment.

12.74 At present there is no uniformity in the basis of charging or in the rate at which the charge is made. Some are charged on the basis of weight while others are charged on unit (per bird/animal basis). The rate applicable is the parcel rate in some cases, dog box rate in others, and the passenger rate in yet some others. We do not see any point in this variety; it would be of advantage to charge all of them on a uniform basis and at the same rate.

12.75 Ordinarily, the birds/animals in question either accompany a passenger or are accompanied by an attendant who travels as a passenger. They are also booked in the luggage office. In either case, therefore, they can be regarded as part of the passenger's baggage and charged for accordingly, no free allowance being allowed. It will not be practicable to weigh the birds/animals and they may therefore be charged on the basis of a suitable standard weight to be assigned to each.

12.76 From the point of view of the Railways, the charge for a bird/animal who travels with the owner in the passenger compartment could be even less than that for one conveyed in a brakevan, since the Railway is relieved of all responsibilities and the space in the brakevan which could otherwise have been occupied becomes available for carrying other birds/animals. However, it would be reasonable to levy charges at higher rates for a bird/animal travelling with the passenger in order to discourage their carriage in passenger compartments as they may cause inconvenience to other passengers. In the circumstances of the case a higher charge is justified, even though the carriage of these birds/animals in the passenger compartment is subject to the consent of the fellow passengers and the rules lay down that the birds/animals must be removed from the passenger compartment if subsequently objected to.

12.77 In the light of the foregoing, and based on our investigations regarding the appropriate weight for charge, we propose that the various birds/animals may be divided into

the following groups and charged for at luggage rate for the weight indicated against each subject to a minimum of Rs.5:

	<u>Rule</u> <u>+</u>	<u>In Brakevan</u> <u>(Dog box)</u>	<u>In passenger</u> <u>compartment</u>
Small animals/ birds	815*	£	20 kg if in a cage, basket, box or other suitable container, and 40 kg otherwise
Dogs	803	30 kg	60 kg
Large birds	820	30 kg	£
Calves )	813(1)	40 kg	£
Goats )			
Sheep )			
Pigs )			

12.78 Where a dog travels with the owner in a compartment wholly reserved for him, or in a special train, the question of any possible inconvenience to other passengers does not arise. Under the rules therefore in such cases a dog is charged for at the rate applicable to one conveyed in the brake van. This arrangement seems to be reasonable, and in the circumstances of the case, it may be continued.

12.79 Under the existing rules, a "seeing eye" dog travelling with a blind person in the compartment is charged at the normal rate. We consider this is not quite fair and such dogs may be allowed to travel with the passenger in the compartment on payment of charges for brakevan.

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£ not allowed.

\* Puppies, cats, kittens, mangooses, ferrets, rabbits, monkeys, guinea-pigs and other small animals and small birds (other than poultry).

By definition, a puppy means a young dog but fully grown up dogs of certain breeds, as e.g., chihuahas and pekingese may be smaller than the young of other breeds, e.g., Alsatians or St. Bernard. The rule should therefore apply to small dogs and not only to puppies and it should be revised to make this clear.

Birds and Animals in vehicle loads

12.80 Birds and animals are charged at a vehicle km rate except in the case of camels and elephants which are charged on a 'per animal' basis. However, as normally only one camel or one elephant is loaded in a four-wheeled vehicle, for practical purposes, the rate for camels and elephants is also a vehicle km rate.

12.81 There are at present seven separate rate schedules in the tariff for birds and animals as follows:

- Group A (i) Horses, ponies, mules, donkeys, horned cattle, etc.
- (ii) Elephants and elephant calves.
- Group B (i) Calves, sheep, goats and pigs
- (ii) Dogs
- (iii) Wild animals (in cages)
- (iv) Camels
- Group C Birds (in cages)

For practical purposes, however, there are three sets of rates, one each for group A, B and C. Rates for Group A are somewhat higher than those for Group B but the rates for Group C are much lower than the Group B as they have not been revised for a long period. Within a group, there are some differences between the rates for elephants/camels charged on per animal - km basis and other animals which are charged on vehicle km basis; while there are separate rates for B.G. and M.G. for other animals, the rates for elephants and camels apply to both the gauges and are equal to B.G. rates for other animals.

12.82 We see no advantage in having these separate rates outside the normal parcel tariff. We have dealt earlier with the rates for bulky parcels occupying a full vehicle (Para 12.70). Birds and animals in vehicle loads stand on the same footing as bulky goods, in that they occupy relatively more space than their weight would normally require, and thus they do not enable

the capacity of the vehicle to be utilised adequately. Accordingly, they may be charged on the same basis as other bulky goods occupying a full vehicle i.e., at regular parcel rates on the minimum weight of 60 qtls. BG/ 45 qtls. MG/35 qtls. N.G. The basis for charge suggested above will ensure that a bogie vehicle carrying birds and animals earn more or less the same amount as a sleeper coach on a Mail/ Express train. It will have the added advantage that the rates for this stream of traffic will stand automatically revised whenever the parcels rates are revised.

12.83 Statement 12.11 compares the existing and proposed rates for birds/animals in vehicle loads. At the average length of the haul for each category, the increase in the rates will be of the following order:

	<u>Average lead</u>	<u>Increase</u>	
		<u>per animal</u>	
		Rs.	%
Horses, Mules & Ponies	1181	435 <sup>+</sup>	141
Horned cattle	741	258	162
Sheep & Goats	426	22	242
Other livestock	632	103	239

The increase in the rates would be substantial. However:

- (i) the proposed rates will be about double the proposed goods rates. This is only proper considering the speed and associated advantages of passenger trains as compared with goods trains.
- (ii) a survey conducted earlier had shown that, normally, only race horses costing Rs.50,000 to Rs.75,000 each are transported by passenger train, and horned cattle, sheep and goats, are booked by passenger trains only when there are booking restrictions by goods trains or quicker transit is desired for other reasons. We consider that race horses can well afford to bear the proposed

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<sup>+</sup> + inclusive of 25% additional charge for special type horse box.



charges and it would be proper to levy the proposed charges in respect of the others considering the circumstances in which they are booked by passenger trains.

12.84 The proposed rates will apply on a per wagon basis subject to the number of animals permitted to be loaded as laid down in the rules. Consignors are not expected to load a larger number but should the load exceed the prescribed carrying capacity, an additional charge will be made for each animal loaded in excess:

- (i) In the case of camels and elephants, as at present, every additional animal loaded in excess of one in a four wheeled wagon or two in a bogie wagon will be charged at 50 per cent of the rate for the first animal.
- (ii) In the case of other animals, charges for the excess number of animals will be made on a proportionate basis. At present, charges for these animals loaded in excess of the carrying capacity are made on an animal kilometre rate as shown below:

Calves, sheep, pigs & goats - at 12 paise per animal per kilometre  
Horses, Ponies, Mules, Horned - at 16 paise per animal per kilometre  
cattle etc.

These rates are widely different from the proportionate rates per animal permitted to be loaded, vide statement 12.12. In the case of calves, sheep, etc., this rate is much higher than the proportionate rate; in the case of other animals, this rate is higher in some cases (donkeys) and lower in others (horses and horned cattle). We consider that charge on a proportionate basis as proposed above would be more reasonable.

12.85 (a) In certain cases, the rates are suitably enhanced when a special type of vehicle is used:

- (i) In the case of horses, an additional charge of 25 per cent is levied over and above the normal tariff rate when they are carried in special type of horse boxes fitted with better amenities. On strictly cost considerations, the additional charge could be at a lower rate. However, the special type of horse boxes are utilised only for race horses which cost Rs.50,000/- to Rs.75,000/- each and upto 8 of them can be loaded in one. In the circumstances of the case, we consider that the additional charge of 25 per cent is justifiable and may be allowed to continue.
- (ii) Sheep and goats, when carried in the specially constructed M.G. sheep vans, having accommodation for more than 50 heads, are charged at double the normal rate. This implies that the carrying capacity of the special vans is double that of the normal van. It would appear however from Northern Railway's exception to the relevant rule\* that the capacity of a special van can be even much larger. In the circumstances, the rates for special sheep van may be fixed by the Railway Board taking into account the relative carrying capacity and other relevant circumstances.
- (b) In the case of elephant vans and horse boxes, empty haulage charge is levied in certain circumstances. In the case of horse boxes, a demurrage charge is also levied in certain circumstances. Taking into account the anticipated cost in 1980-81, these may be revised as follows:

	<u>Per four-wheeled vehicle</u>
Empty haulage :	Rs.1.50 per km subject to a minimum as for 75 km
Demurrage charges:	Rs.3-00 per hour subject to a minimum as for 5 hrs.

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\* Rule 813.4(b) IRCA Coaching Tariff No.22 Pt.I Vol.I

Carriage, Motor Vehicles, Boats, Aeroplanes, etc

12.86 There are, at present, seven separate rate schedule for this stream of traffic as shown below. There is also considerable difference in the rates and this is illustrated by the figures of freight charges at OR for 800 kms shown against each.

	<u>4 wheeled vehicle</u>	
	<u>if only one unit (motor car etc) is loaded</u>	<u>for each addi- tional unit(motor car etc)loaded in the same vehicle</u>
	Rs.	Rs.
i) Aeroplanes	1440	-
ii) Motor boats, motor trolleys and trucks	1379	-
iii) Boats	999	507
iv) Carriage, palanquins or dhoolies & howdahs	602	301
v) Motor cars	720	507
vi) Motor car and carriage loaded together	1037	-
vii) Motor tractor, with or without a plough on wheels, attached	792	507

The existing rates apply on a unit basis i.e., the rate is per motor car etc. (in the case of item vi however it is for a composite unit of a carriage and a motor car). A separate charge is levied for each additional unit loaded in a vehicle, where permissible, and this varies from 50 per cent to 70 per cent of the proportionate rate for the first unit. There is however no provision at present for charging for an additional unit in the case of items (i), (ii) and (vi). This implies that in these cases only one unit can be loaded in a four-wheeled vehicle.

12.87 Since a full vehicle is used in each case, it will be only reasonable to charge for the full vehicle even if only one unit is loaded where more than one could have been loaded. At the same time, since the full vehicle would have been paid for already, it would not be justified to levy a separate charge for

any additional unit(s) loaded in it. Accordingly, we propose that in each of these cases:

- (i) The charge should be made on a vehicle load basis, at GP scale of rates, on a weight of 60 quintals BG, 45 quintals MG and 35 quintals NG for a 4-wheeled wagon.
- (ii) The same rate should be charged regardless of whether only one unit is loaded in a vehicle or, where permissible, more than one unit is loaded together in the same vehicle.

12.88 The proposed rate structure will bring the rates for this stream of traffic which have developed independently into the main stream of parcel rates. This will have the added advantage that the rates will stand revised automatically when the parcel rates are revised. Secondly, the proposed rates structure will give an incentive to the users to load more than one unit together in the same vehicle where permissible. Apart from bringing about better utilisation of vehicles, the resultant reduction in the rate per unit should, hopefully, attract more traffic.

12.89 Statement 12.13 compares the proposed rates with the existing rates. The position at the average lead of 961 kms compares as follows:

<u>Proposed rates</u>	<u>Existing rates</u>		<u>percentage increase</u>	
	One car	Two cars	For one car	For two cars
Rs.	Rs.	Rs.	%	%
4062	849	1465	378	177

Thus the increase will be considerable even if comparison is made on the basis of two cars. However, this is unavoidable if our objective (para 12.11) that the earnings from this stream of traffic should be comparable to those from second class sleeper in Mail/Express trains is to be achieved.

Besides, the proposed rate will be only 8.12 per cent (if one car is loaded) and 4.06 per cent (if two cars are loaded) of the present day price of a car which is Rs.50,000. It may be mentioned here that the bulk of motor car traffic by passenger trains is long distance (average lead 961 kms) and is on account of transfer, etc., which is paid for by the employer. In any case, any one who cannot afford to send his car by passenger train can send it by goods train, the proposed rates for which will be about 50 per cent of the proposed rates by passenger trains.

12.90 Under the existing rules, a consignor may send the spare parts of motor cars and his personal effects in the same vehicle in which a motor car is conveyed on payment of freight charges therefor at luggage rates, in addition to the charges for the motor car. This is done normally only when one motor car is loaded in a vehicle. Under the proposed rate structure, charge will be made for on a weight of 60 qtls. BG/45 qtls. MG/35 qtls. NG even when only one car is loaded although normally two can be loaded together in a vehicle. In view of this, in future no charge should be made for spare parts or personal effects upto 30 qtls. BG/15 qtls. MG/5 qtls NG when these are sent in a vehicle in which only one motor car has been loaded. It may be mentioned here that a similar provision is being made in the proposed goods rate structure taking the chargeable weight for a motor car as 30 quintals.

12.91 In certain cases, an empty haulage charge is levied at 32 paise per vehicle km. This rate is the same as charged in the case of vehicles for animals referred to in para 12.85(b) and may be revised in line with our recommendation therein.

#### Method of Levying Extra Charges

12.92 In some cases more than one "extra" charge (of the type proposed in paras 12.30, 12.40, 12.68) may have to be levied. In these cases, each extra charge should be calculated with reference to the basic rate and not one on top of the other. Thus, if the freight charge according to the tariff is Rs.50/-, and one extra charge of 50 per cent is leviable because the

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goods are bulky and another extra charge of 10 per cent is leviable because the goods are to be sent by Mail/Express trains, the charge would be Rs.50 + Rs.25 (50 per cent of Rs.50/-) + Rs.5/- (10 per cent of Rs.50/-)= Rs.80/- (The same principle should be applied to surcharges and rebates in goods rates also.)

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Statement 12.1

Statement showing ABC analysis of the more important goods & articles, and livestock carried by Passenger and Parcel trains on Indian Railways.

Based on sample studies of 3 days in April 1977 and 3 days in October 1977 on six Railways.

S. No.	Name of the commodity	Tonne kilo- metres	Weight (Quintals)	Average lead (Kms.)	Earnings (Rs.)
1.	2.	3.	4.	5.	6.
<u>Parcel</u>					
1.	Others	46,46,248	67,272	691	17,47,355
2.	Plantain	83,03,043	79,564	1044	8,48,852
3.	Vegetables, Fresh & Dry	22,83,042	41,619	549	3,99,930
4.	Fish	14,96,968	20,429	733	3,39,536
5.	Handloom cloth	12,33,057	11,981	1029	2,68,087
6.	Betel leaves	6,06,130	7,179	844	2,20,058
7.	Fresh fruit others	8,81,202	11,720	752	1,88,848
8.	Machinery & Parts	3,77,610	4,756	794	1,83,668
9.	Books & Magazines	4,67,271	5,689	821	1,51,381
10.	Eggs	4,29,424	5,131	837	1,46,431
11.	Oranges	8,01,067	6,196	1293	1,36,651
12.	Milk & Milk Products	5,69,715	14,034	406	1,33,932
13.	Medicines	2,69,542	3,155	854	1,22,368
14.	Mangoes	6,31,099	5,286	1288	1,12,792
15.	Cinema Films	1,31,944	2,960	446	79,504
16.	Textile Garments	1,41,377	2,472	572	68,047
17.	Leather Goods	1,09,558	1,594	687	53,961
18.	Bullion, Treasure & Coins	75,382	960	785	51,331
19.	Aluminium wares	89,228	1,452	615	39,682
20.	Newspapers	1,17,023	2,730	429	32,235
21.	Metal Wares	42,384	945	449	28,019
22.	Bidies & Cigarettes	49,444	1,377	359	26,966
23.	Radio, Transistors and TVs.	52,706	545	967	22,851
24.	Tyres & Tubes	40,607	869	467	22,475

Contd....

Statement 12.1 (Contd.)

S. No.	Name of the commodity	Tonne kilo- metres	Weight (Quintals)	Average lead (Kms.)	Earnings (Rs.)
1.	2.	3.	4.	5.	6.
<u>Parcel (contd.)</u>					
25.	Cycles & Cycle parts	42,723	872	490	22,379
26.	Brass Ware	39,372	965	408	22,081
27.	Poultry & birds	35,468	607	534	17,844
28.	Ice	44,250	2,950	150	16,116
29.	Gas Cylinders	29,099	1,207	241	13,802
30.	Furniture	21,740	465	468	11,302
31.	Soaps & Cosmetics	18,514	307	603	9,902
32.	Pineapples	23,715	193	1229	4,342
33.	Acids	7,441	115	647	4,038
34.	Potteries	1,183	31	382	588
Total (Parcel)		2,41,58,576	3,07,627	785	55,47,354
<u>Luggage</u>		9,23,681	28,157	328	5,18,326
Total (Parcel & Luggage)		2,50,82,257	3,35,784	747	60,65,680
<u>Livestock</u>					
1.	Other Cattle	40,981	553	741	32,522
2.	Other Livestock, excluding Poultry & Birds	13,842	219	632	6,262
3.	Sheeps & Goats	9,971	234	426	5,639
4.	Horses, Mules & Ponies	7,560	64	1181	2,488
Total (Livestock)		72,354	1070	676	46,911
<u>Motor vehicles</u>		46,043	479	961	31,540
Grand Total		2,52,00,654	3,37,333	747	61,44,131



Statement 12.2

Comparison of increase in costs with increase in Parcel rates  
from 1970-71 to 1976-77

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Percentage increase in 1976-77 over 1970-71

Scale	<u>PARCEL RATES</u> (at 100 kms)	<u>Percentage increase.</u>	<u>COSTS</u>	<u>Percentage increase</u>
1	Other articles	32	<u>Input Costs</u>	
2	Betel leaves, butter cream, khoa	32	Average annual cost per employee	86
3	Expensive fruits	21	Unit price of fuel	
4 A	Eggs, fish, Meat & Handloom products	33	-Coal	98
4 B	Inexpensive fruits	21	-Diesel	167
4 C	Onions, potatoes etc.	5	-Electricity	72
5 A	Books & Khaddar	32	Unit price of iron & steel	87
5 B	Vegetables	5	Unit price of cement	73
6	Milk	5	<u>General Price Indices</u>	
7	Newspapers	32	Cost of living index (1960=100)	201
8	Seeds for agricultural purposes.	32	Wholesale price index	77

(Taken from page 115 of Year Book 1977-78)

## Statement 12.3

Comparison of highest (Scale 1) parcel rates in  
1976-77 with 1976-77 costs.

Distance Kms.	Per Quintal	
	Unit Cost Rs.	Scale 1 Parcel Rates. Rs.
100	11.50	9.32
200	15.31	14.27
300	19.12	18.84
400	22.93	23.00
500	26.74	27.16
600	30.55	31.05
700	34.36	34.94
800	38.17	38.82
900	41.98	42.40
1000	45.79	45.97
1100	49.60	49.54
1200	53.41	53.11
1300	57.22	56.28
1400	61.03	59.46
1500	64.84	62.63
1600	68.65	65.80
1700	72.46	68.98
1800	76.27	72.15
1900	80.08	74.53
2000	83.89	76.91
2100	87.70	79.29
2200	91.51	81.67
2300	95.32	84.05
2400	99.13	86.43
2500	102.94	88.02
2600	106.75	89.61
2700	110.56	91.20
2800	114.37	92.78
2900	118.18	94.37
3000	121.99	95.96

Statement 12.4

Statement comparing the Proposed General Parcel Rate  
with cost and existing Scale 1 Parcel Rate

Distance	1976-77	Cost	Existing	Proposed	Excess of proposed rate over			
	cost	escalated by 30%	(1.9.79) Scale 1 Parcel Rate	Rate	Escalated cost		Existing Rate	
	per quintal	per quintal	per quintal	per quintal	per quintal	%	per quintal	%
1.	2.	3.	4.	5.	6.	7.	8.	9.
Kms.	Rs.	Rs.	Rs.	Rs.	Rs.	%	Rs.	%
100	11.50	14.95	9.32	15.00	0.05	0.33	5.68	60.94
200	15.31	19.90	14.27	22.60	2.70	13.57	8.33	58.37
300	19.12	24.86	18.84	29.00	4.14	16.65	10.16	53.93
400	22.93	29.81	23.00	34.80	4.99	16.74	11.80	51.30
500	26.74	34.76	27.16	40.60	5.84	16.80	13.44	49.48
600	30.55	39.72	34.16	46.40	6.68	16.82	12.24	35.83
700	34.36	44.67	38.43	52.20	7.53	16.86	13.77	35.83
800	38.17	49.62	42.70	58.00	8.38	16.89	15.30	35.83
900	41.98	54.57	46.64	63.80	9.23	16.91	17.16	36.79
1000	45.79	59.53	50.57	69.00	9.47	15.91	18.43	36.44
1100	49.60	64.48	54.49	74.20	9.72	15.07	19.71	36.17
1200	53.41	69.43	58.42	79.40	9.97	14.36	20.98	35.91
1300	57.22	74.39	61.91	84.60	10.21	13.72	22.69	36.65
1400	61.03	79.34	65.41	89.80	10.46	13.18	24.39	37.29
1500	64.84	84.29	68.89	95.00	10.71	12.71	26.11	37.90
1600	68.65	89.25	72.38	99.00	9.75	10.92	26.62	36.78
1700	72.46	94.20	75.88	103.00	8.80	9.34	27.12	35.74
1800	76.27	99.15	79.37	107.00	7.85	7.92	27.63	34.81
1900	80.08	104.10	81.93	111.00	6.90	6.63	29.02	35.40
2000	83.89	109.06	84.60	115.00	5.94	5.45	30.40	35.93
2100	87.70	114.01	87.22	119.00	4.99	4.38	31.73	36.44
2200	91.51	118.96	89.84	123.00	4.04	3.40	33.16	36.91
2300	95.32	123.92	92.46	127.00	3.08	2.49	34.54	37.36
2400	99.13	128.87	95.07	131.00	2.13	1.65	35.93	37.79
2500	102.94	133.82	96.82	135.00	1.18	0.88	38.18	39.43
2600	106.75	138.75	98.57	139.00	0.25	0.18	40.43	41.02
2700	110.56	143.74	100.32	143.00	(-)0.73	(-)0.51	42.68	42.54
2800	114.37	148.68	102.06	147.00	(-)1.68	(-)1.13	44.94	44.03
2900	118.18	153.64	103.81	151.00	(-)2.64	(-)1.72	47.19	45.46
3000	121.99	158.59	105.56	155.00	(-)3.59	(-)2.26	49.44	46.84

Statement comparing the Proposed General Parcel Rate  
with cost and existing Scale 1 Parcel Rate

Rate per quintal per kilometre						Distance
Escalated cost		Existing rate		Proposed rate		
10.	11.	12.	13.	14.	15.	16.
Paise	Index	Paise	Index	Paise	Index	Km
14.95	100	9.32	100	15.00	100	100
9.95	66.6	7.14	76.6	11.30	75.3	200
8.29	55.5	6.23	67.4	9.67	64.5	300
7.45	49.8	5.75	61.7	8.70	58.0	400
6.95	46.5	5.43	58.3	8.12	54.1	500
6.62	44.3	5.69	61.1	7.73	51.5	600
6.38	42.7	5.49	58.9	7.46	49.7	700
6.20	41.5	5.34	57.3	7.25	48.3	800
6.06	40.5	5.18	55.6	7.09	47.3	900
5.95	39.8	5.06	54.3	6.90	46.00	1000
5.86	39.2	4.95	53.1	6.75	45.0	1100
5.79	38.7	4.87	52.3	6.62	44.1	1200
5.72	38.3	4.76	51.1	6.51	43.4	1300
5.67	37.9	4.67	50.1	6.41	42.7	1400
5.62	37.6	4.59	49.3	6.33	42.2	1500
5.58	37.3	4.52	48.5	6.19	41.3	1600
5.54	37.1	4.46	47.9	6.06	40.4	1700
5.51	36.9	4.41	47.3	5.94	39.6	1800
5.48	36.7	4.31	46.2	5.84	38.9	1900
5.45	36.5	4.23	45.4	5.75	38.3	2000
5.43	36.3	4.15	44.5	5.67	37.8	2100
5.41	36.2	4.08	43.8	5.59	37.3	2200
5.39	36.1	4.02	43.1	5.52	36.8	2300
5.37	35.9	3.96	42.5	5.46	36.4	2400
5.35	35.8	3.87	41.5	5.40	36.0	2500
5.34	35.7	3.79	40.7	5.35	35.7	2600
5.32	35.6	3.72	39.9	5.30	35.3	2700
5.31	35.5	3.65	39.2	5.25	35.0	2800
5.30	35.5	3.58	38.4	5.21	34.7	2900
5.29	35.4	3.52	37.8	5.17	34.5	3000

Statement 12.5

Results of sample study of compensation  
claims relating to parcel traffic vis-a-vis compensation  
claims relating to goods traffic in the period April to  
July 1979.

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	Unit	Goods			Parcels		
		Perishables	Other than perishables	Total	Perishables	Other than perishables	Total
Apportioned earnings	Rs. Lakhs			7,576			246
Claims preferred	No.			15,049	5,598	2,007	7,605
Amount claimed	Rs. Lakhs			842	15.16	16.55	31.81
% to apportioned earnings	%			11.1			12.91
Claims paid	No.			4,867	3,400	1,143	4,543
Amount paid	Rs. Lakhs			29	4.55	1.57	6.12
% to apportioned earnings	%			0.4			2.50

Comparison of Parcel rates and Road rates for Handloom, Khaddar and Books.

S.No.	Commodity	Station		Distance by rail	Existing parcel rates per quintal at Scale 4A or 5A as applicable.	Road rates per quintal
		From	To			
1	2	3	4	5	6	7
				Kms.	Rs.P.	Rs.P.
1.	<u>Handloom</u>					
	i) Shirting	Bombay	Delhi	1388	27.10	57.80
		Salem	Delhi	2523	45.76	74.35
	ii) Bed Sheets	Karur	Delhi	2648	46.56	62.00
	iii) Curtain cloth	Karur	Delhi	2648	46.56	67.00
2.	<u>Khaddar.</u>					
	i) Shirting	Surat	New Delhi	1122	22.37	52.13
	ii) Dhoti (Gents)	Raichur	New Delhi	1972	33.75	59.60
	iii) Lungi	Madras	New Delhi	2188	36.10	112.60
	iv) Saree	Bangalore	New Delhi	2541	39.25	127.60
3.	<u>Books.</u>					
	i) Text Books	New Delhi	Ahmedabad	934	19.60	23.00
		New Delhi	Bombay	1384	26.40	35.00
		New Delhi	Howrah	1441	27.10	48.00
		New Delhi	Madras	2188	36.10	75.00

Present and proposed rates for Parcels per quintal

Distance	GP Scale		CP1 Scale		CP2 Scale	
	Existing Scale 1	Proposed GP Scale	Existing Scale 2	Proposed CP1 Scale	Existing Scale 3	Existing Scale 4A(4B, 4C)
Index	100	100	80	80	54	48
1.	2.	3.	4.	5.	6.	7.
Km.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
100	9.32	15.00	7.50	12.00	5.02	4.49
200	14.27	22.60	11.47	18.08	7.62	6.80
300	18.84	29.00	15.11	25.20	10.02	8.92
400	23.00	34.80	18.45	27.84	12.23	10.37
500	27.16	40.60	21.78	32.48	14.41	12.81
600	34.16	46.40	27.38	37.12	18.29	16.09
700	38.43	52.20	30.81	41.76	20.54	18.11
800	42.70	58.00	34.23	46.40	22.82	20.09
900	46.64	63.80	37.37	51.04	24.91	21.92
1000	50.57	69.00	40.51	55.20	26.99	23.76
1100	54.49	74.20	43.66	59.36	29.08	25.59
1200	58.42	79.40	46.81	63.52	31.18	27.42
1400	65.41	89.80	52.38	71.84	34.87	30.68
1600	72.38	99.00	57.97	79.20	38.58	33.94
1800	79.37	107.00	63.56	85.60	42.30	37.20
2000	84.60	115.00	67.75	92.00	45.08	39.64
2200	89.84	123.00	71.94	98.40	47.86	42.09
2400	95.07	131.00	76.13	104.80	50.65	44.53
2600	98.57	139.00	78.93	111.20	52.50	46.16
2800	102.06	147.00	81.72	117.60	54.36	47.80
3000	105.56	155.00	84.50	124.00	56.21	49.42

Present and proposed rates for parcels per quintal

CP2 Scale		CP3 Scale				Distance
Existing Scale 5A	Proposed CP2 Scale	Existing Scale 5B	Existing Scale 6	Existing Scale 8	Proposed CP3 Scale	
42	50	42	27	26	40	Index
8.	9.	10.	11.	12.	13.	14.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Kn.
3.89	7.50	3.86	2.53	2.38	6.00	100
5.88	11.30	5.83	4.58	3.53	9.04	200
7.69	14.50	7.64	6.29	4.60	11.60	300
9.36	17.40	9.29	7.56	5.57	13.92	400
11.03	20.30	10.95	8.69	6.54	16.24	500
13.84	23.20	13.99	10.98	8.18	18.56	600
15.54	26.10	15.71	12.26	9.20	20.88	700
17.26	29.00	17.43	13.52	10.19	23.20	800
18.82	31.90	19.03	14.80	11.10	25.52	900
20.39	34.50	20.61	16.09	12.02	27.60	1000
21.98	37.10	22.20	17.36	12.93	29.68	1100
23.54	39.70	23.79	18.42	13.85	31.76	1200
26.33	44.90	26.61	20.33	15.49	35.92	1400
29.12	49.50	29.43	22.25	17.11	39.60	1600
31.91	53.50	32.26	24.16	18.73	42.80	1800
34.01	57.50	34.37	26.08	19.97	46.00	2000
36.10	61.50	36.48	27.80	21.18	49.20	2200
38.20	65.50	38.60	29.71	22.41	52.40	2400
39.60	69.50	40.01	31.63	23.21	55.60	2600
41.00	73.50	41.43	33.53	24.04	58.80	2800
42.39	77.50	42.84	35.45	24.85	62.00	3000



Circulation of Newspapers and Periodicals in India : 1976.

Year	(Periodicity-wise)					( In thousands)	
	Dailies	Tri/Bi-Weeklies	Weeklies	Fortnightlies	Monthlies	Other Periodi- cities.	Total all periodici- ties.
1976	9,338	123	9,154	2,745	10,839	1,876	34,075

Circulation of Newspapers and Periodicals in India : 1976  
( By size-category, circulation range and periodicity)

Size -category Circulation range.	Big		Medium	Small		All sizes
	Above 100,000	50,001 - 100,000	15,001 - 50,000	5,001 - 15,000	Upto 5,000	All circulation ranges. (Total 1 to 5 )
Periodicity	(1)	(2)	(3)	(4)	(5)	(6)
<b>A : Number* of Newspapers/Periodicals</b>						
1. Dailies**	23 (3.6)	19 (3.0)	89 (13.9)	158 (24.6)	352 (54.9)	611 (100.0)
2. Periodicals	33 (0.5)	40 (0.6)	145 (2.1)	499 (7.2)	6,179 (89.6)	6,986 (100.0)
3. All Newspapers/ periodicals (Total 1 + 2)	56 (0.7)	59 (0.8)	234 (3.1)	657 (8.7)	6,531 (86.7)	7,537 (100.0)
<b>B : Total Circulation (In Thousands)</b>						
4. Dailies**	3,473 (36.7)	1,272 (13.4)	2,531 (26.8)	1,428 (15.1)	757 (8.0)	9,461 (100.0)
5. Periodicals	5,419 (22.0)	2,821 (11.5)	3,697 (15.0)	4,279 (17.4)	8,398 (34.1)	24,614 (100.0)
6. All newspapers/ periodicals. (Total 4 + 5)	8,892 (26.1)	4,093 (12.0)	6,228 (18.3)	5,707 (16.7)	9,155 (26.9)	34,075 (100.0)

Circulation of Newspapers and Periodicals in India : 1976  
 (By size-category, circulation range and periodicity)

Statement 12-8 (contd.)

Size - category	Big		Medium	Small.		All sizes
	Above 100,000	50,001 - 100,000	15,001 - 50,000	5,001 - 15,000	Upto 5,000	All circulation ranges. (Total 1 to 5)
Periodicity	(1)	(2)	(3)	(4)	(5)	(6)
C : Average Circulation B/A. ( In thousands)						
7. Dailies	151.0	66.9	28.4	9.0	2.2	14.0
8. Periodicals	164.2	70.5	25.5	8.6	1.4	3.6
9. All newspapers/ periodicals (Average 7 & 8)	158.8	69.4	26.6	8.7	1.4	4.5

Note : Figures in brackets represent the percentage share of the relevant circulation range in the total for all circulation range.

\* Figures denote the number of newspapers/periodicals to which the circulation figures in 'B' relate/pertain

\*\* Including Tri/Bi-weeklies

(Source : Eastern Economist - dated 13th April, 1979)

Analysis of Newspaper and magazine parcels by weight

Weight of parcel Kgs.	English Newspapers			Indian Language	Magazines
	Hindu (Madras)	Hindustan Times (Delhi)	Statesman (Delhi)	Newspapers (Jullundur)*	Kumudam and Kalkandu (Madras)
0 - 5	31	76	19	127	107
6 - 10	21	12	7	13	35
11 - 25	27	12	3	7	30
Over 25	51	11	1	19	52
Total	130	111	30	154	224

\* Milap  
 Partap  
 Hindu  
 Ajit  
 Nawa Zamana  
 Lok Lahar  
 Akali Patrika

List of low-density and/or fragile articles (arranged alphabetically)

<u>Articles</u>	<u>Railways</u>
ALMIRAH, wooden or steel Furniture	CR, ER, NR, NER, SCR, SR
ALUMINIUM WARES:	
Ladders, Utensils, Vessels	ER, NER, NFR, SER
AMMETERS, electric, fragile	CR
BARRELS, empty	NFR
BASKETS, empty, bamboo/cane, poultry	NFR
BASKETS, loaded with ducks	SCR
BEDDINGS	NR
BED MATTRESSES	NR
BEDS	WR
BENCHES, furniture	CR
BIDI LEAVES	SER
BIRDS (Other than Poultry), in cages	SCR
BIRDS chicken packed in baskets	SR
BRASS WARE, vessels packed in gunnies	SR
CABINETS, wooden, steel	CR
CANE FURNITURE	SCR
CARD BOARD, boxes empty, folded, not folded	SR
CHAIRS, furniture	ER, NR, NER
CHICKENS, in baskets	SER
CHILLIES, dry	NR
CHIRA (beaten rice)	SER
COIR MATTRESSES	NR
COOLERS	NR
COOLER GRASS	NR
COTTON, unpressed	NFR
CUPBOARD, wooden, iron	NR
DANDASA (sticks for cleaning teeth)	NR
DENSITOMETER - Transmission	CR
DHOLAK	NER
DRUGS, country	SR
DRUMS, empty	NFR
DRY CHILLIES	NR
DRY LOTUS	SR

Articles	Railways
EARTHEN POTS	NER
EARTHEN WARE	NER
ELECTRIC BULBS, in wooden crates	ER
ELECTRIC GOODS	CR
ELECTRIC TUBES	CR
EMPTY BARRELS	SCR, WR
baskets	SR, WR
boxes	CR
cans	SR
drums	NFR, FR
tins	NFR, NR, SCR
trunks	SR, WR
FEATHERS	NR
FLOWERS in baskets	WR
FLOWERS, Plastic	CR
FOAM MATTRESSES	NR
FURNITURE, cane, steel, wooden -	CR, ER, NR, NER, NFR, SR, SCR,
<u>e.g.</u> , almirah,	SER, WR
benches	
cabinets	
chairs	
cot	
cupboard	
palang	
sofa sets	
stools	
tables	
FURNITURE, hospital	CR
GELATINE CAPSULES	NR
GLASS WARE, packed in baskets	SR
GREEN PEAS	NR
GUNNY BUNDLES, containing vessels or scraps	SCR

<u>Articles</u>	<u>Railways.</u>
HAND BARROW	NR
HANDI CRAPES, idols made of paper pulp	SR
ICE CREAM, in cases	SR
IMAGES, of Gods & Goddesses	NER
INSTRUMENTS, musical	CR, NER, SCR, WR
scientific	CR, WR
surgical	CR, WR
KITES	CR
KURUMURA (Puffed rice)	WR
LAC, refined	SER
LAMPS, electric	ER, NR
LAMP SHADES	NR
LANTERNS, in bundles	NR
LOTUS, dry	SR
MACHINES, in standard wooden or metal crates	WR
MATTRESSES, foam, coir	NR
MEDICINES	CR
MONKEYS, wild in crates	
MURHI (Rice parched)	SER
MUSICAL INSTRUMENTS, packed	NER, SCR, WR
PACKING MATERIAL, for neat	WR
PALANG, furniture	NR
PEAS, green	NR
PILLOWS	WR
PLASTIC FLOWERS	CR
PLASTIC GOODS, in crates	NR, SR
POLYTHENE PIPES, in rolls	NR
POTS EARTHEN	NR
PUFFED RICE (Kurunura)	WR
PUPPY, in box	ER
PVC PIPES	NR

Statement 12.10 (contd)

<u>Articles</u>	<u>Railways</u>
REFRIGERATORS	NR
RUBBER FOAM	NR
RUBBER SPONGES	WR
SALPATTA	CR
SCIENTIFIC INSTRUMENTS	WR
SOFA SETS furniture	SER, NR
STAINLESS STEEL, vessels	SR
STOOL, furniture	NR, NER
SURGICAL GOODS	CR
TABLES, furniture	NR
TABLE LAMPS, electric	NR
THERMOCOLE, sheets or toys etc. made out of	SR, WR
TINS, empty	NR, NFR, SCR
TOYS, made of paper, plastic, thermocole	SR, WR
TROLLEYS	NR
TRUNKS empty	SR, WR
TUBES, electric	NR
TV CABINETS	NR
TV SETS	SCR
U FOAM, bundles, mattresses	WR
UNPRESSED COTTON	NFR
UTENSILS, aluminium	ER, NFR, NER, SER
VESSELS, aluminium	ER, NR, SER, SR
brass	
copper	
stainless steel	
WASH-BASIN	NR
WOOL, raw, in bales	CR, NER

Comparison of Existing and Proposed 'OR' rates per vehicle for livestock carried in vehicle-loads by passenger trains. (B.G.)

Distance	Existing Rates			Proposed rate per vehicle.
	1. Horses, Ponies, Mules, Donkeys, Horned cattle etc.	2. Elephants and elephant calves.	3. 1. Calves, Sheep, Goats, and pigs. 2. Dogs, in packs. 3. Wild animals.	
1. Kms.	2. Rs.	3. Rs.	4. Rs.	5. Rs.
100	185	178	93	900
200	370	356	187	1356
300	545	500	282	1740
400	710	610	376	2088
500	875	720	471	2436
600	1035	825	563	2784
700	1195	930	657	3132
800	1355	1035	752	3480
900	1510	1138	846	3828
1000	1665	1241	941	4140
1200	1975	1447	1130	4764
1400	2285	1653	1319	5388
1600	2595	1859	1508	5940
1800	2905	2065	1697	6420
2000	3205	2265	1886	6900
2200	3505	2465	2056	7380
2400	3805	2665	2245	7860
2600	4095	2859	2434	8340
2800	4385	3053	2623	8820
3000	4675	3247	2812	9300

The existing rates given in Cols. 2 & 3 are the rates as revised from 1.10.78 and the existing rates given in Col.4 are in force from 1.10.48 with the addition of only supplementary charges levied from time to time.



Comparison of per animal rate loaded in excess of the carrying capacity with the proportionate rate per animal for the number permitted to be loaded.

(B.G.)

Distance	Existing Rate per 4-wheeler	Calves, Sheep, Goats, Pigs		
		Proportionate Rate <sup>per</sup> animal per km. based on the number of permitted load		
		Calves (Permitted load-20)	Pigs (Permitted load - 50)	Sheep, Goats (Permitted load - 70)
1.	2.	3.	4.	5.
Kms.	Rs.	Paise	Paise	Paise
100	178	8.90	3.56	2.54
300	500	8.33	3.33	2.38
426 (Average lead-Sheep & Goats)	643	7.55	3.02	2.15
632 (Average lead-Other livestock incl. birds)	867	6.86	2.74	1.96
741 (Average lead-Other cattle)	983	6.63	2.50	1.89
1181 (Average lead-Horses)	1447	6.13	2.45	1.75
676 (Average lead-Total livestock)	909	6.72	2.69	1.92
Rate per km. per animal loaded in excess.		12 (Paise)	12 (Paise)	12 (Paise)

Statement 12.92

Comparison of per animal rate loaded in excess of the carrying capacity with the proportionate rate per animal for the number permitted to be loaded.

(B.G)

Existing Rate per 4-wheeler	Horses, Ponies, Mules, Donkeys, Horned Cattle			Distance
	Proportionate Rate per animal per km. based on the number of permitted load.			
	Horses (Permitted load - 8)	Horned cattle, Ponies, Mules (Permitted load - 10)	Donkeys (Permitted load - 12)	
6.	7.	8.	9.	10.
Rs.	Paise	Paise	Paise	km.
185	23.12	18.50	15.42	100
545	22.70	18.17	15.14	300
760	22.30	17.84	14.87	426 (Average lead-Sheep & Goats)
1099	21.74	17.39	14.49	632 (Average lead-Other livestock incl. birds)
1275	21.51	17.21	14.34	741 (Average lead-Other cattle)
1975	20.90	16.72	13.94	1181 (Average lead-Horses)
1163	21.55	17.20	14.34	676 (Average lead-Total livestock)
	16 (Paise)	16 (Paise)	16 (Paise)	Rate per km. per animal loaded in excess.

Comparison of Existing and Proposed Rates (OR) for aeroplanes, motor boats, boats carriages, palanquins, motor cars etc. in a four-wheeled vehicle.

Distance	Existing Rates					Proposed Rates			
	Aeroplane	Motor boat, Motor trolley and truck	Boats	Carriage, or Dhooly	Palanquin and Howdah	Motor car	Motor car & a carriage loaded to- gether in the same truck.	Motor tractor with or without a plough on wheels attached.	Articles mentioned in Col.2 to Col.8.
1. Kms.	2. Rs.	3. Rs.	4. Rs.	5. Rs.	6. Rs.	7. Rs.	8. Rs.	9. Rs.	
100	270	156*	113*	68*	135*	135*	90*	900	
200	492	316	229*	138*	246*	264	181*	1356	
300	632	475	344	208*	316	379	273	1740	
400	772	635	460	277	386	495	365	2088	
500	910	794	575	347	455	610	456	2436	
600	1138	1032	747	451	569	786	593	2784	
700	1290	1206	873	527	645	911	693	3132	
800	1440	1379	999	602	720	1037	792	3480	
900	1592	1552	1124	678	796	1162	892	3328	
1000	1744	1726	1250	754	872	1288	992	4140	
1200	2046	2072	1501	905	1023	1539	1191	4764	
1400	2348	2419	1752	1057	1174	1790	1390	5388	
1600	2652	2766	2003	1208	1326	2041	1589	5940	
1800	2954	3112	2254	1359	1477	2292	1789	6420	
2000	3258	3459	2505	1511	1629	2543	1988	6900	
2200	3530	3771	2731	1648	1765	2769	2167	7380	
2400	3832	4118	2982	1799	1916	3020	2367	7860	
2600	4136	4464	3233	1950	2068	3271	2566	8340	
2800	4438	4811	3484	2101	2219	3522	2765	8820	
3000	4742	5158	3735	2253	2371	3773	2964	9300	

\*Minimum charge Rs.250

Note: The Existing rates are as for one unit while the Proposed rates will apply regardless of the number loaded in the same vehicle.

## **PART III**

**Freight Traffic**

CHAPTER XIII

GENESIS OF THE PRESENT FREIGHT STRUCTURE

13.01. The extant freight structure on Indian Railways is evolved from the structure introduced from 1.10.1958 based on the recommendations of the Freight Structure <sup>Enquiry</sup> Committee, 1955, who submitted their report in 1957.

13.02. To have a proper appreciation of the present freight structure and the changes that we are proposing, it will be useful to touch on certain features of the freight structures in force prior to 1958 and the structure as it exists today. We may start with the freight structure that was introduced in 1936 which may be called the pre-war rating structure and which was in force from 1936 to 1948. For details of the history of rail freight rates in India from the inception of Railways, attention is invited to a brief survey of the history of rail rates given in the Report of that Committee which is given as Appendix VIII to this Report.

13.03. The important features of the pre-war Rating Structure are indicated below.

There were 16 class rates as per the General I.R.C.A. classification as indicated in Table 13.1

Table 13.1

Class	Maximum rate. (Pie per maund per mile)	Minimum rate. (Pie per maund per mile)
1	0.38	0.100
2.	0.42	"
2-A	0.46	"
2-B	0.52	"
2-C	0.54	"
3	0.58	0.166
4	0.62	"
4-A	0.67	"
4-B	0.72	"
5	0.77	"
6	0.83	"
6-A	0.89	"
7	0.96	"
8	1.04	"
9	1.25	"
10	1.87	"

These class rates were all on a uniform <sup>per</sup>/maund per mile basis and were not telescopic. The various individual Railways continued, however, to have exceptional class rates for commodities. There were exceptional class rates over individual railways for some commodities which were above the general classification rates. In certain cases, there were exceptional classifications over individual railways below the general classification.

13.04. In addition to these class rates, Railways had schedule rates generally with weight conditions attached. Some of the schedule rates were on a per maund per mile basis, but most of them were on a telescopic basis. In through booking from one railway to another, the class or schedule rate per maund on each railway was calculated separately and added up together to get the aggregate rate per maund. In other words, the charges were calculated on the discontinuous mileage basis for each railway even in through booking. There were nearly 25 schedule rates in force on the Indian Railways. The schedule rates frequently varied from railway to railway even for the same commodity. For the same commodity, certain railways had schedule rates but others did not have. Even when two railways charged the same schedule rate for the same commodity, the rate per maund over each railway was separately calculated i.e. on the discontinuous mileage basis, and, therefore, the benefit of the telescopic rate was not fully allowed in the case of through bookings. Also, the conditions under which these schedule rates were notified often differed over the different railways. Some applied them at railway risk, some at owner's risk, some for 'smalls' and some with certain minimum weight conditions.

13.05. Apart from this, terminal charges and transshipment charges varied widely and different railways levied different terminal charges varying from commodity to commodity and from schedule to schedule and made the freight structure further complicated.

13.06. Therefore, it will be seen that the freight structure suffered from certain major defects in that it was not rational or uniform over all the railways and the working of railways was extremely individualistic. It may also be mentioned that the railways had a very large number of station to station rates which again was because of the

individualistic pattern of working of different railways. Station to station rates were quoted not only between specific stations but also between a specific station and via junction, and between via one junction to via another junction.

13.07. It became therefore necessary to further review the freight structure on railways. Actually, the Indian Railway Enquiry Committee, 1936-37, which was known as the Wedgwood Committee, in their report referred to the multiplicity of schedules and exceptional class rates then in use on railways and wanted these to be reviewed. Shri K.L.Crawford of the M & S.M. Railway was placed on special duty to examine the whole field of the rate structure, assisted by an Advisory Committee of experienced Rates Officers. This investigation culminated in the introduction of a new rate structure which came into force from 1st October, 1948.

13.08. The revision of the freight structure in 1948 is an important land-mark in the history of the Indian Railways' freight structure. The attainment of Independence in 1947 gave a new orientation to the problem of the railway freight structure. The individualistic pattern of rating so far followed by the different railways had to be replaced by a national policy, calling for uniformity and rationalisation to the largest extent possible. The rating structure had also to take into consideration that the railways' economy required that the rates should be suitably enhanced in order to cope with the increasing operating costs as a result of the war and the aftermath of the war. Uniformity, rationalisation and enhanced revenue were the consideration which mainly weighed in formulating the new freight structure in 1948, the salient features of which are indicated below :

13.09. The first important change made in the new freight structure was that all the class rates and wagon load scales were made telescopic. In the previous structure, it was a basic defect that the class rates were on a flat per maund per mile basis without taking into account the basic principle of the value of service. This defect was removed and all the class rates were made telescopic. Also, a maximum rate per maund was prescribed for each class. The 1948 freight structure had 15 class

rates as indicated in Table 13.2.

Table 13.2

Class	Basis of telescopic class rates			Minimum pic per maund per mile	Maximum pies per maund per mile	Maximum rate		
	Pics per maund, per mile					per maund excl. of terminals, transhipment and other extra charges		
	For the first 300 miles	For the next 300 miles	For distance beyond			Rs.	a.	p.
1st	0.49	0.45	0.40	0.16	0.49	3	4	0
2nd	0.54	0.49	0.45		0.54	3	10	0
3rd	0.58	0.54	0.49		0.58	4	0	0
4th	0.63	0.58	0.54		0.63	4	6	0
5th	0.68	0.63	0.58		0.68	4	12	0
6th	0.73	0.68	0.63		0.73	5	2	0
7th	0.78	0.73	0.68		0.78	5	9	0
8th	0.84	0.78	0.73	0.20	0.84	6	0	0
9th	0.90	0.84	0.78		0.90	6	7	0
10th	0.97	0.90	0.84		0.97	6	14	0
11th	1.04	0.97	0.90		1.04	7	6	0
12th	1.11	1.04	0.97		1.11	7	14	0
13th	1.18	1.11	1.04		1.18	8	8	0
14th	1.41	1.18	1.11		1.41	9	4	0
15th	2.11	1.41	1.18		2.11	11	0	0

13.10. Apart from these class rates, there were also the following wagon load scales applicable to wagon load consignments only. These wagon load scales were also telescopic but without any separate maximum limit per maund:

Table 13.3

Wagon load scale	Pic per maund per mile		
WL/A	0.25/100 miles	+ 0.20/300 miles	+ 0.15 beyond
WL/AR	0.30/100 "	+ 0.25/300 "	+ 0.20 "
WL/B	0.48/100 "	+ 0.32/300 "	+ 0.23 "
WL/C	0.34/150 "	+ 0.31/150 "	+ 0.17 "
WL/CR	0.41/150 "	+ 0.38/150 "	+ 0.24 "
WL/D	0.38/300 "	+ 0.28/300 "	+ 0.18 "
WL/DG	0.38/150 "	+ 0.28/150 "	+ 0.15 "
WL/E	0.43/150 "	+ 0.32/150 "	+ 0.17 "
WL/F	0.43/300 "	+ 0.32/300 "	+ 0.21 "
WL/G	0.48/300 "	+ 0.34/150 "	+ 0.19 "
WL/H	0.48/300 "	+ 0.35/300 "	+ 0.23 "
WL/HO	0.48/150 "	+ 0.34/150 "	+ 0.19 "
WL/I	0.43/300 "	+ 0.23/200 "	+ 0.15 "



13.11. All the class rates and wagon load scales prescribed for any commodity applied uniformly over all the railways for that commodity. In booking from one railway to another, the charges were calculated on the total distance so that the benefit of the telescopic basis was obtained over the entire length of the haul. There was very substantial reduction in the number of commodities for which wagon load scales were made available. Previously there were schedule rates applicable to a large number of commodities. These wagon load scales were made available only for commodities of comparatively low value or of special social utility, which could move over long distances only by substantial reduction in rates. It must be mentioned, however, that all commodities did not have a separate rate for movement of 'smalls' and a separate rate for movement in wagon loads. A few commodities had wagon load scales and there were a few other commodities where a lower class rate itself was prescribed as a wagon load rate. This was of course a basic defect in this freight structure.

13.12. All indefinite station to station rates like for example rates quoted between any station reached via one junction to any station reached via another notified junctions were cancelled. Also, a very large number of low uneconomic station to station rates which individual railways had quoted were either cancelled or enhanced suitably. Many of the special rates were cancelled or enhanced because (a) the railways' operating costs had gone up, (b) the commodity prices were very much higher and the commodities could generally bear higher freight rates, and (c) in the case of special rates quoted based on competition by alternative modes of transport, the rates by these alternative modes had also gone up substantially. The transshipment and terminal charges were also standardised and applied uniformly on all railways.

13.13. As mentioned earlier, the basis of the various class rates were kept higher than the previous rate structure to enable enhanced revenues to meet the increased operating costs of railways being obtained.

13.14. The objects and results of the revision of the freight structure in 1948 may be summed up in the following words of the Railway Freight Structure Enquiry Committee, 1955-57 :

- (1) Simplification and rationalisation of freight rates on Indian Railways ;
- (2) Re-orientation of railway/rating policy along national lines ;
- (3) the prevention of wastage of transport resulting from circuitous routing due to competitive reasons ; and
- (4) the securing at the same time of a modest increase in freight rates to match in part the increase in working cost.

"Simplification and rationalisation were achieved by the replacement of different rates such as flat class rates, exceptional class rates, schedule, rates, indefinite special rates via interchange junctions and adjusted class rates, by telescopic class rates and wagon load scales rates on continuous mileage over all the Indian Union Railways and by the fixation of standard terminal and transshipment charges. Definite orders were issued preventing different units of the Indian Union Railways from quoting any exceptional class rates below or above the ordinary maximum or from adding to the wagon load scales sanctioned by the Railway Board or including or excluding any commodities under such scales or transferring commodities from one scale to another.

The second object, i.e., the re-orientation of railway rating policy along nationalistic lines, was largely secured by the introduction of through telescopic rates and by the withdrawal of a large number of station to station rates, which had been quoted in earlier years under conditions which no longer prevailed.

The prevention of wastage of transport was brought about mainly by :-

- (i) Cancellation of rating and routing agreements between different railways ;
- (ii) stipulating that traffic was to be carried by the shortest route at the cheapest rates; and
- (iii) introduction of standard minimum weight conditions applicable over all railways.

Some of the anomalies and defects in the rating practices were sought to be removed by reclassifying many commodities and by readjusting the difference between railway risk and owner's risk rates. In some cases class rates as well as wagon load scale rates were quoted only at railway risk.

In order to meet the increased cost of operation, the level of charges was raised generally.

So after practically a century of experiments and differing practices, the freight structure of Indian Railways was assimilated and a great step forward was taken in evolving a rationalised freight structure to serve the interests of the community as a whole".

13.15. The freight structure which was introduced from 1st October, 1948 continued to be in force till the 1st October 1958. We may now briefly see the circumstances leading to the revision of the freight structure in 1958.

13.16. Though the freight structure introduced in October 1948 was a great step forward towards simplification and rationalisation of freight rates on Indian Railways, it continued to suffer from certain serious defects. Firstly, though there were 16 class rates and 13 wagon load rates, there was no particular relationship between these class rates and wagon load scales. These wagon load scales had been evolved, as we have seen, out of the numerous schedule rates which had been in force on individual railway prior to 1948. Therefore, there was no rational relationship between these wagon load scales and the class rates. Moreover, all the commodities did not have a rate applicable for wagon load movements. Out of a total of about 3,000 commodities listed in the Goods Tariff, hardly a hundred commodities had rates for wagon load movements. This was a basic defect in the freight structure. Normally, there are certain advantages to the railways in moving consignments in wagon loads instead of in 'smalls' and there are economies in transportation expenses. It is therefore only reasonable

that when a commodity moves in wagon loads it should have a rate lower than the rate applicable for movement in 'smalls' ; but, the 1948 freight structure did not apply this basic principle for all commodities.

13.17. Another defect in the freight structure was the fact that the class rates though telescopic did not really give any effective tapering in the rates for movement over long distances. An initial slab of 300 miles in <sup>the</sup> telescopic rates was too long, and for the average leads of traffic, many of the movements did not get the benefit of any telescopic tapering at all. Again, in regard to the wagon load scales, the different wagon load scales had different legs in the telescopic slabs which made them irrational.

13.18. There was a separate terminal charge to be added to the haulage charge. These terminal charges had no doubt been standardised in 1948. There was also a transshipment charge levied at break of gauge points. There was a ghat charge, akin to the transshipment charge, which was being levied at river crossings. Further, there was a minimum distance for charge, viz., 20 miles. In addition to this, there was a short distance charge of 6 pies per maund for all movements of less than 75 miles subject to the differential rule for distances. These were introduced with the object of discouraging short distance traffic. There was in addition an overall minimum charge for wagon load consignments at the rate of Rs 1/12/0 per ton on the carrying capacity of the wagon used for loading. All these made the freight structure somewhat complicated.

13.19. Apart from this, as years went by since the revision of 1948, the operating expenses of the railways were going up and it was necessary to find extra revenues not only for meeting the additional operating expenses but also for providing funds for the increasing outlay on railways in connection with the Five Year Plans. An expedient way of realising extra revenues was to impose a uniform supplementary charge on all traffic. Thus, from 1st April, 1955, a supplementary charge of an anna in the rupee, i.e. 6¼ % on all traffic, with the exception of grains and pulses, fodder, manures, khadi, newspapers, newsprint and books was introduced. This supplementary charge was further increased from April, 1957. The imposition of the supplementary charges meant that all traffic (with certain exceptions) had to bear the brunt of the increase almost uniformly without reference to their ability to bear the freight.

13.20. The Government of India had been considering a detailed revision of the rate structure to remove the basic defects in the old structure and also to ensure that adequate revenues were obtained by suitably adjusting the rates on different commodities, taking into account all aspects. They, therefore, appointed a Freight Structure Enquiry Committee in June 1955, with the following terms of reference :-

- (i) To review the present railway freight rate structure in all its aspects and to suggest what modifications should be made, bearing in mind the needs of a developing economy and the necessity for maintaining the financial stability of the railways ;
- (ii) To examine whether the statutory provisions dealing with the responsibility of railways as carriers need any, and if so, what modification and in the light of modification proposed whether any adjustment in freight rates is warranted ;
- (iii) To examine what changes, if any, are needed in the existing constitution, jurisdiction and rules of procedure of the Railway Rates Tribunal, so that the Tribunal might be a more effective and expeditious instrument for adjudication of railway freight matters at a reasonable cost to the litigant; and
- (iv) To make recommendations.

13.21. The necessity for an enquiry of this kind had been emphasised by the Taxation Enquiry Commission (1953-54) in the following observations :

"In view of the importance of industries in the second phase of Five Year Plan, and the need from this point of view for a proper articulation of the policy considerations governing railway rates, we suggest that a Committee including officials of the railways and other Ministries concerned and the Planning Commission should be set up to consider the formulation of an adequate freight rates policy, having regard to the

interests of industrial and economic development, on the one hand, and the resources required for railway development, on the other. We consider that this question should be examined and the necessary decision taken before the Second Five Year Plan for railways is finalised".

The composition of the Freight Structure Enquiry Committee was as follows :

Shri A.Ramaswami Mudaliar	Chairman
Shri T.N.Singh,	Member
Shri D.K.Borooah,	Member
Shri I.S.Puri,	Member
Shri V.P.Bhandarkar,	Member
Shri A.K.Basu,	Member

13.22. The Committee's Report was submitted in April, 1957, and based mainly on the recommendations of this Committee, a new freight structure was introduced from 1.10.1958.

13.23. The main recommendations of the Freight Structure Committee (1955-57) are indicated below :

13.24. The Committee recommended that there should be a revision of the pattern of the legs of the telescopic scale. The revision as proposed would firstly discourage traffic over very short distances, secondly ensure that too much burden would not be put on traffic which moves over distances of 300 to 500 miles, and thirdly provide for a comparative and progressive lightening of the burden on traffic moving over distances beyond. In the opinion of the Committee, it should be the deliberate policy of the railways to discourage as far as possible short distance traffic by rail and encourage alternative modes of transport over short distances. The pattern of legs proposed was :

Miles	1-25
Plus	26-75
Plus	76-150
Plus	151-300
Plus	301-500
Plus	501-800
Plus	801-1200
Plus	1201 and beyond

13.25. It will be seen that, instead of one leg upto 300 miles which obtained prior to 1958, the Committee suggested four legs. The first leg of 1-25 miles was designed with a view to avoiding, as far as possible, traffic over short distances as this lead should be catered for by motor lorries or other means of transport. The next leg of 26-75 miles also marked well designed zone of movement which had all along been considered as a zone of short distance movement. This leg should also be catered for by the road transport as far as possible. The next leg upto 300 miles and other legs recommended for distances beyond, were intended to give the benefit of telescopic decrease in freight rates for all commodities.

13.26. Instead of the 15 class rates and the 13 wagon load scales, which did not have any particular relationship with one another, the Committee recommended a percentage system of classification rates. They suggested a basic rate which should be styled as Class 100 rate and all other classes should be expressed as a percentage of class 100 rates. This would not only give an idea of the level of the rates in relation to the standard class 100 rate, but also afford greater simplification and flexibility. Such a system would also lend itself easily to the adoption of additional intermediate classes as and when found necessary. Such a freight structure was obtaining in the United States and Canada. Taking the basic scale of the 9th class rate obtaining then as the norm, i.e., class 100 rate, the committee proposed the corresponding percentage rates for the different scales of rates as under :

1. WL/A	25%	15. Class	2	60%
2. WL/AR	30%	16. "	3	65%
3. WL/C	32.5%	17. "	4	70%
4. WL/CQ	35%	18. "	5	75%
5. WL/I	37.5%	19. "	6	80%
6. WL/B	40%	20. "	7	85%
7. WL/BR		21. "	8	95%
8. WL/D		22. "	9	100%
9. WL/E	42.5%	23. "	10	110%
10. WL/CR		24. "	11	115%
11. WL/F	45%	25. "	12	120%
12. WL/G	47.5%	26. "	13	130%
13. WL/H		27. "	14	150%
14. Class 1	55%	28. "	15	230%

13.27. The Committee recommended that there should be a separate lower classification for all commodities tendered in wagon loads instead of in snalls; i.e., for all commodities the classification should provide for two sets of rates, one for traffic moving in snalls and the other for traffic in wagon loads. The wagon load rate would have a minimum weight condition attached for every commodity. The Committee, however, prescribed only one rate for a small number of commodities like boats, carriages, motor vehicles, palanquins, etc., and explosives which would be applicable on any quantity basis. (AQ)

13.28. While there were 15 class rates and 13 wagon load scales in the 1948 freight structure, the Committee recommended in all about 31 classes, excluding coal and live-stock and indicated that with the adoption of the system of percentage classes, it would be possible to introduce intermediate classes as and when required. The Committee also recommended that suitable minimum weight conditions should be fixed for all commodities. They were of the opinion that the existing wagon load conditions were on the low side having regard to the increased loading capacity of the new-rolling stock and having regard to the trade conditions which had largely changed since 1948.

13.29. They recommended that by and large the weight conditions in force on 1st December 1956 should be enhanced by about 20 to 25% and that the weight conditions for commodities for which new wagon load rates were being proposed to be prescribed should be based on the revised weight conditions suggested by the Committee. The Committee also recommended that the wagon load classification should be subject to the condition that loading and unloading of goods should be undertaken by the owners concerned. If, for any reason, the consignor or consignee could not arrange the loading or unloading of consignments, railways should perform the operation themselves and levy suitable charges to be notified in the tariff.



13.30. The Committee recommended that the separate terminal charges levied should be abolished. On most of the foreign railways, there was no separate terminal charge, but the freight rate included the cost of all services rendered by the railway. Both haulage and terminal services should be considered as part of the total transportation services and included in the total transport charge. They, therefore, proposed that the actual quantum of charges for the classification of rates should take into consideration the revenue involved in the terminal charges which were till then being levied, and the rate should be an integrated rate covering all costs. The Committee suggested the abolition of the separate short distance charge, but the basis of the rate for the initial legs were to be suitably enhanced so that short distance movement would be discouraged. The Committee also recommended abolition of the transshipment charge, as this would be in keeping with the policy of standardisation of freight rates throughout the country. The Committee further recommended abolition of the ghat charges which was akin to the transshipment charge. They also recommended abolition of the minimum charge of Rs 1-12-0 per ton which was obtaining at that time, and the maxima and minima rates for the different class rates. To rationalise the system of charging, they also recommended that the minimum distance for charge should not be separately levied on each railway, but the minimum distance should apply only once in such booking.

13.31. With regard to the actual basis of charge for the standard class 100 rate for the different legs, the Committee made certain recommendations which would give adequate revenue to the Railways. They examined the requirements of additional revenues which would enable Railways to carry out the developmental programmes envisaged in the Second Plan. The terms of reference of the Committee required that, while suggesting modifications in the freight structure they should bear in mind the needs of a developing economy and the necessity for maintaining the financial stability of the railways. They therefore examined at length the financial picture of the railways during

the Second Plan Period and in this examination they kept in view the requirements of expanding industry and trade, and also the developments necessary in the transport industry to meet such requirements. The Committee examined in detail the railways earnings and expenditure during the plan period, and reviewed particularly the appropriation to the depreciation fund and they came to the conclusion that the gap between the revenue and expenditure during the plan period would be over Rs 300 crores. They held the view that, to ensure the financial stability of the railways, the existing scale of rates should be revised in an upward direction. They, therefore, recommended the following scales for the class 100 which, besides being equitable and reasonable, would also, to a large extent, meet the requirements of the Railways' finances :-

Miles	1-25	..	3.60	pies per maund per mile.
plus	26-75	..	1.40	"
plus	76-150	..	1.20	"
plus	151-300	..	1.05	"
plus	301-500	..	0.85	"
plus	501-800	..	0.70	"
plus	801-1200	..	0.60	"
plus	distances beyond	..	0.50	"

13.32. The Committee also recommended that the rates should be introduced on a block mileage basis with blocks of 5 miles upto 500 miles, and of 10 miles beyond.

13.33. In the words of the Committee "in making our recommendations regarding the freight rates, we have tried to avoid any radical change or any change purely on grounds of theory. Our approach to the question of freight rates has been essentially pragmatic, and the increases involved in this suggested scale are the minimum necessary to serve the dual objective of facilitating growth of trade and industry in the altered economic situation of today and of stabilising Railways' finances, bearing in mind the task that Railways are called upon to fulfil during the next five years".

13.34 Based on the recommendations of the Freight Structure Enquiry Committee, a new freight structure was introduced from 1st October, 1958. The broad features of the new freight structure are indicated below. Instead of the then existing Class rates and wagon load scales, 45 rate scales as listed hereunder were introduced:-

22.5-A	52.5-B	92.5-B
25 -A	55 -B	97.5-B
27.5-A	57.5-B	100 -B
30 -A	60 -B	105 -B
32.5-A	62.5-B	110 -B
35 -A	65 -B	115 -B
37.5-A	67.5-B	120 -B
40 -A	70 -B	125 -B
42.5-A	72.5-B	130 -B
45 -A	75 -B	135 -B
50 -A	77.5-B	140 -B
52.5-A	80 -B	145 -B
55 -A	82.5-B	155 -B
57.5-A	85 -B	170 -B
	87.5-B	180 -B
	90 -B	

13.35 All commodities classified in the Goods Tariff were given a corresponding scale separately for "smalls" and for "wagon load". It will be seen that two sets of scales were introduced - "A scale" and "B scale". Originally, the Freight Structure Enquiry Committee had recommended certain rates for different slabs of the telescopic scale proposed by them. The Government however thought that the acceptance of the Freight Structure Enquiry Committee's rate scale would lead to appreciable enhancement of the charges levied on several commodities. They wanted to keep the quantum of increase to a certain level and it was not found possible to keep the increase in all cases within a reasonable limit with only one scale of rates. Therefore, two scales A and B were proposed.

13.36 The 100-B rates and the 100-A rates are given below for purposes of comparison:-

Distance (Miles)	100-B rates (per maund)	100-A base rates (per maund)
	Rs. p.	Rs. p.
25	0.34	0.48
50	0.49	0.64
100	0.81	0.98
200	1.40	1.52
300	1.97	2.04
400	2.49	2.48
500	3.02	2.92
700	3.84	3.66
1000	5.02	4.64
1500	6.64	6.06
3000	7.81	7.22

13.37 In the Goods Rate Tables rates were notified in block mileage basis with blocks of 5 miles upto 500 miles, blocks of 10 miles from 501 to 2000 miles, and blocks of 15 miles beyond 2000 miles. Almost all commodities were given separate wagon load and small rates. A minimum weight condition was attached to the wagon load rate which was shown against the commodity in the revised general classification of goods. Loading and unloading of all goods booked at wagon load rates had to be done by the consignors and consignees respectively. For a few commodities, however, like auto-rickshaws, motor cars, etc. there was only one classified rate which was applied when the commodities were offered in any quantity. But in these cases generally the rates were subject to a minimum weight for charge per article. In the revised Rates Structure, Owner's Risk rates were provided only for a few commodities, the freight at Railways' Risk being 20% higher than the freight at Owner's Risk which was notified. The other notified rates were all at Railway Risk. The supplementary charges that were being recovered till that date were withdrawn. The minimum distance for charge of 25 miles applied on the through distance irrespective of the number of railways involved. The minimum charge per wagon which was obtaining till then was abolished. The transshipment charges, ghat charges, etc., were also abolished.

13.38. The coal rate was also revised and a special scale for coal was introduced. The charges for coal for a few representative mileages are given below :

Distance (Miles)	Rate per ton	
	Rs	P
25	4.	31
100	6.	87
200	12.	00
300	13.	69
500	16.	87
800	21.	19
1000	24.	00
1500	30.	00
1501 and over	30.	00

A ceiling of Rs 30.00 was fixed for any distance beyond 1500 miles.  $\frac{\text{Rs } 30.00}{\text{per ton}}$

13.39. The increases in the rates for different commodities which were made in October 1958 did not, however, prove to be adequate to cover the increase in operating costs and the requirements of the railways. The Railways, therefore, made ad-hoc increases in freight rates by way of levy of supplementary charge and reclassification of certain commodities from time to time.

The changes made in the freight rates from 1.10.1958 are indicated below.

13.40. From 1.4.1960 - A supplementary charge of 5% was levied on goods traffic except iron ore and manganese ore for export.

13.41. From 1.4.1961 - The rates for coal for short distances upto 70 Kms. were increased by 2 to 75 Paise per tonne.

13.42. From 1.7.1961 - Coal rates were revised for all distances beyond 335 Kms. by an amount increasing with the distance subject to a maximum increase of Rs 3.81 per tonne.

13.43.(i) From 1.7.1962 - An increase of Re.1 per tonne for distances 81 Kms. and above and increases ranging between 50 P and 90 P for distances less than 81 Kms. were made in case of all goods, excluding grains and pulses.

(ii) In the case of grains and pulses, an increase of Re.1 per tonne was made for distances 161 Kms. and above and increases ranging between 50 P and 90 P for distances less than 161 Kms. was effected.

(iii) The minimum charge per "Smalls" consignment was increased from Re.1 to Rs 1.50.

13.44. From 1.4.1963 - The supplementary charge of 5% was raised to 10% completely exempting, however, Manganese Ore for export. In the case of Iron Ore for export, the existing supplementary charge of 5% was continued.

13.45 From 1.4.1964(i) The supplementary charge of 10% was increased to 12%. Coal rates for distances beyond 500 Kms. were increased, the increase varying with the increase in distance, subject to a maximum increase of Rs 3 per tonne.

(ii) A downward adjustment in the classification of certain high-rated commodities such as Boots, Fireworks, lamps NOC, lanterns NOC, Medicines, matches safety, leather goods, motor vehicles, rubber manufactured etc. was made.

13.46. From 1.4.1965(i) The supplementary charge of 12% introduced from 1.4.1964 was merged in the basic rates.

(ii) The rates for hard coke were revised to 10% higher than coal rates.

(iii) While an upward adjustment in the classification of certain low rated commodities was made, the classification of certain selected high rated commodities was also down-graded from 1.4.65 which included Cotton (raw) full pressed, Piece goods, Cotton press packed, Motor vehicles NOC in open wagons, Medicines, hosiery silk. Some of the commodities whose classification was enhanced were cement, Timber, P.O.L. (Non-dangerous), Pig Iron, Iron or Steel Divisions A, B & C.

(iv) The surcharge of 20% leviable on "Smalls" consignments weighing upto 4 quintals in case of commodities under 'A' classification was extended to 10 quintals.

(v) The minimum charge of Rs 1.50 per consignment was increased to Rs 3.

13.47. From 1.4.1966 - The rates for coal for distances beyond 800 Kms. were enhanced by an amount increasing with the distance, subject to a maximum increase of Rs 4 per tonne. The rates for hard coke, which had been 10% higher than those for coal, were also enhanced in the same proportion so as to maintain that relativity.

(ii) The rate for salt for distances beyond 800 Kms. was increased gradually with increase in distance, subject to a maximum increase of Rs 3.50 per tonne.

(iii) The classification of commodities such as Sugar, Biscuits, Cigarettes, Confectionary, Hardware, Hydrogenated oils, Medicines, Tea, Tobacco, Rubber or Synthetic rubber manufactured, was down graded.

(iv) A supplementary charge of 3% was introduced on goods traffic, including coal and coke and livestock but excluding commodities classified higher than class 100-B and iron ore and manganese ore for export.

(v) The surcharge of 20% leviable on 'small' consignments was made applicable to bigger consignments as indicated below :

Commodities	Prior to <u>1.4.1966</u>	From <u>1.4.1966</u>
1. Commodities chargeable at 'A' scales of rates.	On consignments weighing less than 10 quintals.	On consignments weighing less than 50 quintals.
2. Commodities chargeable at 'B' scales of rates	On consignments weighing less than 4 quintals.	On consignments weighing less than 10 quintals.

13.48 (i) From 15.6.1967 - The rate for coal <sup>including</sup> / soft coke was increased for distances beyond 515 Kms. gradually with increase in distance subject to a maximum increase of Rs 3 per tonne at 1860 Kms. and beyond. Prior to 15.6.67 this traffic was charged for distances beyond 2400 Kms. at rates applicable for 2400 Kms. From this date, an additional charge of 13 paise per tonne was levied for haul of every additional 20 Kms. for distances beyond 2400 Kms. Rate for hard coke was also revised to maintain the earlier relativity.

(ii) The supplementary charge of 3% introduced from 1.4.1966 was increased to 6%. The increased supplementary charge was also made applicable to (a) iron ore and manganese ore for export ; (b) commodities classified higher than class 100-B ; and

(c) railway coal, Military traffic, postal traffic and railway materials and stores were exempted from the levy of supplementary charge.

(iii) In the case of grains and pulses, the 3% supplementary charge introduced from 1.4.1966 continued to be levied on them.

A downward adjustment in the classification of all high rated commodities classified higher than class 100-B was made.

13.49. From 1.8.1967 - A distinct and separate scale of rates for smalls, designated <sup>as</sup> class scales, was introduced. The rates were higher than the smalls rates hitherto in force.

13.50. From 15.3.1968 - The rates for livestock (other than camels, elephants and elephant calves), were increased by 10% subject to a minimum increase of Rs 10 per BG four-wheeled wagon, and Rs.8. per MG/NG four-wheeled wagon.

13.51. From 1.4.1968 - The supplementary charge leviable on goods traffic was enhanced from 6% to 9% with effect from 1.4.1968, excepting foodgrains in respect of which, it was raised from 3% to 6%.

13.52. From 1.11.1968 - The freight rates for coal and coke were revised. A transshipment charge of 50 paise per tonne per transshipment was also introduced. Supplementary charge, was not leviable on the revised rates for coal. The coal rates in force prior to 1.11.68 and the revised rates introduced from 1.11.68 for certain representative distances are indicated below:

Table 12.4 13.4

Rates per tonne in Rs.

Distance in Kms	Prior to 1.11.68	W.E. from 1.11.68
100	8.13	8.72
200	10.99	11.92
400	16.99	18.00
600	21.90	24.00
800	27.47	30.00
1000	31.50	34.16
1500	41.09	44.56
2000	49.37	54.96
2500	53.91	60.96



13.53. From 15.12.1968 - The minimum weight for charge for 'smalls' consignments was enhanced from 20 kilograms to 40 kilograms. Also, the minimum charge for 'smalls' consignments was enhanced from Rs 3 to Rs 8 per consignment .

13.54. From 15.6.1969 - The supplementary charge leviable on grains and pulses was increased from 6% to 9% on par. with other goods traffic.

13.55. <sup>From 1.8.1969</sup> (i) The levy of transshipment charge at each transshipment point on all goods traffic was introduced as under :-

(1) On traffic chargeable at carrying capacity of wagons :-

(a) Dangerous goods ..... 10 paise per quintal.

(b) Non-dangerous goods..... 8 paise per quintal.

(2) On all other traffic i.e. wagon load traffic chargeable at any minimum weight other than carrying capacity, as well as "smalls" :-

(a) Dangerous goods ..... 15 paise per quintal.

(b) Non-dangerous goods..... 10 paise per quintal.

(ii) The wagon load classification of certain cereals other than principal cereals such as Gram, Dhall, Moong, paddy, etc. was revised from class 30-A (Special) to 32.5-R and that of Gram Flour revised from class 35-A to class 37.5-R.

(iii) The wagon load classification of Salt NOC was also revised from 35-A (Special) to 37.5-R and a new classification namely 35-R introduced for Salt, programmed.

(iv) The wagon load classification of certain allied commodities such as Bicarbonate of Soda, Caustic soda, Caustic soda liquor, Silicate of soda, Soda ash, Soda Crystal, Sodium meta-silicate and sulphate of soda, was revised from 37.5 A to 40-R.

13.56. From 1.4.1970 - A review of the freight structure was made during 1969-70 by an Officer on Special Duty. It was found that during the previous decade the pattern of traffic had changed significantly. There had been a steady fall

in the proportion of higher rated traffic with corresponding increase in the proportion of low-rated traffic. The freight structure then in force, with a wide difference in the charges for low-rated and high-rated commodities was able, on the old pattern of traffic, to produce sufficient revenue to cover expenditure and leave a reasonable surplus after paying dividend because the low margin over costs in the case of low-rated commodities was compensated by the larger margin in the case of high rated commodities. The imbalance due to change in the proportion of high rated and low rated traffic could be restored only by enhancing the rates for low rated traffic relatively more than for higher rated traffic. Keeping in view the above background and the need for bringing the rates in line with costs - though the officer was handicapped to some extent for want of detailed cost data - and having regard to the need for adjustment of the 'taper' in telescopic rates to take into account the development of road competition, the freight structure was rationalised and the rationalised structure was brought into force from 1.4.1970. The important features of the rationalised freight ~~and~~ structure are indicated below. -

13.57.(i) The old freight structure had six separate scales, namely, A, B, A-Special, B-Special and R scales applicable to wagon load traffic and C scale applicable to smalls traffic. The total number of classes was 61. In the rationalised freight structure all the six old scales were merged and replaced by one single scale, and the number of classes was reduced from 61 to 30. The changes proposed in the rationalised freight structure were not however made applicable to grains and pulses and flour.

(ii) The different class rates were derived from the base scale, calculated on the following basis :

<u>Distance in Kms.</u>	<u>Paise per Kn.per quintal</u>
1-40	3.10
plus 41-100	1.73
plus 101-250	1.25
plus 251-500	1.05
plus 501-800	0.98
plus 801-1200	0.90
plus 1201-1800	0.80
plus 1801-2400	0.60
plus 2401-3000	0.40
plus 3001- and over	0.25

The rates were calculated for the following blocks of distances :-

1-40	Kms.	One block
41-250	"	5 Kms. block
251-800	"	10 Kms. block
801-2400	"	25 Kms. block
Beyond 2400	Kms.	50 Kms. block.

The rates for various classes were derived from the above base scale by taking the class number as a percentage of the base rate for each distance and then adding 20 paise per quintal.

(iii) A separate rate scale was notified for coal traffic, with the following basis:-

<u>Distance in Kms.</u>	<u>Rate per tonne (Rs)</u>
1-40	6.80
plus 41-240	0.16 for every 5 Kms.
plus 241-800	0.30 for every 10 Kms.
plus 801-1200	0.56 for every 25 Kms.
plus 1201-1800	0.54 for every 25 Kms.
plus 1801-2400	0.48 for every 25 Kms.
plus 2401-3000	0.60 for every 50 Kms.
plus 3001-and over	0.30 for every 50 Kms.

(iv) The rationalised freight structure involved an increase of 2% to 7% in the case of 'A' scale rates, the increase being somewhat higher at longer distances than in the shorter distances. In the case of 'B' scales, the increase was higher for the shorter distances than for the longer distances but limited mostly to 50 P. or less per Quintal.

13.58 From 1.7.1971 (i) An enhancement was effected in the rates for coal for all leads. The rates for coal prior to 1.7.71 and the revised rates introduced from 1.7.1971 for certain distances are furnished below :

Table 13.5

<u>Distance in Kms.</u>	<u>Rate per tonne in Rs.</u>	
	<u>Prior to 1.7.71</u>	<u>From 1.7.71</u>
100	8.72	9.20
200	11.92	12.80
500	21.00	22.55
1000	34.50	37.40
1200	39.00	42.60
1500	45.50	49.20
1800	52.00	55.80
2000	55.80	59.80

(ii) The rates for Hard Coke were also revised so that they remained 10% higher than the rates for coal.

(iii) A freight concession of 2% was notified for coal traffic offered in train loads at one time from one forwarding station/loading point to one destination station on one forwarding note i.e. from one consignor to one consignee.

(iv) The following concession in freight rates for coal when offered for movements during the slack season i.e. (during the months of June to September) was also introduced.

Upto 499 Kms.	No concession
For distances between 500 to 1000 Kms.	Freight concession at 50 paise per tonne
For distances between 1001 to 1500 Kms.	Freight concession at 75 paise per tonne
For distances beyond 1500 Kms.	Freight concession at Re.1/- per tonne

(v) The classification of all commodities classified at class 45 and below in wagon loads was enhanced by one step. No change was, however, made in the freight rates for foodgrains and pulses as also in the freight rates for export iron ore from Kiriburu and Bailadilla area

(vi) The rates for different categories of Iron or Steel falling under Divisions A & B were also put up by one step as indicated below :-

	Classification in force prior to 1.7.1971		Revised classification introduced from 1.7.71	
	Smalls	Wagonloads	Smalls	Wagonloads
Iron or Steel Division A.	95	80	100	82.5
Iron or Steel Division B.	85	67.5	85	70

13.59. From 15.4.1972 (i) The freight classification of all commodities classified at class 52.5 and below in wagon loads was increased by one step. No change was, however, made in the freight rates for foodgrains and pulses or in the freight rates of iron ore and manganese ore intended for export.

(ii) With a view to securing a better/<sup>return</sup>per wagon the chargeable weight for bulky articles was revised from 45 quintals per 4-wheeled B.G. Wagon and 30 quintals per H.G. or H.G. 4-wheeled wagon to 60 quintals per 4-wheeled B.G. wagon, 40 quintals per 4-wheeled H.G. wagon and 35 quintals per H.G. 4-wheeled wagon.

(iii) A selective enhancement in the classification of certain goods of comparatively high value but with poor loadability was made. The names of those commodities and the classification in force prior to 15.4.1972 and the revised classification assigned from 15.4.1972 are indicated below :

Commodity	Classification in force prior to 15.4.1972.		Revised classification introduced from 15.4.1972	
	<u>Smalls</u>	<u>Wagonloads</u>	<u>Smalls</u>	<u>Wagonloads</u>
Motor tractor NOC				
Motor graders	70 (AQ)	--	87.5(AQ)	--
Furniture-Iron or Steel, Furniture Collapsed, folded or unassembled.	95	80	130	110
Glass silk or wool Refrigerators				
Electric Refrigerators NOC, Thermocole	120	110	150	130

13.60. From 1.4.1973 (i) The freight classification of all commodities classified at class 57.5 and below in wagon loads were raised by one step.

No change was, however, made in the classification of grains and pulses, salt, kerosene oil, fire-wood, charcoal and Jagree.

(ii) The rates for coal, coal shale, lignite and patent fuel were put up by three per cent. The rates for hard coke were also revised so as to be 10% higher than the revised rates for coal.

13.61. From 15.2.74 - The concessions for train load movement of coal and for movement of coal during slack season were withdrawn.

13-62(i) From 1.4.1974 - During the year 1973-74, a review of the freight structure was made by the Railway Board and it was found necessary to make an adjustment in the general rate level, to meet the increased costs of operation brought about by rising costs of staff, fuel and other inputs. In the words of the Budget Memorandum explaining the changes "Further, our recent cost studies have shown that with the increasing distance, the revenue curve tapers down more steeply than the cost curve and with the increased cost of operation the gap between costs and earnings particularly in respect of major commodities transported in bulk which form nearly 75% of the total traffic has become wider and wider. Such a position coupled with the fact that the average lead of freight traffic has been continuing to register a steadily rising trend - increasing from 561 Kms. in 1960-61 to 691 Kms. in 1972-73 - has indicated a definite need for adjustment of the gradient of the taper in the telescopic rates for medium and long hauls of traffic". Keeping the above factors in view a revised freight structure was evolved and introduced from 1.4.74 without disturbing the then existing classification of goods. Broadly the new freight structure introduced from 1.4.74 implied an increase ranging from about 5% at the distance of 40 Kms. to about 11% at the distance of 3000 Kms.

(ii) The new freight structure was built on a basic scale worked out on the following basis :

Distance (Kilometres)	Paise per Kilometre per Quintal
1-40	3.26
plus 41-100	1.82
plus 101-250	1.31
plus 251-500	1.14
plus 501-800	1.07
plus 801-1200	1.01
plus 1201-1800	0.90
plus 1801-2400	0.68
plus 2401-3000	0.45
plus 3001-and over	0.28

(iii) The rates were calculated on block distance basis as indicated below, the highest K.M. of each distance block being taken for the purpose of calculating the rate for that distance block.

<u>Kilometre</u>	
1-40	One block.
41-250	5 Kms. block.
251-800	10 Kms. block.
801-2400	25 Kms. block.
Beyond 2401	50 Kms. block

(iv) The rates for various classes were derived from the above scale by taking the class number as a percentage of the base rate for each distance and then adding the following amount per quintal with each basic class rate :-

<u>At distance (Kilometres)</u>	<u>Amount to be added to each rate per quintal (paise)</u>
1-100	21
101-150	22
151-250	23
251-350	25
351-500	27
501-800	28
801 and above	29

(v) No change was however made in the rates for grains and pulses which were continued to be charged at the rates in force prior to 1.4.1974.

(vi) Until 1.4.74 the rates for coal were outside the framework of the general freight structure and were highly concessional. With effect from 1.4.74 the rates for coal were brought within the framework of the standard freight structure and coal was assigned the classification of class 37.5 for wagon load movements. Hard coke was assigned the classification of class 42.5 for wagon load movements.

(vii) With a view to meeting the increased cost of transshipment at transshipment points, the transshipment charge leviable on goods traffic involving transshipment was revised as under :

	Per quintal	
	Existing	Revised
	Paise	Paise
(1) On traffic chargeable at carrying capacity of wagon.		
(a) Dangerous goods	12	30
(b) Non-dangerous goods	10	25
(2) On all other traffic i.e. wagon load traffic chargeable at any minimum weight other than carrying capacity as well as smalls.		
(a) Dangerous goods	20	50
(b) Non-dangerous goods	12	30
(3) Special charge on liquids in bulk involving transshipment.	12	30

	Per tonne			
	Existing		Revised	
	Rs	P	Rs	P
(4) Coal, coal shale, soft coke, lignite, patent fuel, hard coke and domestic coke.	00	60	1	50

(viii) The supplementary charge of 9% levied on livestock traffic was increased to 20%.

13.63. From 15.9.1974 - The levy of supplementary charge at the following rates on Goods Traffic including livestock but excluding foodgrains and pulses, edible oils, salt and jagree was introduced

- (i) For distances upto and inclusive of 500 Kms. ....  $16\frac{2}{3}\%$
- (ii) For distances beyond 500 Kms. .... 22%

13.64. From 1.4.1975 - Foodgrains were brought within the frame work of the standard freight structure by classifying grain and pulses Division 'B' at class 35 for wagon loads and grain and pulses Division 'A' at class 37.5 for wagon loads. Further, grains and pulses



were also subjected to the levy of supplementary charge of  $16\frac{2}{3}\%$  / 22% introduced from 15.9.1974.

13.65. From 1.11.75 - Classification of a few selected commodities such as iron and steel materials, cement, petroleum oils, timber, sand and stones were enhanced.

13.66. From 1.4.1976 - The levy of additional supplementary charge at the following rates was introduced from 1.4.76 on all goods traffic including live stock but excluding foodgrains, chemical Manures, edible oils, oil seeds, jagree and salt -

Additional Supplementary  
charge leviable.

Wagon load traffic

For distances upto and inclusive of 500 Kms. .... 5%  
For distances beyond 500 Kms. ....10%

"Smalls" traffic

For all distances .....10%

13.67. From 1.4.1979 (i) The exemptions given to edible oil, Salt (NOC), Gur, Shakk r, Jagree, Foodgrains, Oilseeds and Chemical Manures from the Supplementary charges levied with effect from 15.9.1974 and 1.4.1976 were withdrawn. The normal rates of supplementary charge, as applicable to other goods traffic were charged on these traffic also.

13-30

(ii) Further an additional supplementary charge at the rates mentioned below on all goods traffic including livestock but excluding Salt, NOC was introduced.

<u>Wagon load Traffic</u>	<u>Additional Supplementary Charge leviable</u>
For distances upto and inclusive of 500 Kms.	5%
For distances beyond 500 Kms.	10%
<u>"Snalls" traffic</u>	
For all distances	10%

(iii) The rates of transshipment charges were also revised, the revised transshipment charges being as under (including supplementary charges)

On dangerous goods	75 paise per quintal
On Non-dangerous goods	45 paise per quintal
On Salt NOC traffic	40 paise per quintal
Special charge in liquids in bulk involving break of gauge transshipment	45 paise per quintal
On coal/coke etc.	Rs.2.15 per tonne.

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## CHAPTER XIV

### THE RECOMMENDED FREIGHT STRUCTURE

14.01 It will be seen from the brief narrative given in Chapter XIII that Railways had to take recourse to ad hoc changes in the rate levels, with regard to classification of commodities and levy of supplementary charges from time to time, to improve their financial position.

14.02 It is clear that while the transportation costs on Railways have increased the freight levels have not been increasing pari passu. This is evident from the following indices of costs:-

	<u>1960-61</u>	<u>1970-71</u>	<u>1976-77</u>	<u>1978-79</u>
Average annual cost per employee	100	189	350	380
Average cost of energy element (coal, diesel & electricity)	100	166	351	370
Average rate charged per tonne K.M.	100	140	229	228

14.03 We have discussed in detail in Chapter VI the extent of overall revenue required to be generated from freight traffic on Indian Railways. The projections provide for an increase of about Rs 500 crores over that obtained in 1976-77 assuming the same level of revenue earning traffic, i.e., about 212 million tonnes and operating efficiency.

14.04 A uniform supplementary charge on freight rate is not scientific and is not a satisfactory method of generating additional revenue and should be resorted to only rarely when there is no time to make a detailed examination and work out increases in freight rates on the basis of the capacity of the different commodities and different streams of traffic to bear the burden. The better method is to revise the level of freight rates so as to spread the burden equitably according to the ability of the different commodities and streams of traffic over various distances to bear the increases while keeping in mind the costs entailed in transportation. This is what the Committee has attempted to do.

14.05 In the matter of transportation costs, we are fortunately in a better position than what the Freight Structure Enquiry Committee of 1955-57 found themselves in.

14.06 The Railway Freight Structure Enquiry Committee of 1955-57 have referred in their report to the inadequacy of cost studies on Indian Railways and have alluded to the general lacunae in reliable cost statistics. The Indian Railways have since improved their cost data significantly and detailed studies are available based on the sample surveys, etc., of separate costs of coaching and goods; and, in goods themselves, the incidence of costs for different leads of traffic. Detailed studies have also been made of transportation costs of particular commodities like coal. Data are available not only for terminal costs and line haul costs separately but also for wagon loads and 'smalls'. We have had the detailed cost data furnished by the Railways also scrutinized by the Committee's own Cost Consultant.

14.07 We may mention here one basic change in the Freight Structure that we are proposing. While, in the Freight Structure introduced from 1.10.1958, the terminals had been integrated with the freight rates, we recommend that there should be separate terminal charges as was the practice in vogue prior to the introduction of the 1958 Rate Structure.

14.08 (i) Indian Railways had, all along, been levying a separate terminal charge till the revision of the Freight Structure in 1958. Prior to the introduction of the Freight Structure from 1.10.1948, different Railways were levying different rates of terminal charges. These were all standardised in the Freight Structure introduced on all Railways from 1.10.1948. These terminal charges were fixed charges based on the weight, applicable to all commodities irrespective of the haulage distance. In respect of wagon load consignments, a slightly lower terminal charge was levied. The following were the rates of standardised terminal charge introduced from 1.10.1948 :-

- (a) Eight pias per maund at each end where the Railway is required to do the loading or unloading;

- (b) Six pies per maund at each end where the owners are required to do the loading and unloading or where, at the option of the Railway, they are permitted to do so under special arrangement; and
- (c) Eight annas per maund at each end for general merchandise in wagon loads booked between points within the same area.

(ii) The expenses incurred on terminal services can in respect of most of the items of expenditure be considered in isolation from the rest of the cost of operation. In the detailed costing studies now made by the Railways, separate costs have therefore been worked out for terminal services and line haul. The expenditure on account of the terminal services remain constant irrespective of the distances over which the consignment is hauled. This fact by itself is sufficient reason for separating terminal charges from the line haul charges, particularly when the proposals for freight charges have to take into account the costs incurred by the Railways. The Freight Structure Enquiry Committee of 1955-57 suggested abolition of terminal charges mainly on the grounds that several of the foreign Railways were having an integrated charge and <sup>that</sup> this would make the calculation simpler. It may be mentioned, however, that even where a separate terminal charge is provided for, the rate shown in the Railway Receipt will be a calculated total rate including the terminal and the haulage rate; as far as the public is concerned, it would not make any difference if the Railways include a separate terminal charge in the total rate.

(iii) The terminal charges are levied on a per wagon basis. Therefore, if a wagon is loaded to full capacity, the incidence of the terminal cost per tonne will be much less than where the loadability is less. In an integrated rate, where the terminal element is included in the per tonne rate, the obvious anomaly is that a commodity which is loaded to the full carrying capacity of a wagon, pays much more towards terminal charges than a commodity which loads much less per wagon. This obviously is unfair and an undue burden on

commodities which load well per wagon. A per wagon terminal charge in the case of wagon load consignments will have the advantage that the incidence of terminal charge will be more equitably distributed among commodities. This would also facilitate the freight charges for commodities which give low weights per wagon, being charged on a basis commensurate with costs, because the incidence per tonne in such cases of the terminal charges will be higher than in the case of commodities which give higher weights per wagon. This will be a useful instrument in addition to an appropriate increase in the classification level of such commodities to help cover costs. It may be mentioned that a per wagon terminal charge will also be an incentive for parties to make better use of wagon space and load more as the incidence of terminal charge per tonne will decline as the weight increases. This will, therefore, help in improving the load per wagon also.

(iv) The levy of a separate terminal charge, which is a fixed rate irrespective of distance being added to the rates for different distances, will in itself imply a certain telescoping of the rates.

(v) If there are different rates of increases in terminal costs and line haul costs, these can be appropriately reflected in the rate levels from time to time.

14.09 In view of the several advantages mentioned above, we are proposing separate terminal charges as distinct from haulage charges.

14.10 The point has been stressed before us, that the terminal railways are not getting credit for the expenses which they incur for terminal services for the through traffic booked between two Railways. After the introduction of the 1958 Freight Structure, the earnings on through traffic were being divided among the Railways in the proportion of the distance carried on the different Railways, as the terminal charge could not be segregated. Later, on representations from the Zonal Railways, notional terminal charges were adopted which were deducted from the through rate

and earnings were apportioned among the Railways on that basis. Even this notional terminal rate is inadequate <sup>when</sup> compared with the actual terminal expenses. Separate terminal charges will enable better allocation of earnings between different Railways in respect of through traffic inasmuch as the actual terminal charges can be credited to the Railways which perform the terminal services. It may be mentioned that the Australian Railways charge a separate terminal charge **which** they call 'Origin and Destination Charge' and this charge is credited to the Railways performing the terminal services in the case of through booking involving different Railways.

14.11 (i) The costings done by the Railways show that the average cost of terminal services per wagon for wagon loads in 1976-77 was of the order of Rs 102.21 on the Broad Gauge and Rs 88.31 on the Metre Gauge. Taking into account the studies made by RITES on terminal costs, further cost escalations and the surpluses required to be generated, we propose, for the booking and destination ends together, a terminal charge of Rs 150/- per 4-wheeled wagon on the Broad Gauge, Rs 115/- per 4-wheeled wagon on the Metre Gauge and Rs 65/- per 4-wheeled wagon on the Narrow Gauge. The per tonne incidence on all the gauges for different commodities will be more or less of the same order.

(ii) As far as wagon loads are concerned, the wagon terminal charge will be added to the line haul charge arrived at per wagon by multiplying the line haul rate per quintal by the chargeable weight of the wagon. In the case of 'smalls', however, we are proposing a separate terminal charge per quintal; the total rate per quintal will be arrived at by adding the terminal charge per quintal to the line haul charge per quintal.

(iii) In the case of booking from one gauge to another, the terminal charges to be added will be those appropriate to the gauge of the station at which the wagon is booked. The incidence per quintal will <sup>be</sup> more or less the same, whether the consignment is booked from Broad Gauge or Metre Gauge. Thus, in the case of booking of consignments from Metre Gauge to Broad Gauge, the terminals for both ends will be at the rate of Rs 115/- per wagon, according to the number of wagons used at the booking end.

In case of bookings from Broad Gauge to Metre Gauge, the terminal charge will be @ Rs 150/- per wagon according to the number of wagons used on the Broad Gauge booking station.

14.12 We are retaining in the new structure that we are proposing the feature in the present Freight Structure of having different classes as percentage classes of a basic scale. The extant freight structure is based on a basic scale of Class 100 and other Classes are ~~xxxxxxx~~ percentage Classes of this basic scale. The bulk of the traffic that is carried on the Railways is, however, classified at scales less than Class 50 of the present structure. Thus 74 per cent of originating traffic on Railways consisting of coal, iron ore, foodgrains, cement, chemical manures, stones and salt, are having classifications varying from 35 to 52.5 in the present scale. We have, therefore, proposed a basic class scale corresponding to <sup>the present</sup> Class 50 which is nearer the scale of rates for the bulk of the commodities than the existing Class 100 which is far remote from them. The basic scale will be designated as Class 100 of the new structure we are proposing.

14.13 The main features of a Rate Structure are : its spread, its taper and its absolute level.

#### 14.14 Spread

As far as spread, i.e., percentage difference between the lowest and the highest rate scales, is concerned, we are not proposing any basic change from the existing structure as far as wagon loads are concerned where there is a spread from a 32.5 percentage class to a 130 percentage class which means a ratio of 1:4. In the new Freight Structure, there will be corresponding classes ranging from 65 to 260.

14.15 Taper: As far as taper is concerned, the telescoping of rates with distances is a well-accepted principle on all the Railways in the



world. There are several theoretical reasons for not making freight rates increase in direct proportion to distance. Several authors have dwelt <sup>on</sup> this and the following extract from 'Economics of Transportation' by D.P. Locklin is relevant :-

"There are several reasons for not making freight rates increase in exact proportion to distance. In the first place, terminal costs are the same regardless of the length of the haul. The longer the haul, the greater the distance over which the constant terminal cost can be spread. To use the illustration given by Ripley, suppose there is a terminal cost of 50 cents a ton for handling certain freight, and a haulage or line haul cost of  $\frac{1}{2}$  cent per ton-mile. For a haul of 10 miles, the rate per mile would be  $(50+5) \div 10$  or 5.5 cents. For a haul of 500 miles, the ton-mile rate could be  $(50+250) \div 500$  or 0.6 cent.

A second reason for the lower rates per ton-mile for longer haul is that even the line-haul or conveyance cost is considered to be relatively lower for the longer hauls. This point was discussed by the Commission in the Southern Class Rate Investigation. The Commission found that short haul traffic, particularly that which moved 75 miles or less, was moved in local or 'way' freight trains. For longer distances, through freight trains may be used, which make fewer stops and operate more efficiently. For distances in excess of 150 miles, through freights were the general rule, so that on shipments moving long distances the proportion of the haul in expensive way freights, was relatively small. This reasoning has not gone unchallenged, however, and it is sometimes maintained that the long hauls require a succession of intermediate yard services which are expensive and which keep the costs more or less proportionate to distance.

A third reason for the use of the tapering principle is to prevent the rates from restricting the movement of long distance traffic. This point has been previously mentioned. If rates increased in proportion to distance, they would soon become so high as to prevent the movement of traffic. It is in accordance with the value of service principle of rate-making to keep long distance rates low enough to enable the traffic to move. The Inter State Commerce Commission has recognised this as a valid reason for tapering rate scales.

Tapering the rate scale is often carried further than can be justified by cost considerations. The soundness

of this practice may sometimes be questioned. If the concession to the long-distance traffic induces the movement of traffic that would not otherwise be carried, of course the rail-road gains by the practice; but if the result is only to substitute long hauls for shorter ones, with no gain in tonnage carried, the practice is of doubtful benefit to the rail-roads."\*

14.16 The views expressed by the Freight Structure Enquiry Committee (1955-57) in this regard are also unexceptionable. When additional revenues had to be raised, according to that Committee:-

'The problem is to so distribute the burden of any additional revenue required as to make it consonant with the capacity of different kinds of traffic over different distances to bear the increase. It is necessary, therefore, to take stock of the distribution of the existing freight burden, so that, in placing an additional burden, any great disparity in the existing freight structure is removed, as far as possible, rather than emphasised and heightened. Though freight rates in India are about the lowest in the world, this fact does not help us to come to definite conclusions regarding the level of freight rates, as the economic conditions of India and other countries differ very widely. Annexure XI shows the relativity of rates for short distances versus long distances in respect of the existing Class 9 rate and the proposed Class 100 rate over Indian Railways, and similar relativity for short distances versus long distances for the Class 100 rate in the USA and for the Class 100 rate in Canada. An analysis also of the comparative rates for some commodities over different distances levied in India, United States and Canada, shows that the freight burden on long distance traffic in this country is comparatively much heavier than on the short lead traffic. The figures are given in Annexure XII. It is evident that traffic moving over short distances is generally more expensive, in view of the long idle hours of wagons at the two terminal points as compared with the few hours of actual run. The longer the haul, the lower the cost of transport. There seems, therefore, to be justification to so modify the scale of freight rates over distances as to make the short lead traffic bear a more reasonable share of the freight burden. With the economic development foreseen in the country, it is clear that traffic will move over increasingly long distances, and with a flat increase in existing freight rates the burden will fall more heavily on long lead traffic, than on short lead traffic. In framing a new scale, therefore, we have taken these two factors into consideration i.e.,

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\* D. Philip Locklin: Economics of Transportation, (New York, 1954 edition) pp. 184-185.

that it must **not** be too burdensome for any particular commodity and that freight for short distance and long distance traffic should be appropriately adjusted."\*

14.17 The need for transportation depends, in part, on certain fixed features of the geographical environment. If all the elements of economic activity were locally available, wherever man settled, it is evident that the need for transportation would be relatively insignificant. Under conditions of simple agricultural life, self-sufficient communities need only devote resources to local movement of persons, tools and agricultural products.

Transportation on a significant inter-regional scale develops out of the fact that economic activity can be enormously more productive if resources and products are exchanged among localities. Primarily, this is so because individual localities do not typically have at hand all the elements desirable for highly productive activity in sufficient variety and in optimum amounts. Some at least can be more effectively obtained from another place. Adam Smith's familiar observations concerning the benefits of specialisation and exchange apply also to geographical regions. The underlying geographic basis for transportation then is that the elements of economic activity are not uniformly distributed over the country. Different parts of the country differ very widely in their natural endowments and, therefore, transportation facilities **xx** contribute in a large way to more productive economic life.

14.18 An American Writer has described how the economic and industrial development of America has been significantly helped by the rating policy of the Railways:

"To develop a continental nation such as the United States, it has been essential to overcome the obstacle of distance to the greatest extent possible. That is, of course, the very purpose for which the railway net work was developed. However, merely providing transportation facilities is only the beginning; a rate structure had to be developed to

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\* Report of the Freight Structure Enquiry Committee (1955-57), para 151.

foster this basic purpose. Charges had to be designed to permit the nearby and the distant producer to compete in common markets in order to provide maximum areas of assembly and distribution. Only in this way could trade and commerce be spread across a continent and the nation bound together and United States in economic interests and outlook and not come in a political confederation of underdeveloped Balkanized areas jealously struggling for local self-sufficiency.

This courageous and farsighted principle of rate making has been of paramount importance in the development of America."

14.19 All parts of our country are not blessed with deposits of coal and other raw materials essential for modern economic life, and these have, therefore, necessarily to be transported to the different parts of the country and have to be transported over long distances. Long distance carriage is, therefore, unavoidable. As a deliberate policy to help better integration of the economy, it is necessary to ensure that incidence of freight on long-distance movement is not unbearably high.

14.20 An analysis of the various commodities carried over the Railways is available in the detailed Zonal Statistics maintained by the Railways. These statistics show that commodities are being transported over long distances, even beyond 2000 kilometres. In a country of vast distances like India, such long distance haulage is, perhaps, inevitable and transport cost for such very long distance movements has to be kept reasonable.

The following table shows the volume of traffic carried over long leads in respect of a few commodities:-

	Table 14.1 (Figures in million tonnes)			
	1500-1899 kms.	1900-2399 kms.	2400 kms & over	Total for all zones
Grains & Pulses Div. A	0.611	0.293	0.36	2.5
Grains & Pulses Div. B	3.7	0.9	1.8	15.0
Coal	6.1	0.6	0.1	67.0
Salt	0.63	0.44	0.22	2.4

14.21 It has, however, to be ensured that transportation costs for the long-distance hauls are covered by the rates proposed on the telescopic basis.

14.22 As mentioned in para 14.6 above, this Committee is in a better position in regard to availability of more detailed costs data. The basic cost data available to us give the costs of haulage of general traffic based on the average loadability, the average empty return ratio, detention to wagons, marshallings involved en route, etc., for different distances. These data are available separately for Broad Gauge and Metre Gauge; so also the weighted average costs. The latest data available to us are those of 1976-77 and the weighted average figures are given in Statement 14.1.

The broad pattern reflected in the variation in costs with distance can be accepted as a guideline for evolving a suitable telescopic taper for the rate structure. The adoption of a taper, as indicated by the variation in cost with distance, would ensure that the telescoping of the rate for lightening the burden on long-distance traffic is not carried farther than can be justified by cost considerations. We are accordingly adopting a taper which has a relationship at 100 kms. and at 3000 kms. of the same order as reflected in the cost taper. In between, the tapers do not exactly tally with the cost taper for the reasons explained hereinafter.

14.23 Absolute Level: The level of the freight rates in the proposed Freight Structure for the various commodities has to be such that the additional revenues required - in this case of the order of Rs 500 - crores over the 1976-77 earnings - could be generated from the total freight traffic. Accordingly, the terminal charges, the rates of the basic scale and the corresponding rates of the percentage classes and the classification of the commodities have been kept at suitable levels which would give the necessary revenues.

Recommended Freight Structure

14.24 The Freight Structure we are recommending will have the following features for wagon loads :-

- (i) Commodities will be grouped under different Classes ranging from a percentage Class 65 to Class 260.
- (ii) There will be a basic Class 100 scale for haulage rate from which all other percentage class rates will be worked out. The basic Class 100 scale we are recommending is as under:-

<u>Distance in kms.</u>	<u>Rate per quintal Rs. P</u>	<u>Distance in kms.</u>	<u>Rate per quintal Rs P</u>
100	2.35	1600	15.84
200	3.76	1700	16.52
300	4.94	1800	17.20
400	5.90	1900	17.88
500	6.86	2000	18.57
600	7.76	2100	19.22
700	8.65	2200	19.88
800	9.54	2300	20.54
900	10.36	2400	21.20
1000	11.19	2500	21.86
1100	12.01	2600	22.49
1200	12.83	2700	23.12
1300	13.58	2800	23.76
1400	14.34	2900	24.39
1500	15.09	3000	25.03

The basis of the scale is:-

Kilometres	1-100	100%	2.35 paise per quintal per km.
plus	101-200	60%	1.41 " " "
plus	201-300	50%	1.175 " " "
plus	301-500	41%	0.9635 " " "
plus	501-800	38%	0.893 " " "
plus	801-1200	35%	0.8225 " " "
plus	1201-1600	32%	0.752 " " "
plus	1601-2000	29%	0.6815 " " "
plus	2001-2500	28%	0.658 " " "
	2501 & over	27%	0.6345 " " "

- (iii) The rates in the new Freight Structure will be calculated for the following blocks of distances, the highest kilometre of each distance block being taken for the purpose of calculating the rate for that distance block :-

<u>Kilometre</u>	
1-50	One block
51-250	5 kms. block
<del>251</del> -800	10 kms. block
801-2400	25 kms. block
Beyond 2400	50 kms. block

- (iv) There will be a separate terminal charge to be added to the haulage rate arrived at per wagon at the following rates :-

Broad Gauge per 4-wheeled wagon Rs 75/- for each end or Rs 150/- for both ends.

Metre Gauge per 4-wheeled wagon Rs 57.50 for each end or Rs 115/- for both ends.

Narrow Gauge per 4-wheeled wagon Rs 32.50 for each end or Rs 65/- for both ends.

- (v) Statement 14.1 gives the details of the cost of haulage, the proposed rates and the indices of cost taper and the taper of the proposed rates.
- (vi) The basic scale evolved by us has the following features :-
- (a) The taper at 100 kms. and at 3000 kms. conforms broadly to the cost taper. The taper of cost without terminal is from 100 to 35 from 100 kms. to 3000 kms. vide col. 14, and the haulage rate proposed by us will have a taper of 100 to 36 from 100 kms. to 3000 kms., vide col. 16 of Statement 14.1.

The comparison of cost including terminal and the rate including terminal is given in columns 15 and 17. (Though the terminal charge proposed is a wagon terminal and the incidence of terminal charge per tonne will depend on the loadability of the consignment, for purposes of discussion of the rate scale, the weighted average terminal charge per tonne for both ends, viz., Rs 7.50 per tonne, has been assumed.

- (b) The rate levels have been kept relatively higher compared to the costs in the short distance range roughly upto 400 kms. as a deliberate policy

keeping in mind the recommendations of the National Transport Policy Committee in regard to inter-medal split of traffic.

- (c) The percentage excess of the rate over cost declines gradually from this range; but this has been kept sufficiently high for leads from 400 to 1900 kms., as the bulk of the traffic is carried in this range so that necessary surpluses could be generated over and above the costs.
- (d) The increase in the freight burden has been further lightened for traffic beyond 1900 kms., while ensuring that the rates are more than the costs.
- (e) The fully distributed costs are covered for all distances from 100 to 3000 kms. (These costs also include the element of interest in lieu of dividend charges; and the difference between the escalated cost and the rate proposed would give the surplus.)
- (f) As far as the absolute level of the rate is concerned, the basic scale has been evolved in such a way that the traffic in the various commodities grouped under different classes will together give the additional revenues which, in our opinion, the Railways should generate from freight traffic. A detailed discussion on the proposed rate levels for important commodities together with recommendations regarding their classifications and the earnings expected to be generated from each stream of traffic is given in Chapter XV.

14.25 The increases proposed to secure additional earnings have been distributed in such a way that the amount of incidence compared to the existing level of rates is not unduly high at any point taking care at the same time to see that the sharpness of the taper for long distances is not so excessive as not to cover the costs.

14.26 The consumer is mainly concerned with the absolute increases over the existing rates rather than percentages of increases and this increase has been so limited at different leads as not to be unreasonably burdensome at any lead. In comparing the rates proposed with those in force from 1.4.1979, it has to be borne in mind that, as indicated in Chapter XIII in the history of the changes made subsequent to the 1.10.1958 Rate Structure, several ad hoc changes were made; and an attempt at rationalisation was made only on 1.4.70 after a detailed study by an Officer on Special Duty,



though he was also handicapped by the lack of detailed cost studies in regard to variation of costs with distances. These freight levels were, however, increased on 1.4.1974 by the Railway Board on an ad hoc basis to get additional revenues and soon after that, from 15.9.1974, a supplementary charge was introduced at 16 $\frac{2}{3}$  per cent for loads upto 500 kilometres and 22 per cent for loads beyond 500 kilometres. Again, from 1.4.1976, a supplementary charge was introduced at 5 per cent for distances upto 500 kilometres and at 10 per cent beyond 500 kilometres. Again, from 1.4.1979, a supplementary charge was introduced on the same basis, viz., 5 per cent for distances upto 500 kilometres and 10 per cent for distances beyond 500 kilometres. These changes have distorted, to some extent, the structure and the tapering introduced with effect from 1.4.1970. Therefore, when comparing the proposed rates with the rate levels obtaining on 1.4.1979, these ad hoc changes made in the freight structure, have to be kept in mind. The variation in the additional charges for different distances over the existing classes can only be understood keeping in view the fact that what is now being recommended is a total structure, while what exists at present is the result of a number of ad hoc changes.

#### 14.27 Minimum distance for charge:

(i) The minimum distance for charge, at present, is 40 kilometres. In their replies to our questionnaire, most of the Zonal Railways have not suggested any change in the present minimum distance for charge while a few Railways have suggested increasing the minimum distance for charge to 100 kilometres.

(ii) We have proposed a terminal charge to be added to the haulage rate per wagon and the effect of this will be to relatively increase the rate for short distance movements. The volume of traffic within the zone of 1 to 40 kms. in wagon loads is of the order of 18 million tonnes, which is about 8.9 per cent of the originating traffic in wagon loads (1977-78 figures). Out of this, about 15.3 million tonnes, i.e., 85 per cent, consists of movement of raw coal to washeries and coal and other raw materials to Steel Plants. Any large increase in the minimum distance for charge will make the rates for these movements unduly high. Taking all these factors into account, we recommend that the minimum distance for charge may be raised from the present 40 kms. to 50 kms.

14.28 Rates for Train Loads

(i) There are many commodities which are capable of being offered in train loads with a certain amount of planning and provision of certain facilities at the booking and the destination ends.

(ii) Railways being ideally suited for the transportation of bulk traffic, freight movement in train loads ensures higher operational efficiency and better utilisation of wagons. Traffic in train loads by-passes intermediate marshalling yards obviating the necessity of intermediate sorting of wagons. Thus, in addition to saving in marshalling costs, quicker turn-round of wagons is also ensured improving the availability of wagons for loading.

(iii) Having regard to these factors, Railways are already taking necessary steps to organise as much movement of goods traffic in train/block loads as possible. At present, a substantial volume of traffic in coal, iron ore and P.O.L. is moving in train loads. Efforts are also being made to increase the percentage of train/block load movements in respect of commodities like foodgrains, fertilizers, cement, iron and steel, etc. We consider that further incentive in this direction could be provided by differential pricing for movement of traffic in train loads. Suitable concession in freight rates for offering traffic in train loads will encourage the users to develop requisite infra-structural facilities on their part for dealing with greater and greater quantum of traffic in train loads.

14.29 In the case of several commodities, particularly, where the prices are comparatively high, it may be difficult for one party to offer a full train load to one destination but, instead of single wagons, if rafts of wagons are offered for particular points, it would be useful for the Railways to form point to point rakes. This would reduce the quantum of sorting at intermediate marshalling yards. In this view, we are also suggesting a suitable incentive for offering traffic in rafts of wagons.

14.30 We have carefully examined the savings in costs if a particular traffic moves in train loads instead of in piecemeal wagons. Apart from having the benefit of some cost studies made

by RITES in this connection, we have also got this examined through the Cost Consultant to the Committee.

14.31 (a) Keeping in view the saving in costs as well as other factors, we recommend that a 6 per cent <sup>rebate</sup> in the freight at the wagon load rate may be given when traffic is offered in a full train load at a station from one party to a particular destination. For this purpose, it is recommended that a minimum of 60 wagons on BG and 40 wagons on MG should be treated as a train load.

(b) If one party offers for one destination 30 or more wagons upto 59 wagons on Broad Gauge or 20 or more wagons upto 39 wagons on the Metre Gauge, a freight rebate of 2.5 per cent in the freight at the wagon load rate may be given.

(c) Similarly, for rafts of wagons of 12 or more upto 29 on the Broad Gauge and 8 or more upto 19 on the Metre Gauge offered by one party to one destination, a rebate of 1 per cent in the freight at the wagon load rate may be given.

14.32 For consignments booked at wagon load rates and for train loads and rafts of wagons, loading and unloading of goods has to be done by the consignors and the consignees as provided for in Rule 128 of the extant Goods Tariff. We do not propose any change in this Rule.

#### 14.33 Rate for 'snalls' traffic

(i) In the Freight Structure introduced from 1.10.58, generally for every commodity, there is a wagon load rate and a 'snalls' rate. There was no separate terminal charge and the 'snalls' rate inclusive of terminals was kept at a certain number of classes higher than the wagon loads scales as indicated in Statement 14.2. A surcharge of 20 per cent was levied on very small consignments, i.e., consignments weighing less than four quintals.

(ii) The relativity in the rates for 'snalls' and for 'wagon loads' was not based on any detailed study of comparative costs of their transportation.

(iii) A later study undertaken by the Statistical Directorate revealed that the then difference between 'smalls' and 'wagon loads' rates was much less than that justified on the basis of the difference in the respective costs of their carriage. It was felt that there was no justification for carrying traffic at rates below even the dependent cost. It was, therefore, decided to rationalise the rates for 'smalls' and instead of 37 class rates only 17 'C' Class rates were introduced and; in the revised rates, the supplementary charge then in force was merged. These rates were introduced from 1.8.1967.

(iv) These rates were again revised from 1.4.1970 on the basis of the recommendations of the Officer on Special Duty.

The 'Cost Studies' revealed that the cost of handling 'smalls' was very much higher than the cost of handling wagon loads. The 'C' classifications applicable to 'smalls' traffic were, therefore, replaced by new classifications. This change was expected to bring in additional revenues of Rs 2 crores. The classifications for 'smalls' introduced from 1.4.1970 are given in Statement 14.3

14.34 The following are the main features\* of the 'smalls' traffic on Indian Railways :-

- (a) The total 'smalls' traffic carried by Railways is a very small proportion of the total goods traffic. The originating tonnage in 1977-78 was only 3.44 million tonnes against a total revenue earning traffic of 210.8 million tonnes constituting only 1.63 per cent of the traffic.
- (b) The total earnings from 'smalls' traffic, however, were pro-rata much higher than those from the general goods traffic. The earnings from the 'smalls' traffic was of the order of Rs 47.83 crores constituting nearly 3.68 per cent of the total earnings.
- (c) The average lead of this traffic is 1166 kms.
- (d) The total working expenses for 'smalls' traffic in 1976-77 was Rs 66 crores against a total working expenditure of Rs 1,201.71 crores constituting 5.49 per cent of the working expenses.

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\* Data relate to 1977-78.

14.35 From the detailed Zonal Statistics available, a summary of the important commodities booked as 'smalls', their tonnage, average lead etc., has been prepared and is given in Statement 14.4.

14.36 We have had the benefit of the cost studies made in regard to the relative costs of transportation of 'smalls' and wagon loads. The cost studies also show the details of terminal cost, line haul cost, repacking cost etc., of 'smalls' traffic based on sample surveys. Studies made by us of 'smalls' traffic from some goods sheds like Howrah, Shalimar Salt Cotaurs, Wadi Bunder, Carnac Bridge, Salen and Kanpur show that a significant proportion of the traffic booked as 'smalls' is actually moved as point to point traffic and the cost of transportation for 'smalls' in such cases is bound to be less than the general unit costs which provide for repacking and detention en route.

14.37 It has been represented to us that, at present, there is a 'smalls' rate which covers the whole range of weights of consignment from the minimum chargeable weight of 40 kgs. upto the wagon load weight condition which may go upto 20 tonnes and above. Therefore, it has been suggested that where parties bring in significantly higher quantum for booking as 'smalls', some consideration should be given in pricing, particularly as larger quantities being offered as 'smalls' will enable more and more through loads being made up to particular points which would result in quicker transit and lesser transportation cost. This would also be useful for retaining the traffic on the Railway particularly of high rated traffic for long leads. We are, therefore, proposing a differential scale for 'smalls' consignments (a) weighing upto one tonne; (b) weighing more than one tonne but less than three tonnes; and (c) weighing three tonnes and above. There would, therefore, be no necessity for a separate surcharge being levied on 'smalls' of very low weight as is being done at present.

14.38 We, therefore, recommend the following rate scale for 'smalls' :-

(a) A separate terminal charge of Rs 2.25 per quintal for each end or Rs 4.50 per quintal for both ends should be levied for all 'smalls' consignments.

(b) Haulage rate should be charged at the classification scales indicated below:-

(1) For 'smalls' consignments weighing upto one tonne:

(i) Commodities for which wagon load classification is below Class 100, the 'smalls' classification should be eight classes above the wagon load classification except for coal. For coal, as normally there should be no necessity for its movement in 'smalls', we recommend Class 200.

(ii) Commodities which have wagon load classification of Class 100 and above but below Class 200, the 'smalls' classification should be 6 classes above the wagon load classification.

(iii) Commodities for which wagon load classification is 200 and above, the 'smalls' classification should be 4 classes above the wagon load classification.

(2) For 'smalls' consignments weighing more than one tonne but less than 3 tonnes:

The 'smalls' classification should be at one class below the 'smalls' classification indicated above for the different commodities.

(3) For consignments weighing 3 tonnes or more :

The 'smalls' classification should be at 2 classes below the 'smalls' classification indicated in item (1) above.

(4) As far as explosive goods are concerned, these do not have a wagon load classification at present, and the classification is only for 'smalls'.

These are, at present, classified at Class 150 for 'smalls'. In consonance with the general scheme of rating for 'smalls', we recommend that 'smalls' under this category may be classified as under:-

For consignments

- |                                                |                 |
|------------------------------------------------|-----------------|
| (i) Net exceeding one tonne                    | .. .. Class 300 |
| (ii) Over one tonne but less than three tonnes | .. .. Class 295 |
| (iii) Three tonnes & above                     | .. .. Class 290 |

We are giving our recommendations elsewhere in regard to a suitable wagon load classification for explosives.

14.39 Statement 14.5 shows the 'smalls' classification that we are recommending.

14.40 Suitable adjustments will have to be made in the calculated rates of 'smalls' for different weights keeping in view the need for adjustments on the differential principle.

14.41 The total working expenses for 'smalls' traffic during 1976-77 was of the order of Rs.66 crores. The proposed rates will generally cover the escalated costs.

Owner's risk and railway risk rates

14.42 In the existing Freight Structure, excepting a few

commodities listed below, all commodities are booked at railway risk rates:-

- |                                              |                                                                                         |
|----------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. Asbestos Crude (In lumps)                 | 18. Fruit fresh                                                                         |
| 2. Betal leaves                              | 19. Gane                                                                                |
| 3. Bone dust                                 | 20. Ice                                                                                 |
| 4. Bone meal                                 | 21. Leather meal                                                                        |
| 5. Bones                                     | 22. Leco                                                                                |
| 6. Bones sinows                              | 23. Lorries, Stean                                                                      |
| 7. Charcoal fuel                             | 24. Meat fresh                                                                          |
| 8. Clay china                                | 25. Milk                                                                                |
| 9. Coal (for Public and Non-Govt. Railways ) | 26. Motor vehicles N.O.C. (when despatched in open trucks)                              |
| includes                                     | 27. Motor vehicles N.O.C. (when despatched in covered trucks)                           |
| Coal Shale                                   | 28. Onions                                                                              |
| Coke soft                                    | 29. Plants                                                                              |
| Lignite                                      | 30. Potatoes                                                                            |
| Patent fuel                                  | 31. Potatoes sweet                                                                      |
| 10. Coal/Coke briquettes                     | 32. Sinews meal                                                                         |
| 11. Coke hard                                | 33. Tiles flooring (earthen)                                                            |
| 12. Curds                                    | 34. Tiles common (roofing)                                                              |
| 13. Eggs                                     | 35. Vegetables, N.O.C.                                                                  |
| 14. Fire clay includes ground ganister       | 36. Water melons                                                                        |
| 15. Firewood                                 | 37. Coal dust consisting of particles of less than 100 microns, <u>i.e.</u> 1/10th m.m. |
| 16. Fish fresh                               |                                                                                         |
| 17. Fish spawn                               |                                                                                         |

The general liability of Railways in regard to consignments booked at railway risk rate is as per Section 73 of the Indian Railways Act. In respect of the commodities listed above, the normal rate quoted by the Railway is the owner's risk rate. The liability of Railways in respect of consignments booked at owner's risk rate is limited under Section 74 of the Indian Railways Act. An alternative railway risk rate is provided for these commodities at 20 % higher than the owner's risk rate if parties specifically want to book them at railway risk. We shall be reverting to a discussion on owner's risk and railway risk rates in our final report.



14.43 Transshipment Charges

At present, a separate transshipment charge is being levied for traffic involving transshipment from one gauge to another. These rates have been increased from time to time and the transshipment charges in force from 1.4.1979 are as follows:-

On dangerous goods	- 75 paise per quintal
On non-dangerous goods	- 45 paise per quintal
On salt N.O.C. traffic	- 40 paise per quintal
Special charge on liquids in bulk involving break of gauge transshipment	- 45 paise per quintal
On coal/coke, etc.	- Rs 2.15 per tonne.

14.44 Though a separate transshipment charge existed for a long time, the separate transshipment charge was given up on the recommendations of the Freight Structure Enquiry Committee in the new Freight Structure introduced from 1.10.58. The Railway Ministry's views in reply to the Questionnaire of the Railway Freight Structure Enquiry Committee (1955-57) were as under:-

"Even in regard to 'transshipment' charge, there is an advantage in merging it in the rate basis.

Break of gauge points are not the only ones where a consignment is handled en route. In the case of 'smalls', additional handlings may be involved at a number of intermediate repacking points and there has never been a suggestion that these should be separately charged for. That being so, there should be no basic objection to doing away with 'transshipment' charge as a separate charge. For the sake of uniformity, the same bases of charges are adopted on the different gauges, notwithstanding the fact that costs of operation are widely different on the different gauges. Transshipment, when necessary, can be deemed to be an inherent factor in transportation and no separate charge need be levied. All these steps will make the <sup>rate</sup> structure much simpler."

14.45 The Railway Freight Structure Enquiry Committee (1955-57) has given its views in paragraph 117 of its Report :-

"117. A transshipment charge is now levied at break-of-gauge junctions in view of the fact that extra direct expenditure is incurred in transshipping traffic from <sup>one</sup> gauge to another. The transshipment charge has been the subject of severe criticism by the traders and merchants. It was pointed out that the break-of-gauge was not the responsibility of the merchants and that if there was one gauge right through, the consignment would have been charged the same freight without a transshipment charge and delay and damage which now take place at the transshipment points and which mean, in any case, an additional expenditure to the merchants, would have been avoided. The statement that break-of-gauge was not the responsibility of the merchants concerned cannot, however, be accepted at its face value. It should be pointed out that at the time of construction of these Railways, having regard to the resources available, it was a choice between the break-of-gauge and no railway transport facility at all and the merchants of the day were only too glad to accept the Metre Gauge (or even the Narrow Gauge), in preference to no railway at all. Nevertheless, we recommend the discontinuance of separate transshipment charges, specially as this will be in keeping with the policy of standardisation of freight rate throughout the country."

This recommendation of the Freight Structure Enquiry Committee was accepted by the Railway Ministry and the levy of separate transshipment charge was abolished with effect from 1.10.58.

14.46 The position was, however, reviewed in the context of the Railways not having adequate revenues to meet the increasing cost of operation and the transshipment charges were again introduced

on the Railways with effect from 1.8.1969, at the following rates :-

- i) On traffic chargeable at carrying capacity of wagons :-
- |                         |                     |
|-------------------------|---------------------|
| (a) Dangerous goods     | - 10 paise per qtl. |
| (b) Non-dangerous goods | - 8 paise per qtl.  |
- (ii) On all other traffic, i.e., wagon load traffic chargeable at any minimum weight other than carrying capacity, as well as 'smalls' :-
- |                         |                     |
|-------------------------|---------------------|
| (a) Dangerous goods     | - 15 paise per qtl. |
| (b) Non-dangerous goods | - 10 paise per qtl. |

An important consideration which weighed with the Railways at that time was the fact that additional resources were required to be raised to meet the increasing cost of operation. These rates have since been revised from time to time.

14.47 We have received representations against the levy of a separate transshipment charge.

14.48 In the freight structure we are proposing, we have taken into consideration the total working expenses of Railways which include all items of expenditure including cost of transshipment on account of staff, shunting, provision of facilities, payment to handling contractors, etc., We have evolved freight scales for various commodities which would give adequate total revenues to cover all the costs and provide the surplus required. In this view and having regard to the fact that transshipment in most cases is unavoidable on account of the location of the booking station and destination station where uni-gauge facilities are not available and for the reasons mentioned by the Freight Structure Enquiry Committee and the Railway Ministry itself in answer to their Questionnaire - which reasons are valid even today - we recommend that no separate transshipment charge need be levied for the generality of cases.

14.49 However, the fact remains that transshipment points today are somewhat of a bottleneck for free movement of goods on Railways with frequent restrictions, etc., and <sup>to</sup> the extent transshipment can be avoided by suitable pricing methods, it should be a welcome step. We think that where the destination point or the booking point is less than 200 kilometres from the transshipment point, there should be a suitable disincentive to parties making through bookings via the transshipment point, and make them take delivery at the transshipment point and transport the consignments to the ultimate destination by alternative modes of transport. Similarly, they could bring the consignments to the transshipment point for booking on one gauge itself.

14.50 Taking into account the costs involved at transshipment points and the necessity for keeping the charge at a suitable level to act as a deterrent to dissuade parties resorting to book through to destinations in cases which involve only short leads to and from transshipment points, we recommend a transshipment charge of Rs 1.50 per quintal or Rs 15/- per tonne in such cases.

14.51 In regard to inter-Railway adjustment of earnings on through traffic involving transshipment, we recommend that from the freight charges a notional transshipment charge of Rs 10/- per tonne should be credited to the Railway, which actually does the transshipment. Where a transshipment charge is actually levied, such transshipment charge should be credited to the Railway performing the transshipment.

14.52 According to the present rules regarding routing of goods traffic, where there is more than one route, normally goods will be despatched by the shortest route at the cheapest rate. The term 'shortest route' is defined as the shortest route between the forwarding and the receiving stations as determined upon the basis of distance notified by Railways as being the distance for charge.

For purpose of determining the shortest route in cases in which break-of-gauge is involved, each break-of-gauge transshipment is to be reckoned as equivalent to 160 kms. According to this Rule, therefore, if alternative routes are available a break-of-gauge transshipment can be avoided even if the route by the uni-gauge is longer to the extent of 160 kms. We have considered whether the limit of 160 kms. should be increased for the purpose of this Rule. Keeping in view the relative costs of transshipment and the additional costs of haulage involved, we do not recommend any increase in the present weightage in distance for the purpose of determining the shortest route in such cases.

\*\*\*\*\*

Statement showing cost of haulage and proposed rates  
and indices of taper of cost and proposed rates.

Distance in Kms.	Cost of haulage per tonne								Proposed class 100 rate per tonne	Increase in proposed rate over cost per tonne	Percentage increase over cost
	1976-77		Escalated by 30%								
	Excl'dg. Incl'dg.		Excl'dg. Incl'dg.		Excl'dg. Incl'dg.		Excl'dg. Incl'dg.				
	term'l. cost	term'l. cost	term'l. cost	term'l. cost	term'l. cost	term'l. cost	term'l. cost	term'l. cost			
Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
1	2	3	4	5	6	7	8	9			
100	18.01	23.22	23.41	30.19	23.50	31.00	0.81	3			
200	23.53	28.84	30.72	37.49	37.60	45.10	7.61	20			
300	29.26	34.47	38.04	44.81	49.40	56.90	12.09	27			
400	34.88	40.09	45.34	52.11	59.00	66.50	14.39	28			
500	42.91	48.12	55.78	62.56	68.60	76.10	13.54	22			
600	48.54	53.75	63.10	69.88	77.60	85.10	15.22	22			
700	54.17	59.38	70.42	77.19	86.50	94.00	16.81	22			
800	59.79	65.00	77.73	84.50	95.40	102.90	18.40	22			
900	69.62	74.83	90.51	97.28	103.60	111.10	13.82	14			
1000	73.12	78.33	95.06	101.83	111.90	119.40	17.57	17			
1100	78.26	83.97	101.74	109.16	120.10	127.60	18.44	17			
1200	84.39	89.60	109.71	116.48	128.30	135.80	19.32	17			
1300	91.93	97.14	119.51	126.28	135.80	143.30	17.02	13			
1400	97.55	102.76	126.82	133.59	143.40	150.90	17.31	13			
1500	103.18	108.39	134.13	140.91	150.90	158.40	17.49	12			
1600	108.80	114.01	141.44	148.21	158.40	165.90	17.69	12			
1700	114.76	119.97	149.19	155.96	165.20	172.70	16.74	11			
1800	120.39	125.60	156.51	163.28	172.00	179.50	16.22	10			
1900	126.00	131.21	163.80	170.57	178.80	186.30	15.73	10			
2000	131.64	136.85	171.13	177.91	185.70	193.20	15.29	9			
2100	137.26	142.47	178.44	185.21	192.20	199.70	14.49	8			
2200	142.89	148.10	185.76	192.53	198.80	206.30	13.77	7			
2300	148.51	153.72	193.06	199.84	205.40	212.90	13.06	7			
2400	154.13	159.34	200.37	207.14	212.00	219.50	12.36	6			
2500	159.75	164.96	207.68	214.45	218.60	226.10	11.65	5			
2600	165.37	170.58	214.98	221.75	224.90	232.40	10.65	5			
2700	170.91	176.12	222.13	228.96	231.20	238.70	9.74	4			
2800	176.63	181.84	229.62	236.39	237.60	245.10	8.71	4			
2900	182.25	187.46	236.93	243.70	243.90	251.40	7.70	3			
3000	187.87	193.08	244.23	251.00	250.30	257.80	6.80	3			

14-29  
Statement 14.1 (contd.)

Statement showing cost of haulage and proposed rates  
and indices of taper of cost and proposed rates.

Rate per tonne		Increase per tonne		INDEX				Distance
Class	Class	Over	Over	Cost		Proposed rate		in
50- <del>A</del>	50	1.4.70	1.4.79	Excl'dg.	Incl'dg.	Excl'dg.	Incl'dg.	Kms.
as on	as on	rate	rate	term.	term.	term.	term.	
1.4.70	1.4.79							
Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	
10	11	12	13	14	15	16	17	18
13.40	18.20	17.60	12.80	100	100	100	100	100
19.70	26.90	25.40	18.20	66	62	80	73	200
25.40	35.00	31.50	21.90	54	49	70	61	300
30.70	42.50	35.80	24.00	43	43	63	54	400
35.90	50.00	40.20	26.10	43	41	58	49	500
40.80	65.20	44.30	19.90	45	39	55	46	600
45.70	73.30	48.30	20.70	43	37	53	43	700
50.60	81.10	52.30	21.80	42	35	51	42	800
55.10	83.70	56.00	22.40	43	35	49	40	900
59.60	96.00	59.80	23.40	41	34	48	38	1000
64.10	103.60	63.50	24.00	40	33	46	37	1100
68.60	111.00	67.20	24.80	39	32	46	36	1200
72.60	117.60	70.70	25.70	39	32	44	35	1300
76.60	124.30	74.30	26.50	39	32	43	35	1400
80.60	130.90	77.80	27.50	38	31	43	34	1500
84.60	137.60	81.30	28.30	38	31	42	34	1600
88.60	144.20	84.10	28.50	37	30	41	33	1700
92.60	150.90	86.90	28.60	37	30	41	32	1800
95.60	155.90	90.70	30.40	37	30	40	32	1900
98.60	160.90	94.60	32.30	37	29	40	31	2000
101.60	165.90	98.10	33.80	36	29	39	31	2100
104.60	170.90	101.70	35.40	36	29	38	30	2200
107.60	175.90	105.30	37.00	36	29	38	30	2300
110.60	181.10	108.90	38.40	36	29	37	29	2400
112.60	184.40	113.50	41.70	35	28	37	29	2500
114.60	187.70	117.80	44.70	35	28	37	29	2600
116.60	191.10	122.10	47.60	35	28	37	28	2700
118.60	194.40	126.50	50.70	35	28	36	28	2800
120.60	197.70	130.80	53.70	35	28	36	28	2900
122.60	200.90	135.20	56.90	35	28	36	28	3000

Statement showing 'wagon load' and corresponding 'smalls' classifications introduced from 1.10.58.

<u>'A' Class Rates</u>			<u>'B' Class Rates</u>		
<u>Wagon loads</u>	<u>'smalls'</u>	<u>Difference</u>	<u>Wagon loads</u>	<u>'smalls'</u>	<u>Difference</u>
22.5-A	30 -A	+ 7.5	52.5-B	60. -B	+ 7.5
25 -A	32.5-A		55. -B	62.5-B	
27.5-A	37.5-A		57.5-B	65. -B	
30. -A	40. -A	+ 10	60. -B	67.5-B	
32.5-A	42.5-A		62.5-B	70. -B	
35 -A	45 -A		65. -B	72.5-B	
37.5-A	50. -A	+ 12.5	67.5-B	75. -B	
40. -A	52.5-A		70. -B	77.5-B	
42.5-A	55. -A		72.5-B	80. -B	
45 -A	57.5-A		75. -B	82.5-B	
			77.5-B	85. -B	
			80. -B	87.5-B	
			82.5-B	90. -B	
			85. -B	92.5-B	
			92.5-B	100. -B	
			97.5-B	105-B	
			100 -B	110-B	+ 10
			105 -B	115-B	
			110 -B	120-B	
			115 -B	125-B	
			120 -B	130-B	
			125 -B	135-B	
			130 -B	140-B	
			135 -B	145-B	
			140 -B	150-B	
			145 -B	155-B	
			170 -B	180-B	



Statement 14.3

Statement showing the relativity in the 'wagon loads'  
and 'smalls' classifications introduced iron 1.4.1970

<u>Wagonload Classifi- cation</u>	<u>Corresponding Smalls Classification</u>	<u>Wagonload Classifi- cation</u>	<u>Corresponding Smalls Classification</u>
25.	40	65.	80
27.5	45	67.5	85
30.	50.	70	85
32.5	52.5	75	95
35.	55	80.	95
37.5	60	87.5.	105
40.	60.	85	105
42.5	62.5	95	115
45.	65	100	120
52.5	75	105	130
55.	75	110	130
57.5	75	115	130
60.	75	130	150
62.5	80		

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Statement showing particulars of important  
commodities booked as 'snalls' during 1977-78.

Sl. No.	Commodity	Existing Classifi cation (snalls)	Average lead (kms.)	Volume of Traffic (tonnes)
1.	Oil seeds	75	779	64,139
2.	Cotton raw (full pressed)	105	1429	14,215
3.	Oil cake	60	564	28,549
4.	Tobacco unmanufactured	105	840	19,016
5.	Coal	60	1401	54,511
6.	Hides and skins	95	898	41,521
7.	Tinber	75	1114	34,845
8.	Bidi leaves	130	596	9,406
9.	Sugar	75	951	32,095
10.	Jagree	67.5	1122	87,862
11.	Salt N.O.C.	60	1536	37,703
12.	Tea	115	1820	13,346
13.	Tobacco manufactured	115	1190	14,871
14.	Edible oils	80	1433	23,147
15.	Cotton manufactured (P)	105	156	70,583
16.	Gunnies	105	901	57,354
17.	Leather manufactured	120	1399	9,590
18.	Rubber manufactured	120	1050	39,169
19.	Rubber unservicable	75	1046	9,762
20.	Artificial silk (PP)	105	1667	17,847
21.	Coir rope	80	2194	30,272
22.	Other coir	75	1468	10,716
23.	Cement	75	878	16,354
24.	Iron & Steel Div. 'A'	105	1145	1,17,257
25.	Iron & Steel Div. 'B'	95	1006	74,900
26.	Agricultural implemets	75	1010	13,194
27.	Electrical Goods Div. 'A'	120	1369	48,776
28.	Electrical Goods Div. 'B'	95	1290	36,841
29.	Brassware	115	1501	12,115

.....contd.

## Statement 14.4 (concl'd)

Sl. No.	Commodity	Existing Classification ('small's')	Average Lead (kms.)	Volume of Traffic (tonnes)
30.	Machinery other than electrical goods	105	1476	38,354
31.	Iron & Steel (others)	130	1055	49,353
32.	Glassware Div. 'C'	80	1121	15,050
33.	Cotton waste loose	115.	1135	31,544.
34.	Potato	67.5	1270	11,862
35.	Sugarcane	60	59	54,875
36.	Bran	60	865	9,843
37.	Husks	60	582	11,265
38.	Grain & Pulses Div. 'A'	60	1600	3,72,004
39.	Grain & Pulses Div. 'B'	55	1099	4,35,834
40.	Flour	60	983	19,843
41.	Paper in rolls	75	1231	1,55,337
42.	Paper waste	75	677	6,301
43.	Pulp Board N.O.C. in bales	85	1416	23,694
44.	Newsprint	75	1257	3,983
45.	Stationery	120	868	15,157
46.	Fireworks	150	2389	12,533
47.	Medicines	115	1373	10,373
48.	Fish, dried	75	1518	12,150
49.	Chillies	95	1051	11,658
50.	Coconut dried	75.	1281	20,911
51.	Seeds common	67.5	859	30,031
52.	Provisions	120	1057	13,935
53.	Wool raw loose	130	1172	11,499
54.	Drugs crude	105	1188	13,804
55.	Shoes	120.	1325	14,224
56.	Stones N.O.C. (other than ballast)	67.5	528	23,118
57.	Lubricating oil	130	779	11,894

Statement 14.5

Wagonload  
Classification

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Proposed 'small's' classification  
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For consignments  
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not exceeding one tonne	exceeding one tonne but less than three tonnes	exceeding three tonnes	one and over three tonnes
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65	105	100	95
70	110	105	100
75	115	110	105
80	120	115	110
85	125	120	115
90	130	125	120
95	135	130	125
100	135	130	125
105	135	130	125
110	140	135	130
115	145	140	135
120	150	145	140
125	155	150	145
130	160	155	150
135	165	160	155
140	170	165	160
150	180	175	170
160	190	185	180
165	195	190	185
170	200	195	190
175	205	200	195
180	210	205	200
185	215	210	205
190	220	215	210
200	220	215	210
210	230	225	220
220	240	235	230
230	250	245	240
240	260	255	250
260	280	275	270
-	300	295	290

CHAPTER XVCLASSIFICATION OF COMMODITIES

15.001 Railways carry a wide variety of articles - raw materials, finished products from industries, consignments in bulk and in bags, perishables, liquors, medicines, food-grains, minerals, coal, chemicals, dangerous goods and others. Many of these commodities directly or indirectly enter into the daily life of the common man. Railways do not charge all these commodities at the same uniform rate. They make a distinction between various commodities in regard to the rates that are charged. The differential charging of various commodities is mainly done by grouping the various commodities into different classes for purposes of fixing rates. The grouping of commodities into a limited number of groups or classes and prescribing rates for these classes is known as classification. The classification is based on certain well-known rating principles.

15.002 The broad principles which govern the classification are : the value of service and the cost of service; and in applying these principles, transportation characteristics of the commodity have to be borne in mind.

15.003 The value of service principle is also usually described as charging "what the traffic will bear". Commodities will move from one place to another only if their freight charges are such as to make the movement worthwhile or profitable for the trade. Unless the price for a commodity that will be obtained in the market to which it is being transported is such as to cover the transportation charges and to leave a reasonable margin of profit, the commodity will not move. To give an example, if there is a commodity at station A which is to move to a station B, the difference in price at station B and price at station A less the margin of profit sets an upper limit to the amount of freight charges which the particular commodity can bear. It will hamper the movement of the commodity if the freight charges are more than this quantum. So, if the movement of a particular article is not to be stifled, railways should not charge

anything more than what the traffic can bear. This is a simple illustration of the principle.

15.004 As far as classification rates are concerned, we are not dealing with individual movements only but with the general pattern of movement of the articles. It will be obvious that commodities which are valuable can normally stand a larger amount of transportation cost than cheap articles. So, in the rate structure, railways usually charge valuable articles higher transportation charges than less valuable ones. Generally speaking, there is a relationship between the value of the commodity and the value of the service of transporting it. This is because the freight rate on a valuable article, even though high, is a small proportion of the price of the article at destination; and the rate on a cheap article, though low, is a substantial proportion of the value of the article. It is clear that the high rate will affect the price of, and the demand for, a cheap article much more than it will for a valuable article. Anything which restricts the demand for an article will limit the demand for its transportation. Thus, high rates restrict the movement of cheap commodities, but do not restrict to the same extent the movement of valuable articles.

15.005 The value of service sets the upper limit beyond which the traffic will not move. Variable or dependent costs fix the lower limit below which the rate should not go. Between these two limits, the rate for a commodity is fixed at a rate that the traffic can bear. Charging what the traffic can bear is a much-abused phrase. It is often wrongly interpreted to mean levying exorbitant rates or the highest possible charge that can be extorted from a trader. The principle can really more accurately be described as "not charging what the traffic cannot bear". The principle is one of charging cheaper rates on traffic that will not move at normal rate, at the same time charging higher rates on traffic that will stand higher rates and, in totality, generate the earnings adequate to cover the total expenses on the whole and leave enough surpluses.

15.006 Another important principle which governs <sup>freight</sup> charges on commodities is based on what is known as "cost of service" principle. It is obvious that there can be a difference in rates between commodities if there are differences in the costs of transporting them. While it may be difficult to compute the differences in costs of transport for different commodities with any degree of accuracy, it is possible to lay down certain general principles which relate to the relative costs. What we are concerned with in the classification rates is not really the actual cost of service but the relative cost as between different commodities.

15.007 The principal factors which cause differences in cost for transporting different commodities are:-

- (a) Loading characteristics : Dense commodities cost for transport per unit weight less than light commodities. For example, if a broad gauge four-wheeler with a carrying capacity of 220 quintals is loaded, a dense commodity like iron or steel can easily give a weight of 220 quintals. On the other hand, even if the wagon is loaded upto the brim, a light commodity like loose cotton may not give a weight of more than 45 or 50 quintals. While the transportation cost of both the wagons is practically the same (many elements of transportation costs vary with the number of wagons handled rather than with the number of tonnes handled), the cost per unit weight of the commodity will, therefore, be less in the case of iron or steel, and more in the case of loose cotton. The return by way of freight charges in the case of iron and steel is on a weight of 220 quintals, while in the case of loose cotton the railways will get only charges for a weight of 50 quintals. It stands to reason, therefore, that railways can afford to charge a lower rate per quintal for the heavy loading commodity than for a light loading commodity. In order to obtain a reasonable freight return per wagon, the rates on light and bulky

articles must be relatively high but those on heavily loading articles can be relatively low.

Whether an article gives a good weight when loaded into the wagon depends, in a large measure, upon its density or weight per cubic metre. The ability to load also depends to some extent upon the nature and kind of packing. Articles of all shapes and dimensions cannot be loaded to advantage. Sometime the maximum weight upto which a wagon can be loaded with particular commodities is also restricted by the fact that certain commodities will get damaged if too many layers are kept one above the other. An example of this is baskets of fresh fruits.

- (b) Susceptibility for loss or damage: Certain articles require great care while being handled and while in transit or they will get damaged, but certain other articles can stand the normal strain of handling and transit without getting damaged. It is obvious that the higher incidence of claim increases the cost to the Railway, and the former will have to be charged higher rates than the latter. Thus, for example, sand, gravel, brick and iron and steel articles are not likely to be damaged easily; but fragile articles and perishable products such as fresh fruits and vegetables are susceptible to damage. Again, there are certain articles like explosives, acids, etc., which are easily destroyed and may cause loss or damage to other articles also. Here again, the costs become higher due to claims arising from such damage and, therefore, the commodities have to be charged comparatively higher rates.

There are certain commodities which have got a corrosive effect on the wagons in which they are carried and this also adds to the costs of transportation of these commodities. An idea of the extent of corrosive damage to wagons by such commodities is given in para 5.42 of Chapter V.

A difference in rate may also have to be made not only according to the nature of the commodities but also according to the type of packing of the goods when tendered for carriage. For example, certain commodities when sent in glass containers can be damaged more easily than when they are sent



in stronger containers; and result in higher incidence of claims and therefore costs. The former have to be charged higher rates than the latter.

The value of the commodity will also appear as a cost factor particularly in the case of a claim. Thus, on valuable articles, the claim on account of loss or damage will be necessarily higher than in the case of less valuable consignments. On this basis also, higher rates are justified on valuable articles than on cheaper articles.

- (c) Volume of traffic: The cost of transportation of a commodity is affected to some extent by the volume in which it moves. Thus, if commodities move in wagon-loads, it is easier for the railways to carry them than when they are transported as 'smalls'. There are also reductions in costs, as charges for handling, receipting etc. are much less than if the consignments are offered in several different lots. The loadability of 'smalls' is also considerably less than that of wagon-loads. Railways can, therefore, charge a lower rate per quintal for wagon loads of a commodity, and higher rates for 'smalls' consignments of the same commodity. Similarly, there are savings in costs in moving consignments in train loads warranting a lower rate for train loads compared to wagon loads.
- (d) Use of special type of wagons: Another cost factor is the necessity to provide special types of equipment and wagons. In such cases, railways will be right in charging higher rates.
- (e) Extent of empty running involved: Another factor which has a bearing on cost is the extent of empty running involved in dealing with the traffic. For example, petroleum and other oil tank wagons have to run empty in one direction. This is also the case with certain other type of traffic requiring special type wagons like BFRs.

15.008 There are a few other factors which are also taken into account in determining the relative level of charges of commodities. One such factor is whether the commodity is a raw material or<sup>a</sup> finished product. Finished products usually can bear a higher rate than the raw materials from which they are manufactured. This, of course, is an extension of the value of service principle because raw materials are<sup>usually</sup> cheaper than the finished products, and valuable articles usually have higher rates, as we have seen, than the cheaper ones. Also, manufacturing establishments having to obtain raw materials in large quantities from distant areas will not be able to work economically unless lower rates are charged<sup>on</sup> the raw materials. Also, the finished products are more susceptible to loss or damage and may require more careful handling and protection than the raw materials and, therefore, a higher rate is justified.

15.009 The use to which a commodity is put may occasionally have a bearing upon the transportation characteristics and the rates which can be charged for the commodity. This<sup>is</sup> again because the use of the article gives an indication of its value.

15.010 These several factors which determine the relative rate levels of commodities are usually referred to as 'Transportation Characteristics of the Commodity'.

15.011 Another important factor which determines the relative levels of rates for different commodities is the public interest or considerations of public policy. It may be necessary that in the public interest only low rates should be levied on a commodity particularly when it is vital for the life of the common man. This is not a question of the ability of the article per se to stand higher transportation charges but whether it is deemed desirable in the public interest to encourage the movement of the commodity and bring about a desired social or economic result. Thus, as a matter of public policy, higher rates are<sup>usually</sup> charged on luxury articles while commodities like foodgrains, sugar, manures etc. are charged comparatively cheaper rates.

15.012 All these factors are taken into account in determining the classification rates for commodities, i.e., for

grouping them into classes for purposes of charging. No one factor is controlling and all factors have to be taken into account in deciding the relative rate level. It is difficult to arrive at a mathematical formula or to give any weightage to any particular factor; different factors often point to divergent results. Ultimately, it is a matter of judgment taking into account the various factors. Based on these factors, all the commodities are divided into different classes for purposes of fixing of rates and this is called "freight classification".

15.013 The Freight Structure Enquiry Committee (1955-57) have also discussed at length the principles governing the goods classification and they had recommended a certain classification for all the commodities in the different scales they had proposed.

15.014 In the course of our discussions with various Chambers of Commerce, trade associations and other interests in various regions of the country, we have not received representations for any major change in the classification of commodities as it exists today. There have been representations requesting for review in respect of only a few commodities. We are, therefore, reviewing the classification of only the important commodities which constitute the bulk of the traffic on the Railways and the few commodities about which representations have been received. There are also a few commodities which the Ministry of Railways have shown as suffering 'losses' in transportation at the present scale of classification and level of rates. We are reviewing the classification of these commodities also. We are discussing these in the following paragraphs.

15.015 As mentioned in earlier Chapters, Railways will have to generate additional revenues of the order of Rs.500 crores over the goods earnings of 1976-77. The goods earnings in 1976-77 were Rs.1276 crores. The increase would, therefore, be about 40 per cent. This is one parameter which we have kept in mind in considering the level of generation of earnings from different commodities and, therefore, their classification.

15.016 It is also to be ensured that the major streams of traffic bear their due share of cost.

15.017 The detailed cost data available give the figure of general cost of haulage on the broad gauge <sup>and</sup> metre gauge, and <sup>the</sup> weighted average cost based on the average load of 20.28 tonnes on the broad gauge, and 14.22 tonnes on the metre gauge, <sup>with</sup> empty return ratio of 50% on the broad gauge and 40% on the metre gauge. These costs have to be escalated by 30% <sup>to allow</sup> for the additional costs required to be covered. Cost figures are also available where loadability is more than the average assumed; for example, in the case of loadability going upto the carrying capacity, namely, 24 tonnes on the broad gauge and 18 tonnes on the metre gauge, the costs are less than average cost figures. Similarly, costs would be higher in the case of commodities which have lower loadability than the average loadability assumed. The Railway Board have also made cost studies in respect of individual commodities to see whether the earnings from them cover the cost of haulage. In addition, they have conducted certain special studies of <sup>the</sup> transportation cost of commodities like coal which move mostly in train loads and these costs are found to be much less than the general average cost. All these studies have been made use of.

15.018 The detailed zonal statistics of various commodities are also prepared by the Railway Board and we have utilised the latest data available, namely, for 1977-78. The 1977-78 level of traffic, namely 210.8 million tonnes, was also very close to that of 1976-77, which we are using as the base year for our calculations.

15.019 In respect of important commodities having significant volumes of traffic, one of <sup>the</sup> the guidelines we have kept in mind is that, at least for <sup>the</sup> bulk of the traffic, say about 80%, the rates should cover their fully distributed costs of haulage (These costs include the element of interest in lieu of dividend charges).

15.020 The ability of the various streams of traffic to bear the rate burden has also been kept in mind.

15.021 Though railways carry a variety of goods and nearly 3000 and odd commodities are listed in the Goods Tariff, the A.B.C. analysis of the traffic shows that ten commodities account for 85% of the originating tonnage and 75 per cent of the earnings of the Railways. These commodities in the order of total originating traffic are given in Table 15.1 below:-

Table 15.1

<u>S.No.</u>	<u>Commodity</u>	<u>Tonnes (in thousands)</u>	<u>Percentage of traffic</u>
1.	Coal	69,157	32.81
2.	Iron Ore	26,302	12.48
3.	Foodgrains	19,444	9.22
4.	Cement	13,600	6.45
5.	Mineral Oils	13,062	6.20
6.	Iron and Steel	11,427	5.42
7.	Limestone & Dolomite	9,916	4.70
8.	Chemical Manures	8,211	3.90
9.	Stones (other than marble)	4,201	1.99
10.	Salt	2,899	1.37
		<u>178,219</u>	<u>84.54</u>

15.022 In the projection of the traffic for <sup>the</sup> future also, these are the items which are likely to continue to constitute the bulk of the traffic of the railways. The draft Sixth Plan document also envisages <sup>the</sup> bulk of the railway traffic to consist of coal, iron and steel products, raw materials for steel plants, cement, iron ore for export, fertilisers, petroleum products and foodgrains. The impact of the proposed rates in respect of these

main commodities are discussed in the following paragraphs.

15.Q23 The share of the following commodities namely coal, iron ore, foodgrains, cement, limestone and dolomite, chemical manures and salt has been increasing from year to year. Their proportion to the total originating loading on the Railways is as under :-

Table 15.2

Year	Percentage
1973-74	67.43
1974-75	68.49
1975-76	70.25
1976-77	70.71
1977-78	71.87

These commodities form such a big proportion of total traffic that the rates proposed for them will have to be such as would ensure adequate revenues to the Railway in the coming years. We have dealt in detail with each one of these commodities as well as mineral oils and iron and steel materials which together contribute 85% of the total <sup>originating</sup> traffic on the Railways.

15.Q24 In considering the classification levels and the level of rates of individual commodities, we shall, inter alia, be discussing the incidence of freight on the prices of the various commodities. In considering the ratios of freight rates to prices, it has to be remembered that since there is an element of freight in the sale prices of nearly all goods, one has to bear in mind how important the transportation charges are in the prices of ordinary articles of consumption. For example, the effect of freight charges on prices will be greater if the freight is already a substantial proportion of the price of the article. Normally, the freight charge is a small proportion of the price of the articles which have a high value relative to their weight as is the case in respect of most manufactured articles. The freight rate is, however, a larger proportion of the prices of cheaper

articles. Again, the longer the haul, the greater becomes the ratio of freight charges to prices. Also in considering manufactured goods, the effect of not only the freight rate on the finished products but also the incidence of the freight rates on the main inputs for the manufacture of the finished products has to be taken into account as, for example, in the case of iron and steel where charges on iron ore, coal etc. are also important, apart from the freight charges on iron and steel itself. The ratio of freight charges to price obviously changes with changes not only in the freight rates, but also in the prices.

#### Coal

15.025 Coal constitutes the single largest item of traffic on the Railways, the quantum of originating traffic being about 69 million tonnes in 1977-78, constituting nearly 33% of the Railways' <sup>originating</sup> total traffic and 27% of the total Net Tonne Kilometres. This traffic is likely to increase in the years to come. A detailed commodity study of this traffic is given in Annexure 15.1.

Coal is at present being charged under the following heads :

- (i) Coal (for public and non-Government Railways) including coal shale, coke soft, lignite and patent fuel, at Class 37.5 (owner's risk) for wagon loads, and at class 60 (owner's risk) for 'smalls'.
- (ii) Hard coke including domestic coke, at Class 42.5 (owner's risk) for wagon loads, and at Class 62.5 (owner's risk) for 'smalls'.

15.026 An appropriate rate for coal in the freight structure is very important for the following reasons :-

- (i) Coal being the largest single item of traffic loaded on the railways, and considering the fact that this traffic is likely to increase in the coming years, it has to generate adequate revenue for the railways;

- (ii) Coal is being mined only in certain areas in the country but has to be moved to all other parts of the country for vital power units as well as industries like textiles, cement, steel plants etc., and
- (iii) In order to ensure regional balance with regard to <sup>the</sup> establishment of various industrial units and factories for which coal is a pre-requisite, the movement of coal to long distances at reasonable rates has to be ensured. This has also been the policy since the inception of the railways in India. At the same time, it has to be ensured that the cost of haulage is met and adequate surpluses are generated from the coal movement as this traffic forms a significant proportion of the traffic on Indian Railways.

15.027 The coal movement has certain special distinct characteristics, some of which are :-

- (i) Coal movement is mostly in block rakes, 87% on Broad Gauge and 59% on Metre Gauge in 1977-78.
- (ii) The movement is mostly on Broad Gauge system, the tonne kilometres of coal movement on Broad Gauge and Metre Gauge during 1977-78 being as under :

<u>Gauge</u>	<u>NTKMs in millions</u>	<u>Percentage</u>
Broad Gauge	38699	95.5%
Metre Gauge	1815	4.5%

15.028 While the average lead of coal movement was only 586 kms. in 1977-78, there are also certain long distance movements, particularly to some of the far off cement plants, textile mills and power houses. The Zone-wise distribution of movement of coal in respect of the major consumers is furnished in Statement 15.1.

15.029 Bearing in mind the general average costs and the



particular costs that<sup>have</sup> been computed for coal movement, we recommend a classification at Class 80 (owner's risk) in the new freight structure, for wagon load movement of coal. Train load movements should be given a rebate of 6% as indicated by us in paragraph 14.31 (a) of Chapter XIV.

15.030 Coal India Limited in their memorandum<sup>\*</sup> have suggested that a differential classification may be given for higher grades of coal and lower grades of coal. The relevant extract of their memorandum is given below :

"At present there is a heavy pressure on higher grades of coal and in order to create a freight bias for lower grades, it may be worthwhile to review the freight structure for coal with a view to equalise the therm value of the coal received by various consumers all over the country. The price of coal is based on the useful heat value. The present pricing policy levies a heavy premium on high heat value coals to encourage consumption of lower grade coals. The freight for all grades of coal is same. In the latest price list, the ratio between the price of highest and lowest grades of non-coking coal is 1 : 3.3. The price of highest grade of coal as delivered to the consumer at 1,000 kilometres away from the pithead, is only 1.38 times that of the lowest grade. Hence, a strong case exists to review the freight structure to ensure the differential in price between the lowest and the highest grade coal at pithead and consumer end is maintained as far as possible. This will ensure as earlier said, lower grade coal utilisation of which we have abundant reserves.

The present classification in Goods Tariff provides only one class-rate for coal (Public and non-Government Railways), including coal shale, soft coke, lignite and patent fuel; namely, 37.5 at owners' risk. For 'smalls' booking of coal, the classification is 60. In the present freight structure, there being no differential rating for different grades of coal the different prices charged for different grades of coal at pitheads get narrowed down at customers' end, particularly those located at 1000 kilometres and above. It is suggested that different class rates are prescribed for different grades of coal so that the proportionate differences in sale prices can be had at the consumers' end at distant places".

15.031 We find, however, that the variations in prices of different varieties of coal are not significant enough warranting differential classifications. Therefore, we do not recommend for the present any difference in classification between different varieties of coal. If, however, significant changes are made in the price structure of different grades of coal, Railways may consider the question of differential classification between different grades of coal, the higher grades of coal being given classification at a level higher than the lower grades of coal.

15.032 We have received representations to the effect that soft coke which is mainly used for domestic consumption should be placed in a lower classification than that applicable to coal. We agree and recommend that soft coke should be assigned Class 75 at owner's risk. The quantity of traffic of soft coke is only 1.24 million tonnes out of a total of 69.2 million tonnes of coal. Soft coke can also be distinguished easily from the other varieties of coal, and there will be no administrative difficulty in charging the appropriate rates.

15.033 At the proposed classification, the earnings that would accrue at the 1977-78 level of traffic would work out to Rs.415.26 crores\*. As, however, 90% of the traffic in coal moves in train loads and would be eligible for the rebate of 6 per cent for movements in train loads, the actual earnings would be only Rs.392.84 crores. The percentage increase in earnings from coal at the proposed level of rates over the 1976-77 earnings would be of the order of 40.11%.

15.034 The proposed rates compare with the existing rates

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\*The earnings have been worked out taking into account the Zonal Statistics and actual average loads for the different zones in the Zonal Statistics.

for different leads as under :

Table 15.3

Distance KMs.	Existing Rate per tonne Rs. P.	Proposed Rate per tonne (less 6%) Rs. P.	Increase per tonne Rs. P.
100	14.40	23.55	9.15
300	27.00	43.01	16.01
800	61.80	77.60	15.80
1000	73.30	90.01	16.71
1500	99.30	119.33	20.03
2000	121.90	145.47	23.57
2500	139.40	170.19	30.79
600 (Average Lead)	50.10	64.16	14.06

15.035 The indices of coal prices compared with freight rates in the year 1970, 1979 and the proposed rates show the following picture :-

Table 15.4

Distance Kms.	Indices of Freight rates for coal per tonne			Indices of Prices of Coal per tonne		
	1.4.70	1.4.79	Proposed rate (less 6% rebate)	1970	1979	Current price
300	100	180	287	100	212.2	335.5
500	100	182	274			
1000	100	212	261			
600 (Average lead)	100	211	267			

It will be seen that the increase in the rates proposed is not unduly high.

15.036 The average price of coal at present is of the order of Rs.101/- per tonne. The incidence of freight for an average lead of 600 kms. is of the order 63.5 per cent. It was about 67.3 per cent in 1970.

15.037 Specific cost studies have been made for coal movement in train loads on the railways taking into account the total costs involved in carrying coal traffic from the colliery siding to the destination stations, the full terminal cost at the booking end which includes the cost of shunting and all other work done in the colliery sidings. As far as the destination is concerned, the costs do not take into account the full placement costs involved in placement of rakes in the various destination sidings which may be a power house siding, a cement factory siding or a steel plant siding. These costs are for train load movements which account for nearly 90 per cent of the traffic. The rates recommended by us fully cover these costs as calculated and escalated. In view of the fact that the freight rates proposed for coal cover all these costs, we recommend that separate siding charges need not be collected at the booking end as far as coal is concerned. The present practice obtaining on the Eastern Railway of adding the length of the siding for the purpose of distance for charge may be adopted as far as booking of coal traffic from colliery sidings is concerned.

15.038 We discuss below the incidence of the proposed freight rates on the main streams of traffic of coal which are -

- (i) Raw coal moving from Colliery sidings to Washeries.
- (ii) Washed coal and other coal moving to Steel Plants.
- (iii) Coal moving to Thermal Power Houses.
- (iv) Coal moving to other industries like Cement, Textiles etc.

Movement of raw coal from Collieries to Washeries:

15.039 There are mainly five washeries which account for the bulk of the traffic handled in washeries. Three of these, viz., Dugda, Santaldih (Bhojudih) and Patherdih washeries are under Bharat Coking Coal Limited (B.C.C.L.).

## Tata Iron &amp; Steel Co.

The Jamadoba Washery belongs to the /and the one in Durgapur Coke Oven Plant is under the Durgapur Steel unit of SAIL. There are a few other washeries to which movement of raw coal by railways is insignificant, and only washed coal from these washeries is sent by rail to the linked Steel Plant. The extent of raw coal moved to washeries in 1975-76 is given below:

Table 15.5.

Sr. No.	Name of Washery	Tonnes of raw coal moved to the washery	Average lead Kms.
1.	Dugda (BCCL)	3,202,675	9
2.	Santalidih (Bhojudih) (BCCL)	2,165,655	13
3.	Patherdih (BCCL)	1,253,457	1
4.	Jamadoba (TISCO)	681,432	5
5.	Durgapur (SAIL)	565,469	104
	Total	<u>7,868,688</u>	<u>15</u>

15.C40 Most of the washeries are situated at distances much less than 40 kms. from the collieries. At present, however, charges are levied for a minimum distance of 40 kms. for this initial movement from collieries to the washeries; and subsequently from the washeries to the steel plants also it is treated as a separate movement and charges are levied on the actual distances, subject again to a minimum distance for charge of 40 kms. In addition, siding charges are also being levied for inward traffic to and outward traffic from the washeries for the distances of the washery sidings.

15.C41 Detailed studies of the movement of coal to the washeries show that:-

- (i) These movements are fully close-circuit movements resulting in quick movement of the rakes with minimum turnaround time. 100% empty movement is also involved in this close-circuit movement.

- (ii) The standard of stock used for these movements is usually inferior to that of stock used in the open line for general traffic.
- (iii) The coal rakes are received into the reception yards of the washeries and, from there, the wagons are moved to the washeries' tipplers etc., by the locomotives owned by the washeries themselves. The railway staff employed in the washeries are also paid for by the washeries. There is, therefore, no extra expenditure incurred by the railways for the movements to the washery sidings and there is ~~therefore no~~ <sup>for</sup> rationality ~~in~~ levying any separate siding charge at the washery end. At present, a siding charge is being levied on the basis of the distance from the point of interchange to the siding at a scale notified by the railways. For example, at Dugda, a siding charge is levied for 8 kms at the rate of 53 paise per tonne and at Patherdih at 38 paise per tonne for a distance of 4 kms. These charges are added separately to the freight charges which are levied for a minimum distance of 40 kms. Similar is the case with the other washeries.
- (iv) The Bharat Coking Coal Ltd. in their discussions with the Committee have specifically represented against the levy of siding charges at washery sidings and have suggested that the siding charges should not be levied. A copy of the note submitted by the BCCL is at Annexure 15.2

15.042 Detailed cost studies have been made by the Railways in regard to movement of coal from the collieries to washeries. Out of the five washeries, the average distance for movement of raw coal is less than 40 kms. in respect of four washeries. In respect of <sup>the</sup> Durgapur washery alone, the average distance is over 100 kms.

15.043 We have recommended elsewhere that the minimum

distance for charge should be 50 kms. This will apply to these movements also.

15.044 The rates proposed for 50 kms. for movements upto 50 kms. and for actual distances for hauls over 50 kms. will cover the costs fully in respect of movements of coal to washeries and leave reasonable surpluses. There will be additional earnings of the order of about 57% over the 1976-77 earnings.

15.045 Our recommendations in regard to movement of raw coal to washeries, therefore, are :-

- (i) In respect of washeries where the distance involved is 50 kms or less, charges should be levied at Class 80 (OR) for 50 kms. with a 6% rebate for train-load movements.
- (ii) In respect of washeries where the distance involved is more than 50 kms., charges should be levied at Class 80 (OR) for the actual distance allowing the 6% rebate for train-load movements.
- (iii) No separate siding charge should be levied at the washery and for coal movements to washeries, if internal movements in the washeries are performed by the locomotives of the washeries and supervised by railway staff paid for by the washeries.

15.046 In regard to other streams of coal traffic, the position is indicated in the following paragraphs.

Particulars of consumerwise and zonewise traffic in revenue earning coal in wagon-loads are given in Statement 15.1 enclosed. :

Washed coal and other coal moved to Steel Plants:

15.047 The details of <sup>the</sup> incidence of the coal rates for

- (ii) The standard of stock used for these movements is usually inferior to that of stock used in the open line for general-traffic.
- (iii) The coal rakes are received into the reception yards of the washeries and, from there, the wagons are moved to the washeries' tipplers etc., by the locomotives owned by the washeries themselves. The railway staff employed in the washeries are also paid for by the washeries. There is, therefore, no extra expenditure incurred by the railways for the movements to the washery sidings and there is ~~therefore no~~ <sup>for</sup> rationale ~~for~~ levying any separate siding charge ~~at~~ the washery end. At present, a siding charge is being levied on the basis of the distance from the point of interchange to the siding at a scale notified by the railways. For example, at Dugda, a siding charge is levied for 8 kms at the rate of 53 paise per tonne and at Patherdih at 38 paise per tonne for a distance of 4 kms. These charges are added separately to the freight charges which are levied for a minimum distance of 40 kms. Similar is the case with the other washeries.
- (iv) The Bharat Coking Coal Ltd. in their discussions with the Committee have specifically represented against the levy of siding charges at washery sidings and have suggested that the siding charges should not be levied. A copy of the note submitted by the BCCL is at Annexure 15.2

15.042 Detailed cost studies have been made by the Railways in regard to movement of coal from the collieries to washeries. Out of the five washeries, the average distance for movement of raw coal is less than 40 kms. in respect of four washeries. In respect of <sup>the</sup> Purgapur washery alone, the average distance is over 100 kms.

15.043 We have recommended elsewhere that the minimum



distance for charge should be 50 kms. This will apply to these movements also.

15.044 The rates proposed for 50 kms. for movements upto 50 kms. and for actual distances for hauls over 50 kms. will cover the costs fully in respect of movements of coal to washeries and leave reasonable surpluses. There will be additional earnings of the order of about 57% over the 1976-77 earnings.

15.045 Our recommendations in regard to movement of raw coal to washeries, therefore, are :-

- (i) In respect of washeries where the distance involved is 50 kms or less, charges should be levied at Class 80 (OR) for 50 kms. with a 6% rebate for train-load movements.
- (ii) In respect of washeries where the distance involved is more than 50 kms., charges should be levied at Class 80 (OR) for the actual distance allowing the 6% rebate for train-load movements.
- (iii) No separate siding charge should be levied at the washery and for coal movements to washeries, if internal movements in the washeries are performed by the locomotives of the washeries and supervised by railway staff paid for by the washeries.

15.046 In regard to other streams of coal traffic, the position is indicated in the following paragraphs.

Particulars of consumerwise and zonewise traffic in revenue earning coal in wagon-loads are given in Statement 15.1 enclosed. :

Washed coal and other coal moved to Steel Plants:

15.047 The details of <sup>the</sup> incidence of the coal rates for

movement to the steel plants is indicated in Table 15.6:-

TABLE 15.6

Name of Steel Plant	Average lead of coal	Freight rate per tonne		Increase per tonne
		At 1.4.79 level (Class 37.5) (new Class 80)	At proposed level less 6% rebate (new Class 80)	
	kms	Rs. P.	Rs. P.	Rs. P.
Bokaro	55	10.30	15.56	5.26
IISCO	65	11.20	17.34	6.14
Durgapur	95	13.90	22.70	8.80
TISCO	170	19.00	30.97	11.97
Rourkela	300	27.00	43.01	16.01
Bhilai	690	55.40	70.27	14.87

15.048 In considering the incidence of freight charges on the movement of coal to steel plants, we have also to consider the incidence of freight charges on other raw material inputs going to the steel plants. For the production of one tonne of saleable steel, the quantities of the main inputs required are as under:

Coal	...	1.80 tonnes
Iron ore	...	1.60 tonnes
Limestone	...	0.63 tonnes
Dolomite	...	0.23 tonnes

The increase in the total freight of all the above inputs required for the manufacture of one tonne of steel in respect of the major Steel Plants is given in Statement 15.2.

15.049 The increases in the freight rates proposed for the finished Iron or Steel products under Division, A, B and C and pig iron compared with the increases in their prices are furnished in Statement 15.3.

15.050 It will be seen that the increases in the freight levels proposed for raw material inputs as well as finished products are proportionately much less than the increases in the price levels.

15051 Coal movement to Thermal Power Houses, Cement and Textile industries:

(i) Thermal Power Houses: According to the report of the Fuel Policy Committee (1974), a 100 MW thermal power house would consume 0.60 kg. of coal for every unit (Kilo Watt Hour) of energy generated, i.e., 0.6 tonne for every 1,000 units of power generated. The average lead of coal movement to thermal power houses in 1977-78 was 540 kms., but substantial quantities have been transported in the 1200 kms. zone also. The proposed rates for coal moving in train-loads involve an increase over the existing rates of about Rs.14/- per tonne at 600 kms. and Rs.18/- per tonne at 1200 kms. Taking into account the rate of coal consumption, for every 1,000 units of power generated, the additional incidence of freight for 0.6 tonne coal would be about Rs.8.40 and Rs.10.80 for the respective distances.

(ii) Cement industry: During 1977-78, the average lead of coal movement to cement factories was 852 kms.; but a large quantity of coal has moved upto 1200 kms. and 1500 kms. as well. The Cement Manufacturers' Association have stated that 0.28 tonne of coal is consumed for every tonne of cement manufactured. Under the rates proposed for coal movement in train-loads, there is an increase over the present rates of about Rs.16/- per tonne at 900 kms., Rs.18/- per tonne at 1200 kms. and Rs.20/- per tonne at 1500 kms. Thus, for the coal input of 0.28 tonne for the manufacture of 1 tonne of cement, the additional incidence of freight charges on coal would work out to Rs.4.50, Rs.5.00 and Rs.5.60 for the respective distances. The price of cement per tonne is of the order of Rs.450/- or Rs.22.50 per bag of 50 kgs. The extra incidence per bag on account of increase in coal rate will be of the order of about 28 paise.

(iii) Textile industry: Though the average lead of coal booked to textile mills in 1977-78 was 866 kms., there has also been considerable movement in the distance range of 1200 kms. and 1900 kms. The increases in the proposed rates over the existing ones amount to Rs.16/- per tonne

at 900 kms., Rs.18/- per tonne at 1200 kms. and Rs.22/- per tonne at 1900 kms., in respect of train-load movements. These work out to 24%, 21% and 19% over the existing rates. According to the Ahmedabad Millowners' Association, with the present pattern of coal movement involving 40% rail transport, the freight incidence on coal in respect of some representative textile mills, works out, on an average, to 25.40 paise to 42.31 paise per metre of cloth produced. If, however, the entire coal is transported by rail alone, the freight incidence on coal would get reduced to 14.2 to 15.2 paise per metre of cloth manufactured. Under the proposed rates for movement of coal, there will be an increase in the incidence of coal freight only of the order of three paise per metre of cloth produced.

#### Hard Coke

15.052 The traffic in Hard Coke is of the order of 1.68 million tonnes, the average lead being 1150 kms. The zonal statistics are given in Statement 15.4. The price of Hard Coke varies from Rs.230/- to Rs.430/- per tonne. At present, Hard Coke is classified at Class 42.5 for wagon-loads which will correspond to class 85 in the proposed freight scale. Unlike coal where the loadable weight is carrying capacity, in the case of Hard Coke, it is less and is of the order of 19.5 tonnes on the Broad Gauge. Based on the price of the commodity as well as the loadability, Hard Coke can bear a comparatively higher classification than at present. Hard Coke moves mostly in wagon-loads unlike coal which moves in train-loads.

15.053 The profitability study of the Railways also shows that Hard Coke is losing at the present classification. We, therefore, recommend that Hard Coke should be classified at Class 90 at DR in the proposed scale. At this scale, the fully distributed costs will be covered upto a distance of 1700 kms. Eighty per cent of the traffic extends upto the lead of nearly 1600 kms. Beyond this distance the rate would cover 94% of the full cost at 2400 kms. and 90% of the cost at 3000 kms. Thus, the rate recommended by us

would more than cover the dependant cost at all distances. The earnings from Hard Coke at the proposed rate for the level of traffic in 1977-78 would be of the order of Rs.19.43 crores. This would mean an increase of 57.8% proportionately over the 1976-77 earnings from Hard Coke.

15.054 The indices of increase in price and freight rates with 1970 as base are indicated in Table 15.7.

Table 15.7

Indices of freight rates for Hard Coke				Indices of prices of Hard Coke		
Distance (Kms.)	1.4.70	1.4.79	Proposed rate	1970	1979	Current price
300	100	183	316	100	224.3	287.7
500	100	185	301			
1000	100	217	285			
1200 (Average lead)	100	222	287			

Hard Coke transported by rail is mainly consigned to foundries, workshops etc. Though the index of freight increase for shorter distances is higher than the increase in the price index, it has to be mentioned that, for every tonne of foundry product, the requirement of Hard Coke is half a tonne. Increase in railway freight at the rate proposed for a lead of 1200 kms. will be of the order of only Rs.28 per tonne or Rs.14/- for half tonne of Hard Coke, against the cost of production of about Rs.1200/- per tonne for the end-product.

#### Iron Ore:

15.055 A detailed commodity study on iron ore has been made and is given in Annexure 15.3.

for wagon loads.

15.056 Iron ore is at present charged at Class 42.5/ the corresponding We recommend classifying iron ore at Class 85 in the new Structure. Excluding the K.K. Line (Kottavalasa-Kirandul) traffic, the traffic is of the order of 20.04 million tonnes with an average lead of 345 kms.

The loadability being equal to carrying capacity, full costs are covered for practically all the traffic. The earnings worked out on the basis of the Zonal Statistics show that the earnings at the proposed rates would be of the order of Rs.83.37 crores. As most of the iron ore would be moved in train loads and as a rebate of 6 per cent will be given on the train load movements, the net earnings would be Rs.78.37 crores. The additional earnings for this traffic (excluding K.K. Line traffic) would be of the order of 44.7 per cent over the 1976-77 earnings.

15.057 The index of increase on the price of iron ore from 1970-71 to 1978-79 is given below:-

1970-71	=	100
1978-79 (Dec. '79)	=	213.5

The index of increase in the freight rate as proposed will be of the following order:-

	Freight rate for the average lead of 345 kms. per tonne.	Index
1.4.70 (Class 35)	Rs.20.20	100
Proposed rate (Class 85 less 6%)	Rs.49.12	243

The increase in freight rate over the existing rate/lead of 345 kms. is Rs.15.82 per tonne as against the price of Rs.38/- per tonne. for an average

15.058 Movement on K.K. Line: The distance from Bailadilla to Visakhapatnam is 475 kms. comprising 445 kms. from Kirandul to Kottavalasa and 30 kms. from Kottavalasa to Visakhapatnam. Railways are now calculating freight on the Kirandul-Kottavalasa section on the basis of distance inflation of 65.2%, the total chargeable distance from Kirandul to Visakhapatnam being, therefore, 735+30=765 kms.

15.059 The Minerals and Metals Trading Corporation of India have represented to the Committee that, on account of the inflation, the freight rates have become unreasonably high, particularly in the context of the international selling

prices not being adequate to meet the total expenditure incurred by them. We shall be discussing the question of inflation of <sup>distance on</sup> particular Railway lines in our Final Report.

15.060 Iron ore for export from other Ports: The rate proposed at the new Class 85 will be for wagon loads and a rebate of 6 per cent will be available for train load movements, as export ore will be wholly in train loads.

15.061 Iron ore is one of the important raw materials booked to Steel Plants. During the year 1977-78, 15.46 million tonnes of iron ore had moved to Steel Plants. The incidence of freight at the proposed rate on Iron ore movements to individual Steel Plants is discussed in the following paragraphs.

A. Bokaro

This Steel Plant is the farthest from the sources of iron ore. Out of a total iron ore input of 2.43 million tonnes in 1977-78, as much as 1.85 million tonnes were drawn from sources 351-499 kms. away. The average lead for iron ore was 359 kms. The freight rate at the present Class 42.5 for the average lead works out to Rs.34.20 per tonne. Under the proposed Freight Structure for Class 85, it works out to Rs.49.96 per tonne after allowing the 6 per cent rebate for train loads, amounting to an increase of Rs.15.76 per tonne over the present rate.

B. IISCO's Plant at Burnpur

The total quantity of iron ore moved to this Steel Plant in 1977-78 was 1.31 million tonnes, out of which 1.29 million tonnes were from sources at distances of 241-350 kms., the average lead for the entire traffic being 273 kms. For this distance, the present freight rate is Rs.29.00 per tonne, while under the proposed Class 85 with a rebate of 6 per cent for rake loads, it works out to Rs.43.48 per tonne amounting to an increase of Rs.14.48 per tonne over the present rate.

C. Durgapur

Like the one at Bokaro, the Durgapur Steel Plant is also quite far from the iron ore belt. The average lead of iron ore traffic to this Plant in 1977-78 was 304 kms. Out of about 2.05 million tonnes of iron ore, nearly 2.00 million tonnes were drawn from places at distances from 241-350 kms. The freight rate at the existing level amounts to Rs.30.90 per tonne for the average lead. At the proposed level of Class 85 less 6 per cent rebate, it works out to about Rs.46.11 leading to an increase of about Rs.15.21 per tonne over the present rate.

D. TISCO

Practically, the entire traffic of iron ore input (2.87 million tonnes) comes from places in the 121-240 kms. zone and the average lead in 1977-78 was 125 kms. The comparative freight rates under the existing structure and the proposed one work out to Rs.17.70 per tonne and Rs.27.57 per tonne respectively (inclusive of <sup>the proposed</sup> 6 per cent rebate). The increase in freight is about Rs.9.80 per tonne over the existing rate.

E. ROURKELA

Out of <sup>a</sup> total <sup>of</sup> 2.10 million tonnes of iron ore booked to this Plant in 1977-78, about 2.08 million tonnes were from sources in the 41-120 kms. range. The average lead was 72 kms. The present freight rate is Rs.13.20 per tonne and the proposed rate after allowing 6 per cent rebate, works out to about Rs.19.98 per tonne, the increase being Rs.6.78 per tonne over the existing rate.

F. BHILAI

Its position is similar to that of Rourkela. In 1977-78, 4.60 million tonnes, out of a total 4.67 million tonnes of iron ore, were transported from sources within 41-120 kms. distance zone. The average lead was 85 kms. The comparative freight rates at the existing and proposed levels work out to about Rs.14.40 per tonne and Rs.21.86 per tonne. The increase in freight rate is Rs.7.46



per tonne over the present rate.

15.062 We have indicated the total incidence of freight on all raw materials for the manufacture of iron and steel in para 15.048 above.

### Foodgrains

15.063 A detailed commodity study on foodgrains has been made and is placed at Annexure 15.4.

15.064 Foodgrains are now grouped under two main heads, Grain & Pulses - Divisions A & B.

15.065 Grain & Pulses Division-B comprises mainly of rice, wheat, bajra, ragi, etc. classified at Class 35 in the existing Freight Structure. The traffic in these commodities was about 15 million tonnes with an average load of 1180 kms. in 1977-78.

15.066 The transport of foodgrains is estimated to have entailed a loss of the order of Rs.18 crores to the Railways in 1977-78. Though there have been certain increases in the rates due to removal of exemption from supplementary charges, and also a levy of additional supplementary charges from 1.4.1979, the costs have also escalated. Taking all these factors into account, we recommend that Grain & Pulses, Division-B should be placed at Class 75 in the new Freight Structure. The minimum weight condition for grain and pulses being carrying capacity, the loadable weights are more than what have been assumed in the average cost figures worked out and, therefore, the real costs are correspondingly lower. Also, the bulk of the foodgrains transport is on the broad gauge which accounts for nearly 82 per cent of the total traffic in tonne-kms. The costs over broad gauge are also lower than the costs over metre gauge. For the bulk of the traffic in Grain & Pulses, Division-B, therefore, the transportation costs will be covered at the proposed scale of rates.

15.067 Grain & Pulses, Division-A mainly comprises pulses, gram, moong, etc., classified at Class 37.5/ for wagon loads

in the existing Freight Structure. The traffic during 1977-78 was about 2.5 million tonnes. We recommend that Grain & Pulses, Division-A be placed at Class 80 <sup>for wagon loads</sup> in the new Structure. Here again, the loadability is carrying capacity and long distance movements are mostly on the broad gauge, and, therefore, the costs of the bulk of the traffic will be fully covered at the proposed rate.

15.068 The earnings from foodgrains at the proposed rates based on the detailed Zonal Statistics of the year 1977-78 would be of the order of Rs.173.74 crores. As foodgrains are moving in train loads to some extent even now, and assuming that 50 per cent of the traffic would go in train loads, rebate at 6 per cent for train load movement would be of the order of Rs.5.2 crores. The additional earnings less the rebate would work out to an increase of about 44.4 per cent over the 1976-77 earnings.

15.069 The incidence of the proposed rates on foodgrains and pulses coming under both the Divisions A and B for an average lead of 1000 kms. would be as under:-

Table 15.8

Commodity	Price per quintal (May '79)	Freight rate as on 1.4.79 per quintal (Class 35)	Incidence of freight %	Proposed freight rate per quintal (Class 75) Rs. P.	Incidence of freight %	Incidence of increase in freight %
1	2	3	4	5	6	7
<u>Grain &amp; Pulses Division 'B'</u>						
Rice fine	262.00	6.85	2.61	9.01	3.44	0.83
Rice medium	198.00	6.85	3.46	9.01	4.55	1.09
Rice coarse	176.00	6.85	3.89	9.01	5.12	1.23
Wheat coarse	128.00	6.85	5.35	9.01	7.04	1.69

The increase in freight is only of the order of 2.2 paise per kilogram of foodgrains.

...contd....

Table 15.8 (contd.)

		(Class 37.5)		(Class 80)		
1	2	3	4	5	6	7
<u>Grain &amp; Pulses Division 'A'</u>						
Moong Dal	479.00	7.33	1.53	9.57	2.00	0.47
Musoor Dal	351.00	7.33	2.09	9.57	2.73	0.64
Toor Dal	446.00	7.33	1.64	9.57	2.15	0.51
Gram Dal	292.00	7.33	2.51	9.57	3.28	0.77
Dorad Dal	430.00	7.33	1.70	9.57	2.23	0.53
The increase in freight is only of the order of 2.3 paise per kilogram of pulses						

Cement

15.070 A detailed commodity study on cement has been made and is placed as Annexure 15.5. Cement accounts for over 6.45 per cent of originating traffic and contributes 6.95 per cent of the freight earnings to Railways. The total originating traffic in cement during 1977-78 was of the order of 13.68 million tonnes giving freight earnings of Rs.90.24 crores.

15.071 Cement is at present classified at Class 52.5 for wagon loads. In the new Freight Structure, we recommend that this commodity be classified at Class 110 for wagon loads. There will be a rebate of 6% for train loads. The loadability of this traffic being carrying capacity of wagon, and the classification being above Class 100, the earnings at the rates proposed would fully cover the cost of haulage at all distances.

15.072 The earnings at the proposed rates, on the basis of the Zonal Statistics of movement of traffic during 1977-78, work out to Rs.128.16 crores for 13.37 million tonnes of traffic. With a rebate of 6 per cent for movement in train loads, assuming that 60 per cent of the traffic in cement would be offered in train loads, the total earnings after allowing 6 per cent rebate would come to Rs.123.35 crores for 13.37 million tonnes. The proportionate additional earnings at the

proposed rate would work out to 41.3 per cent over 1976-77 earnings.

15.073 The average lead of this traffic during 1977-78 was 676 kms. The freight at the proposed rate for a distance of 680 kms. works out to Rs.99.45 per tonne as against the existing rate of Rs.75.00, i.e., an increase of Rs.24.45 per tonne. The price of cement during December 1979 being of the order of Rs.22.50 per bag of 50 kg., the incidence of increase in the freight of about Rs.1.22 per bag is not unduly <sup>high.</sup>

#### Mineral Oils

15.074 Mineral oils accounted for 6.20 per cent of the total originating traffic in 1977-78 and contributed 8.63 per cent of freight earnings.

15.075 Mineral oils are, at present, grouped under the following four heads of classification:-

- (i) Petroleum and other Hydro-carbon oils - dangerous.
- (ii) Petroleum and other Hydro-carbon oils - non-dangerous.
- (iii) Crude oil.
- (iv) Lubricating oils.

#### P.O.L.- Dangerous:

15.076 Petroleum and other Hydro-carbon oils, dangerous, i.e., having flashing point below 24.4°C which includes, among others, petrol and aviation spirit, is at present classified at Class 115 for wagon loads. The prices of petroleum oils coming under this classification head have increased substantially during recent years. For example, the price of petrol which was Rs.3268.56 per kilolitre during December, 1978 increased to Rs.3720.35 per kilolitre during June, 1979 and Rs.4096.44 during December, 1979.

We, therefore, recommend that Petroleum and other Hydro-carbon oils, dangerous, may be classified at Class 260 in the new Freight Structure with a rebate of 6 per cent for train load movements. For the average lead of about 650 KMs., the rate proposed will be Rs.220.70 per tonne. After allowing rebate of 6 per cent for train load movements, the rate will work out to Rs.207.50 per

tonne. The present rate for this lead being Rs.153.80 per tonne, the increase in rate at the proposed rate works out to Rs.53.70 per tonne or 3.8 paise per litre, against a price of over Rs.4/- per litre.

The indices of price increase and freight increase at the proposed rate are given below:-

Table 15.9

Freight rate per tonne for 650 Kms.		Price Index	
1.4.1970	At the proposed rate	1.4.1970	Dec. 1979
Rs.88.60 (100)	Rs.207.50 (234)	100	373.6

Naptha (Solvent) having a flashing point below 24.4°C is at present classified at the same level as POL dangerous. We do not recommend any increase from the corresponding classification, <sup>viz. Class 230</sup> for Naptha considering its prices and the use to which it is put as an industrial raw material in the manufacture of fertilisers etc.

P.O.L. - Non-dangerous

15.077 Petroleum and other Hydro-carbon oils, non-dangerous, which includes, among others, diesel oil, furnace oil, aviation turbine fuel, kerosene oil and liquid fuel, is at present classified at Class 70 for wagon loads. We recommend that in the proposed Freight Structure, mineral oils coming under this head may be classified at Class 150 for wagon loads with a rebate of 6 per cent for train loads. For the average lead of 650 KMs., the proposed rate less 6 per cent for movement in train loads would be Rs.122.70 per tonne against the existing rate of Rs.95.30 or an increase of about Rs.27.40 per tonne. This means an increase of only about 2.1 paise per litre of kerosene oil or diesel oil against a price of about Rs.1.50 per litre of kerosene oil.

The indices of price increase from 1970-71 and the freight increase proposed for Kerosene Oil are shown below:-

Table 15.10

Freight rate per tonne for 650 KMS		Price Index	
1.4.1970	At the proposed rate	1.4.1970	Dec. 1979
Rs.49.40 (100)	Rs.122.70 (248)	100	272.8

Crude Oil

for wagon loads

15.078 Crude Oil is, at present, classified at Class 95 in the Goods Tariff. We recommend that this commodity be classified at Class 200 <sup>for wagon loads</sup> with a rebate of 6 per cent for train load movements. For an average lead of 500 kms., the proposed rate after allowing a rebate of 6 per cent for train load movement works out to Rs.136.00 per tonne as against the present rate of Rs.91.70 per tonne. Increase in freight at the proposed rate works out to Rs.44.30 per tonne.

The indices of price increase and the freight increase for 500 Kms at the proposed rate are given below:-

Table 15.11

Freight rate per tonne for 500 Kms.		Price Index	
1.4.70	At the proposed rate	1.4.70	June, '79
Rs. P.	Rs. P.		
73.20 (100)	136.00 (186)	100	930

Lubricating Oils

15.079 Lubricating oils are, at present, classified at Class 105 for wagon loads. A list of lubricants together with their prices is given in Statement 15.5. It will be seen that the prices of these commodities are comparatively high; also, only small quantities of these oils would be required by industries. It has, however, to be kept in mind that for some of these articles, particularly packed consignments, road rates plus users' cost are likely to be cheaper than the rail rate plus users' cost. Taking all these factors into consideration, we recommend a classification at Class 220 for this commodity in the new freight structure. For the average lead of 1200 kms., the freight rate at the proposed classification would be Rs.294.80 per tonne as against Rs.228.40 per tonne charged at present or an increase of Rs.66.40 per tonne. It means an increase of about 5.9 paise per litre against a price of Rs.8 to Rs.12/- per litre.

The indices of price increase from 1970-71 to

1979-80 and the indices of freight increases are given below:-

Table 15.12

<u>Freight rate per tonne for 1200 kms.</u>		<u>Price Index</u>	
<u>1.4.1970</u>	<u>At the proposed rate</u>	<u>1.4.70</u>	<u>Dec., 1979</u>
Rs. P.	Rs. P.		
88.60 (100)	294.80 (333)	100	321.2

15.080 Assuming that 90% of traffic would be offered in train loads, the total freight earnings from mineral oils (including lubricating oils) at the proposed rates after allowing 6% rebate would be of the order of Rs.154.06 crores from 12.25 million tonnes as against Rs.103.85 crores from 12.40 million tonnes during 1976-77. The proportionate increase in earnings at the proposed rate thus works out to 50.2 per cent.

Iron or Steel materials

15.081 A detailed note on Iron & Steel is given in Annexure 15.6.

15.082 Iron & Steel were classified as under in the 1958 Freight Structure:-

	<u>Wagon Loads</u>
Iron or Steel Division-A	Class 75 B
Iron or Steel Division-B	Class 65 B
Iron or Steel Division-C	Class 55 B
Pig Iron	Class 40 A
Iron and Steel Scrap	Class 40 A

15.083 The classifications have been changed from time to time and the present classifications are as under:-

	<u>Wagon Loads</u>
Iron or Steel Division-A	Class 87.5
Iron or Steel Division-B	Class 80
Iron or Steel Division-C	Class 65
Pig Iron	Class 55
Iron or Steel Scrap	Class 55

15.084 The classification of the various Iron and Steel items was revised in 1975 when, broadly speaking,

all iron and steel items priced at Rs.2,500/- and above were brought under Division-A, those between Rs.1,500 and Rs.2,500/- under Division-B and those with prices below Rs.1,500/- under Division-C. The prices have since been enhanced and the latest prices show an increase of about Rs.400/- per tonne except in the case of pig iron where the increase is only of the order of Rs.100/- per tonne. We are now proposing generally a rebate of 6 per cent for train load movements of iron and steel and if more and more block rakes are made by the Steel Plants such traffic would get the benefit of this rebate. Taking all aspects into account, we recommend the following wagon-load classifications for iron and steel materials in the new Freight Structure:-

Iron or Steel Division-A	Class	185
Iron or Steel Division-B	Class	180
Iron or Steel Division-C	Class	165
Iron or Steel Division-D	Class	135
Pig Iron	Class	110
Iron & Steel Scrap	Class	110

15.085 Broadly speaking, the grouping of commodities under the various Divisions will be as under:-

Iron or Steel Division 'A'	..	* Items priced Rs.4000/- and above per tonne
Iron or Steel Division 'B'	..	Items priced above Rs.2500/- and below Rs.4000/- per tonne
Iron or Steel Division 'C'	..	Items priced above Rs.1500/- and below Rs.2500/- per tonne.
Iron or Steel Division 'D'	..	Items priced below Rs.1500/- per tonne.
		*(Based on current prices)

15.086 Statement 15.3 gives particulars of prices of representative commodities of Iron & Steel coming under the various Divisions as on 1.4.1970, the current prices and the percentage increases in the prices. Similarly, the rate per tonne for the average lead of 1050 kms. as on 1.4.1970 and at the rates proposed and the percentage increases are also given for comparison. It will be seen that, in all



cases, the increases in the freight rates proposed are proportionately less than the increases in the prices.

15.087 The incidence of freight on the price of the commodity as on 1.4.1979 and at the proposed rates are also indicated in Statement 15.6. As far as pig iron and iron or steel scrap are concerned, the average lead is of the order of only 900 kms. and the position with regard to percentage increase in rate and the price increases has been indicated in the Statement.

15.088 We have also reviewed the list of commodities that are at present listed in the Goods Tariff under various Divisions of Iron or Steel. The various Steel Plants have furnished to us the lists of products which are generally booked by them with their prices. Items which are not entered as such in the Goods Tariff at present should also be included in the Tariff indicating their classifications so that there may not be any ambiguity in the classification of these commodities. We have listed these items also under the appropriate Division of Iron or Steel. Statement 15.7 shows the groupings of Iron or Steel materials as proposed by us.

15.089 The total additional revenues that would be generated at the proposed level of freight rates will be of the order of 46 per cent over the 1976-77 earnings.

15.090 Alloy steel is at present classified under two heads as indicated below:-

	<u>Wagon load</u>
Alloy Steel Division-A	105
As under -	
Castings	
Forgings	
Alloy Steel Division-B	85
As under -	
Bars	
Billets	
Blooms	
Flats	
Hexagons	
Ingots	
Ingots defective	
Ingots scrap	

## Alloy Steel Division B(Contd.)

Octagons  
Plates  
Round corner squares  
Rounds  
Sheets  
Slabs  
Squares

15.091 Some of the alloy steel products are <sup>much</sup> very costlier than those classified under Iron or Steel. The prices of Forged die steel and tool steel, Rolled high speed steel and Alloy steel rounds vary from Rs.15,000 to Rs.60,000 per tonne. The prices of Alloy steel billets, Blooms and Bars vary from Rs.5,700 to Rs.12,000 per tonne. Having regard to the high prices of alloy steel and the uses to which they are put, we recommend that items priced at or above Rs.12,000 per tonne be grouped under Division-A, and those priced upto Rs.12,000 under Division-B.

15.092 Alloy Steel Division A & B may be classified in the New Freight Structure as indicated below:

<u>Alloy Steel Division-A</u>	<u>Wagon-load classification</u>
As under:-	
Castings	220
Forged die steel	
Rolled alloy steel rounds	
Rolled high speed steel bars	
Tool steel	
 <u>Alloy Steel Division-B</u>	 <u>Wagon-load classification</u>
As under:-	
Alloy constructional steels	190
Bars	
Billets	
Blooms	
Carbon constructional steels	
Flats	
Forged constructional steels	
Hexagons	
Ingots	
Ingots defective	
Ingots scrap	
Octagons	
Plates	
Round corner squares	
Rounds	
Sheets	
Slabs	
Squares	

15.093 Stainless Steel materials are at present classified as under:-

	<u>Wagon load classification</u>
Stainless Steel sheets or rods	100
Stainless Steelware	115
Includes -	
Stainless steel pipes	
Stainless steel tubes	
Stainless Steel scrap	80

15.094 The price of stainless steel plates varies from Rs.33,000/- to Rs.73,000/- per tonne and that of stainless steel sheets varies from Rs.44,000/- to Rs.75,000/- per tonne. Taking into account the prices of stainless steel materials, we recommend that stainless steel materials be classified in the new Freight structure as indicated below:-

	<u>Wagon load classification</u>
Stainless steel blocks & bars	220
Stainless steel sheets or rods	220
Stainless steelware	240
Includes -	
Stainless steel pipes	
Stainless steel tubes	
Stainless steel scrap	170

#### Chemical Manures

15.095 A detailed commodity study on Chemical Manures has been made and is placed as Annexure 15.7.

15.096 Chemical Manures are, at present, grouped under two heads, viz., Chemical Manures Division-A classified at Class 52.5 for wagon loads and Chemical Manures Division-B classified at Class 45 for wagon loads. The items of Chemical Manures coming under each of these Divisions are listed in Statement 15.8. The prices of important manures are also indicated in the statement. It will be seen that while the price of ~~two or three~~ <sup>of the</sup> items is above Rs.2,000/- per tonne, the prices of most of the other items falling under Chemical Manures Division-A are between Rs.1,000/- and Rs.2,000/- per tonne. The

prices of the items coming under Chemical Manures Division B are below Rs.1,000/- per tonne.

15.097 Statement 15.9 gives the changes in the classification of Chemical Manures since 1958. It will be seen therefrom that the classification of Chemical Manures Division-A was increased from Class 40 A to Class 45 from 1.4.70, to Class 47.5 from 1.7.71, to Class 50 from 15.4.72 and to Class 52.5 from 1.4.73 which is the prevailing classification. Similarly, in the case of Chemical Manures Division-B, the classification obtaining on 1.10.58, viz., Class 32.5 A was increased to Class 35 A from 1.4.65, to Class 37.5 from 1.4.70, to Class 40 from 1.7.71, to Class 42.5 from 15.4.72 and to class 45 from 1.4.73. At about the time when the classification of Chemical Manures Division-A was increased to Class 52.5 in 1973-74, the prices of some of the fertilizers falling under the head Chemical Manures Division-A had also escalated and in the case of urea, the price had gone up to Rs.2,000/- per tonne. A Statement showing the prices from 1966 for the important items of fertilisers is attached as Statement 15.10.

15.098 Regarding freight rates for Chemical Manures, the Fertilizer Corporation of India have submitted a memorandum. It has been pointed out in the memorandum that the selling price of urea which was about Rs.2,000/- per tonne in 1974 has come down to Rs.1,550/- per tonne and, therefore, there should be some relief in freight. Similarly, in the case of Single Super Phosphate fertilizers, though the price rose to over Rs.1,000/- per tonne in 1975, the price has since dropped to Rs.505/- per tonne.

15.099 Statement 15.11 gives the increases in prices in 1979 compared to the prices in 1966 for different items of Chemical Manures and also the freight levels in 1979 compared to 1966 for the average lead of 1000 kms. and also for other representative leads.

15.100 We recommend that Chemical Manures should be classified under three heads, instead of the two obtaining

at present at the following classification levels :-

Chemical Manures, Division-A	...	Class 105
Chemical Manures, Division-B	...	Class 100
Chemical Manures, Division-C	...	Class 90

The list of items proposed to be grouped under each of these classification scales is given in Statement 15.12. We have generally placed items of Chemical Manures which are priced above Rs.2,000/- per tonne in Division-A, items costing below Rs.2,000/- and above Rs.1,000/- per tonne in Division-B and items priced below Rs.1,000/- per tonne in Division-C.

15.101 Chemical Manures, Division-A: As the loadability of Chemical Manures is carrying capacity, the freight rates proposed would cover the fully distributed costs for all the leads. For a lead of about 1000 kms., the increase in freight compared to the existing rates will be Rs.23.05 per tonne or 2.3 paise per kilogram of fertilizer priced at more than Rs.2/- per kilogram.

15.102 Chemical Manures, Division-B: Here also the classification proposed would cover the fully distributed costs for all leads. The bulk of booking in Chemical Manures is urea which accounts for 77 per cent of the total originating traffic. This item would be classified under this scale. The increase in freight rate compared to the existing rate level would be of the order of Rs.17.45 per tonne for an average lead of 1000 kms. which works out to only 1.75 paise per kilogram against a price of about Rs.1.75 per kilogram.

15.103 Chemical Manures, Division-C: Here again, as the loadability is carrying capacity, the proposed scale of rates would cover the costs at all leads. The increase per tonne over the existing rate would be of the order of Rs.19.95 per tonne which would mean about 2.0 paise per kilogram of fertiliser.

15.104 The increase in incidence of freight per bag of 50 kg. for the various items of manure compared to

the existing rate for a load of 1000 kms. is as under:-

Table 15.13

Commodity	Freight rate per tonne for 1000 kms.		Increase in Freight	
	Existing	Proposed	Per Tonne	Per Bag of 50 kg.
	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Chemical Manures, Div. A	100.70	123.75	23.05	1.16
Chemical Manures, Div. B	100.70	118.15	17.45	0.88
Chemical Manures, Div. C	87.00	106.95	19.95	1.00

15.105 The total earnings expected to accrue from Chemical Manures at the proposed rate work out to Rs.89.37 crores from a total traffic of 7.85 million tonnes. Assuming that about 50% of the traffic will move in train loads, the additional earnings from fertilisers over the 1976-77 earnings would be of the order of 42.4 per cent.

#### Limestone & Dolomite

15.106 Limestone and Dolomite are, at present, classified at Class 47.5 for wagon loads. The traffic was of the order of 9.9 million tonnes during 1977-78, the average lead being 271 kms. The loadability of these commodities is carrying capacity of wagon.

15.107 We recommend placing Limestone and Dolomite at Class 95 in the proposed scale. The earnings expected from this traffic at the proposed rates will be of the order of Rs.44.39 crores. Most of the traffic in Limestone will be raw material to Steel Plants and move in train loads. Allowing for the rebate for train loads for 80 per cent of the traffic, the total earnings at the proposed rate will work out to Rs.42.26 crores. This would mean an increase of about 53.4 per cent over the earnings in 1976-77.

15.108 The proposed rate and the existing rate for a lead

of 280 kms. compare as under:-

Table 15.14

Freight Rate Per Tonne (for 280 kms.)		Increase per tonne Rs. P.
Existing Rs. P.	Proposed Rs. P.	
31.80	50.90	19.10

Stones N.O.C.

15.109 The volume of traffic in stones other than marble during 1977-78 was of the order of 4.2 million tonnes. The present classification of stones N.O.C. is Class 47.5/and loadability is carrying capacity. The average lead of this traffic is only 329 kms.

15.110 We recommend that stones N.O.C. be classified at/Class 95 in the new Freight Structure. The proposed rate would cover the general escalated weighted average cost upto 1600 kms. The total earnings at the proposed rate would be of the order of Rs.20.99 crores and the proportionate increase over the 1976-77 earnings would work out to 45.5 per cent.

15.111 For a lead of 330 kms., the proposed rate compares as under with the existing freight:-

Table 15.15

Freight Rate Per Tonne (for 330 kms.)		Increase Per Tonne Rs. P.
Existing Rs. P.	Proposed Rs. P.	
35.40	55.85	20.45

Salt

15.112 Salt N.O.C. is, at present, classified at Class 40/ for wagon loads. The originating traffic in salt is of the order of 2.89 million tonnes with an average lead of 1414 kms. during 1977-78. The loss on account of the transportation of salt during 1977-78 has been estimated at Rs.6.20 crores. Prior to 1.4.1979, salt was exempted

from the levy of supplementary charge generally applicable to goods traffic. This exemption was withdrawn from 1.4.1979 but salt has again been exempted from the further supplementary charge introduced from 1.4.1979.

15.113 In the new Freight Structure, we recommend that salt N.O.C. be classified <sup>the corresponding</sup> at Class 80 for wagon loads. For the bulk of the traffic in salt, the proposed rate would cover the cost. Though on account of the corrosive nature of salt a higher classification is warranted, we are not recommending any increase in the classification as salt is one of the articles of consumption of the common man.

15.114 For the average lead of 1425 kms., the rate proposed for salt N.O.C. is Rs.12.25 per Qtl. against the rate of Rs.9.25 per Qtl. on 1.4.1979. The increase is Rs.3.00 per Qtl. or of the order of 3 paise per kg.

15.115 The incidence of price increase and the freight increase for salt over 1970-71 compare as under:-

Table 15.16

<u>Freight Rate per Quintal for 1425 kms.</u>		<u>Price Index</u>	
<u>1.4.1970</u>	<u>Proposed Rate</u>	<u>1970-71</u>	<u>Dec.1979</u>
Rs. P.	Rs. P.		
5.49	12.25	100	254.6
(100)	(223)		

15.116 Salt for chemical industries is, at present, classified at Class 45 for wagon loads. We recommend Class 95 for this commodity in the new Freight Structure taking into account the corrosive nature of salt.

15.117 The total earnings at the proposed rates will be of the order of Rs.34.64 crores at the level of 1977-78 traffic. Assuming that about 40 per cent of the traffic in salt will be offered in train loads, the total earnings at the proposed rate after allowing rebate will be about Rs.33.81 crores. The proportionate increase in earnings over 1976-77 earnings will work out to 55.9 per cent



Commodities whose extant rates are shown as not covering transportation costs.

15.118 We give below our recommendations regarding the classification of the main commodities that are being shown as being carried at rates below the costs according to the profitability studies made by the Railway Board. We have kept in mind the recommendation of the Social Burdens Committee also in this connection.

15.119 Fodder: The loss in the transport of fodder during 1977-78 has been estimated at Rs.3.97 crores. Under this category, there are, broadly, two commodities, viz., bran and dry grass.

(i) Bran: Traffic in this commodity was of the order of 1.056 million tonnes in 1977-78 with an average lead of 662 kms. The loadability of bran is 15 tonnes on the broad gauge. An analysis of the traffic carried shows that this traffic is predominantly carried on the broad gauge and we have, therefore, considered mainly the broad gauge cost.

Bran is, at present, classified at class 37.5 for wagon loads. In the proposed freight structure, as terminals are added on per wagon basis, the incidence of terminal charge per tonne for a loadability of 15 tonnes would be quite high.

Taking the new rate levels proposed and the higher per tonne incidence of terminal charge into account, we find that, at the corresponding classification of class 75 in the new structure, the rates proposed would cover more than 90% of the fully distributed costs for the average lead. Compared to the 1976-77 rate level, the proposed rates for the traffic would give additional earnings of the order of 48 per cent over the 1976-77 earnings. In view of this, we recommend assigning a classification of 75 to this commodity in the new Freight Structure.

For an average lead of 670 kms., the rate as on 1.4.1979 is Rs.5.42 per quintal and the proposed

\*Report of the High Level Committee on Social Burdens on Indian Railways, January 1979, op.cit.

rate is Rs.7.30 per quintal, i.e., an increase of Rs.1.88 per quintal.

(ii) Dry Grass: The traffic in this commodity was of the order of 0.047 million tonnes during 1977-78. This is at present classified at class 52.5 for wagon loads and the loadability is 6 tonnes on the broad gauge and 4.5 tonnes on the metre gauge with an average lead of 440 kms. The incidence per tonne of the wagon terminal will be of the order of Rs.25/- per tonne. This will, in itself, increase the level of freight charges, apart from the general increase in the freight levels at the corresponding classification of 105. The rate for a lead of 440 kms. compared to the existing rate is as under:-

Present Rate	-	Rs. 4.77	per Quintal
Proposed Rate	-	Rs. 9.10	" " "
Increase	-	Rs. 4.33	" "

The increase is over 90 per cent of the existing rate. Over the 1976-77 earnings, the increase would be of the order of 100 per cent. The incidence of increase in freight is rather high but, as the costs are also high, we recommend classifying this commodity <sup>the corresponding</sup> at/Class 105 for wagonloads in the New Freight Structure.

15.120 Fruits & Vegetables (fresh): Fruits and vegetables (fresh) are shown as giving a loss of Rs.2.55 crores during 1977-78. These are, at present, classified at class 47.5 for wagon loads (DR). The loadability is only 10 tonnes per BG wagon. The traffic is of the order of 0.67 million tonnes with an average lead of 1446 kms. The traffic is mainly in Vegetables like potatoes and onions. On account of the separate terminal charge proposed by us, even though the loadability is poor, the incidence of terminal charge per tonne would be quite high. However, taking into account the escalated costs, we recommend that this commodity should be placed at Class 100 in the new Freight Structure. As the total traffic is only small compared to the total freight traffic carried by the Railways and as only general service wagons are used, it would be appropriate to consider only

dependant costs in such cases. For bulk of the traffic, dependant costs will be covered on the Broad Gauge at the proposed rates. The total earnings at the proposed rates would be of the order of Rs.10.65 crores and the proportionate increase compared to 1976-77 earnings will be of the order of 48.5 per cent.

The proposed rate for the average lead of 1450 kms. would be Rs.16.21 per quintal against the existing rate of Rs.12.14 per quintal. The increase in rate per quintal will be only of the order of Rs.4.07 or 4 paise per kg against a price of about Re.1/- per kilogram in the case of potatoes and onions.

15.121 Gur/Jagree: Traffic in this commodity was of the order of 0.89 million tonnes during 1977-78 with an average lead of 1237 kms. This is shown as incurring a loss of Rs.2.08 crores, at the 1977-78 costs and level of rates. Gur and jagree are classified at Class 47.5 in the existing scale, with a minimum weight condition of 20.5 tonnes on BG and 13 tonnes on MG. We recommend classifying this commodity at the corresponding scale 95. At the revised freight levels, costs will be fully covered for the bulk of the traffic. For the average lead of 1250 kms., the increase in freight at the proposed rate over the existing rate is as under:-

Table 15.17

<u>Freight rate per tonne</u>		<u>Increase per tonne</u>
<u>Proposed</u>	<u>Existing</u>	
Rs.132.30	Rs.108.80	Rs.23.50

The incidence of increase in freight will be of the order of 2.4 paise per kg. against a price of about Rs.2 per kg. The incidence of freight and price index is as

under:-

Table 15.18

<u>Freight rate per tonne for 1250 kms.</u>		<u>Price Index</u>	
<u>As on 1.4.70</u>	<u>Proposed</u>	<u>1970-71</u>	<u>Dec. 1979.</u>
Rs. 60.30 (100)	Rs. 132.30 (219)	100	297.2

The total earnings at the proposed rates would come to Rs.10.43 crores and the proportionate increase in earnings compared to 1976-77 earnings will be of the order of 64.25 per cent.

15.122 Bamboos: Bamboos are shown as giving a loss of Rs.1.58 crores in 1977-78. The traffic is of the order of 0.681 million tonnes with an average lead of 752 kms. The loadability of this traffic is 11 tonnes on the Broad Gauge. The present classification is 60 for wagon loads. As mentioned earlier, although the loadability is poor, the incidence of terminal charge per tonne will be quite high on account of levying the terminal charge on a per wagon basis; therefore, the total charge per tonne will be proportionately high. We are, therefore, recommending a <sup>corresponding</sup> classification of 120 Class for bamboos. At the proposed classification and level of rates, costs would be covered fully for almost all leads on the Broad Gauge and dependent costs on the Metre Gauge.

Bamboos are going mainly as raw material to paper industry. The incidence of increase in freight at the proposed rate for the average lead of 750 kms. will be of the order of Rs.3.10 per quintal.

We have received representations from paper mills for lowering classification of bamboos; but in view of the poor loadability of the commodity and the costs involved, we are proposing <sup>the corresponding</sup> Class 120 for bamboos for wagon loads.

15.123 Firewood and Charcoal: The loss on account of transport of firewood and charcoal is shown as Rs.2.04 crores at the level of rates and costs in 1977-78. Firewood and charcoal account for 0.82 million tonnes in 1977-78 with an average lead of 619 kms. This is, at present, classified at 37.5(OR) with a loadability of 15 tonnes.

At the revised level of rates, it is seen that at the corresponding class of 75, the rates will be much more than the dependent costs at all leads for the B.G. The additional earnings from firewood over 1976-77 earnings would be of the order of 69.2 per cent. In the circumstances and, as this is the common man's fuel, we recommend assigning class 75 to this commodity.

The incidence of increase in freight per quintal for the average lead of 620 KMs. will be of the order of Rs.2/- per quintal against a price of Rs.40/- per quintal of firewood and Rs.80/- to Rs.100/- per quintal of charcoal.

15.124 Ores other than Manganese ore and Iron ore: These commodities accounted for a loss of Rs.0.62 crores during 1977-78. These are classified at class 42.5 for wagon loads. The loadability is equal to carrying capacity of wagon and we are recommending the corresponding Class 85 for this commodity in the new Freight Structure, which would cover the fully distributed cost for all distances.

15.125 Molasses: The loss on account of transport of molasses during 1977-78 was Rs.0.49 crores. Molasses are at present classified at Class 50. We recommend corresponding Class 100 for this commodity in the new Freight Structure. At the rate proposed, the fully distributed cost will be covered for the bulk of the traffic.

15.126 We have also reviewed the classification of oil cake, biddies, raw jute waste, safety matches, glassware, asbestos products, jute and hemp unpressed, paper NDC and rubber tubes and tyres. At the corresponding scales of classification in the proposed rate structure the escalated costs will generally be covered for these commodities.

Commodities in respect of whose Classification Representations have been received.

15.127 We discuss below the classifications of certain commodities about which we have received representations from Chambers of Commerce and other Trade Interests.

15.128 Sugarcane: Detailed studies have been made of sugarcane traffic and the report is at Annexure 15.8.

15.129 The Indian Sugar Mills' Association have made certain representations regarding the freight for sugarcane. Their memorandum is included in Appendix II.

- 15.130 The main features of this traffic are:-
- (i) Out of a total traffic of the order of 1.39 million tonnes in 1977-78, the traffic on the North Eastern Railway was 1.14 million tonnes, <sup>that</sup> on Northern Railway 0.24 million tonnes, and <sup>that</sup> on Central Railway 0.01 million tonnes. The movement on other Railways was negligible.
  - (ii) The bulk of the traffic in sugarcane moves for distances less than 40 kms. Thus, during the year 1977-78, about 60 per cent of <sup>the</sup> traffic moved in the distance zone 1 to 40 kms., the average lead being only 35 kms. About 37 per cent of the traffic moved in the distance zone 41 to 120 kms. with an average lead of 57 kms.
  - (iii) This traffic moves to sugar factories and moves in rake loads to the sidings of these factories.
  - (iv) The movement is mostly in close circuit train loads and usually old and inferior <sup>rolling</sup> stock is used.
  - (v) No claim usually arises on sugarcane consignments.

15.131 We find that sugarcane has all along been treated in a way different from the generality of traffic. They were being moved at special station to station rates even after the revision of the freight structure from 1.10.1958. It was only in 1970 that all the special rates were abolished and sugarcane was brought under the general classification of Class 32.5 for wagon loads. This classification was, however, gradually increased to 35 from 1.7.1971, 37.5 from 15.4.1972 and 40 from 1.4.1973. These revisions were made when classifications of all low-rated commodities were increased with a view to increasing the earnings from these commodities to bridge the gap between earnings and costs. Since 1.4.1973, supplementary charges are also being levied on sugarcane as for other traffic from time to time.

15.132 From the specific costing done on North Eastern Railway, the fully distributed cost for 52 kms. comes to Rs.12.40 per tonne. Escalating this cost by 30 per cent

to take into account the escalation and additional contributions to DRF etc., the cost will be Rs.16.12 per tonne. These costs take into account the fully distributed costs, overhead charges and interest charges in lieu of dividend.

15.133 If sugarcane is classified in the corresponding level of Class 80 in the new Freight Structure, the freight for 55 kms. works out to Rs.18.70 per tonne. After allowing a rebate of 6 per cent on train loads, the rate would be Rs.17.58 per tonne. This would mean an increase of about Rs.7/- over the <sup>prescribed</sup> rate on 1.4.1979. Compared to the level of freight and price during the year 1970-71, this would mean an increase of 155 per cent in freight as against an increase in price of 57 per cent only, as will be seen from the following Table:

Table 15.19

Railway freight for a lead of 55 kms.(per quintal)	Index		Price of sugarcane (per qtl.)	
	Rs.P.		Rs.P.	
1.4.70(Class 32.5)	0.69	100	7.95	100
1.4.79(Class 40)	1.08	157	11.75	148
Proposed(Class 80) less 5 per cent.	1.76*	255	12.50	157

\*Includes terminal charge of Rs.0.833 per quintal for Metre Gauge taking the load as 13.8 tonnes per MG 4-wheeler.

This, it is considered, would be rather a high incidence of freight on sugarcane traffic.

15.134 Any freight increase that is made for sugarcane should, it is considered, ~~not be~~ very much more than the proportionate increase in price of sugarcane compared to the levels of 1970-71.

15.135 As we have proposed a wagon terminal of Rs.150.00 for BG wagon and Rs.115.00 for MG wagon, the incidence of terminal per tonne would be high as the loadability of sugarcane is rather low. We, therefore, recommend that the classification of sugarcane be fixed at Class 75 for

wagon loads in the proposed structure.

15.136 On the basis of Class 75, the freight for 55 kms. after allowing a rebate of 6 per cent for train loads works out to Rs.16.90 per tonne. This would cover the fully distributed cost as indicated in para 15.131 above and will give an index of 245 compared to 1970-71 against a price index of 157 during the same period.

15.137 At the proposed rate, the increase in freight over 1.4.1979 rate for the average lead of 55 kms. will be of the order of 61 paise per quintal. The price of sugarcane being Rs.12.50 per quintal, the incidence of freight on the price will work out to 13.5 per cent.

15.138 The proportionate additional earnings from sugarcane traffic at the proposed rates would be of the order of 90.9 per cent over the earnings during the year 1976-77.

15.139 If it is found by any Railway that the proposed rates for sugarcane will materially affect the movement of this commodity on particular sections where there is necessary capacity to carry the traffic and the proposed rates will affect the overall earnings of the Railway, the Railway may consider quoting suitable 'station to station' rates to retain the traffic on the concerned sections.

15.140 Oil Seeds: Oil Seeds are, at present, classified at Class 52.5 for wagon loads and vegetable oils extracted from these oil seeds are classified at Class 65 for wagon loads.

15.141 The Bengal Oil Merchants' Association, the Bengal Chambers of Commerce and the Federation of Indian Chambers of Commerce and Industry, the Government of West Bengal and others have represented to us regarding the relativity in the classification of oil seeds and oils. Their main point is that three quintals of oil seeds are required to produce one quintal of oil. As oil mills located in Calcutta and other places in West Bengal import oil seeds from far off places situated in U.P., their cost of producing oil is much higher than that of mills situated close to areas where



seeds are produced; and as at present there is not a proper differential in the rates for oils and oil seeds, the oil mills in West Bengal are being put to considerable disadvantage in the competitive market.

15.142 Representations in regard to the relativity between oil seeds and oils in the freight classification have a very long history. There were representations even prior to 1948 and the matter has been dealt with in one of the cases before the Railway Rates Advisory Committee in 1939. When the freight structure was revised in 1948, representations were again made and the matter was again agitated before the Railway Freight Structure Enquiry Committee of 1955-57.

15.143 When the freight structure was introduced in 1948, the relativity between oils and oil seeds was approximately of the order of 148 to 100 for a lead of 800 miles which was the average distance over which mustard oil moved to Adra from places like Katra, Kanpur, etc. In the scale proposed by the Railway Board on the basis of the recommendations of the Freight Structure Enquiry Committee in 1958, the relativity between oils and oil seeds proposed for 800 miles was of the order of 156 to 100 based on scale 65-B for oils and 45-A for oil seeds.

15.144 Since the introduction of <sup>the</sup> 1958 freight structure, however, certain changes were made in the classification of commodities particularly in the low rated group for the reason that some of these commodities were not meeting the fully distributed costs. Classification of oil seeds was accordingly increased from 45 to 47.5 from 1.7.1971, from 47.5 to 50 from 15.4.1972 and from 50 to 52.5 from 1.4.1973. At the same time, however, the classification of oils was kept at 65 without any change. These changes in classification of oil seeds have, therefore, affected the relativity in the freight rates between oil seeds and oils. When supplementary charges were introduced since 15.9.1974, these supplementary charges were levied only on oil seeds but many of the

oils were exempted from the levy of the supplementary charges. This aggravated the relativity of freight level between oil seeds and oils to some extent. With effect from 1.4.1979, the supplementary charges have been made applicable to oils also.

15.145 The relativity in freight rates that obtains between oils and oil seeds as on 1.4.1979 for leads from 1000 kms. to 1500 kms. is as under:-

Table 15.20

<u>Distance in kms.</u>	<u>Freight rate per tonne</u>	
	<u>Oils</u>	<u>Oil seeds</u>
	<u>Class 65</u> Rs. P.	<u>Class 52.5</u> Rs. P.
1000	123.60 (122.74)	100.70 (100)
1200	143.00 (122.96)	116.30 (100)
1300	151.60 (122.95)	123.30 (100)
1400	160.40 (123)	130.40 (100)
1500	169.00 (123)	137.40 (100)

15.146 While we cannot accept the contention of the Bengal Oil Merchants' Association that the freight differential should reflect the fact that three quintals of oil seeds are required to produce one quintal of oil, consideration has to be given to the fact that the Bengal Mills have necessarily to import oil seeds from distant areas as enough quantities are not produced in West Bengal itself and the crushing mills in West Bengal are thus at a certain disadvantage compared to mills in Uttar Pradesh and other areas where oil seeds are produced. While some of the disadvantages are inescapable, we feel that the relativity in the freight rates between oil seeds and oils should be restored to near what it was when the freight rates were fixed in 1958. We, therefore, recommend that oil seeds be classified in the new Freight Structure at Class 100 for Wagon

loads. We have recommended elsewhere a classification of class 140 for edible oils. With the proposed classification, the relativity between <sup>the</sup> rates for oils and oil seeds will be as under:-

Table 15.21

<u>Distance in kms.</u>	<u>Freight rate per tonna</u>	
	<u>Oils at Class 140</u>	<u>Oil seeds at Class 100</u>
1000	Rs.170.20 (142)	Rs.119.40 (100)
1200	Rs.193.20 (142)	Rs.135.80 (100)
1300	Rs.203.80 (142)	Rs.143.30 (100)
1400	Rs.214.30 (142)	Rs.150.90 (100)
1500	Rs.224.80 (142)	Rs.158.40 (100)

It will be seen that the relativity between the rates for oils and oil seeds in the proposed Freight Structure would be of the order of 142 to 100 as against the existing relativity of 123 to 100. The revised classification of oil seeds should meet to some extent the problems faced by the Bengal Oil interests.

15.147 Oil seeds have a loadability ranging from 185 to 225 quintals. The freight rate in the proposed classification would cover the full cost of the movement of the oil seeds.

15.148 The earnings from oil seeds at the proposed rates have been estimated at Rs.10.43 crores from a traffic of 0.759 million tonnes. The proportionate additional earnings at the proposed rates work out to 42.1 per cent over 1976-77 earnings.

15.149 For an average lead of about 1250 kms., the proposed rate would be Rs.13.90 per quintal compared to the existing rate of Rs.11.99, i.e., an increase of about Rs.1.91 per quintal or about 2 paise per kg. against the prices of oil seeds ranging from Rs.2/- to Rs.4/- per kg.

15.150 Vegetable Oils: Vegetable oils are, at present, classified as under:-

	<u>Wagonload Classification</u>
1. Oils Division 'A'	Class 105
2. Oils Division 'B'	Class 100
3. Oils Division 'C'	Class 95
4. Oils Division 'D'	Class 65

15.151 Considering the prices of the various items of oil coming under these various Divisions and the fact that these move mostly as 'smalls' consignments, we recommend that items coming under Divisions A, B & C should be classified in the new Freight Structure at the corresponding scales of Class 210, 200 and 190.

15.152 As far as oils coming under Division-D are concerned, these consist of various oils like gingelley oil, groundnut oil, coconut oil, mustard oil, etc., These move in large quantities and in wagon loads. The total quantity moved in 1977-78 was of the order of 0.75 million tonnes with an average lead of about 1500 kms. The prices of edible oils fluctuate significantly from time to time according to the market conditions. During the last two years, while there was a significant drop towards the end of 1978 and in earlier part of 1979, the prices have since gone up and are, at present, at the level of about Rs.1,200 per quintal (wholesale price). The index of wholesale price of edible oils with base 100 in 1970-71 was 164.9 in May 1979 but rose to 203.4 during December, 1979. While Railway classification cannot be decided on spurts in prices, as normally the classification holds good for a long time, considering the relative prices of oils in this Division vis-a-vis the prices of various other commodities, and the fact that this commodity is also shown as being transported at a loss at the present classification and level of rates, we propose a higher classification for oils coming under this Division. Edible oil is also an important item in the common man's consumption, though it accounts for only 4 to 5 per cent in

the consumer expenditure of a household. Taking all these aspects into account, we recommend that oils coming under Division D at present should be classified at Class 140 in the proposed Freight Structure. Costs will be covered at the proposed scale of rate for the bulk of the traffic.

15.153 For the average lead of 1500 kms., the increase in rate per quintal compared to the existing rate would be only Rs.5.60 per quintal which would mean an increase of 5 paise per kg. of oil costing about Rs.12/- per kg. which cannot be considered unduly high.

15.154 Oils (vegetable, refined) are classified at Class 85 for wagonloads. We recommend retaining the existing level of classification at the corresponding Class of 170 in the proposed Freight Structure.

15.155 At the proposed Class and level of rates, the increase in rate per quintal for different leads for refined oils would be as under:-

Table 15.22

	Rate per quintal		Increase in rate per quintal
	Proposed	As on	
	Rs. P.	Rs. P.	Rs. P.
300 kms.	9.75	5.71	4.04
1000 kms.	20.38	16.04	4.34
1500 kms.	27.01	21.97	5.04

It will be seen that the increase will be only of the order of 4 to 5 paise per kg. against a price of the order of Rs.14/- to Rs.15/- per kg.

15.156 We have received memoranda from the Federation of Indian Chambers of Commerce, Central Organisation for Oil Industry and Trade Interests. When the memoranda were submitted, the position was that some of the oils had been subjected to the supplementary charge levied with effect from 1.4.1976 and certain edible oils had been

exempted from the supplementary charge. The Central Organisation for Oil Industry had suggested that all refined oils should be under one tariff without any surcharge and that the additional surcharge on certain edible oils and non-edible oils like Castor Oil, Neem Oil, Rice bran oil, Crude cotton seed oil, etc., should be removed. These distinctions in regard to the levy of supplementary charges have since been removed with effect from 1.4.1979.

15.157 We have also received representations for a lower classification for certain non-edible oils like neem oil, rice bran oil and crude cotton seed oil as the prices of these non-edible oils are comparatively much lower than those of edible oils. Considering the significant difference in prices of these oils and the uses to which these are put, we recommend a lower classification at the corresponding Class 135 for wagonloads for non-edible oils such as Castor oil, Neem oil, Rice bran oil, Crude cotton seed oil etc., which may be grouped under a separate head 'Oils Division E'. This will also give a certain encouragement to the use of non-edible oils for industrial use.

15.158 We recommend that vegetable oils in tank wagons should be charged at the same level of classification as vegetable oils in tins/drums etc. The costs of haulage are generally covered in tank wagons also.

15.159 The total earnings at the proposed rates for 0.656 million tonnes would come to Rs.14.24 crores. The proportionate increase in earnings over 1976-77 earnings would be of the order of 60.9 per cent.

15.160 Timber: We have received representations from certain Chambers of Commerce that timber logs offered for booking are of varying prices according to the type of ~~wood~~ **wood** and, therefore, there should be a differential classification according to the prices. Except in regard to specific items of timber, which can be easily distinguished by staff both at booking and destination stations with

regard to variety, we do not recommend differential classification based purely on prices of individual varieties of timber, as this is likely to lead to mis-declaration, wrong classification, etc. Already the Tariff defines distinct types of timber like rose-wood, sandal wood, etc., and these are having separate classifications.

15.161 We would, however, like to make one suggestion. Wood unwrought is, at present, being carried over long distances. The zonal distribution shows that substantial quantities are moving between 500 and 1900 kms. It may be useful from the national point of view that timber should be cut to sizes at source and then transported as sawn timber. This will lead to better utilisation of wagons as sawn timber can generally be loaded to the carrying capacity, while timber logs can only be loaded to the extent of 18.5 tonnes on the Broad Gauge and 13.5 tonnes on the Metre Gauge. Sawn timber is now classified at the same level as timber at Class 60. As the loadability of sawn timber is carrying capacity, we recommend that sawn timber may be classified at a slightly lower level, namely, at Class 115 for wagon loads in the new Freight Structure, while timber in logs may be classified at the corresponding at Class 120 for wagon loads.

15.162 Sand: Sand including Silica sand is presently classified at Class 47.5 wagon loads. It has been represented to us that the freight charges for sand and silica sand are at present high. The price of sand is only of the order of Rs.50/- to Rs.60/- per tonne at the booking end and the transport costs are quite high. During 1977-78, the total quantity of sand booked on Railways was 0.57 million tonnes with an average lead of 479 kms. Apart from sand being a cheap material, the loading is done in open wagons and the cost of supervision at booking and delivery ends are comparatively less for this commodity and hardly any claims arise. The loadability is also carrying capacity.

For an average lead of 500 KMs, the increase in freight levels of sand from 1970-71 would be of the order of 160% if the corresponding wagon load scale 95 is assigned to this commodity; but the price variations are much less. Taking all these aspects into account, we recommend that sand may be classified at one step lower than the corresponding classification, viz., Class 90 of the new Freight Structure. The freight rates as on 1.4.1979 and at the proposed class in the new Freight Structure for the average lead of 500 KMs. are given below :-

Table 15.23

<u>As on 1.4.1979</u>		<u>Proposed</u>	
<u>Class</u>	<u>Rate per tonne</u> Rs. P.	<u>Class</u>	<u>Rate per tonne</u> Rs. P.
47.5	47.60 (100)	90	68.05 (143)

15.163 The additional earnings that would accrue from booking of sand at the proposed scale and level of rates would be 50% more than the 1976-77 earnings. At the proposed rate, the fully-distributed costs will be covered for all the leads.

15.164 Iron and Steel Slag: The Railway Board have also referred to us the question of classification of iron and steel slag. A detailed report on iron and steel slag is given in Annexure 15.9.

15.165 From the analysis of relative prices of slag and iron scrap and the uses to which slags are likely to be put increasingly, particularly in the manufacture of cement, we recommend that iron and steel slag granulated should be classified at Class 85 for wagon loads and iron and steel slag NOC at Class 80 with carrying capacity as minimum weight condition.

15.166 The fully distributed costs will be covered at the level of classification proposed.



15.167 Cotton(Raw): Cotton(raw) is, at present, classified in the Goods Tariff as under:

	<u>Wagon loads classification</u>
Cotton(raw) full pressed	87.5
Cotton(raw) half pressed	100
Cotton(raw) loose	115

15.168 In the new freight structure, we recommend corresponding classification, viz., Class 175, Class 200 and Class 230, respectively.

The Bengal Mills Owners' Association have represented about the freight rate on cotton (raw) full pressed and staple fibre. Their point is that West Bengal, which is far away from the cotton producing areas, has to pay considerable amounts as freight for cotton and, therefore, the textile mills in West Bengal are in a disadvantageous position in competing markets compared to mills in Bombay and Ahmedabad which are nearer to the cotton producing areas. The Bengal Chamber of Commerce have also mentioned about the necessity for freight equalisation of commodities like cotton.

15.169 We have given our views on the question of freight equalisation in paragraphs 6.88 and 6.89 of Chapter VI.

15.170 Railways give due consideration to the transport requirements of distant areas by giving a suitable telescopic rate as discussed in detail in paragraphs 6.90 and 6.91 of Chapter VI. For cotton (raw) full pressed, for example, the freight charge at the proposed rate for different distances to Calcutta mentioned in the memorandum compared to that for shorter distances would be as under:

	<u>Rate per quintal</u>	<u>Index</u>
	Rs. P.	
100 kms.	4.99	100
500 kms.	12.89	52
800 kms.	17.58	44
1200 kms.	23.33	39
1800 kms.	30.98	34
2000 kms.	33.37	33

The index of tapering compared to the rate at 100 kms. gives an idea of the taper given for long-distance movements.

15.171 China Clay: We have also received representations to remove difference in freight <sup>rates</sup> between China Clay in lumps and China Clay in powder form. China Clay in lumps and China Clay in powder form are at present classified as under:

	<u>Wagon load classification</u>
China Clay	45
China Clay powder	47.5

We find that the manufacture of clay in powder form involves certain processes and there is also some price differential. We do not, therefore, see any reason for a change in the present differential in the classification of China Clay in lumps and China Clay in powder form and recommend classifying them at the corresponding class as under:-

	<u>Wagon load classification</u>
China Clay ...	90
China Clay powder ...	95

15.172 Milk Powder: We have received representations for lowering the present classification of milk powder. It has been pointed out that whole milk powder and skimmed milk powder are being received from abroad at ports and are being moved to dairies by rail. As milk powder is an essential commodity of high nutritional value and in view of the importance of making it available to the dairies at reasonable prices in a country like ours where the vast majority of the population is under-nourished, it has been represented that the present high classification should be reduced. We have gone into the matter. Milk powder is at present charged at Class 100 for wagon loads. The price of this commodity is of the order of Rs.21/- per kg. or Rs.2100/- per quintal. The loadability is of the order of 14.5 tonnes per BG wagon. At present, condensed milk is

classified at Class 85 for wagon loads and with the same loadability. "Food NOC including patent foods prepared from cereals and/or milk" is classified at Class 95 for wagon loads. These are items which are further processed from milk or milk powder and prices are also higher. Milk is at present classified at Class 80 for wagon loads, though hardly any milk will be moving at goods rates. Taking all these factors including the transportation costs into account, we recommend that milk powder should be classified at class 160 for wagon loads in the revised freight structure.

15.173 Reclaimed Rubber and Rubber Scrap: The Singhbhum Chamber of Commerce, Tatanagar, have represented to us that the classification of reclaimed rubber and rubber scrap should be reviewed. We find that rubber reclaimed is already classified at a level lower than rubber crude. Rubber scrap is classified under 'Rubber Waste'. Having regard to the price, uses and other transportation characteristics of these commodities, we do not recommend any change in the present level of classification of reclaimed rubber and rubber scrap.

15.174 Coke Breeze: It has been represented that Coke Breeze is at present being charged as for Hard Coke at Class 42.5 for wagon loads. It has been pointed out that the price of Coke Breeze is only Rs.70/- per tonne, compared to about Rs.86/- per tonne for Soft Coke and Rs.150/- to Rs.338/- per tonne for the different grades of Hard Coke. While even Soft Coke is being charged at class 37.5 for wagon loads at par with coal, Coke Breeze is being charged as for Hard Coke which is several times costlier. Coke Breeze is stated to be mainly used by brick kilns and lime manufacturers. The request is that Coke Breeze should be charged at Class 37.5 at par with Coal, Soft Coke and Coal Dust.

15.175 The prices quoted above obviously pertain to the period before July, 1979 when the prices of the different varieties and grades of coal and coke were

last revised. The current prices of coal and coke range from Rs.101-18 for coal (average price), Rs.110/- for Soft Coke and Rs.230/- to Rs.430/- for Hard Coke.

15.176 It is ascertained from the Coal India Limited, Calcutta that the prices of Coke Breeze and Coke Dust are as under:-

Coke Breeze (Size + 3 mm to -12 mm)	.. Rs.275 per tonne
Coke Dust (Size - 3 mm)	.. Rs.116 per tonne

Thus, the price of Rs.70/- per tonne for Coke Breeze quoted in the representation is far lower than the current price quoted by CIL, viz., Rs.275/- per tonne, which falls within the present price range of Rs.230/- to Rs.430/- per tonne for Hard Coke.

15.177 It is understood that there is very little difference so far as quality is concerned, between Hard Coke and Coke Breeze. It would appear that after retaining Hard Coke of the size 12 mm and above for the use of Steel Plants, the smaller sizes are disposed of as Coke Breeze/Coke Dust, for other users including some Foundries. In the circumstances, there seems to be no strong case for quoting a reduced classification for Coke Breeze. On the other hand, the provision of a lower classification for Coke Breeze, might encourage large scale mixing up of Hard Coke of + 12 mm size with Coke Breeze and misdeclaration.

15.178 We do not, therefore, recommend any change in the classification of Coke Breeze which should continue to be charged under the heading 'Hard Coke'.

15.179 Raw Materials for the Manufacture of Paper: Andhra Pradesh Paper Mills have represented to us regarding classification of raw materials required for manufacture of paper such as cloth cutting, gunny waste, jute sticks etc., pointing out that the classification of these commodities is at the same level as that of paper. At present gunny waste, cloth cuttings etc., are classified at class 60 for wagon loads with minimum weight condition of 100 quintals on

B.G., 80 on M.G. and 55 on N.G. In the case of paper, however, the minimum weight condition is 160 quintals on B.G. In view of the fact that the loadability is comparatively very much less for these items, it is necessary to keep the classification at suitable levels which would cover the transportation costs. We do not, therefore, recommend any change in the corresponding classification for these commodities, viz., Class 120 for wagon loads. Representations have also been received regarding further lowering the minimum weight prescribed for these commodities. Senders should rather try to introduce a certain amount of press-packing of these commodities to give better load per wagon rather than seek reduction in the minimum weight condition, as with lesser minimum weight condition it would be difficult for the Railways to cover the transportation costs at the levels of classification prescribed for these commodities.

15.180 Chemical Gypsum: The Andhra Oil and Cake Products Ltd., Visakhapatnam, have represented regarding the classification of chemical gypsum which is a by-product of the fertiliser industry. Gypsum in lumps and moulds are charged at Class 42.5 and gypsum powder at Class 45, for wagon loads. Chemical gypsum is now charged as for gypsum powder. We have considered the matter and find that chemical gypsum which is obtained, for example, in the fertilizer factory at Simhachallam as a by-product in the manufacture of ammonium phosphate, is not comparable in price to gypsum powder which is classified at a higher rate. Chemical gypsum can also easily be distinguished from ordinary powder gypsum from source of supply, viz., stations <sup>factors,</sup> serving such fertiliser factories. Considering all these/ we recommend that chemical gypsum should be classified at the same level as "gypsum" at Class 85 for wagon loads in the new Freight Structure.

15.181 Plaster of Paris: We have also received representations for reviewing the classification of plaster of

paris. Plaster of paris is, at present, classified at Class 60 for wagon loads. Plaster of paris is a commodity which is processed out of calcined gypsum and considering the comparative prices and uses of different varieties of plaster of paris, we do not recommend any change from the corresponding classification, viz., Class 120 for wagon loads.

15.182 We have also received representations in regard to classification of certain other commodities, viz., Pulp Board, Sago, Starch, Coir, Cotton Seed, Caustic Soda Liquor, Coconut Fibre and High Alumina Bricks. We have, however, not received enough supporting data from the interests concerned for making a meaningful review of the classification. We are not, therefore, making any recommendation with regard to these commodities. The Government may examine these cases if supporting data are furnished by the interests concerned.

15.183 Classification of commodities at present placed in the higher classification scales of the freight structure:

15.183 The National Transport Policy Committee have made certain recommendations regarding the inter-modal split of traffic. In this connection, they have also given data for operator's cost and user's cost for Railways and Highways in respect of several commodities for different distance ranges. We have considered the recommendations of this Committee.

15.184 As far as rates for short distance traffic is concerned, we have kept in view the recommendation that Railway rates should not encourage such traffic being carried by the Railways except in the case of bulk traffic.

15.185 As far as long distance traffic is concerned, we find that the data given by the National Transport Policy Committee show that, by and large, in respect of commodities in the lower classification scales, the railway charges including the user's cost are lower than the road rates plus the user's cost. However, the total cost by rail tends to

be more than that by highways in the case of commodities now placed under the higher classification scales. Taking a long range view of the matter, we consider that the higher classification scales for wagon loads on the Railways would require scaling down to some extent from their present level. Accordingly, we recommend that except in the case of commodities, like POL., whose particular classifications we have discussed in the earlier paragraphs, other commodities which are classified at more than Class 100 in the present classification scales should be classified at levels lower than their corresponding classification and the highest classification for wagon loads should be only Class 240 instead of 260 in the proposed structure. The corresponding wagonload scales that we recommend for such commodities are indicated in the table below

Table 15.24

<u>Present wagon load scale</u>	<u>Corresponding wagon load scale</u>	<u>Recommended wagon load scale in the new structure</u>
130	260	240
120	240	230
115	230	220
110	220	210
105	210	200

Traffic in such commodities carried by Railways at present is not large enough <sup>to</sup> affect revenues in any significant manner on account of the change proposed. On the other hand, when conditions in regard to prompt supply of wagons improve on the Railways, there is likelihood of diversion of some traffic to the Railways leading to additional earnings on account of scaling down of the classification. This would be also desirable in the national interest as pointed out by the National Transport Policy Committee.

Classification of commodities not specially discussed above:

15.186 We have given our specific comments on the classification of certain commodities in the paragraphs above. As far as other commodities are concerned, we recommend that they should be placed in the corresponding wagon load classification in the proposed structure as indicated below:-

Table 15.25

<u>Present wagonload classification</u>	<u>Corresponding wagonload classification in the new freight structure</u>
32.5	65
35	70
37.5	75
40	80
42.5	85
45	90
47.5	95
50	100
52.5	105
55	110
57.5	115
60	120
62.5	125
65	130
67.5	135
70	140
75	150
80	160
82.5	165
85	170
87.5	175
95	190
100	200
105	200
110	210
115	220
120	230
130	240



Classification of new commodities:

15.187 From time to time, certain new commodities, particularly new chemical products, are offered for booking on Railways. It has been represented to us that when a commodity not classified in the Goods Tariff is offered for booking, the charges are usually levied as for unclassified goods at the highest scale of rates, viz., 150 and it takes a long time, according to the present procedure, to decide on a final classification which may be lower than the highest class. According to the present procedure, the Railway over which a new commodity is offered for booking, has to make a reference to the Railway Board for fixing tentative classification of the commodity, giving full details of the nature of product, use, price, loadability and the recommended classification. The Railway Board fixes the tentative classification and notifies this to all the Railways. The tentative classification so fixed by the Railway Board takes effect one month after the date of issue of the Board's letter fixing the tentative classification. The final classification of the commodity is fixed after the matter is examined by the Commercial Committee to whom the matter is referred by the Railway Board after fixing the tentative classification. We recommend that in the case of such new products, the Chief Commercial Superintendent of the Railway where the new product is being offered for booking, may be authorised to give a tentative classification taking into account the price, loadability, use etc. of the product and the classification of commodities similar to the one offered for booking. Such tentative classification should apply not only in local booking but also in through booking with other Railways. Simultaneously, the Railway should refer the matter to the Railway Board for fixing the final classification of the commodity in consultation with the Commercial Committee.

## Statement 15.1

Statement showing the Consumerwise, Zonewise Traffic in Revenue Earning Coal during 1977-78 (Wagonloads only)

(Figures in Tonnes)

Consumer	DISTANCE										Total over
	1-40	41-120	121-240	ZONES 241-350	(KILOMETRES) 351-499	500-799	800-1299	1300-1899	1900-2399	2400&	
1. Steel Plants	2262983 (14.61)	2824936 (18.23)	3771701 (24.35)	2394312 (15.45)	114759 (0.74)	4041584 (26.09)	5719 (0.04)	51971 (0.34)	20604 (0.13)	3711 (0.02)	15492280 (100)
2. Washeries	7698034 (98.13)	135582 (1.73)	903 (0.01)	1317 (0.02)	47 -	8945 (0.11)	21 -	24 -	- -	- -	7844873 (100)
3. Export	-- --	287 (0.07)	154441 (39.03)	216890 (54.81)	6109 (1.54)	13055 (3.30)	3631 (0.92)	1275 (0.32)	- -	- -	395688 (100)
4. Coking Plants	1554 (0.40)	294597 (76.31)	61676 (15.98)	3102 (0.80)	49 -	23678 (6.13)	265 (0.07)	115 (0.03)	1035 (0.27)	- -	386071 (100)
5. Power Houses	1857035 (11.96)	3666105 (23.62)	1174054 (7.56)	1437529 (9.26)	217887 (1.40)	2722153 (17.54)	3508056 (22.60)	937217 (6.04)	189 -	1798 (0.01)	15522123 (100)
6. Cement Factories	6835 (0.15)	250303 (5.45)	446337 (9.72)	864354 (18.83)	675388 (14.71)	193686 (4.22)	966880 (21.06)	815931 (17.77)	312774 (6.81)	58957 (1.28)	4591445 (100)
7. Textile Mills	63093 (5.25)	80538 (6.70)	115789 (9.64)	22624 (1.88)	19192 (1.60)	202301 (16.84)	507463 (42.24)	189686 (15.79)	687 (0.06)	- -	1201373 (100)
8. Other Users	435886 (2.01)	426043 (1.97)	3346020 (15.44)	1054921 (4.87)	744840 (3.44)	2330901 (10.76)	8819832 (40.70)	4189567 (19.33)	278875 (1.29)	45596 (0.21)	21672481 (100)
9. Total Coal (Excluding Hard Coke)	12325420 (18.37)	7678391 (11.44)	9070921 (13.52)	5995049 (8.93)	1778271 (2.65)	9536303 (14.21)	13311867 (20.58)	6185786 (9.22)	614164 (0.92)	110062 (0.16)	67106234 (100)
10. Hard Coke	7466 (0.44)	6220 (0.37)	134341 (8.00)	286192 (17.04)	130575 (7.77)	84257 (5.02)	215973 (12.86)	516319 (30.74)	263323 (15.68)	34781 (2.07)	1679447 (100)
11. Grand Total	12332836 (17.93)	7684611 (11.17)	9205262 (13.38)	6281241 (9.13)	1908846 (2.78)	9620560 (13.99)	14027840 (20.39)	6702105 (9.74)	877487 (1.28)	144843 (0.21)	68785681 (100)

Note: (Figures in bracket show the Zonewise percentage to total for each consumer)

Statement showing the freight charge for the main raw-material inputs for production of 1 Tonne steel at the rates as on 1.4.70 and proposed rates.

Name of plant	Freight for Coal for 1.3 Tonnes			'Freight for Iron ore for 1.66 Tonnes			'Freight for Limestone for 0.63 Tonne			'Freight for Dolomite for 0.23 Tonnes			'Total freight for 4.32 Tonnes		'Amount of increase
	Ave. lead	At 1.4.70 rate	At the proposed rate	'Ave. lead	At 1.4.70 rate	At the proposed rate	'Ave. lead	At 1.4.70 rate	At the proposed rate	'Ave. lead	At 1.4.70 rate	At the proposed rate	'At 1.4.70 rates	At the proposed rates	(with %age increase in bracket)
(Kms)	(Rs P)	(Rs P)	(Kms)	(Rs P)	(Rs P)	(Kms)	(Rs P)	(Rs P)	(Kms)	(Rs P)	(Rs P)	(Rs P)	(Rs P)	(Rs P)	(Rs P)
Baro	55	13.10	28.00	360	34.20	82.93	550	17.30	44.80	500	5.90	15.45	70.50	171.18	100.68(143)
BCC	65	15.70	31.21	280	29.20	72.18	530	16.90	43.79	340	4.60	12.27	64.40	159.45	95.05(148)
Bhagpur	95	15.40	40.86	310	31.20	76.54	440	14.80	39.05	600	6.70	17.28	68.10	173.73	105.63(155)
BCC	170	19.70	55.75	125	13.40	45.65	340	12.50	33.61	200	3.30	9.07	53.90	144.08	90.18(167)
Barkela	300	27.00	77.42	75	14.10	33.17	185	8.60	23.66	260	3.90	10.52	53.60	144.77	91.17(170)
Bilai	690	48.10	126.49	85	15.10	36.29	40	4.00	10.33	135	2.60	7.19	69.80	180.30	110.50(158)

Statement 15.3

Statement showing (i) Freight Rates for Finished Steel Products, Pig Iron/As on 1.4.70 compared with Proposed Rates and (ii) Prices in 1970 and Current Prices of Finished Steel Products, Pig Iron & Scrap

S.No. Finished Products	(i) Rate per tonne for 1050 kms				(ii) Price per tonne of Finished Steel Products/ Pig Iron/Iron & Steel Scrap			
	As on 1.4.70	As proposed	Amount of increase	Percentage increase over 1.4.70	As on 1.4.70@	Current price from 6.4.79 *	Amounts of increase	Percentage of increase over 1.4.70
	Rs. p.	Rs.p.	Rs. p.	Rs. p.		Rs. p.	Rs. p.	
<u>SHEETS &amp; COILS</u>								
(14G-20G & Thinner than 20G)								
1. Glvd.Corrugated Sheet	97.80	220.75	122.95	126	1671-1866	4670-5547	2999-3681	179%-197%
2. Glvd.Plain/Black Plain Sheet	"	"	"	"	"	4641-5519	2970-3653	178%-196%
3. Hot Rolled Sheet	"	"	"	"	1177-1471	3223-4222	2046-2751	174%-187%
4. Cold Rolled Sheet	"	"	"	"	1427-1721	4181-4554	2754-2833	193%-165%
5. Hot Rolled Coil	"	"	"	"	1102	3023	1921	174%
6. Cold Rolled Coil	"	"	"	"	1377-1621	4124-4496	2747-2875	199%-171%
7. Skelp	"	"	"	"	1112	3103	1991	179%
8. Plates & Chequered Plates	82.80	215.05	132.25	160	1092-1102	2773-2784	1681-1682	154%-153%
9. Bars rods / rounds	"	"	"	"	857-877	2425-2437	1560-1568	182%-179%
10.Flats	"	"	"	"	867	2801	1934	223%
11.Joists/Beams	"	"	"	"	977	2517	1540	158%
12.Bearing Plates,Crossing Sleeper Bars.	"	"	"	"	906	2437	1531	169%
13.Billets	70.80	197.65	126.85	179	721	2190	1469	204%
14.Blooms	"	"	"	"	701	2132	1431	204%
<u>Rate per tonne for 900 kms</u>								
15.Pig Iron	47.10	120.25	73.15	155	458-513	901-1041	443-528	97%-103%
16.Iron & Steel Scrap	"	"	"	"	580-640	1400-1650	820-1010	141%-158%

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STATEMENT 15.4Statement showing Zonewise movement of Hard Coke  
during 1977-78

S. No.	Distance Zone (Kms)	Volume of Traffic (Tonnes)			Total Earnings (Rs. in '000)
		Wagon loads	Smalls	Total	
1.	1 - 40	7,466	2	7,468	1,07
2.	41 - 120	6,220	1	6,221	84
3.	121 - 240	134,341	7	131,348	26,99
4.	241 - 350	286,192	37	286,229	78,12
5.	351 - 499	130,575	10	130,585	49,39
6.	500 - 799	84,257	-	84,257	45,55
7.	800 - 1299	215,973	146	216,119	1,81,69
8.	1300 - 1899	516,319	2,572	518,891	5,46,56
9.	1900 - 2399	263,323	36	263,359	3,45,03
10.	2400 & above	34,781	-	34,781	48,58
Total		<u>1,679,447</u>	<u>2,811</u>	<u>1,682,258</u>	<u>13,23,82</u>
Average lead (Kms)		<u>1150</u>	<u>1577</u>	<u>1151</u>	

Statement showing the prices of Lubricant oils

	Rs.	
1. Auto Lubes ordinary.	6920/-	per Kilo litre.
2. Auto Lubes special.	7050/-	"
3. Auto Lubes super.	7450/-	"
4. Auto Lubes ultra.	7830/-	"
5. Auto Gear Oil ordinary.	6740/-	"
6. Auto Gear Oil special 80.	7910/-	"
7. Auto Gear Oil special HP 90/140.	7700/-	"
8. Auto Gear Oil super 80.	8720/-	"
9. Auto Gear Oil super HP 90/140	8490/-	"
10. Secondary grades with viscosity upto 500 seconds.	6560/-	"
11. Secondary grades with viscosity over 500 seconds.	6640/-	"
12. Hydraulic and circulating oil.	6960/-	"
13. Machine tools way oil.	7010/-	"
14. General Purpose Machine oil.	6710/-	"
15. Spindle oil.	6760/-	"
16. Turbine oil.	7260/-	"
17. Compressor oil.	6910/-	"
18. Enclosed gear box oil.	7410/-	"
19. Stationary diesel engine oil.	6760/-	"
20. Pneumatic tool oil.	6910/-	"
21. Steam cylinder oil.	7010/-	"
22. Sugar mill oil.	6510/-	"
23. Open gear compound.	6010/-	"
24. Steel Mill bearing oil.	6760/-	"
25. Open steam engine bearing oil.	7010/-	"
26. Textile oil.	6760/-	"
27. Transmission oil.	7510/-	"
28. Secondary grade lubricants(Industrial oils)	5850/- to	"
	7010/-	"
29. Defence Specification oils.	6510/- to	"
	8200/-	"
30. Rubber Process oil.	6700/-	"
31. Quenching oil.	6200/-	"
32. Cutting oil.	6700/-	"
33. Synthetic cutting oil.	7200/-	"
34. Rust preventives.	6000/- to	"
	7400/-	"
35. Heat transfer oil.	7250/-	"
36. Special oils.	8200/-	"
37. Agricultural oils.	5400/-	"
38. Greases.	7510-10,010/-per	metric tonne.

Note :- Rates furnished are the selling prices of Indian Oil Corporation at Madras, excluding taxes.

Statement showing the price of certain items of Iron or Steel materials as on 1.4.79 and present Price together with the freight per tonne, incidence of freight on price as on 1.4.79 and at proposed rates

S. No.	Name of products	Price per tonne	Freight rate per tonne for 1050 K.M.	Incidence of freight on price	Current average price per tonne.	Freight rate per tonne as proposed	Incidence of freight on current price	Increase in freight rate per tonne.	Increase in the incidence of freight over 1.4.79
		As on 1.4.79		%	Rs.	Rs. P.	%	Rs. P.	%
1.	Galvanised Corrugated Sheets	4382	171.60	3.9	5109	220.75	4.3	49.15	0.4
2.	Cold Rolled Coils	3687	"	4.7	4310	"	5.1	"	0.4
3.	Cold Rolled Sheets	3737	"	4.6	4368	"	5.1	"	0.5
4.	Wheel (for Loco).	4243	"	4.04	4243	"	5.2	"	1.16
5.	Plates	2342	157.20	7.3	2779	215.05	7.74	57.85	0.44
6.	Flats	2362	"	7.3	2801	"	7.7	"	0.4
7.	Joists	2115	"	8.1	2517	"	8.54	"	0.44
8.	Billets	1830	128.60	7	2190	197.65	9.03	69.05	2.03
9.	Blooms	1780	"	7.2	2132	"	9.27	"	2.07
10.	Sleepers	1557	157.20	10.1	1557	162.85	10.46	5.65	0.36
11.	Heavy Rails	1364		11.5	1364	"	11.94		0.44
			Freight rate per tonne for 900 K.M.						
12.	Pig Iron	831	97.10	11.7	996	120.25	12.07	23.15	0.37
13.	Iron & Steel Scrap	1310	"	7.4	1550	"	7.76	"	0.36

Statement showing grouping of commodities  
under Iron or Steel, Divisions- A,B,C&D.Iron or Steel Division 'A'As underWagon Load  
Classification

Cold Rolled Coils  
 Cold Rolled Sheets  
 Hot Rolled Sheets  
 Hot Rolled Coils  
 Galvanised Coils  
 Galvanised Sheets (plain and corrugated)  
 Pipes, Tubes and Tubings.  
 Silican Electrical Steel Sheets  
*Steel sheet piling*  
 Wheels for Locomotives

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Iron or Steel Division 'B'As under

Anchors  
 Anghities or Iron Choolas  
 Anvils  
 Axes  
 Axles, Iron or Steel NOC  
 Bangles  
 Bars- includes Shell Bars,  
                                 Carbon Steel Bars,  
                                 Bearing Plate Bars.  
 Beans  
 Beaters Cast  
 Bellchairs  
 Belt Fasteners  
 Belt lacing, iron or steel  
 Bolts  
 Brackets  
 Buckets  
 Buckles  
 Bungs and caps  
 Cables chain  
 Cables, wire  
 Cast iron couplings

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Iron or Steel Division 'B'  
(Contd.)

Wagon Load classification

Chimneys	180
Cisterns	
Columns cast	
Cooking utensils	
Cotters	
Dog spikes	
Door Bolts	
Door mats	
Doors.	
Drums - includes empty drums	
Dust Bins	
Expanded metal	
Flats - includes spring steel flats	
Fencings	
Fittings of pipes and tubes	
Forges	
Gates	
Grills	
Girders	
Hammers	
Hangers	
Hasps	
Heels	
Hinges	
Hooks	
Hoop iron	
Hoops	
Horse shoes	
Hydrants	
Iron conduit pipes non-insulated	
Joists	
Ladders	
Lamps posts	
Measures	

Iron or Steel Division 'B'( Contd. )Wagon Load Classification

Mortar and Pestles	180
Moulding Boxes	
Nails	
Nickeled steel bars	
Nuts	
Packing case seals	
Pad bolts	
Pans	
Picks	
Plates	
Pot	
Pulleys	
Railings	
Rivets iron or galvanised	
Ridgings	
Rollers	
Rolls - includes Roll Spoils	
Rope, wire	
Rods/Rod in coil - includes Rounds, High Carbon steel rods.	
Round spikes	
Screws - includes Plate Screws Rail Screws, set screws.	
Shafts	
Shoe tips	
Shovel	
Shutters	
Skelp	
Spoons (iron)	
Spring	
Staple	
Tanks	
Terminal boxes and other iron castings, not fitted	
Tinned sheets	

Iron or Steel Division 'B'

( Contd. )

Wagon Load classification

Troughs	180
Tyres	
Valves	
Vats	
Washers	
Well curbs	
Wheels for Carriage of wagon	
Wheels for wells	
Window frames	
Wine bins, wire	
Wire fencing	
Wire handles	
Wire netting	

Iron or Steel Division 'C'

. As under

Wagon Load classification

Angles	165
Bands	
Bearing Plates	
Billets including Carbon Steel Billets	
Blooms	
Casting NOC -Channels includes annealing covers	
Crossings	
Crowbars	
Fire bars	
Gibs	
Gutters	
Iron or Steel Pipe Cuttings	
Lattice tower parts	
Light rails	
Permanent way materials NOC-includes Fish Plates.	
Piles, Screw	
Pole caps	
Poles	

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Iron or Steel Division 'C'

( Contd. )

Wagon Load classification

Squares	165
Stay rods	
Tacks	
Ties	
Tin bars	
Weights	
Wire-including high carbon steel wire	

Iron or Steel Division 'D'

As under

Wagon Load classification

Heavy Rails	135
Ingots	
Sleeper.	

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Statement 15.8

Statement showing existing classification of Chemical Manures, Divisions - A&B and the Prices of important items.

<u>1. Chemical Manures Division 'A'</u>	<u>Wagon load classification</u>	<u>Price per tonne in Rs.</u> <u>(From 1.3.79)</u> <u>(Retail Price)</u>
As under -	52.5	
Ammonium nitro-phosphate		1555/2045
Ammonium Phosphate		1,400
Ammonium sulphate phosphate		1,320
Sulphate of Zinc		
Chemical Fertilizers/Manures N.O.C.		
Complex Fertiliser		
Di-ammonium Phosphate		2,200
Manure Mixture		
Mono-ammonium phosphate		2,325
Nitrophoska		
Nitrophosphate		1,500
Sulphate of potash		1,295
Super phosphate		
N.P.K. Fertilizers		1600 to 2100
S.N.P.K. Fertilizers		
Triple Superphosphate		1500/1600
Urea		1,450
Urea Sweepings		
<u>2. Chemical Manures Division 'B'</u>	<u>45</u>	
As under -		
Ammonium Sulphate Nitrate		1,060
Calcium ammonium Nitrate		1,000
Calcium Sulphate or Sulphate of lime		
Cyanamide		
Ephos Phosphate		
Ground Phosphate		
Haryali Bhumi Sudhar Khad		
Kainite		
Keiserites		
Lime Nitrogen		
Mineral Phosphate		750
Muriate of Ammonia (Ammonium Chloride)		970/985
Muriate of Potash (Potassium Chloride)		805
Mycellium		
Nitrate of Lime		
Nitrotion		
Phosphate of Lime (Calcium Phosphate - mono basic, Calcium Phosphate - dibasic and Calcium Tribasic)		
Phosphatic Nodules		
Radiophos		514 to 652
Sterameal (Black label)		
Sulphate of Ammonia		
Sylvinite		
Urvara		

Statement showing changes in the classification of Chemical Manures,  
Divisions A & B since 1958.

Goods Tariff No.	Date of effect	Chemical Manures Division 'A'					Chemical Manures Division 'B'				
		Classification		Minimum weight condition			Classification		Minimum weight condition		
		Smalls	Wagon loads	B.G.	M.G.	N.G.	Smalls	Wagon loads	B.G.	M.G.	N.G.
Supple- mentary											
29	1.10.58	52.5 A	40 A	Mds 400	300	180	42.5 A	32.5	Mds 550	300	180
30	1.4.60	52.5 A	40 A	Qtls 150	110	65	42.5 A	32.5	Qtls 205	130	80
30	1.5.61	52.5 A	40 A	150	110	65	42.5 A	32.5	220	130	80
30	26.10.61	52.5 A	40 A	150	110	65	42.5 A	32.5	220	145	80
31	12.3.65	52.5 A	40 A	150	110	65	45 A	35 A	220	145	80
32	1.8.67	55 C	40 A	150	110	65	50 C	35 A	220	145	80
32	1.4.70	65	45	220	145	80	60	37.5	220	145	80
33	1.7.71	67.5	47.5	220	145	80	62.5	40	220	145	80
33	15.4.72	67.5	50	220	145	80	62.5	42.5	220	145	80
33	1.4.73	75	52.5	220	145	80	65	45	220	145	80
34	15.8.74	75	52.5	CC 205(a)	160 130(a)	80	65	45	CC 205(a)	160 130(a)	80

(a) Applicable for wagons of floor area less than 21.1 Sq. metres (B.G.)  
and 12.5 Sq. metres (M.G.)

Statement - 15.10

Statement showing prices of important varieties of fertilisers from the year 1966 (Retail price per tonne)

Sr. No.	Date	Ammonium Sulphate	Urea	Calcium Ammonium Nitrate	Ammonium Sulphate Nitrate	Dia Ammonium Phosphate	Muriate of potash	Ammonium phosphate
1.	1.2.66	405	680	365	515	833	523	660
2.	1.2.67	405	680	385	515	--	--	--
3.	1.4.67	492	840	437/510	577	--	--	818
4.	19.4.68	502	860	437/510	577	--	480	--
5.	17.4.69	539/479 (1.11.79)	943-924 (9.4.70)	473/545/575	626	1217	--	--
6.	9.3.71	529/429 (5.8.69) (16.3.70)	923-904	473/545/575	626	--	543	--
7.	30.3.72	549/449	959-940	565/594	--	1246	670	--
8.	11.10.73	600	1050-1030	615/645	--	1335	1220	1220
9.	1.6.74	--	2000-1960	1095/1145	--	3005	1170	1855
10.	18.7.75	--	1850-1810	--	--	2805	1085	1780
11.	16.3.76	--	1750-1710	--	--	--	900	--
12.	8.2.77	--	1650-1610	--	--	--	--	--
13.	5.8.78	935/925	1510-1550	1015 to 1140	1060	2210	795 to 805	1320 to 2340
14.	10.3.79	900/890	1450	1000	1060	2200	805	2200

Source : Items 1 to 12 - Fertiliser Statistics 1977-78

Items 13 to 14- Ministry of Fertilisers and Chemicals.

A. Comparative statement furnishing prices and freight rates of certain varieties of chemical manures in 1966 and in 1979.

Sr. No.	Commodity	Prices in 1966	Prices in 1979	Percentage increase in prices.	Rail freight for 1000 Kms (Average lead for Fertilisers)		
					In 1966	In 1979	Percentage increase
<b>I. Chemical Manures</b>							
<b>Division A</b>							
	Ammonium Nitro Phosphate	730	1555/2045	173 to 180	42.80	100.70	135
	Ammonium Phosphate	590	1400	137			
	Di Ammonium Phosphate	750	2200	193			
	Urea	680	1450	113			
<b>II. Chemical Manures</b>							
<b>Division A</b>							
	Calcium Ammonium Nitrate	365	1000	174	37.70	87.00	131
	Ammonium Sulphate Nitrate	515	1060	106			
	Muriate of Potash	405	805	99			

B. STATEMENT FURNISHING DETAILS OF COMPARATIVE FREIGHT RATES IN 1966 AND 1979

Commodity	Distance(kms)	Freight rates		%age increase	Commodity	Freight rates		%age increase
		1966	1979			1966	1979	
Chemical Manures Division A	500	27.00	52.30	91	Chemical Manures Division A	23.70	45.30	91
	300	37.20	84.90	128		32.30	73.40	127
	1000	42.80	100.70	135		37.70	87.00	131
	1200	48.40	116.30	140		42.50	100.40	136



Statement - 15.12Revised grouping proposed for various  
items of Chemical ManuresWagon load  
Classification

- |                                                                                                                     |     |
|---------------------------------------------------------------------------------------------------------------------|-----|
| 1. <u>Chemical Manures Division A.</u>                                                                              | 105 |
| As under:-                                                                                                          |     |
| Chemical Fertilisers/Manures, N.O.C.                                                                                |     |
| Complex Fertilisers                                                                                                 |     |
| Dia- Ammonium Phosphate                                                                                             |     |
| Manure Mixture                                                                                                      |     |
| Mono- Ammonium Phosphate                                                                                            |     |
| Nitrophoska                                                                                                         |     |
| Sulphate of Zinc                                                                                                    |     |
| 2. <u>Chemical Manures Division B.</u>                                                                              | 100 |
| As under:-                                                                                                          |     |
| Ammonium Nitro-phosphate                                                                                            |     |
| Ammonium Phosphate                                                                                                  |     |
| Ammonium Sulphate Nitrate                                                                                           |     |
| Ammonium Sulphate Phosphate                                                                                         |     |
| Calcium Ammonium Nitrate                                                                                            |     |
| Calcium Sulphate or Sulphate of lime                                                                                |     |
| Gyanaride                                                                                                           |     |
| Ephos Phosphate                                                                                                     |     |
| Ground Phosphate                                                                                                    |     |
| Haryali Bhumi Sudhar Khad                                                                                           |     |
| Kainite                                                                                                             |     |
| Keiserites                                                                                                          |     |
| Line Nitrogen                                                                                                       |     |
| Mycellium                                                                                                           |     |
| Nitrate of Line                                                                                                     |     |
| Nitrophosphate                                                                                                      |     |
| Nitrotion                                                                                                           |     |
| N.P.K. Fertilizers                                                                                                  |     |
| Phosphate of Line (Calcium Phosphate- mona basic,<br>Calcium Phosphate- diabasic and Calcium<br>Phosphate Tribasic) |     |
| Phosphatic Nodules                                                                                                  |     |

15-34

-2-

Wagon load  
Classification

Sulphate of Potash  
S.N.P.K. Fertilizers  
Sterneal (Black label)  
Sulphate of Ammonia  
Sylvinite  
Triple Superphosphate  
Urea  
Urea Sweepings  
Urvara

3. Chemical Manures Division C

90

As under:-

Mineral Phosphate  
Muriate of Ammonia  
(Ammonium Chloride)  
Muriate of Potash  
(Potassium Chloride)  
Radiophos  
Single Super Phosphate

## CHAPTER XVI

### MISCELLANEOUS FREIGHT

#### Minimum distance for charge

16.01 The present minimum distance for charge is 40 kms. As discussed in para 14.26 of Chapter XIV, we recommend that the minimum distance for charge should be 50 kms.

#### Minimum weight for charge

16.02 The present minimum weight for charge is 40 kgs. We recommend that this should be revised to 50 kgs.

#### Minimum weight for acceptance of 'smalls' consignment

16.03 This is at present 7 kgs which we consider to be too low for handling. This may, therefore, be increased to 10 kgs.

#### Minimum charge per consignment

16.04 This will be applicable only to "smalls" consignments. The present minimum charge per consignment is Rs.10/-. Considering the charges in the proposed scale for a minimum distance of 300 kms of a commodity at the lowest classification and the minimum weight for charge, we do not recommend any change in the present minimum charge per consignment, viz., Rs.10/-.

#### Charges for bulky articles fully occupying a wagon

16.05 In the present tariff rule 164 of the goods tariff, the charges prescribed for such consignments are for a weight of 60 quintals on the broad gauge, 40 quintals on the metre gauge and 35 quintals on the narrow gauge per 4-wheeled wagon. However, it is seen that in respect of various items of bulky goods like for example, household effects, the minimum weight condition prescribed on the metre gauge is 45 quintals. We, therefore, recommend that the weight for charge for such bulky goods mentioned in Rule 164 should also be 45 quintals on the metre gauge.

#### Minimum weight conditions

16.06 Minimum weight conditions under which wagon-load rates apply are prescribed for every commodity. In deciding on the minimum weight condition, the necessity for making optimum use of the wagon space is kept in view as also the

extent to which particular commodities can be physically loaded in a wagon. The fact that there are wagons of different floor areas and ~~xxxx~~ different carrying capacities is also borne in mind. Minimum weight conditions have accordingly been prescribed in the present Goods Tariff taking into account the loadability of various commodities. These minimum weight conditions are also reviewed from time to time based on test loading and weighing. We do not recommend any major change in the minimum weight conditions prescribed at present for various commodities, except as indicated in the following paragraphs.

16.06 In our questionnaire to the Railways and various Chambers of Commerce and trade interests, we had specifically asked for their comments with regard to changes, if any, required in the minimum weight conditions now prescribed. We have received suggestions in respect of a few commodities in this regard in the memoranda from Chambers of Commerce and other Trade Associations and at the time of oral evidence before us. We had requested the Railways to make test loadings and test weighments and advise us the results in respect of these commodities. In giving our recommendations we have taken into account the results of such test loadings and test weighments made by the Railways.

#### Cotton Seeds

16.08 The existing minimum weight condition is W/185 BG, W/125 MG and W/65 NG. Representations have been received for reducing the minimum weight condition on the metre gauge from 125 quintals to 110 quintals. Based on test weighments, the South Central and Southern Railways have advised that the loadability is 115 qtls., while the North Eastern Railway has advised that the loadability varies from 116 to 118 qtls. We find the Railway Board have already given a general exception in the weight condition of cotton seeds from W/125 to W/115 on the metre gauge when it is certified by the Station Master of the booking station that the wagon has been fully loaded and that no more bags can be loaded therein. Taking all these factors into account we recommend that the minimum weight condition on the metre gauge should be reduced to W/115.

Coir Yarn

16.09 Indian Chamber of Commerce, Cochin have represented that the minimum weight condition should be reduced from W/90 BG to W/80 BG for coir yarn. From the results of the test weighments received from the Railways, we do not recommend any reduction in the minimum weight condition.

Gunnies

16.10 The Indian Jute Mills Association, Calcutta have requested that the minimum weight condition for gunnies which is at present W/190 on the BG should be reduced to W/170. From the results of the test loadings and weighments furnished by the various Railways, we find that it is possible to load gunnies to the extent of the present weight condition. Gunnies are actually packed in bales and the loadability will depend upon the proper press packing of the bales and it is necessary that the gunnies should be properly packed and pressed for making full use of the wagon space. As such, we do not recommend any reduction in the existing minimum weight condition.

Timber & Sawn Timber

16.11 We have received representations for reduction in the minimum weight condition prescribed for certain types of wood and certain types of sawn timber. At present, the following minimum weight conditions are provided in the tariff for timber :-

	<u>BG</u>	<u>MG</u>	<u>NG</u>
For logs and ballies in covered wagons	W/185	W/135	W/75
For logs and ballies in open wagons	W/175	W/125	W/65
For timber used for matches	The minimum weight condition is same as for logs & ballies.		

Sawn timber (with the following exceptions) CC for all gauges.

Soft timber, viz., fir, chill, kail, deodar when -

- |                                                       |                    |
|-------------------------------------------------------|--------------------|
| (a) booked from BG stations on Northern & NF Railways | W/215 BG           |
| (b) booked from MG stations on NE & NF Railways       | W/160 MG           |
| (c) booked from NG stations on Northern Railway       | W/150 NG per bogie |

Mango Planks when booked from BG stations on Northern Railway	W/215 BG
---------------------------------------------------------------	----------

From the test weighment results furnished by the different Railways, we do not consider any change in the minimum weight conditions prescribed for timber.

Plywood

16.12 The Udaipur Chamber of Commerce have requested for reduction in the minimum weight condition on the Metre Gauge from W/125 to W/100 for plywood. From the results of test loadings and weighments furnished by the Railways, we do not recommend any change in the minimum weight condition prescribed.

Bhoosa

16.13 We have received representations for reducing the minimum weight condition on the BG from W/90 to W/60. From the results of test weighments received from the Railways, we do not recommend any change in the minimum weight condition.

Onions

16.14 Onion Merchants, Madras have represented for a reduction in the minimum weight condition from W/160 to W/150 quintals on BG. Prior to 1.10.1976, the minimum weight condition was W/160 BG, but it had been increased to W/185 as the loadability of onions in the northern region was higher, the size of onions also being larger. As onions in the southern region are of a smaller size giving lesser weight, the Central Railway have, in their local booking and in through booking, quoted a lower minimum weight condition of W/170 quintals. The Southern Railway have quoted an exceptional B.G. minimum weight condition of W/160. Considering the loadability figures furnished by the different Railways, we recommend a general minimum weight condition of W/160 BG for onions.

Empty drums

16.15 Representations have been received for reducing the minimum weight condition from W/60 BG to W/45 BG. Though the loadability of bulky articles like empty drums may be less than 60 qtls., to enable costs of carriage being covered, the minimum weight condition for charge bulky goods has been prescribed as 60 qtls. on the Broad Gauge, 45 quintals on the Metre Gauge and 35 quintals on the Narrow Gauge. We, therefore, do not recommend any reduction in the minimum weight condition for empty drums.

Gram husk:

16.16 The Ujjain Chamber of Commerce have requested for reduction in the minimum weight condition of gram husk from W/110 BG to W/100 BG. From the loadability figures furnished by the Railways, there is no case for reducing the existing minimum weight condition on the Broad Gauge.

Cotton raw (full pressed)

16.17 The Ujjain Chamber of Commerce have requested to relax the minimum weight condition from W/170 BG to W/160 BG and from W/110 MG to W/85 MG. From the results of the test loadings and weighments furnished by the various Railways, we do not find any reason to reduce the minimum weight condition on the BG. The minimum weight condition on the MG, however, should be fixed at W/90 MG as has already been done temporarily.

Tobacco unmanufactured

16.18 The Surti Jarda Nirmata Sangh, Varanasi have represented for reduction in the minimum weight condition of tobacco unmanufactured from W/120 BG to W/100 BG. Prior to 1971, the minimum weight condition was W/110 BG. But as the loadability was more, on a suggestion from S.C. Railway, the weight condition was increased to W/120 BG. From the test weighments furnished by the Railway, there is no reason to change the minimum weight condition.

Kendu leaves (Bidi leaves)

16.19 Representation has been received that the minimum weight condition of bidi leaves should be reduced from W/60 BG to W/45 BG. This comes under the category of bulky articles and as the present minimum weight prescribed is required for covering transportation costs, we do not recommend any change in the present minimum weight condition.

Gur (Jaggery)

16.20 Representation has been received that the minimum weight condition of gur should be reduced from W/460 to W/410 in case of BCX wagons. The minimum weight condition of gur is W/205 BG, W/130 MG and W/80 NG. The chargeable weight for gur

loaded in a BCX wagon should be 512 quintals ( 2½ times of the minimum weight condition prescribed per 4-wheeled BG wagon). Although gur can be loaded to the extent of 512 qtls. in a BCX wagon, considering the nature of the product, viz., its tendency to melt if too many layers are loaded, a lower minimum weight condition of 460 qtls. has been prescribed by the Northern Railway. While there is no justification for further reducing the minimum weight condition, the lower minimum weight condition for BCX wagons may be made applicable on all Railways.

#### Firewood

16.21 Representation has been received for reduction in the minimum weight condition of firewood from W/150 BG to W/125 BG. On the basis of the reports received from the Railways, no change is considered necessary.

#### Cocoanut with Shells

16.22 The Ujjain Chamber of Commerce have suggested an increase in the minimum weight condition from W/145 BG to W/175 BG. Based on the results of test weighments received from Railways, there is no case for an enhancement in the present minimum weight condition.

#### Sugarcane

16.23 The Indian Sugar Mills' Association have represented about the loadable weights fixed for sugarcane on the floor area basis by the Northern Railway. The test weighments made by the Northern Railway show that the chargeable weights fixed are reasonable.

We have received representations in regard to a few other commodities also e.g., coriander seeds, soap stock, beaten rice, parched rice, soyabeans, cloth cuttings, lint, piece goods and steel pipes of diameter over 150 millimetres. For want of adequate supporting data, we are not able to pronounce any opinion in the matter. Railways may review as and when representations are received the weight conditions of these and other commodities after making test loadings and test weighments, as is the practice already in vogue.



Commodities for which minimum weight condition is C.C.

16.24 There are several commodities for which the minimum weight condition is "carrying capacity" of the wagon. The carrying capacity varies <sup>even for the same type of wagon</sup> from wagon to wagon. Thus, on the broad gauge for 4-wheeled covered wagon, the carrying capacity may be 21.38 tonnes, 22.1 tonnes etc; BOX wagons 55.4 tonnes, 56.5 tonnes etc. Apart from this, where the minimum weight condition is shown as CC., the tariff rules at present provide that charges will be levied on what is known as the "permissible carrying capacity". In respect of most of the 4-wheeled and 6-wheeled wagons, 2 tonnes are allowed per 4-wheeled wagon on the B.G. and 1 tonne per 4-wheeled wagon on the Metre Gauge to be loaded in excess of the marked carrying capacity. In case of bogies, the overloading is allowed upto 4 tonnes in case of BG and 2 tonnes in case of MG wagons; in case of BOX, BOI, BRS, BRH, BCX, BOBS and BOBX type of wagons, loading in excess of the marked carrying capacity is permitted to the extent of the loading tolerance of 2 tonnes.

16.25 It has been represented to us that firstly, as the carrying capacity differs from wagon to wagon even for the same type of wagon, the minimum weight condition should be expressed as a definite weight instead of "carrying capacity" so that parties can get ready for loading the exact quantities of their consignments, particularly in the case of bagged consignments, packed articles etc. This was specially represented by the Food Corporation of India and cement and fertiliser industries.

16.26 Secondly, where the minimum weight condition is CC - permissible carrying capacity - it has been pointed out that there is no tolerance provided as the minimum weight prescribed is inclusive of the normal tolerance limit and, therefore, also the maximum weight permitted to be loaded in a wagon.

16.27 Normally, the scheme of charging is that charges are calculated on the actual weight subject to the minimum weight condition prescribed. In practice, after a party has completed loading of a wagon, if on weighment it is found that the weight

loaded is in excess of the minimum weight condition prescribed, the total weight will be the chargeable weight if the total weight is within the maximum permissible weight allowed to be loaded in a wagon. But in the case of wagons which are permitted to be loaded in excess of the marked CC, if on weighment after completion of loading any extra weight is noticed over and above the prescribed minimum weight - in this case the CC + the permitted carrying capacity - the extra weight has necessarily to be removed. As a matter of fact, penal provisions have been prescribed in the tariff for charging any excess weight detected en route or at destination to act as a deterrent against any overloading. Such adjustment of over-weight at the booking station, it has been pointed out, is causing extra detention to wagons, particularly where a large number of wagons have to be dealt with as in the case of Steel Plants.

16.28 It has also been pointed out to us that in the case of consignments like iron and steel finished products, it is very difficult to have the wagons loaded to the exact carrying capacity plus the permitted overloading limit as the weight of the individual pieces in the consignments do not permit of exact adjustment as in the case of consignments loaded in bulk.

16.29 It is obvious that except in cases where a wagon is kept on a weighbridge and loading is done to the exact permissible weight, the actual weight loaded is likely to be slightly different from the minimum weight prescribed. This would have been taken care of in the normal circumstances, if there was some tolerance permissible over the minimum weight condition. As it is, in many cases, it has been represented that parties have had to load only less than the actual permissible minimum weight for fear of even slight excess loading which would attract the penal provisions in regard to overloading. They have had, however, to pay charges for the permissible carrying capacity in all such cases leading to payment of charges for weight not actually loaded.

16.30 It also appears to us somewhat incongruous that there should be a "marked carrying capacity" and a "permissible" carrying capacity which is in excess of the marked carrying capacity. To our mind, the "carrying capacity" should be the payload permitted to be loaded. The Railways may consider showing, as the carrying capacity, the "permissible" carrying capacity itself. In any case we would suggest that, for the reasons mentioned above, the minimum weight condition should be shown as a definite weight rather than as <sup>CC or</sup> CC + 2 tonnes in view of the variations in the marked CC for different wagons of even the same type. We would also like the minimum weight condition to be fixed in such a way that a small margin or tolerance is available for adjustments. In the light of the representations received by us from the Coal India, from the Steel Plants, SAIL and various other interests, we suggest that the minimum weight condition should be at least half a tonne less than the maximum permissible weight in regard to commodities loaded in bulk. In respect of finished products, the minimum weight condition should be at least one tonne less than the maximum permissible weight. We would also recommend that the minimum weight condition should be notified as a definite weight. For example, in the case of a standard broad gauge unit wagon, for bulk consignments, the minimum weight condition could be notified as 235 qtls. instead of CC + 2 tonnes and for finished products as 230 qtls. Minimum weight condition for other types of wagons, viz. BOXs, BCXs, Bogies etc. may be similarly notified.

Charging of consignments having at present 'AQ' minimum weight condition.

16.31 In the existing tariff, there are a few commodities like boats, carriages, motor vehicles, palanquins etc. and explosives and dangerous goods for which only one rate has been given under 'small's' with a remark "any quantity - "AQ" under the wagon load minimum weight condition. This is based on the Freight Structure Enquiry Committee's recommendations, viz. "There will still be a small number of commodities like boats, carriages, motor vehicles, Palanquins etc and explosives,

for which dual rates will have no special significance. For such commodities, the corresponding percentage class rate will apply on any quantity basis (AQ)".\*

16.32 The commodities coming under this category with 'AQ' weight condition attached to them can be grouped under three heads -

- i) Explosives and dangerous goods;
- ii) Those which can be offered either in snalls or in wagon-loads; and
- iii) Those which require a full wagon if they are to be transported.

Explosives and dangerous goods

16.33 Explosives and certain dangerous goods <sup>have, at present, only a snalls</sup> /rate at the highest class, viz.150. The same rate applies for wagon loads subject to a minimum weight for charge for 30 qtls. per 4-wheeled wagon applicable on all gauges. There is no reason why a wagon load rate should not be prescribed for these commodities also, so that there will be a pricing incentive for offering better loads per wagon. We recommend a classification for these commodities at class 300 for snalls consignments weighing less than 1 tonne in the scheme of charges for snalls and a wagon load classification at class 260 with a minimum weight condition of 60 qtls. on the BG, 45 qtls. on the MG and 35 qtls. on the NG.

16.34 The second group of commodities are those which can be offered in snalls or in wagon loads. These have a minimum weight condition attached per article at present. Under this head, are the following articles:-

<u>Commodity</u>	<u>Class</u>	<u>Minimum weight for charge</u>
Aeroplanes packed	120	18.70 qtls. for each aeroplane or per 4-wheeled vehicle used whichever gives the greater charge.
Auto-cycle	120	75 kgs.
Auto-rickshaws	120	5.60 qtls.
Boat shooting, non-collapsible over 3.66 metres in length	120	5.10 "
Canoes	95	10.10 "
Carriages 2-wheeled not on their wheels	120	5.10 "
Carriages 4-wheeled not on their wheels	120	10.10 "
Carriages 2-wheeled and 4-wheeled on their own wheels	120	16.80 "
Carts, all-steel	115	10.10 "
Carts, country NOC	95	5.10 "
Carts, municipal	95	10.10 "
Carts, tar boiling	95	10.10 "
Cycle lorry	120	1.50 "
Cycle tonga	120	1.50 "
Dhoolies	95	5.10 "
Helicopter	120	18.70 " for each helicopter or per each 4-wheeled vehicle used, whichever gives a greater charge.
Motor cycles	120	1.50 "
Motor cycle with side car attached	120	5.60 "
Motor scooter	120	1.50 "
Motor tricars	120	5.60 "
Motor tricycles	120	5.60 "
Side cars of motor-cycles	120	1.50 " per package.

16.35 As the above commodities can be accepted both in smalls and wagon loads, we recommend that there should <sup>be</sup> a smalls rate as well as a wagon load rate for these commodities. We have accordingly proposed a wagon load scale for each of these commodities. When offered in smalls, each article will be subject to a minimum weight for charge as at present, the terminals applicable to smalls consignments will also be charged. When offered in wagon loads, the chargeable weight will be computed on the basis of

number of pieces loaded and the minimum weight prescribed per piece and will be subject to a minimum weight for charge of 60 quintals per 4-wheeled BG Wagon, 45 quintals per 4-wheeled MG Wagon and 35 quintals per 4-wheeled NG Wagon. In prescribing the wagon load rates, we have kept in mind the necessity of covering the costs of transportation. The 'smalls' and wagon load rates which we recommend, are indicated below :-

Items	Proposed class		Minimum weight for charge. per piece	Minimum weight for charge per 4-wheeled wagon		
	Smalls	Wagon Load		BG	MG	NG
Aeroplanes packed	235	220	18.70 qtls. for each 60 wheeled vehicle used whichever gives the greater charge	45	35	35
Auto-cycle	240	220	75 Kgs.	-do-		
Auto-rikshaws	240	220	5.60 qtls.	-do-		
Boat shooting, non-collapsible over 3.66 metres in length	240	220	5.10 "	-do-		
Canees	235	220	10.10 "	-do-		
Carriage 2-wheeled net on their wheels	240	220	5.10 "	-do-		
Carriage 4-wheeled not on their wheels	235	220	10.10 "	-do-		
Carriage 2-wheeled & 4-wheeled on their own wheels	235	220	16.80 "	-do-		
Carts, all-steel	235	220	10.10 "	-do-		
Carts, country NOC	240	220	5.10 "	-do-		
Carts, Municipal	235	220	10.10 "	-do-		
Carts, tar boiling	235	220	10.10 "	-do-		
Cycle lorry	240	220	1.50 "	-do-		
Cycle tonga	240	220	1.50 "	-do-		
Dhoolies	240	220	5.10 "	-do-		
Helicopters	235	220	18.70 " for each helicopter or per each 4-wheeled vehicle used whichever gives a greater charge.	-do-		
Motor cycles	240	220	1.50 quintals	-do-		
Motor cycles with side car attached	240	220	5.60 "	-do-		
Motor scooter	240	220	1.50 "	-do-		
Motor tricars	240	220	5.60 "	-do-		
Motor tricycles	240	220	5.60 "	-do-		
Side cars of motor cycles	240	220	1.50 " per package	-do-		

16.36 The third group of articles requires a full wagon if they are to be transported and these cannot, in any case, be accepted as smalls. These are as under:

Commodity	Present class	Proposed class	Existing minimum weight for charge
Aircompressor, electric or non-electric on trailer	130	240	30 qtls for the first trailer loaded in a 4-wheeled or 6-wheeled wagon and 15 quintals for every additional trailer. If the number of trailers loaded exceeds 2 in case of 4-wheeled/6-wheeled wagon and 5 in case of a bogie wagon charges to be levied subject to a minimum weight of 60 qtls. and 120 qtls., respectively.
Boats NOC	95	230	30 qtls. for the first boat loaded in a 4-wheeled or 6-wheeled wagon and 15 qtls. for every additional boat.
Heavy earth cutting and/or moving machinery NOC.	105	230	
Includes -			
(a) Crawler tractors			140 qtls. per 4-wheeled/6-wheeled wagon.
(b) Loaders			120 qtls. per 4-wheeled/6-wheeled wagons.
(c) Motor breeders			240 qtls. per bogie wagon.
(d) Motor scrapers			240 qtls per bogie wagon.
(e) Dumpers			60 qtls. per 4-wheeled/6-wheeled wagon if weighing 100 qtls. and less, and 120 qtls. per 4-wheeled 6-wheeled wagon if weighing more than 100 qtls.
Lorries stean	120	240	30 qtls. for the first stean lorry loaded in a 4-wheeled/6-wheeled wagon and for every additional one 15 qtls. If the number of stean lorries exceeds 2 in case of 4-wheeled and 5 in case of bogie, charges to be levied on actual weight subject to a minimum weight for charge of 55 qtls. and 110 qtls., respectively.
Motor Tractors N.O.C.	87.5	230	Subject to a minimum weight for charge of 60 qtls. per 4-wheeled or 6-wheeled wagon.

Commodity	Present Class	Proposed Class	Existing Minimum weight for charge
Motor vehicles NOC			
In open wagons	115	230	30 qtls. for the first vehicle and 15 qtls. for every additional one. If the number exceeds 2 in case of 4-wheeled/ 6-wheeled wagons and 5 in case of bogie wagons subject to a minimum weight for charge of 55 qtls. & 110 qtls., respectively.
In covered wagons	120		
Includes-			
Motor boats, motor cars, motor car bodies, motor car chassis, motor cars and commercial trucks in unassembled state (packed), motor lorries, motor lorry bodies, motor lorry chassis, motor omnibus bodies, motor omnibus chassis, motor omnibuses, motor trailers, motor trollies, tempos, three wheeled vans.			
Pontoons	95	230	45 qtls. per 4-wheeled or 6-wheeled wagon.
Trailers NOC	105	230	30 qtls. for the first trailer 15 qtls. for every additional trailer and if the number exceeds two subject to a minimum weight for charge of 60 qtls. for 4-wheeled or 6-wheeled wagon.

16.37 We propose that the above items should be accepted only as wagon loads. The minimum weight for charge for these items except heavy earth cutting and/or moving machinery will be 60 quintals per 4-wheeled BG wagon, 45 quintals per 4-wheeled MG wagon and 35 quintals per 4-wheeled NG wagon. In the case of air compressor, electric or non-electric on trailers, Boats N.O.C., lorries steam, motor vehicles N.O.C. and trailers N.O.C., the chargeable weight will be computed on the basis of the minimum weight of 30 quintals per article and will be subject to a minimum weight for charge of 60 quintals per 4-wheeled BG wagon, 45 quintals per 4-wheeled MG wagon and 35 quintals per 4-wheeled NG wagon. There will be no rate for 'small's' for these articles. We have indicated the wagon load rates that we recommend for these articles in Column 3 of the above table. In prescribing the rate, we have kept in mind the costs involved in the carriage of these articles.



16.38 With the levy of a minimum charge of 60 qtls. as stated above, the charges for one motor car loaded in a 4-wheeled/6 wheeled wagon or two motor cars loaded in the same wagon will be the same, as they will be covered by the minimum weight for charge. This will encourage booking of two cars at a time by the manufacturers and better utilisation of the wagon space.

16.39 Single motor cars are generally booked by persons going on transfer and they will be put to disadvantage on account of the levy of the above minimum charge. To offset this, we recommend that household effects to the extent of 30 qtls. on the BG, 15 qtls. on the MG and 5 qtls. on the NG may be allowed free in the same van in which a motor car is loaded. Any excess weight will be charged at the rate for smalls applicable to household effects.

16.40 We recommend that the existing minimum weight condition for the various items coming under the heading "Heavy Earth Cutting and/or Moving Machinery NOC" may continue to apply uniformly for wagons of all the gauges.

#### Incidence of freight

16.41 The existing freight and the freight proposed for an average lead of 900 kms for certain articles are indicated below together with their prices. It will be seen that the increases are not unduly high.

Item	Existing freight	Proposed freight	Increase in freight	Price	Incidence of freight on price
	Rs	Rs	Rs	Rs	%age
Auto-cycle	18.60	22.00	3.40	1,200	1.8
Auto-rickshaw	139.00	164.50	25.50	12,000	1.4
Carts country NOC	100.70	126.70	26.00	2,500	5.1
Motorcycle	37.20	44.10	6.90	7,500	0.6
Motor Scooter	37.20	44.10	6.90	7,000	0.6
Motor Cycle with side car	139.00	164.50	25.50	9,500	1.7
Motor Car (one car)	621.00	1642.00	1021.00	50,000	2.7
(two cars loaded in one 4-wheeled/6-wheeled wagon)	931.00	1642.00	711.00	1,00,000	1.4
Ford tractor	911.00	1791.00	880.00	91,900	1.95
Motor trucks -one truck	621.00	1642.00	1021.00	1,40,000	1.17
Two trucks (loaded in one four-wheeled/6-wheeled wagon)	931.00	1642.00	711.00	2,80,000	0.58

Over-dimensional consignments

16.42 Over-dimensional consignments are of three categories :-

Class 'A' - Permitted out-of-gauge loads

These loads which exceed the maximum moving dimensions but do not infringe any fixed structure on the route by a net clearance of 6 inches and above and a gross clearance of 9 inches and above.

Class 'B' - Exceptional out-of-gauge loads

These loads which exceed the maximum moving dimensions but do not infringe any fixed structure on the route by a net clearance of not less than 3 inches but not more than 6 inches corresponding to gross clearance of not less than 6 inches but more than 9 inches.

Class 'C' - Extraordinary out-of-gauge loads

These loads which exceed the maximum moving dimensions and infringe the fixed structure on the route by a net clearance of less than 3 inches and a gross clearance of less than 6 inches.

16.43 At present, in case of 'A' Class over-dimensional consignments, generally speed restriction of 40 kms. per hour is imposed and certain platforms are to be avoided, while in the case of 'B' Class over-dimensional consignments, the loads are not permitted to run during night time and even the speed allowed during day time varies on different sections of the different Railways. Railway staff are seldom required to accompany 'A' & 'B' Class over-dimensional consignments over the journey. In case of 'C' Class consignments, however, usually TXR staff have to accompany, apart from restrictions imposed on the movement such as avoiding particular lines at stations, night journey, speed restrictions in passing through particular stations, bridges, tunnels, etc. Movement of Class 'C' loads require the sanction of the Additional Commissioner of Safety concerned.

16.44 The additional cost incurred by the Railways for the movement of different classes of over-dimensional consignments is different. At present, however, a flat charge of Rs.3.50 per km. for each wagon (irrespective of whether it is a 4-wheeler or a six-wheeler or a bogie), calculated on the total distance from the booking station to the destination station, subject to a minimum charge of Rs.140/- is leviable on all consignments exceeding the maximum moving dimensions. These charges were introduced with effect from 15th March, 1976. In addition, supplementary charges introduced after 15.9.74 are also leviable.

16.45 There were representations against the uniform levy made on the different types of over-dimensional consignments, and on a reference received from the Central Railway that on account of the exorbitant ODC charges, traffic was also being diverted to road, the matter was referred to the Commercial Committee of the Railways in October 1976. The Commercial Committee considered the matter and recommended that, instead of a uniform infringement charge at Rs.3.50 per kilometre, the following rates should be charged:-

Rs.1.50 per kilometre for 'A' Class;  
 Rs.2.50 per kilometre for 'B' Class; and  
 Rs.3.50 per kilometre for 'C' Class over-dimensional consignments.

16.46 It has been represented to us also that the uniform extra charge for over-dimensional consignments, irrespective of the precautions taken and the cost incurred by the Railways, is not reasonable.

16.47 The additional cost for carriage of over-dimensional consignments per kilometre for the year 1976-77 was as under:-

<u>Type of ODC</u>	<u>Additional cost (in terms of unit)</u>
'A' Class	Rs.2.15
'B' Class	Rs.2.73
'C' Class	Rs.9.84

16.48 Escalating the cost by 30 per cent, the costs at present would be as under:-

'A' Class	Rs.2.80
'B' Class	Rs.3.55
'C' Class	Rs.12.80

16.49 Taking into account all aspects of the matter, we recommend the following rates for over-dimensional consignments per wagon (irrespective of whether it is a 4-wheeler, 6-wheeler or a bogie):-

'A' Class	Rs. 3.00 per km.
'B' Class	Rs. 4.00 per km.
'C' Class	Rs.15.00 per km.

These will be subject to a minimum charge of Rs.150/-, Rs200/- and Rs.750/- respectively.

16.50 We have also received several representations regarding the inordinate delays which take place in getting sanction for movement of over-dimensional consignments. The delays are particularly high in respect of consignments which have to be moved over more than one Railway. From the sample study we have made of the time taken to give sanction to move such over-dimensional consignments, we find that there is considerable delay particularly in respect of consignments to be moved over more than one Railway.

16.51 At present, the work of giving sanction for movement of over-dimensional consignments is centralised in the Headquarters offices of the Railways. In the case of local booking, the question of decentralising the work to the Divisions can be considered. Each Division could be supplied with profiles of infringing structures over the different sections on that Railway and, on receipt of application, the Division from which the consignment has to be booked can itself accord sanction for the movement of over-dimensional consignments.

In the case of through booking, at present, each Zonal Railway makes a reference to all the Railways over which the consignments have to be moved and this results in considerable delay - in some cases, we find upto <sup>three</sup> months - before sanction is given. It should be possible for each Railway Headquarters to

Keep all required particulars pertaining to every Railway in their Headquarters, updating the information from time to time so as to facilitate according sanctions for movement without making specific reference in each case to the concerned Railway. This, in our opinion, would enable more expeditious sanction being given for movement of over-dimensional consignments.

The possibility of using computers for this purpose may also be considered by the Railways so that prompt sanctions can be given.

Charges for Guard and Dummy wagons

16.52 The present charge for guard and/or dummy wagons is 75 paise per km. for each Broad Gauge 4-wheeled wagon and 50 paise per km for each Metre Gauge or Narrow Gauge 4-wheeled wagon. These rates have been computed on the basis of the average earnings of a goods wagon. The rates require revision on account of the escalation in costs since these rates were last prescribed. It would be better to have a rate prescribed within the general scheme of the freight structure instead of having a separate flat wagon kilometre rate as at present. We, accordingly, recommend a rate for dummy wagons as under :

At Class 200 of the proposed scale for a weight of 60 quintals on the Broad Gauge, 45 quintals on the Metre Gauge and 35 quintals on the Narrow Gauge.

16.53 The rates proposed would cover the dependent costs on the Broad Gauge for various distances. This would mean increases over the present rates as indicated below for different leads :

Charge for Dummy wagons (per 4-wheeled wagon)

Distance in Kms.	<u>Broad Gauge</u>				<u>Metre Gauge</u>			
	Present		Proposed (Class 200)		Present		Proposed (Class 200)	
	Rs	P	Rs	P	Rs	P	Rs	P
300	248		742		166		559	
500	414		973		276		732	
800	726		1295		484		974	
1000	908		1492		605		1122	
1500	1362		1960		908		1473	
2000	1815		2378		1210		1786	
2500	2269		2773		1513		2082	
3000	2732		3154		1815		2368	

Assuning a weight of 20 tonnes <sup>on the B.G.</sup> for the consignments for which the dummy wagon is being provided, the incidence per tonne of the extra cost will be only of the order of Rs.37.10 for a distance of 1000 kms. In view of the general escalation in costs, the rates prescribed are considered to be reasonable.

Reweighting of Consignments at Destinations

16.54 The present tariff rule is that "Railways do not undertake to weigh consignments at destination station as a matter of course. Such weighments at destination station can only be considered in exceptional cases when the condition of the consignment or package warrants this".\*\*

16.55 Separate instructions have been issued by the Railway Board regarding the circumstances in which requests for weighment can be allowed. Thus, in the Indian Railway Commercial Manual Volume-II, the following instructions regarding reweighment of wagonloads at the request of consignees are given :-

Para 1744 :- Reweighting at the request of owners - (a) As laid down in the IRCA Goods Tariff, railways do not undertake to weigh consignments at the destination station as a matter of course. Such weighment can only be considered in exceptional cases, when the condition of the consignment or package warrants this.

(b) Requests for such reweighment of goods booked in wagon loads should be referred to the Divisional Commercial Superintendent, who may permit the reweighment at his discretion provided that facilities for reweighment exist at the destination.

(c) Coal booked at owner's risk, firewood, charcoal and other goods in bulk and fruits, vegetables, etc. which are likely to lose weight in transit should not be reweighed ordinarily or as a matter of course except under written orders of the Divisional Commercial Superintendent/Coal Area Superintendent/Chief Commercial Superintendent for test weighment or, at the special discretion of the said officers on the exceptional merits of specific case/cases.

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\*\* Rule 118 of Goods Tariff No.35, Part I (Volume I).

Para 1745 :- When the request of a consignor or a consignee for reweighment of wagon load consignments at destination station is accepted on merits of each case by the Divisional Commercial Superintendent, the charges notified in the Supplementary Goods Tariff of the railway should be collected and a separate money receipt, in Form Com./M-2 issued for each reweighment. In addition, demurrage charges due under the rules should also be recovered if the request for reweighment is received after placement of the wagon for unloading. The reweighment charges should be accounted for as a special debit in the station books and balance sheet.

16.56 Separate instructions have been issued for collection of reweighment charges in cases where a wagon load is reweighed at the request of parties. The extant reweighment charges are as under:-

<u>Description of wagon</u>	<u>Reweighment charge</u>
per B.G. 4-wheeled wagon	Rs.75.00
per M.G. 4-wheeled wagon	Rs.45.00
per N.G. 4-wheeled wagon	Rs.25.00

In addition, charges for haulage of wagons where on account of non-availability of weigh-bridge at destination station, the wagon is required to be sent to another station for re-weighment are also to be collected at the following rates:

<u>Description of wagon</u>	<u>Haulage charges</u>
Per B.G. 4-wheeled	Rs.75.00
Per M.G. 4-wheeled	Rs.45.00
Per N.G. 4-wheeled	Rs.25.00

The above charges for haulage of wagons will be uniformly applicable irrespective of the distance of haulage. If a wagon is to be sent to another station on account of the weighbridge at the destination station being out of order, the additional haulage charges will not be leviable.

16.57 In these instructions the main point stressed is that there should be, prima facie, an inference of loss or pilferage or tampering of consignments before reweighment is allowed. These instructions do not indicate the circumstances in which such reweighment charges, when collected, would be refunded but

it is understood that the practice followed on the Railways is that if there is appreciable difference in the reweight, the reweighment fee is usually refunded along with the claim for the shortage. It has also been brought to our notice that, in the case of coal, however, even if there are shortages, the reweighment charges are not refunded on some Railways.

16.58 At many places that we have visited, we have received representations from Chambers of Commerce, Trade Associations, Public Sector Undertakings and even some State Governments that the Railways take a very unreasonable attitude with regard to requests for reweighment. Particularly, with regard to iron and steel consignments, parties have bitterly complained that while they have been experiencing actual losses whose money value would be equivalent to considerable amounts in respect of several cases, no reweighment is allowed on requests of parties and subsequently, the claims are also turned down, as there has been no reweighment before delivery. As a matter of fact, in several cases, it is difficult to perceive outward signs of tampering or pilferage as, for example, in the case of pig iron consignments, coal etc; loss if any can be established only if the consignment is reweighed and the weight compared with the invoiced weight.

16.59 One practical difficulty which Railways are encountering with regard to meeting requests for reweighment of wagons generally is that there are no facilities for reweighment of wagons at many destination stations. It is, therefore, necessary that to deal with the growing volume of traffic, Railways should provide for weighment facilities not only at the booking stations but also at the more important destination stations. Railways can even think of shifting some of the weighbridges from intermediate yards and locating them more usefully at the booking or destination stations. Apart from programming for provision of additional wagon weighbridges, Railways should also think of installing lorry weighbridges at important stations and goods sheds which could be more easily and conveniently installed. At goods sheds like Wadi Bunder and Carnac Bridge, lorry weighbridges are already made use of. It should be



possible to extend weighbridge facilities to a larger number of stations within the shortest possible time if more lorry weighbridges are installed. It is imperative ~~that~~ the Railways should have a planned programme of extension of weighbridge facilities at stations.

16.60 In addition, the Railways should also make use of the weighing facilities available in private sidings or nearby lorry weighbridges even though owned by private parties. The weighing could conveniently be witnessed by railway staff to ensure the correctness of the weight in cases where reweighment has to be done.

It will even be useful to encourage private parties to instal weighbridges near stations for common use on terms to be mutually agreed upon.

16.61 We do not think it would be reasonable to deny requests for reweighment when parties from experience know that there would be heavy shortages in wagons containing consignments like pig iron and other iron and steel materials. Railway Administrations have been representing that they do not have a sufficiently senior supervisor or officer at some destination stations to decide whether there is, *prima facie*, a case for granting reweighment as per the present procedure. While it is necessary to see that there is no unnecessary or deliberate detention to wagons by parties under the pretext of making requests for reweighment, we are of the view that Railways should ensure that in all legitimate cases, reweighment is allowed and the present cause for irritation and complaint by a large number of parties is removed. As mentioned earlier, even State Governments have represented to the Committee that the requests for reweighment particularly of iron and steel consignments are not being complied with even though the officers of the State Government at the receiving end point<sup>ed</sup> out several cases of shortages in previous consignments.

16.62 Taking all aspects of the problem into account, we recommend that a suitably high amount may be fixed as reweighment charge, but normally when parties are willing to pay such a reweighment charge, reweighment requests should not, as a rule, be denied. A sufficiently high reweighment charge should act as a deterrent to prevent frivolous requests for reweighment. We would, accordingly suggest that the reweighment fee may be raised from the present Rs.75/- to Rs.125/- on the broad gauge, from the present Rs.45/- to Rs.75/- on the metre gauge and from the present Rs.25/- to Rs.40/- on the narrow gauge. This would be in addition to the prescribed haulage charges when the wagon has to be taken to another station for reweighment.

16.63 The reweighment fee should be refunded in case where a claim for shortage is accepted as a result of the reweighment and the claim paid. In such cases, haulage charges, if any collected, should also be refunded.

#### Rates for Livestock

16.64 A detailed note on livestock is given in Annexure 16.1.

16.65 Prior to 1958, rates for livestock were quoted on a flat basis, irrespective of distance. As per <sup>the</sup> recommendations of the Freight Structure Enquiry Committee (1955-57), rates on telescopic basis were quoted from October, 1960 but as a separate wagon rate scale. Adhoc increases were made from time to time with the increase in cost of haulage. A brief history of livestock rates is given in Annexure 16.1 A.

16.66 The present rates do not cover the transportation costs.

16.67 We have also received representations, particularly from the Indian Dairy Development Board, that the policy of the Railways of giving very low rates for transport of milch cattle requires review in the context of the national policy of developing dairies in the rural areas of big cities and transporting the milk to the cities. This point has also been stressed by the Ministry of Agriculture. The national policy, it has been pointed out, is to encourage rearing of these animals in rural areas so that the

cities can be kept cleaner from the hygienic point of view .  
 It has also been pointed out that for breeding purposes, large number of animals do not have to be transported <sup>now</sup> in view of large-scale artificial insemination programmes. Such discouragement of <sup>movement</sup> ~~of~~   
~~would~~ prevent the milch cattle being slaughtered in the big cities.

16.68 At present, there are two separate scales of rates for charging livestock traffic as under:

- (i) For pigs, sheep & goats, low-priced horses, mules, donkeys, horned cattle and other animals including wild animals in cages; and
- (ii) For camels, elephants, elephant calves and giraffes etc. There are separate rates for Government and non-Government railways. The rates for pigs, sheep, horned cattle etc. are charged on per wagon basis appearing in Annexure I for Government and Annexure II for non-Government railways, of IRCA Goods Tariff No.35 Part I Volume II. The rates for camels, elephants and elephant calves etc. are on per animal basis as per Annexure V for Government Railways and Annexure IV for non-Government Railways, of IRCA Goods Tariff No.35 Part I Volume II.

16.69 There is much difference in the prices of sheep, Goats and other horned cattle, including donkeys, ponies, mules; but they are charged on a uniform wagon-load rate. Considering the marked difference in the prices of the various animals, it is proposed to have three scales of rates -

- i) For Pigs, sheep & Goats in wagon-loads and wild animals in cages;
- ii) For Milch cattle (cows); and
- iii) For milch cattle (buffaloes), horses, ponies, mules, donkeys, camels, giraffes, elephants and elephant calves.

16.70 There is no need for a separate base scale for livestock traffic as is in vogue at present. The advantage of having a rate scale within the general rate structure is that if changes in the level of rates in the general freight structure are made, these will apply to livestock rates also automatically. We have, therefore proposed a scale in the scheme of the General Freight Structure. We have recommended a classification taking into account the transportation costs of this traffic and the national policy for milk in the country. The proposed rates are -

Description of animals	Proposed class	Minimum weight for charge		
		BG	MG	NG
Pigs, sheep & goats in wagon-loads and wild animals in cages.	160	60 Qtls.	45 Qtls.	35 Qtls.
Cows	170	60 Qtls.	45 Qtls.	35 Qtls.
Horned cattle (other than cows), horses, ponies, mules, donkeys, camels, giraffes, elephants and elephants calves.	180	60 Qtls.	45 Qtls.	35 Qtls.

16.71 The above class rates will apply on a per wagon basis subject to the number of animals permitted to be loaded as appearing in Rule 411(2)(a) of IRCA Goods Tariff No.35 Part I Volume I.

Consignors will not be permitted to exceed the number of animals notified therein. However, in case of detection of excess animals, charges for animals found in excess will be levied proportionately.

16.72 The proposed rates will apply at 'owner's risk' and freight at 20% higher than the charges leviable at 'owner's risk' will be chargeable at 'Railway risk'.

16.73 The proposed rate would cover the costs of haulage for bulk of <sup>the</sup> traffic. As the bulk of traffic, viz., 87% moved on BG and only 13% traffic moved on MG, we have, mainly considered the BG costs.

1 Incidence of increase in freight on prices

16.74 The prices of buffaloes, cows, and goats & sheep in

Calcutta and Bombay markets are as under:

<u>Types of animals</u>	<u>Calcutta</u>	<u>Bombay</u>
Buffaloes	Rs.2000-3000	Rs.2500-4000
Cows	Rs.1000-1500	Rs.1000-2000
Sheep & Goats	Rs. 100-150	Rs. 150-200

Taking the price for the purpose of determining the incidence of increase in freight on prices as Rs.3,000 for Buffalo, Rs.1,500 for cow, and Rs.150 for sheep & goat, the incidence of freight on the livestock at the proposed classes on the average lead for each type of livestock will be as under:-

	Average lead	Present freight	Proposed freight at class 180	Freight increase per animal	Price per animal	Incidence of freight		
						Pres-ent	Prop-osed	Inc-crease
Milch cattle -(Buffaloes)	$\frac{965}{970}$	per wagon Rs.870	1332.00	3 0	3000	2.9	4.44	1.54
		(Per animal) Rs.87	133.20	46.20				
Milch cattle -(Cows)		per wagon Rs.870	1266.00		1500	5.8	8.4	2.6
		(Per animal) Rs.87	127.00	40				
Sheep & Goats	$\frac{549}{550}$	per wagon Rs.538	852		150	3.58	5.68	2.10
		(Per animal) Rs.5.38	8.52	3.14				

It will be observed that for the average lead, the increase in the freight is only of the order of Rs.46.20 per buffalo and Rs.40/- per cow which is not unreasonable considering their prices. Similarly, in case of sheep & goats, the increase is only Rs.3.14 per head.

16.75 As we are proposing a wagon rate for animals like elephants and giraffes etc., railways may consider prescribing limits for animals, like elephant calves, elephants, camels, giraffes etc. to be loaded in a wagon in consultation with the departments authorised to formulate the code for transport of animals/cattle by rail and road. The number of cows that can be permitted to be loaded per wagon also requires review. While buffaloes and high-breed cows may have the same loadability, the space occupied by indigenous cows will be less than that of buffaloes.

16.76 At the proposed rates there will be additional earnings of about Rs. 3.13 crores on traffic in Horned Cattle, Pigs & Sheep. The increase will be about 53% over the earnings during 1976-77.

Rates for Dry Cattle

16.77 At present, concessional rates based on 20% reduction in normal tariff rates have been allowed for transport of dry cattle and calves booked from the following stations for grazing purposes subject to the consignor's producing<sup>a</sup> certificate from the Animal Husbandry Department of the State Government or Government Veterinary Doctor to the effect that the cattle booked are not milch cattle:

Jogeshwari (goods) in Bombay area.

Madras

Calcutta area - including Baliganj, Dum Dum Cantt.  
Kancharapara.

Naihati

Titilagrah

Sheoraphuli; and

Tatanagar.

16.78 We recommend that the concessional rates should continue for dry cattle, as they will not be able to bear the rates as for milch cattle. The concessional rates will encourage transport of dry cattle from big cities to rural hinter-lands for grazing purposes. These rates will generally cover dependent costs.

If any request ~~comes~~ for concessional freight rates for dry cattle, <sup>booked</sup> from any other station <sup>is received</sup> / this can also be considered on the same lines and on the same conditions as existing at present.

Export Traffic

16.79 We have received representations from various Chambers of Commerce, Trade Associations, the Export Promotion Council, Trade Development Authority and also from the Ministry of Commerce of the Government of India requesting that railway freight concessions should be provided for certain export traffic in order to help exporters who are situated at a considerable distance from the major ports.

16.80 Certain railway concessions for export traffic were in vogue on the Railways till 1974. A note giving the history of freight concessions for export traffic is given in Annexure 16.2.

16.81 The Ministry of Commerce in their memorandum and in the oral evidence before us have suggested, inter alia, that :-

- (i) Only manufactured and value added goods may be given freight relief; Agricultural products, minerals, ores, sugar, cement, etc., need not be included in the purview of the scheme of freight relief.
- (ii) Freight relief may be given only to exporters located at places more than 300 kms. away from any one of the major ports, viz., Bombay, Cochin, Madras, Calcutta and Kandla. To prevent strain on railway transport capacity likely to be expected by diversion of cargo from the usual port of outlet to others, the scheme of concession would be made applicable only if the consignments are booked to the usual port of outlet.
- (iii) Grant of relief should be simple and speedy and in as direct a manner as possible.

16.82 We have considered the matter. It is true that manufacturers of goods intended for export suffer a certain handicap if the location is in the interior compared to exporters near the ports. The national policy is also to reduce concentrations near the port-areas and development of industries in upcountry locations. As discussed in para 6.93 of Chapter VI, we agree that some freight relief can be given to upcountry exporters.

16.83 The socio-economic importance and the value of the commodities and their capacity to bear freight rates are considerations which normally weigh with the Railways in arriving at a suitable classification for commodities. The items of manufactured goods which are exported are closely linked with the socio-economic importance of the commodities and their ability to bear freight charges in a competitive context. Many of these manufactured products are high-rated which are also susceptible to a certain amount of diversion to other modes of transport.

16.84 Normally, Railways can quote special 'station-to-station' rates at levels lower than the classification rates to develop any particular stream of traffic. If operating conditions permit, Railways will no doubt quote such 'station-to-station' rates for stimulating export traffic. Apart from this, considering the various aspects of export traffic, we recommend that export traffic may be given general freight relief as indicated below :-

- (i) The freight relief will be available only to consignments booked from a distance of more than 500 kms. from any one of the major ports, viz., Bombay, Cochin, Madras, Calcutta and Kandla.
- (ii) Only booking to the port terminal - here again - the normal port outlet from the area concerned - will be entitled to freight relief. The areas which are linked with particular ports may be notified by the Ministry of Commerce for this purpose.
- (iii) The freight relief will be available only for commodities having a freight classification for wagon loads of 140 and above in the new Freight Structure. We are suggesting this, because if any reduction in the freight rates for classes below 140 is given, Railway's transportation costs will not be generally covered considering the loadability of many of these articles which would be availing export freight relief. Also, we do not consider that such reliefs should be made applicable for raw materials, agricultural products, ores, cement, sugar, etc., which are classified at Class 120 and below.



16.85 We recommend that subject to the conditions mentioned in the para above, export traffic may be given a rebate of 6 per cent of the freight. The rebate may be given for both wagon loads as well as <sup>for</sup> 'snalls' consignments.

16.86 In order to make the procedure simple, we recommend that the rebate should be applicable to all export traffic covered by the criteria mentioned above on production of the following documents at the booking stations:

- (a) A copy of the export contract.
- (b) Packing list
- (c) Copy of letter of credit.

It is understood that, normally, those goods which are despatched on the basis of the export contract and the letter of credit to the port terminal are normally exported. There may be occasional cases where, due to certain reasons like non-availability of space in the ship or defects in packing etc., part of the consignments are left behind. Unless, however, there is considerable delay in transit and the period of validity of letter of credit expires these can normally be exported in a further ship. We have, therefore, suggested a simple procedure. Based on the experience of working, Railways may think of revising the procedure if in a large number of cases, after availing the concession, the goods are really not exported.

it is  
found  
that

#### Export traffic to Kandla Port

16.87 As far as ~~Kandla~~ Kandla Port is concerned, it has been pointed out that the traffic at that port, at present, is mainly inport traffic and there are difficulties in the Railways moving the traffic from the port as empties have to be worked to ~~Kardla~~ Kandla port to meet the requirements of transport of inport traffic in the port. There is not, at present, adequate traffic being exported via Kandla, though facilities are available. Operationally, it will be useful to the Railways if regular streams of traffic are induced to flow to Kandla port for export,

as the wagons taking the goods for export can be utilised for backloading the import traffic. Railways may, therefore, consider quotation of special station-to-station rates for developing particular streams of traffic to Kandla port taking into account the operating condition on the relevant sections on which traffic is so offered and other aspects usually taken into account in quoting station-to-station rates.

Terminal Charges at Siding End

16.88. Railways should look upon 'sidings' as an arrangement mutually beneficial to the Railways as well as to the siding owners. Sidings should be really considered as special terminals. An industry going in for its own siding saves for the Railways expenditure, to some extent, on terminal facilities which the Railways would, otherwise, have to incur at the station if the increased traffic is to be dealt with. In the context of mounting costs of investments, it would, indeed, be prudent to induce the big customers to provide for their own terminal facilities by way of sidings. Again, customers who invest in siding facilities have a stake and, therefore, would be moving definite quantities of traffic over the Railways.

16.89 The normal practice on the Railways is to levy, in addition to the freight charges, a separate siding charge for the placement and removal of wagons at sidings. Where the siding owner arranges for this work to be done by his own locomotive, a separate siding charge is not normally levied. It has been represented to us by several siding owners including the oil interests and steel interests that instead of the practice of having separate siding charges as computed at present, there should be an element in the through freight rate itself where such additional charges are considered necessary. We have also received representations against the practice of asking the siding owners to bear the cost of tally clerks who are employed on behalf of the Railways

in the sidings to supervise loading/unloading etc. We will be discussing these matters pertaining to sidings in our final Report.

16.90 We would, however, like to point out here that as far as the question of terminal charges in respect of consignments booked to and from the sidings are concerned, it is clear that, at the siding end, the Railways are not incurring the full terminal cost which normally would be incurred in a goods shed or at a station. On a consideration of the various items which make up the terminal cost, we recommend that:-

- (i) In the case of a siding where tally clerks are provided and the cost of tally clerks is borne by the siding owner, there should be a rebate of 50% of the terminal charge at the siding end; and
- (ii) in the case of sidings where the siding owner is not bearing the cost of any tally clerk, there should be a rebate of 25% of the terminal at the siding end.

16.91 The amount of such rebate is likely to be of the order of Rs.7 crores annually.

#### Loading in Open Wagons

16.92 From our discussions with various interests like cement, fertilisers etc. in different regions of the country, we find that, as Railways are not able to supply adequate number of covered wagons, the parties have to make use of Open wagons.

16.93 It is quite evident from several factors like imbalance in traffic in covered and opens, <sup>that</sup> factories producing cement, fertilisers etc. will have to load in open wagons, if the optimum level of loading is to be maintained; and such loading in open wagons will have to be done in a planned and systematic manner. It has been represented to us that, at present, Railways are insisting on every occasion when such loading in open wagons has to be resorted to, that the senders should 'elect' such open wagons so that Railways will have only limited liability under Section 75-A of the Indian Railways Act. We consider that

this is neither fair nor reasonable, because parties in such circumstances do not have any option other than loading in wagons supplied by the Railways and Railways are not in a position to supply covered wagons in adequate numbers. The question of 'election' of such wagons by senders should not, therefore, arise. There is also the problem of covering the consignments loaded in open wagons with tarpaulins, forming full rake loads and escorting such loads. This matter has been discussed by us with the cement and other interests and the consensus arising out of the discussions is that the plants would be willing to cover the open wagons with tarpaulins and arrange for escorts provided they are compensated in some way in the Railway pricing structure for the additional costs to be incurred by them. In our view, it would be better if the parties themselves provide tarpaulins, and cover the wagons with due care to avoid damage en route. If Railways were to provide tarpaulins, they will have to set up a special organisation for this purpose. Some of the tarpaulins which the Committee had seen at some of the Railway Depots are in such a bad condition that covering the consignments with them will not serve any useful purpose. All things considered it is better that a suitable pricing incentive is given to the parties to provide the tarpaulins themselves.

19.94 With regard to covering of wagons with tarpaulins, some special care is required to ensure that tarpaulins do not sag in the middle. It should be possible for the RDSO to devise some simple mechanical devices which can be used along with the tarpaulins to ensure that they properly cover the wagons without sagging in the middle and would give effective protection even in the case of unexpected rains etc.

16.95 With regard to the incentive that should be given to the parties, we have had the benefit of some cost data supplied by the cement manufacturers' association and these have been examined. Based on the cost data, we would recommend a 6% rebate for consignments loaded in Open Wagons <sup>covered</sup> with tarpaulins provided by the parties themselves and offered in full train loads properly escorted

We, therefore, make the following recommendations with regard to loading of consignments like cement, fertilisers etc. in open wagons in train loads:-

- (i) the senders need not have to 'elect' open wagons as is being done at present.
- (ii) the consignments will be carried at Owner's risk with all the liabilities pertaining to owner's risk consignments devolving on the Railways.
- (iii) Parties should arrange to cover the wagons properly with their own tarpaulins.
- (iv) A rebate of 6% in the wagon load rate should be given for consignment trucks moved in Open wagons. This will be in addition to the rebate for full train loads which we have recommended.
- (v) A suitable number of escorts may be allowed per train load, free of charge, on execution of the usual indemnity bond. The number of escorts so permitted will be specified.

16.96. A few other matters like crane charges, charges for transport of consignments by special trains, charges for traffic booked from one siding to another siding in the same station area, charges for haulage of empty wagons on private account, haulage charges for engines booked to private parties, rate for container services, rebate in freight for private ownership of special type of wagons etc., will be dealt with in our Final Report. Excepted articles will also be covered in that report.

Earnings from goods traffic on the basis of the recommended Freight Structure

16.97. On the basis of the rate structure and the classification scales for various commodities recommended by us, and taking into account the rebates we have suggested, the total earnings for the revenue earning goods traffic at the level of the 1976-77 volume of traffic have been worked out in detail. The total earnings would be of the order of Rs.1970 crores; this would mean an additional earning of the order of about Rs.515 crores over the 1976-77 earnings at the same level of traffic and operating efficiency as in that year.

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## **PART IV**

### **Summary of Conclusions and Recommendations**

## CHAPTER XVII

### SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

17.01 The nature of the work assigned to the Committee and the scope of the Main Report have been explained in Chapter I. The financial review of the Indian Railways in Chapter II has indicated that the finances of the Indian Railways have been in poor shape, especially since 1966 except for a few years. While various factors have played a part in this, a major constraint has been that the tariffs charged for various railway services have not kept pace with the increases in the costs of various inputs of the Railways. This has resulted in the Railways not being able to make adequate provisions for repairs and maintenance, depreciation, and, especially, for further development. They have not even always been in a position to earn enough to pay the dividends on the Capital-At-Charge. This is the position in spite of the fact that, as indicated in Chapter III, many of the normal physical indicators regarding the operational performance of the Indian Railways suggest that there has been considerable improvement in the utilisation of assets and the productivity of labour on the Railway system. The Indian Railways show good performance in many respects as compared to important foreign railway systems. At the same time, it is clear that their performance is poorer than that of the Soviet and Chinese Railways. Even in respect of some physical indicators of performance, the situation has been unsatisfactory in the last two years.

17.02 In Chapter IV, an attempt has been made to look at the traffic which the Railways will have to carry by 2000 A.D. and, in the light of these requirements, calculate the assets that will have to be obtained and the investments that will have to be made. It is clear that, even at the very minimum, the developmental outlay on the Railways will have to increase substantially as compared to what is being provided in recent years and what is proposed in the draft Sixth Plan.

17.03 In Chapter V, the manner in which the cost of providing railway services should be analysed is outlined together with a delineation of the manner in which cost analysis is at present conducted by the Indian Railways. Data available from the Costing Cell of the Railway Board and from other sources

have been summarised and their inadequacies as well as significance briefly explained.

17.04 In the light of the aggregate picture provided by these various parameters, an attempt has been made in Chapter VI to indicate the overall approach to tariff policy which the Committee has formulated. After discussing some of the special aspects of tariff-making on railways as a public utility agency, the special problems faced by the Indian Railways in terms of the additional earnings required by them to fulfil their essential requirements and to provide the minimum necessary internal mobilisation for development outlay have been examined. On the basis of the discussion in the earlier chapters, it is suggested that the year 1976-77 may be treated as a year of normal efficiency for the Indian Railways and, after appropriate adjustments for cost escalation and additional earnings required, it is explained why it is necessary that the future tariffs should be so formulated that, at the 1976-77 level of efficiency and traffic, the Railways should be in a position to earn an additional amount of about Rs 770 crores. Different aspects such as how this amount should be distributed among different streams of traffic, what the approach should be regarding the cost-tariff relationships for different streams of traffic, special problems such as those relating to suburban services and the North Eastern region are examined; and while explaining how the proposals should be implemented and why their impact is not likely to be inflationary, a formula for tariff escalation in the near future has been suggested. This has been done with a view to avoiding difficulties as experienced in the recent past about adjusting railway tariffs periodically with a view to meeting the changes in the prices of major inputs. The limitations of the tariff structure as well as the escalation formula have been explained and the time horizon for a fresh look at these questions suggested.

17.05 In Part II, the Report deals with what is called Coaching Tariff. After giving a brief history of the evolution of passenger fares, and describing in outline the socio economic profile of the railway passenger based upon a survey conducted by the Committee, a new structure of passenger fares for different classes of passenger



accommodation provided on the Indian Railways has been recommended together with an explanation of why this structure is considered appropriate. In the next Chapter, special fares such as those for season tickets, circular tours, and concessions of different kinds have been dealt with. Then follows a brief history of the tariffs for parcels and luggage. On the background of this history, the Committee's proposals regarding the charges for parcels and luggage etc. have been explained.

17.06 In Part III, the basis of the present freight structure has been explained, giving a brief history of its evolution. Then comes the main chapter regarding freight rates, indicating the basis of the structure of freight rates which the Committee is proposing. The classification of commodities has been in some respects modified in the Committee's recommendations, and an explanation of the proposed structure of classifications follows. This is followed by detailed recommendations about the freight rates for particular commodities, indicating their special characteristics, and pointing out the implications of the proposed tariffs by way of the incidence of these on the concerned interests. Some other aspects relating to freight tariffs have also been examined and recommendations made.

17.07 A few aspects of the overall policy implied in the Committee's recommendations should be mentioned here. The Committee has had to balance various considerations, the most important among which were to take note of overall costs and benefits - social and private - on the one side, and practical considerations of administrative management and public acceptability on the other. It is well said that the better can many times be the enemy of the good. In attempting to take note of all the fine differences in the cost-benefit relationships regarding different streams of traffic, and attempting to project these in actual tariffs, it can happen that the costs - actual or implied - of administering such a complex tariff structure may outweigh the advantages of the attempt to be fair and just. One cannot overlook the very important fact that the tariffs have to be administered by large numbers of railway employees at points spread through this vast country.

While various aids may be provided to them, it is still necessary to remember that making the structure too complex is likely to lead to administrative costs, inefficiency, delays for the public, and perhaps some corruption.

17.08 Another aspect that the Committee could not ignore is the situation regarding tariffs on different streams of traffic as it has come to evolve over the last two decades and as it exists today. However, inappropriate some of the present differential tariffs may be found to be, it cannot be overlooked that they have existed for some time, and various users have organised their economic life on the expectation that such tariffs would continue. While it is only appropriate that a Committee like ours, attempting to give a fresh look to the whole tariff structure, should rationalise it as much as possible, it cannot suggest changes which are too drastic and where the difference between the existing and proposed tariffs would be so large as to make the changes very difficult to be accepted. This is specially so when the problem relates to specific and important strata of railway users. In such cases, the Committee has suggested a phased programme of change so that a smaller change immediately should be followed by gradual changes in the desired direction over a period of time so that the whole structure can be more rational after a period. Such an approach has been taken in cases like those of season tickets in respect of passenger fares, and perishables in respect of parcel rates.

17.09 The Committee has also gone into certain aspects which are important from the point of view of the impact of railway tariffs on particular parts of the economic system. For example, the Committee has suggested that special care should be taken regarding the freight and fare charges for traffic to the North Eastern area of the country. It has been recommended that the chargeable distances should be calculated in such a manner that, to the extent possible, the users in this area should not feel that they have been handicapped as a result of the partition of the subcontinent in 1947, which was a decision taken by the country as a whole and for which people living in this region alone should not have to pay

a cost. It has also been recommended that the transport subsidies that are available in that region at present should be made applicable from the more important points from the point of view of to and fro traffic. It has further been suggested that the incidence of these burdens should be borne not by other railway users but by the Central Exchequer. Another similar recommendation of the Committee is that the capital investments which would be made in future on the provision of suburban or suburban-like services should be exempt from the payment of dividend so as to reconcile the very heavy capital costs that are involved in the rehabilitation, expansion and rationalisation of these services, and the necessity to keep the fares on these services - which mainly take the form of season tickets - at an acceptable level.

17.10 When the question of railway tariffs is discussed, it is sometimes said that it should be possible for the Railways to raise the necessary financial resources for better maintenance, proper depreciation and further development by improving efficiency and practising economies in different items of their expenditure. The Committee has agreed that there is scope for improving the efficiency on the Indian Railways and it proposes to examine this aspect in some detail in its Final Report. But it is quite clear that, in a system as large and as old as the Indian Railways, it would be unrealistic to expect miraculous changes. The data provided about the physical performance and the comparisons with some foreign Railways as well as the changing physical indicators over a period all suggest that, as compared to the functioning of railways in most countries, the Indian Railways are not doing too badly except in the last two years. Standard costing, however desirable, has hardly made any progress on any railway systems in the world, and to expect any such system to come into existence in the near future would be unrealistic. All one can do therefore is to take the best performance attained upto now as the standard which should be maintained, if not immediately improved upon. In view of all the difficulties which the country has been passing

through in respect of labour relations, law and order and various other matters, the attainment and maintenance of the efficiency level of 1976-77 would thus be a target which would be very much worthwhile. Various incentives and other methods for their attainment should be pursued. But to expect that an enterprise such as the Railways spread all over the country and with a work force of 17 lakhs, one of the largest in the world under one organisation, would be able to withstand the difficulties which are being faced by the economy and the country as a whole is to expect the impossible. At least in making projections for the near future, it would be wrong to make such unrealistic assumptions. Anything that affects law and order or labour relations in any part of the country affects the railway system. Moreover, the system being closely interlinked in its different parts, when an important section is in trouble, the working of the railways in other parts cannot but be adversely affected. This is specially so when the functioning of the Railways in vital areas like the coal belt gets into difficulties because of various local factors. All other traffic gets affected, partly because it reduces the availability of coal required for steam traction services in different parts of the country, and partly because priority has to be given to coal movements thus putting other streams of traffic in jeopardy. All such factors should be taken note of when considering the question of railway efficiency.

17.11 When it comes to effecting economies, the scope for such a measure may be thought to be considerable in <sup>a</sup> large organisation like the Railways. This will be one of the aspects to which attention will be given in our Final Report when we examine questions relating to operating efficiency. It should however be pointed out that, in half the expenditure incurred by the Railways—on stores and materials, fuel and contractual payments,—there is hardly any genuine possibility of economy. This is not to say that these materials cannot be more effectively utilised; but this is a question affecting the overall operating efficiency. Half the Railway expenditure is incurred on staff. It has sometimes been suggested that Railways are over-staffed. We have not examined this matter. Moreover, it should be realistically acknowledged that any retrenchment in staff is not a practicable proposition. What one can look forward to is a more effective

utilisation of staff so that, with the same staff, more traffic is handled; and as total railway facilities increase, the staff does not increase in proportion. Data given in Chapter III indicate that, to some extent, this has already been happening. But there must be scope for more efficient utilisation of staff. However, the main point to be noted regarding all such possibilities is that it is no use making unrealistic assumptions about such improvements, especially in a short period of time. Railways, with the characteristic of largeness in terms of geographical spread, total length, total operations and total number of staff, are specially not an organisation which can become an island of efficiency which will stand out as something very different from what is happening in the economy and the society as a whole. If anything, its efficiency is likely to be lower than that in individual manufacturing units or even public utility units, most of which are very much smaller in size and, therefore, far more amenable to special initiatives for improvement of efficiency. While one need not take a pessimistic view, false optimism can also create problems. That is why we have thought it appropriate and prudent to assume the efficiency level actually attained in 1976-77 as the norm on which to formulate our tariff structure.

17.12. When looking at such problems, the relative importance of different elements in the cost structure is sometimes overlooked. Many critics of Railways, for example, point to the Railway Board as an unnecessarily large organisation - a 'white elephant' some of them call it - and suggest that large economies can be effected in the expenditure on it; and that this could make a considerable difference to the financial position of the Indian Railways. Such critics overlook the obvious fact that the expenditure on the Railway Board does not even constitute 0.1% of the total expenditure of the Indian Railways. Leaving aside the question regarding the appropriate role of the Railway Board in such an organisation - a point to which we shall briefly revert in our Final Report - even if the expenditure on the Railway Board could be cut down by 50%, it would hardly make a dent in the total expenditure.

Critics many times appear to overlook such obvious points.

17.13 . As a result of all these considerations, the Committee has come to the conclusion that the financial viability of the Railways can be re-established only by permitting a substantial increase in the tariffs for different railway services. The distribution of this increase will naturally vary among different streams of traffic according to what burden different streams can and should bear. To ensure effective and optimum use of national resources, the Committee has attempted to take as much care as possible to ensure that no special incentive is given to attract to the railways traffic which should, from the point of view of the optimum use of resources, be carried by other modes of traffic; and also to ensure that no traffic is carried unless it covers the direct costs of carrying it. Subject to these overall considerations, other factors such as administrative convenience, social burdens and acceptability, the incidence of the proposed tariff and its possible impact on different sections of the population, on different regions and on the overall functioning of the economy have been kept in view. The aim has been to ensure that the Indian Railways, which are one of the most important infrastructural agencies of the country, are enabled to play their proper role in ensuring development and efficient functioning of the national economy, and in serving the interests of the common man.

17.14 . Finally, before summarising the specific recommendations made by the Committee, it may be stated again that the Committee has formulated its recommendations as an integrated structure of tariffs, keeping a certain overall approach to Railway finances and to the future role of Railways in the Indian economy in view. The Committee is also happy to note that its approach in these matters is basically similar to that which is to be found in the Report of the National Transport Policy Committee appointed by the Planning Commission which has recently submitted its Report. The Committee therefore feels confident that its recommendations will be considered by Government in the light of this overall approach to transport development and to the special role of Railways in the future economic development of the country.

As has been mentioned in the Report, we hope that the Government will consider the various recommendations made about different streams of traffic and other related matters as an integral whole and that, to the extent possible, this structure will be maintained intact. In keeping with this approach, we have also further suggested a formula for tariff escalation which should be used for a few years till it is revised after a further expert study.

17.15 Our main conclusions and recommendations are as follows:

1. For the period from 1950-51 to 1978-79 the position of net surplus earned by the Railways was as follows:-

<u>Year</u>	(Rs crores) <u>Net Surplus(+)/Deficit(-)</u>
1950-51 to 1965-66	(+) 324.57
1966-67 to 1975-76	(-) 357.02
1976-77 to 1978-79	(+) 230.13
Total	(+) 197.68

(Para 2.09)

2. In the years when surpluses were inadequate, the railways have had to secure temporary loans from the Government to meet their liabilities. (Para 2.11)

3. It is the Committee's impression that funds provided in the past for repairs and maintenance may <sup>not</sup> have always been adequate. (Para 2.19)

4. The provision for depreciation by the Indian Railways has been less than at the desired level, especially after the financial position started deteriorating after the late 'sixties. (Paras 2.20 & 2.34)

5. It is necessary that contributions to the DRF should be worked out on a proper basis irrespective of the varying amounts required for physical replacement from year to year, or the production capacity available in the country at a particular time. (Para 2.42)

6. With the considerable backlog of depreciation, and the major assets acquired in the earlier Five Year Plans falling due for replacement in a short time, it is specially necessary for the railways to provide for depreciation amounts much larger than now. (Para 2.44)

7. There should be, in a large public utility organisation like the Railways, a more objective and satisfactory basis for regularly setting aside appropriate amounts for depreciation. It is recommended that the Government may appoint an Expert Committee to go into this whole question at an early date. (Paras 2.50 & 2.52)

8. For its own calculations, the Committee~~has~~ assumed a provision for depreciation at a rate of 4.7% on the value of assets. (Para 2.52)

9. The contributions made by the Railways to the pension fund have not been adequate in the past. It may be necessary for the Railways to undertake a fresh valuation to determine their pension liability in view of the many changes that have taken place. (Para 2.57)

10. In relation to the increases observed in the prices of major inputs of the railways as well as certain other important commodities, the increases in the railway fares and freight rates have been at a considerably lower level especially since 1965-66. (Para 2.68)

11. Over a period of time the Indian Railways have improved their operational efficiency achieving best results in 1976-77 and 1977-78. The efficiency of utilisation of assets on the Indian Railways is better than that obtained in most of the developed countries. However, on a comparison with USSR and Chinese Railways, it is seen that there is considerable scope for further improvement. (Para 3.50)

12. Railways are an essential infra-structural facility for economic and industrial development of a country. (Paras 4.3, 4.4 & 4.5)

13. The route length of railway lines in India, whether in terms of population or land area, compares very unfavourably with that not only in the economically richer countries of the



world, but even as compared to countries like Malaysia, Algeria or Egypt in terms of population, or Sri Lanka in terms of land area. (Table 4.1)

14. An important reason for slow increase in railway route length in the past thirty years appears to have been the idea that, with the availability of the alternative mode of transport by way of roads, less emphasis was necessary on a capital intensive mode of transportation like the railways. The Report of the National Transport Policy Committee indicates that much greater attention to railway development needs to be given in the future, particularly in view of the fact that railways are a much more energy efficient means of transport. (Para 4.08, Table 4.5)

15. Compared to the first three Plans, subsequent plans gave far less importance to railway development. (Para 4.09)

16. In view of the recent developments in the field of fuel, national policy would require more emphasis for long distances haulage as well as mass transit to be placed on railways rather than roadways. This would probably imply that the demand for railway traffic facilities will grow at a rate faster than would be indicated by projections from the past trends. (Para 4.11)

17. In a democratic society like ours it would be difficult to resist the demand for increasing facilities for carrying passengers as long as the facilities, on proper costing, pay their way. (Para 4.12)

18. It is necessary that steps are taken to ensure that new work opportunities are created in other areas so as to avoid further migration to the major metropolitan cities. However, any attempt at keeping the investments on metropolitan transport systems low on the plea that better rapid transit systems will encourage more migration to the cities, is a very unrealistic and almost inhuman approach to the problem. (Paras 4.14 & 4.15)

19. In view of the long gestation period of railway schemes, it is time railways begin to plan on a longer term footing, probably for 20 years. The future development should be a little ahead of the actually projected demand and, wherever possible, the development should take the form of alternative routes and bye-passes instead of doubling and trebling along existing routes. (Paras 4.16 & 4.17)

20. It is estimated (as a minimum projection) that the railway traffic in 2000 A.D. as compared to that in 1977-78 will be as follows:-

(10<sup>9</sup> NTKM/PKM)

	<u>Freight traffic.</u>	<u>Passenger Suburban</u>	<u>Traffic Non-suburban</u>
Traffic in 2000 A.D.	406.00	168.00	320.00
Traffic in 1977-78	162.69	39.43	137.20
Additional traffic in 2000 A.D.	243.31	128.57	182.80

(Para 4.23)

21. The resultant investment requirements for additional facilities for taking care of additional traffic which would be generated in 2000 A.D. have been estimated as follows:-

(Rs in crores) (at 1977-78 prices)

1. Rolling Stock

a) Locomotives	2249.93
b) Coaches	1665.46
c) Wagons	5064.76
d) EMUs	1836.78
e) Miscellaneous	1069.76

Total 11886.69

2. Traffic facilities@	7132.01
3. Workshops and sheds @@	1664.14
4. Electrification	786.70
5. New Lines	1601.00
6. Other investment (10% of 1 to 5)	2307.05
Grand Total	25377.59

@ Including signalling and safety.

@@ Based on Railway Corporate Plan (1976-89).

(Para 4.24)

22. Adding the requirements for need based replacements, the total outlay for the development of railways upto 2000 A.D. would have to be about Rs 36,000 crores at 1977-78 prices. It may be assumed that the outlay in the first year of the revised plan would have to be Rs 1,000 crores in order that an outlay of Rs 36,000 crores (1977-78 prices) is completed in 20 years. It will then have to increase in constant proportion so that the total outlay as required is spread over 20 years. (Taking escalation in costs into account the outlay required in the initial year 1980-81 will be Rs 1250 crores).

(Paras 4.24, 4.25)

23. The Committee considers that a year like 1976-77 when the railways attained some of the best results in terms of efficiency that they have ever attained would be a good basis to provide the standards on which to formulate future tariffs. It also happens that 1976-77 was the year for which the latest cost analyses prepared by the Railway Board were available. The Committee have, therefore, thought it fit to use the cost data for this year as standard for its work, of course making allowance for the changes in prices which have occurred since then.

(Para 5.13)

24. The results of some studies indicate that a certain level of savings is involved in block rake movements as compared to piecemeal wagon movements. However, the exact extent of these savings cannot, at present, be quantified.

(Para 5.36)

25. Unit costs of movements are higher on heavily graded sections. It has, however, not been possible to accurately quantify increases in costs due to gradients. (Para 5.40)

26. Certain commodities such as salt, sulphur, lime, and super-phosphate have a corrosive effect on the wagon bodies when transported by rail.

(Para 5.42)

27. According to the analysis made by the Railway Board the average unit cost of transshipment at a break-of-gauge point works out to Rs 7.50 per tonne.

(Para 5.43)

28. Taking into account the overall empty return ratio, unit costs per tonne and per tonne Km. worked out by the

Committee on the basis of average weight carried per wagon have been given in Statement 5.1. Unit costs based on full loadability of BG and MG wagons have also been estimated and given in Statement 5.2. The costs have been segregated between terminal and enroute costs taking note of the revised marshalling pattern devised by the Railway Board. (Para 5.51)

29. Costs of EMU services have to be understood keeping in view the varying occupancy ratios at different hours of the day, and also the rapidly increasing marginal cost, far more significant in these than in other railway services. (Para 5.64)

30. On the basis of available data and analysis, it appears that on the goods side, the average linehaul cost per kilometre declines with distance. There is no such clear evidence on the passenger side available at present. (Paras 5.85 & 5.86)

31. In spite of the development of other modes of transport the railways still have a large monopoly in carrying certain types of traffic. The railway tariffs fixed by the government are in the nature of administered prices and not mainly market determined competitive prices. (Para 6.01)

32. The railways can, within limits, operate as a discriminating monopoly. They can frame their tariffs so that no price need be below the direct cost of service, and any price can be up to the value of service. By charging commodities which can bear only a low incidence of tariff charge at lower rates - as long as they meet the direct cost of transporting them - and by charging other commodities which can bear a high incidence at higher rates, the total traffic carried can be maximised and so also the total revenue. This involves cross subsidisation by some streams of traffic of others. (Para 6.10)

33. Over the years the proportion of low rated bulk traffic carried by the railways has considerably gone up (presently, over 80% of the total goods traffic). If the Railways have to pay their way, a large part of the cost of running them has to be borne by its major users, a small number of bulk commodities

on the goods side and the Second Class (ordinary) passengers on the other. As the percentage of high rated commodities and upper class passengers is small, it is not possible for them to significantly share the burden for providing subsidised transport to low rated bulk traffic and Second Class (ordinary) passengers. (Para 6.19)

34. India being a poor country, with capital as one of the scarcest of its resources, it is undesirable not to earn an appropriate surplus on the capital invested in an enterprise. The Committee considers that the Railways should earn, when they are working at normal efficiency, a return of 10% on the Capital-at-Charge. (Para 6.34 & 6.35)

35. The railway tariffs should be such that if the Railways operate on the level of efficiency which they had attained in 1976-77, they should meet all their appropriate costs at 1980-81 prices and earn a return of 10% on the Capital-at-Charge. (Para 6.47)

36. For ensuring appropriate return on the Capital-at-Charge and appropriate provisions for the working expenses of the Railways, and also taking into account the price escalation factor, it is estimated that the Railways will have to earn about Rs 770 crores more on the traffic carried in 1976-77 at the same level of efficiency. (Para 6.48, Table 6.4)

37. The proportion of total outlay on the Railways, though it was high in the initial plan, has been on the low side in recent Five Year Plans. The Committee assumes that the Railways may be expected to mobilise 40% of their development outlay from internal resources, 60% being contributed by the General Exchequer. The Railways would on this basis be called upon, in the initial year, to mobilise an amount of Rs 500 crores out of an outlay of Rs 1250 crores, which is the escalated equivalent of Rs 1000 crores of the first year's outlay out of Rs 36000 crores estimated for 20 years.

(Para 6.59)

38. If internal mobilisation is to become a permanent feature of railway finances, steps will have to be taken either to widen the scope of the works to be undertaken

from the Development Fund, or to set up a Capital Reserve Fund which could be used for financing such works. The surplus earned by the Railways should not be used as a contribution towards improving the general ways and means position of the Central Government. (Paras 6.62 & 6.64)

39. The tariff proposals have been so made that out of proposed additional earnings of above Rs.770 crores during 1980-81, goods will contribute about Rs.500 and coaching over Rs.250 crores. (Para 6.65)

40. The general principle adopted for formulating the proposed tariff rates is that, except for very special reasons, no stream of traffic would be carried at rates which would, for that stream as a whole, not meet the costs directly to be ascribed to that stream of traffic. The contribution to total revenues of each stream of traffic would, however, vary according to what that stream of traffic can bear. (Para 6.67)

41. While deciding the tapering of freight rates with distance, the Committee has kept in view the recommendations of the National Transport Policy Committee that, for shorter distances, motor transport would be more suitable, except in case of bulk commodities, and that the railways should concentrate more on medium and long distance transport. (Para 6.69)

42. In case of passenger services, the approach of the Committee is that, while revenue from Second (ordinary) passengers should cover the direct costs of these services, revenue from the mail/express services should not only cover their fully distributed costs but also make up the shortfall on the Ordinary service so that the passenger services taken as a whole meet their share of total costs. (Para 6.71)

43. The Committee has recommended that uniform rates of tariffs should apply on <sup>diferent</sup>  $\angle$  gauges, and on sections with varying traffic density, in spite of possible differences in operating costs. (Para 6.73)

44. It is also recommended that the existing practice of providing station to station rates <sup>wherever justified</sup> should continue. (Para 6.75)

45. It is recommended that the existing system of confining inflation of distances to hill sections involving very steep gradients should continue. (Para 6.79)

46. The Committee agrees with the conclusion of the National Transport Policy Committee that there is no case for freight equalisation which in the long run merely distorts economics of location and leads to a wrong pattern of development. (Para 6.89)

47. The tapering of rates with distances has been suggested in a way that the rates taper more slowly than the costs over shorter distances, while they taper more sharply at medium and specially for longer distances. Such a taper will encourage transport for medium and longer distances by rail and that for shorter distances (except for bulk commodities) by road. It has, however, been ensured that, even at longer distances, the tapered rate covers at least the direct cost of haulage. (Para 6.91)

48. It is recommended that a scheme for a transport subsidy for all rail transport movements to and from the North Eastern region should be formulated. The freight charges may be calculated on the basis of shorter notional direct routes via Bangladesh and the losses which the Railways may sustain as a result of this concession, should be borne by the Central Exchequer. (Para 6.112)

49. The present system of granting freight subsidy to the extent of 50% in respect of certain essential commodities moving east of Siliguri should be applicable also from Patna in the West and Howrah in the South. (Para 6.113)

50. The basic fare structure on the existing or the newly emerging suburban or suburbanlike services would have to be the same as on other parts of the railway system. An underground isolated system like the one under construction in Calcutta may be an exception. (Para 6.118)

51. The degree of concession on the season tickets has been very high. It is felt that a uniform concession of

not more than 50% is the maximum that could be justified. The monthly season ticket fares for all distances should, therefore, be equal to the fares for 24 or 25 single journeys. It is recommended that a steady and persistent policy of increasing season ticket fares to bring them to this level should be pursued so as to achieve this in the course of five to ten years. (Para 6.121)

52. It is recommended that the capital investments in new or additional transport facilities on the suburban or suburban-like sections of the Railways should be exempted from the payment of dividend so that the burden on the railways from the construction, maintenance and operation of such lines gets lightened. Losses which the Central Exchequer may have to sustain as a result of this exemption may be taken into account by the Finance Commission when the Centre-State financial relationship is periodically examined. (Paras 6.123 to 6.125)

53. It is felt that keeping the Railway tariffs artificially low thus reducing railway finances to a poor state, while appearing to be in the interest of the common man, really affects his genuine interest adversely. A financially sound railway system is a sine qua non of a healthy and growing economy which is the need of the country and its common people. (Para 6.128)

54. In devising the new tariff structure the Committee has attempted to see that the burden of the additional tariffs falls less on the common people and more on those who can bear it better. (Para 6.129)

55. A comparison of the incidence of the proposed Second class fares on industrial workers in India with similar incidence in other countries shows that the burden of the proposed fares is not too heavy, especially when compared to the passenger tariffs in countries like the U.S.S.R. or China. (Para 6.131)

56. While formulating the tariffs it has been borne in mind that the tariffs should also serve the purposes of providing appropriate incentives and disincentives for more efficient utilisation of national resources. (Para 6.132)



57. It is necessary that when our recommendations are examined and implemented, the fact that the structure has been worked out as an integral whole and the relativity as well as the tapering are based on a certain footing is not overlooked. (Para 6.134)

58. It would be desirable to ensure that the tariff levels are adjusted from time to time in such a manner that the railway tariffs keep pace with changes in the prices of the major inputs in the production of railway services. The Committee has, therefore, suggested a suitable formula for escalation of tariffs in the future years. It is proposed that the basic tariff rates (the Second class ordinary passenger fare at 100 Kn. and the freight rate for class 100 at 100 Kn) should be revised once a year on the basis of the suggested formula. The formula should be subjected to fresh expert examination after a few years, when the composition of expenditure would have expectedly undergone a major change.

(Paras 6.135 to 6.142)

59. After considering all relevant aspects, the Committee has concluded that a potential overall increase of 40% in the earning capacity of the Railways has to be aimed at in the proposed tariffs. The actual increase in earnings would depend upon the efficiency of operation and the traffic carried as compared to the base year. (Para 6.143)

60. It is our view that the implementation of our proposals on balance, is not likely to have an inflationary impact.

(Paras 6.145 to 6.147)

61. When implementing our proposals, <sup>for</sup> allaying the misgivings of the railway-users, it is necessary that Government should make it clear that the additional earnings will be used for the better operation and further development of the Railways, and not for any other purposes.

(Paras 6.148 & 6.149)

62. Revenues from suburban services do not cover their costs. The ordinary stopping non-suburban passenger services also incur losses. However, these losses are off-set partly by the surplus revenue from the mail/express services. (Para 9.02)

63. Ideally, the passenger services should not only meet their full cost but also earn something more as a contribution to the resources required for development. However, in view of the fact that the passenger services have so far been running at a loss, it is thought that in the first instance they should be made to cover at least their costs. The passenger tariff recommended by the Committee aims at making the passenger services, taken as a whole, self supporting besides making the tariff more rational. (Para 9.05)

64. The fare levels for different sectors/classes should be fixed in as equitable a manner as possible taking into account all relevant considerations, including the cost, the standard of comfort and the capacity of passengers travelling in a particular class to bear the increase in the fare. The cross subsidisation between different sectors/classes which is implicit in this is unavoidable. (Para 9.06)

65. It is recommended that the railways should revise the meals and refreshment tariffs in such a way that the income therefrom also covers all associated expenses including those on provision and operation of the dining cars and the like. (Para 9.08)

66. The proposed fare structure will be distance based, but the rates will be progressively tapered with increase in distance. Therefore the fare will not increase in proportion to the distance. The pattern of the taper recommended is shown below, and this will apply uniformly to the scales of fares for all classes.

1 to 150 kms.	100%	of the basic rate
plus 151 to 400 kms.	80%	-do-
plus 401 to 750 kms.	65%	-do-
plus 751 to 1200 kms.	55%	-do-
plus 1201 kms. onwards	50%	

(Paras 9.09 to 9.11)

67. Short distance passenger traffic can generally be carried more economically by road except where large numbers have to be transported within a limited time. Fare policy should, therefore, be so designed as to prevent artificial transfer of such short distance traffic to the Railways. (Para 9.14)

68. It is recommended that the scale of fares for the Second(ordinary) Class which should be the basic scale, should be constructed as shown below:-

<u>Distance</u>	<u>2nd Ordinary</u>
Zero km.	25 paise (fixed charge)
plus 1 to 150 kms.	5 paise per km.
plus 151 to 400 kms.	4 paise per km.
plus 401 to 750 kms.	3.25 paise per km.
plus 751 to 1200 kms.	2.75 paise per km.
plus over 1200 kms.	2.50 paise per km.

(Para 9.17)

69. Fares will change at every kilometre upto 100 kms. Thereafter, the fares will change after every distance stage of 5 kms upto 300 kms, 10 kms from 301 kms. to 1000 kms, 25 kms. from 1001 to 2500 kms. and 50 kms. from 2501 kms. onwards, and the fare to be charged will be based on half stages.

(Para 9.18)

70. It is recommended that all fares should be rounded off to the next higher round unit as indicated below:-

<u>Calculated fare</u>	<u>Should be rounded off to the</u>
Upto Rs 10.00	Next higher 5 paise
Rs 10.01 to 50.00	Next higher 10 paise
Rs 50.01 to 100.00	Next higher 50 paise
Rs 100.01 to 500.00	Next higher one rupee
Rs 500.01 and above	Next higher five rupees.

(Para 9.19)

71. It is recommended that minimum fare should be equal to the fare for 5 kms. in case of suburban and ordinary trains and 35 kms. in case of mail/express trains.

(Para 9.20)

72. It is recommended that the fare scales for various classes should bear the following relationship with the Second (Ordinary) Class scale of fares:

Class	Suburban	Non-Suburban	
		Ordinary	Mail/Express
Second Class	100	100	140
AC Chair Car	-	-	300
First Class	400	400	500
A.C.C.	-	-	1100

(Para 9.21)

73. It is recommended that the fare for the First Class Chair Car should be the same as that for the conventional First Class, as at present. (Para 9.25)

74. It is recommended that the fare scale for AC Two Tier Sleeper Class should be the same as for the First Class mail/express as at present. However, during the months of April to September, AC two-tier passengers should be required to pay a supplementary charge at the rate of Rs 15/- for journeys upto one thousand kilometres and Rs 25/- for longer journeys.

(Para 9.27)

75. Although the A.C. Chair car class fares may be fixed at 300 per cent of the second Ordinary fare for the present, they should be increased in stages to 375 per cent which is considered to be appropriate level for this class. (Para 9.28)

76. It is recommended that the fares for Rajdhani Express (excluding meal charges and reservation fee) should be fixed on the following basis:

ACC	- regular fare + 20%
AC Chair Car	- regular fare + 33 <sup>1</sup> / <sub>3</sub> %

(Para 9.31)

77. It is recommended that the surcharge for the specified "super fast" trains should be increased as follows:

Class	Existing Rs	Proposed Rs
A.C.C.	10.00	25.00
First Class	5.00	12.00
AC Chair Car	3.00	12.00
IIInd Sleeper	1.50	6.00
IIInd Sitting	1.00	2.00

(Para 9.33)

78. It is recommended that the sleeper charge for Second Class sleeper coaches accommodation should be Rs 8.00 for the first night and Rs 5.00 for each subsequent night. (Para 9.36)

79. It is recommended that the reservation fee should be increased as shown under:-

	<u>Existing</u>	<u>Proposed</u>
A.C.C.	Rs 5/-	Rs 8/-
Ist Class	Rs 2/-	Rs 4/-
A.C.Chair Car	Rs 1/-	Rs 4/-
2nd Sleeper Coach	25 paise	Rs 2/-
General Service Coach	25 paise	Rs 1/-

(Para 9.37)

80. It is recommended that the following rules should govern the payment of reservation fees and supplementary charges for super-fast trains and for sleeping accommodation in the Second Class:

- i) Every fare paying passenger shall pay the charge at the full rate, regardless of age and even when he is entitled to a concession in the fare.
- ii) A passenger who breaks journey en-route must pay separate charges to and from each point of stopover, each outward journey being treated as a fresh journey.

(Para 9.41)

81. The following rules should be followed in respect of apportioning the passenger earning between the various zonal railways regarding the fixed charges, reservation fees and supplementary charges:

- i) The fixed charge included in the basic fare, as also the reservation fee, should be retained by the forwarding railway.
- ii) The super fast train surcharge and the sleeper charge should be apportioned between the railways along with the basic fare less the fixed charge.

(Para 9.43)

82. In 1978-79, the fare per Km. paid by Season Ticket holders was lower than that paid by single journey passengers to the extent of 76% in the case of suburban services and 82% in the case of non-suburban services. (Para 10.03)

83. It is estimated that on the suburban sections the revenue per passenger Km. on the existing fares will be about 1.29 paise in 1980-81 as against an estimated cost of 3 paise per passenger Km. (Para 10.04)

84. The increase in season ticket fares made from 1.4.1979, in the partial implementation of our Interim proposal, is not adequate. (Para 10.07)

85. It is recommended that, as the logical next step towards the phased development of a rational season ticket fare structure, the Government should implement fully and without delay the season ticket fare structure which had been recommended by the Committee in its Interim Report. (Para 10.08)

86. It is recommended that the fare policy for season tickets should be designed on the basis of multiples of single journey fares. (Para 10.10)

87. It is recommended that the season ticket fare structure as indicated in Table 10.05 should be implemented not later than April, 1982. According to this structure, the number of single journey fares per monthly season ticket taper down from 24 at 5 Kms. to 10 beyond 100 Kms. Thereafter, the number of single journey fares to be charged per MST should be increased gradually so that by the end of the 'eighties, the MST fare is equal to 25 single journey fares at all distances. (Paras 10.13, 10.14)

88. It is recommended that weekly season tickets may be introduced at half the price of a monthly season ticket. To start with, this may be tried in the metropolitan cities of Bombay, Calcutta and Madras. (Para 10.15)

89. First Class season tickets should continue to be priced at four-times the Second Class season tickets as at present.

(Para 10.16)

90. Students should be charged 50% of the normal season ticket fare throughout the country. Only full time students upto the age of 25 years should be entitled to this concession.

(Para 10.17)

91. Quarterly season tickets should be charged three times the MST fares instead of  $2\frac{1}{2}$  times as at present. (Para 10.18)

92. The issue of season tickets between pairs of points more *than* 150 kms. apart may be continued where this facility has been enjoyed in the past. With the full implementation of season ticket fares recommended in the Interim Report, the charges per 10 kms. slab after 150<sup>kms,</sup> will increase at the rate of Rs. 4/- per slab. Later on, when the proposal for charging 24-10 single journey fares is implemented, the MST fare for such pair of points should be 10 single journeys at Mail/Express fares for all distances beyond 150 kms. When the ultimate proposal of charging 25 single journey fares at every distance is implemented, the basis of charge for beyond 150 Kms. should be 25 single journey fares at mail/express fares. (Paras 10.19 & 10.20)

93. It is recommended that 'Produce Vendors' Monthly Ticket' should be charged at twice the applicable MST fare. (Para 10.21)

94. The price of a platform ticket should be increased from 30 paise to 50 paise. (Para 10.22)

95. The charge for a monthly platform permit should be equal to the cost of at least 20 platform tickets. Subject to this, the railway administrations may fix the charge for platform permits depending upon the local circumstances. (Para 10.22)

96. The 'normal and reasonably direct route' between two stations should <sup>be</sup> taken to be the shortest route, or any longer route the distance by which does not exceed the distance by the shortest route by more than 15%. (Para 10.23)

97. It is recommended that a new Circular Journey ticket be introduced in replacement of both the existing Consolidated ticket and Circular Tour ticket and this should be governed by the following provisions :

- a) All journeys other than those by the 'normal and reasonably direct' route will be decided to be circular journeys, and such journeys will be undertaken on Circular Journey tickets.
- b) A circular journey will be charged for as two single journeys, the length of each single journey being taken as half the total distance.
- c) All rules and regulations (including those for break of journey) applicable to ordinary tickets will also apply to Circular Journey tickets.

It is also recommended that important stations should be authorised to issue Circular Journey tickets. (Paras 10.30 & 10.31)

98. It is recommended that the general rule that the fare should be charged by the route actually travelled should be applied also in the few sections where at present the fare is charged by the shorter route. (Para 10.32)

99. There are some big cities which are served by more than one railway station in each case. In respect of journeys of more than 300 kms. from and to any station of such a city, the fare should be charged to and from the principal station serving the city. (Paras 10.36 and 10.37)

100. It is recommended that only children under three years of age should be allowed to travel free. (Para 10.40)

101. The rules for break of journey enroute should be revised so that a passenger holding a journey ticket for a distance of more than 400 kms. (as against 320 kms. at present) is permitted to break journey at any station on the way at the rate of one day for every 200 kms. (as against 160 kms. at present), the first break of journey being permitted only after a distance of 300 kms. (against 240 kms. at present) has been travelled. (Para 10.42)



102. It is recommended that a passenger wishing to break journey en route may be enabled to buy a "Break of Journey ticket" at a nominal price of Re.1/- along with his journey ticket at the starting station, and allowed to break journey en route on the authority of that ticket. A "Break of Journey" ticket should not of course be issued for a station short of the one for which the passenger has reserved accommodation or a concession ticket or a hill station return ticket on which break of journey is not permissible. (Para 10.43)

103. Fares for "Mela Specials" which run at more or less mail/express speeds, skipping halts at most if not all the roadside stations, should be charged as for mail/express trains. (Para 10.44)

104. Existing rules for refund of fares on unused passenger tickets should be amended as recommended in para 10.45. (Para 10.45)

105. The rates for the issue of Indrail Pass should be revised as follows :-

Existing (U.S. Dollars)				Proposed (U.S. Dollars)			
Period	ACC	First class/ AC Chair Car.	Second Class	Period	ACC	First Class AC Chair Car	Second Class
7 days	80	40	15	7 days	160	80	35
14 days	120	60	25	14 "	200	100	45
21 days	160	80	30	21 "	240	120	55
30 days	190	95	40	30 "	300	150	65
60 days	260	135	60	60 "	450	225	100
90 days	300	165	75	90 "	600	300	130

(Para 10.49)

106. While concessions may continue to be granted to those entitled to them at present, certain basic changes as indicated by the Committee should be made in the existing scheme of concessions to make it more rational to prevent abuse.

(Para 10.54)

107. The basic changes considered necessary in the scheme of concessions are indicated in para 10.55. The more important changes recommended are

(a) As a general rule, concessions should be granted only in Second Class. However, as an exception to this, the blind, orthopaedically handicapped, and cancer patients may be allowed concessions in higher classes also, as at present.

(b) While students, the blind, orthopaedically handicapped, and cancer patients may be allowed 50% concession, the concession for all other categories should be limited to 25%. No one should be allowed a concession of more than 50% of the basic adult fare in any case.

(Para 10.55)

108. The conditions for grant of concession to students should be modified as indicated in para 10.56. (Para 10.56)

109. The rules and regulations governing the grant of concessions to other categories should be modified as indicated in para 10.57. (Para 10.57)

110. All concessional fares should be calculated, as at present, on the basis of fares for mail/express trains irrespective of the type of train by which the passenger travels. (Para 10.58)

111. The distance limit for travel in mail/express trains on concessional fares should be changed from 480 kms. to 500 kms. (Para 10.58)

112. The concessions in freight charges for carriage of certain articles by passenger trains should be regulated as recommended in para 10.59. (Para 10.59)

113. It is recommended that issue of hill concession return tickets should be abolished altogether. If, however, the Government do not find it possible to abolish the concession altogether, modifications as suggested in para 10.63 should be made in the existing scheme. (Para 10.63)

114. While the facility of the issue of rail travel coupons to accredited press correspondents may be continued, it is recommended that the coupons should be sold at full value and not at 50% of the face value as at present. (Para 10.64)

115. The reserved carriages and tourist cars should be charged on point to point basis; the total fare to be charged should be the sum of the separate fares to and from each stop over point. (Para 10.70)

116. Sleeper surcharge for reserved carriages should be levied at the rate of 25% of the full adult fares on the carrying capacity. (Para 10.72)

117. The hire charges for reserved coaches and Tourist cars should be levied at the following rates separately in respect of each stopover point, without giving any free allowance :

	<u>Per 12 hour or part thereof</u>	
	B.G.	H.G.
Non-AC Coach	250	200
Partial AC Coach	325	260
AC Coach	400	320

(Para 10.74)

118. Charges for the students travelling in reserved carriages should be 50% of those indicated in para 10.70. However, the detention charges at stopovers should be levied at the normal rates, and not at concessional rates as at present. (Para 10.75)

119. It is recommended that a service charge at 10% of the total amounts otherwise payable should be levied in respect of movement by reserved carriages and Tourist cars. (Para 10.76)

120. The charges for empty haulage for reserved carriages,

and Tourist cars should be revised as follows :-

		<u>Per bogie</u>	
		Per Km.	Minimum
		Rs.	Rs.
Empty haulage charge	Non AC Coach	3.00	125
	Partial AC Coach	3.50	150
	AC Coach	4.00	175

		<u>Per bogie</u>	
		Per hour	Minimum
		Rs.	Rs.
Demurrage charge	Non AC Coach	10	50
	Partial AC Coach	13	65
	AC Coach	16	80

(Para 10.77)

121. Unified set of rules are recommended for special trains run for certain purposes. (Para 10.80)

122. It is recommended that special trains should be charged on point to point basis, i.e., the distance to and from each stopover point should be treated as a separate journey.

(Para 10.84)

123. The minimum number of fares for a special train should be equal to the carrying capacity of at least 10 bogies, excluding dining car. (Para 10.85)

124. When a sleeper coach is provided on a special train, the sleeper surcharge should be 25% of the basic fare as against 10% at present. (Para 10.86)

125. If a dining car is provided on a special train, it should be charged at the rate of Rs.4/- per km. against the existing rate of Rs.2.50 per km. (Para 10.87)

126. The system of providing a kitchen car or iron floor wagons free of charge for pilgrim/excursion, student, kisan and industrial labour specials should be discontinued; if required by the party, these should be charged for at Rs.3.50 per km.

(Para 10.87)

127. The minimum distance for charge for special trains should be 500 kms. for one way trip and 1,000 kms. for round trip. (Para 10.88)

128. Hire charges for the duration of the halt of a special train at a station at the request of the party should be levied as follows without giving any free time :-

<u>Class</u>	<u>Hire charges per coach for every 12 hours or part thereof</u>	
	B.G. Ps.	H.G. Ps.
Non AC Coach	250.00	200.00
Partially Air-conditioned	325.00	260.00
AC Coach	400.00	320.00

(Para 10.89)

129. It is recommended that an overall charge of 10% on the total amount of charges otherwise payable for a special train should be levied as service charges. (Para 10.90)

130. It is considered that while students may continue to be granted 50% concession for movement in special trains, such concession should not be extended to any other categories of passengers. (Para 10.91)

131. The empty haulage charges in respect of a coach which is requisitioned and is not used should be revised as follows:-

	<u>Per Bogie</u>	
	Per Km Ps.	Minimum Ps.
Non AC Coaches	3.00	125.00
Partial AC Coach	3.50	150.00
AC Coaches	4.00	175.00

(Para 10.92)

132. Cancellation charges for a special train should be levied as indicated in para 10.93. (Para 10.93)

133. The deposit charges for a special train should be enhanced from Rs.5,000/- to Rs.10,000/-. (Para 10.94)

134 It has been estimated that revenues from the 'other coaching' traffic during 1976-77 fell short of the expenses by at least Rs 25 crores. The loss was due to the fact that the increase in rates for these categories of traffic has trailed behind the increase in the costs of operation.

(Para 12.04, Statement 12.2)

135 Even the revised rates for 'other coaching' traffic brought into force from 1-9-1979, in line with the recommendations in our Interim Report, do not cover the 1976-77 costs upto 300 kms. and again after 2,000 kms. (Para 12.04, Statement 12.4)

136 The Committee considers that 'other coaching' services should not be run at a loss as there are no compelling social grounds for it. Keeping in view the escalation in cost, it is considered that about Rs 35 crores extra will have to be raised from 'other coaching' traffic so that at least the cost of the service is covered. (Para 12.05)

137 While designing the structure of parcel rates it has been kept in view that for shorter distances the same should be comparable with the road rates but for longer distances they should be lower than the road rates. (Para 12.07)

138 It has been borne in mind that the tariff structure should encourage the development of production of consumable articles such as milk, vegetables, fish and eggs nearer the metropolitan areas. (Para 12.08)

139 The structure of rates proposed for 'other coaching' traffic is based on the cost of operating passenger trains and not on the basis of maintaining a certain relationship with the goods rates. In general, our approach is that while covering its cost, the earnings from the 'other coaching' traffic carried in brake vans or other vehicles should be the same as from a Second Class sleeper coach in Mail/Express train. (Paras 12.10 & 12.11)

140 While rationalising the tariff structure for 'other coaching' traffic, an effort has been made to remove anomalies in the existing tariffs. (Para 12.12)

141 The proposed tariff structure for passengers' luggage and parcels traffic has four sets of sliding scales -

- a sliding scale according to the economic value of the consignment;
- a sliding scale according to the weight of the consignment;
- a sliding scale according to the distance; and
- a sliding scale according to the quality of service.

(Para 12.13)

142 It has been proposed to divide luggage and different varieties of parcels into six classes for the purpose of charge (against nine at present), and prescribe a separate scale of rates for each.

(Para 12.17)

143 One of the proposed six scales of rates - the GP scale - will be treated as the base scale or the norm and equated to 100, and four other scales of rates - L, CP1, CP2 and CP3 - will be derived from it on the basis of the prescribed percentage relationships. The relationship of these scales with each other will be as follows:-

Luggage	110
GP	100
CP1	20
CP2	50
CP3	40

The sixth scale which, will apply to newspapers and magazines, will be a special scale outside this scheme of the percentage scales (Para 12.18)

144 The table 12.1 reproduced below shows the proposed

scales in juxtaposition with the existing scale they will replace.

Proposed Scales			Existing Scales	
Description	Nomenclature	Index of proposed Rates.	Description	Index of rates at 100 Kms.
Luggage Scale	(L)	110	Luggage	106
General Parcel Scale	(GP)	100	Scale 1	100
Concessional Parcel Scale 1	(CP1)	80	Scale 2	80
Concessional Parcel Scale 2	(CP2)	50	( Scale 3	53
			( Scale 4A)	
			( Scale 4B)	48
			( Scale 4C)	
			( Scale 5A	42
Concessional Parcel Scale 3	(CP3)	40	( Scale 5B	42
			( Scale 6	27
			( Scale 8	26
Newspapers and Magazines	(NM)	Special rate	Scale 7	26

(Para 12.19)

145 It is considered that the rates for CP2 and CP3 scales should be equal to 65% and 50% respectively of the base scale. While these rates may be fixed at the lower levels proposed for the present, to avoid too much increases at one time, they should be increased to the appropriate levels in stages as shown below:

	Proposed at present.	To be raised to		
		1st stage	2nd stage	3rd stage
CP2	50%	55%	60%	65%
CP3	40%	45%	50%	-

(Para 12.20)



146 Subject to certain changes in classification proposed in paras 12.22 to 12.28, all articles charged at various existing scales of rates will automatically be charged at the replacement scales shown against each in Table 12.1.

(Para 12.21)

147 The articles mentioned below should be charged at the (higher) scales shown against each instead of the replacement scales:

<u>S.No.</u>	<u>Articles</u>	<u>Proposed Scale</u>
1	Fertilisers/Insecticides for agricultural purposes.	CP1 scale
2.	Dehydrated vegetables	CP1 scale
3.	Handloom Products	CP1 scale
4.	Khaddar	CP2 scale
5.	Books	CP2 scale
6.	Government Treasury Boxes (Empty)	CP2 scale

(Paras 12.22 to 12.28)

148 The incidence of the proposed parcel rates in the price of certain important commodities is shown in Table 12.2.

(Para 12.29)

149 It is recommended that the valuable articles listed in para 12.30 should be charged at the applicable scale plus 50% in each case.

(Para 12.30)

150 In the interest of simplification, it is recommended that the weight for charge should be reckoned in terms of 10 kgs. instead of 5 kgs. as at present.

(Para 12.34)

151 It is recommended that rates for consignments of less than 50 kgs. should be equal to the percentage of the quintal rate indicated below:-

<u>Chargeable weight of consignment</u> kg.	<u>L Scale/CP Scale/ CP1 scale.</u> %	<u>CP2 scale/ CP3 scale.</u> %
10	14	18
20	23	26
30	32	34
40	41	42

In the case of a consignment weighing over a quintal, the additional charge for every 10 kgs. in excess of one quintal will be equal to 1/10th of the rate for a quintal. (Para 12.32)

152. It is recommended that, as at present, all the percentage scales should have the same pattern of taper, so that they have the intended relationship with each other at all distance stages. (Para 12.34)

153. The composite unit rate will have the desired taper if the line haul charge portion of it is calculated on the following basis:

	1 to 100 kms	100 percent of the basic rate	
plus	101 to 200 "	95	-do-
plus	201 to 300 "	80	-do-
plus	301 to 900 "	72.1/2	-do-
plus	901 to 1500 "	65	-do-
plus	1501 kms. onwards	50	-do-

and, to the linehaul charge so calculated, is added a fixed charge, representing the terminal costs, at each distance stage. In effect, the rate will start with this fixed charge at zero kilometre and then increase as indicated above with increase in the distance. (Para 12.36)

154. The following recommendations have been made so that charges are in keeping with the quality of service:

- i) No perishable traffic should be carried by Mail/Express trains (excluding a few unimportant specified trains) except on payment of a surcharge (20% upto 500 kms. and 10% for distances beyond).
- ii) There will be no extra charge for non-perishable traffic carried by Mail/Express trains except when a consignor wishes to have a guarantee of transit time. Railways should organise a QTS type of service with guaranteed transit time.
- iii) All traffic - perishable or non-perishable - carried in super fast trains/Rajdhani Express will be charged a surcharge at 2 1/2 - 5 times the appropriate rate of surcharge applicable for carriage by Mail/Express trains.

The "quality extras" mentioned above should be collected only at destination to avoid the need for refund in the event of default.

(Paras 12.40  
& 12.41)

155. It is suggested that the railways may consider provision of reserved space in the Luggage and Brake-vans of nominated trains for regular consignors on the basis of payment of suitable extra charge. (Para 12.42)

156. It is recommended that the GP scale which will be the base scale should be constructed as follows:-

<u>Distance</u>	<u>Charge per Quintal</u>
Zero km.	Rs 7.00 (fixed charge)
plus 1 to 100 kms.	8.0 paise per km.
plus 101 to 200 kms.	7.6 paise per km.
plus 201 to 300 kms.	6.4 paise per km.
plus 301 to 900 kms.	5.8 paise per km.
plus 901 to 1500 kms.	5.2 paise per km.
1501 and above	4.0 paise per km.

(Para 12.43)

157. The blocks of distances over which the recommended rates would apply should be revised as indicated in para 12.44.

(Para 12.44)

158. It is recommended that the rounding off rule suggested in respect of passenger fares should be applied to the charges for 'Other Coaching' traffic also. (Para 12.45)

159. The minimum charges per consignment should be revised upwards as follows:-

<u>Existing</u>		<u>Proposed.</u>	
<u>Scale</u>	<u>Rs</u>	<u>Scale</u>	<u>Rs</u>
A	5	L	8.00
1	4.50	GP	
2	4.00	CP1	
3,6 & 8	3.00	CP2 ) CP3 )	5.00

(Para 12.46)

160. While quoting station to station rates for parcel traffic it should be ensured that the station to station rate is not

below CP3 scale level. The existing station to station rates should be reviewed with the introduction of the proposed parcel tariff structure and increased wherever necessary to CP3 scale level. (Paras 12.51 & 12.5 2)

161. The proposed NM scale which will be applicable for booking of newspapers and magazines as parcels is given in para 12.56. (Para 12.56)

162. It is recommended that acids and other corrosive substances should not be permitted to be booked as parcels or luggage. If any one wishes to send such an article by rail, it may be booked by goods train. (Para 12.58)

163. Bulky articles are not permitted to be booked as luggage at present. It is recommended that such articles may be permitted to be booked as luggage subject to the condition that the charge is made on "computed" weight (actual weight plus 50%) and further the computed weight per article does not exceed 150 kgs. However, no free allowance should be allowed on such articles. (Para 12.59)

164. It is recommended that the rules for free allowance of luggage should be revised to permit a cycle being counted against the free allowance. The weight of a cycle may be taken as 40 kgs. for booking as luggage. (Para 12.60)

165. It is recommended that a passenger who wishes to book luggage in excess of a quantity equal to his free allowance should be required to pay surcharge thereon at the following rates:

Mail/Express trains	10%
Super fast trains	25%
Rajdhani Express	50%

(Para 12.61)

166. At present Bulky articles are charged on actual weight or volumetric weight whichever gives the greater charge. It is recommended that, instead these should be charged on a "computed" weight basis and in all these cases the charge should be based on the actual weight increased by 50%. A list of such articles should be supplied to the staff concerned. (Para 12.63 to 12.66)

167. Explosives of certain varieties which are allowed to be booked as parcels should be charged on actual weight increased by 50% and not on the actual weight as at present. (Para 12.68-i)

168. Standard weights for charge should be prescribed in respect of articles examples of which are given in para 12.68(ii). The existing practice of charging such articles on the actual weight subject to the minimum weight prescribed for each may be discontinued and the charges made on the standard weight prescribed for each type of article. (Para 12.68-ii)

169. The existing rule 613 of the Coaching Tariff should be reworded as indicated in para 12.69. (Para 12.69)

170. It is recommended that a minimum charge of 60 quintals (BG)/45 quintals(MG)/35 quintals(NG) per 4-wheeled vehicle should be levied when parcel/luggage traffic is booked in vehicle loads. (Para 12.70)

171. Household effects when sent in vehicle loads should be charged at the proposed GP scale of parcel rates. However, no free allowance should be allowed on vehicle loads of household effects and the rule laying down that the luggage of passenger will be normally carried by the same train by which he travels, should not cover household goods booked at vehicle load rates. (Para 12.71)

172. A corpse should be charged at the GP scale on a standard weight of 200 kgs. (Para 12.72-a)

173. Parts of human body should be charged at GP scale on actual weight plus 50%. (Para 12.72-b)

174. Birds/animals carried in brake van and/or passenger compartments, where permitted should be divided in the following groups and charged for at luggage rates for the weights indicated below against each, subject to a minimum of Rs 5/-.

	<u>In Brake-van(Dog Box)</u>	<u>In passenger compart- ment.</u>
Small animals/ birds.		20 kg. if in a cage, basket, box or other suitable container, and 40 kg. otherwise.
Dogs	30 kg	60 kg.
Large birds	30 kg	-
Calves	40 kg	-
Goat		
Sheep		
Pigs		

(Para 12.77)

175. Under the existing rules, a "seeing eye" dog travelling with a blind person in the compartment is charged at the normal rate. We consider this is not quite fair and such a dog may be allowed to travel with the passenger in the compartment on payment of charges for brake van.

(Para 12.79)

176. It is recommended that birds and animals when booked in vehicle loads should be charged on the same basis as other bulky goods occupying a full vehicle i.e. at regular parcel rates on the minimum weight of 60 quintals(BG)/45 quintals(MG)/35 quintals(NG).

(Para 12.82)

177. The proposed rates for birds and animals in vehicle loads will apply on a per wagon basis subject to the number of animals permitted to be loaded in a wagon being as laid down in the rules. Consignors are not expected to load a larger number, but should the load exceed the prescribed permissible number, additional charges will be levied as indicated in para 12.84. (Para 12.84)

178. Additional charges for special type of vehicles used for horses, sheep and goats should be revised as suggested in para 12.85-a. (Para 12.85-a)

179. Empty haulage charge for elephant-vans and horse-boxes should be revised as indicated in para 12.85-b. (Para 12.85-b)

180. It is recommended that in case of motor vehicles, boats, aeroplanes, carriage etc. carried in vehicles, charges should be levied as follows:-

- (i) The charge should be made on a vehicle load basis, at GP scale of rates, on a weight of 60 quintals BG, 45 quintals MG and 35 quintals NG for a 4-wheeled wagon.
- (ii) The same rate should be charged regardless of whether only one unit is loaded in a vehicle or, where permissible, more than one unit is loaded together in the same vehicle.

(Para 12.87)

181. Consequent on the change in the basis of charging for motor cars, it is recommended that in future no charge should be made for spare parts or personal effects upto 30 quintals(BG)/15 quintals(MG)/5 quintals(NG) loaded in a 4-wheeled vehicle along with one motor car. Any excess should be charged for at the normal luggage rates. (Para 12.90)

182. In cases where more than one 'extra' charge has to be levied as the percentage of the basic rate, each extra charge should be calculated separately with reference to the basic rate and not on the top of another. (Para 12.92)

183. While transportation costs on Railways have increased, the freight levels have not been increasing pari passu (para 14.02).

184. When additional revenues have to be raised, the burden should be equitably spread over different commodities and different streams of traffic (Para 14.04).

185. We recommend that there should be a separate terminal charge in the freight structure (Paras 14.07 to 14.10).

186. We recommend that for both the booking and <sup>the</sup> destination ends <sup>a</sup> total terminal charge of Rs 150/- per 4-wheeled wagon on the B.G., Rs 115/- per 4-wheeled wagon on the MG and Rs 65/- per 4-wheeled wagon on the NG should be levied (Para 14.11).

187. We recommend a classification scale based on percentage classes from a basic scale of 100 which will correspond to scale 50 of the extant classification scale (Para 14.12).

188. We have adopted a telescopic distance taper for the rates broadly conforming to the cost taper (14.15 to 14.22).

189. We recommend a freight structure which will have the following features for wagon loads.

(i) Commodities will be grouped under different Classes ranging from a percentage Class 65 to Class 260.

(ii) The basis of the basic class 100 scale for haulage rate will be as under - (Para 14.24-ii).

Kilometres	1-100	100%	2.35 paise per quintal per km.
plus	101-200	60%	1.41 -do-
plus	201-300	50%	1.175 -do-
plus	301-500	41%	0.9635 -do-
plus	501-800	38%	0.893 -do-
plus	801-1200	35%	0.8225 -do-
plus	1201-1600	32%	0.752 -do-
plus	1601-2000	29%	0.6815 -do-
plus	2001-2500	28%	0.658 -do-
plus	2501 and over	27%	0.6345 -do-



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(iii) The rates will be calculated for the following blocks of distances, the highest kilometrage of each block being taken for the purpose (Para 14.24-iii).

Kilometres	1-50	One block
	51-250	5 Kms. block
	251-800	10 Kms. block
	801-2400	25 Kms. block
Beyond	2400	50 Kms. block

(iv) There will be a separate terminal charge to be added to the haulage rate arrived at per wagon at the following rates (Para 14.24-iv).

- Broad Gauge per 4-wheeled wagon - Rs 75/- for each end or  
Rs 150/- for both ends.
- Metre Gauge per 4-wheeled wagon - Rs 57.50 for each end or  
Rs 115/- for both ends.
- Narrow Gauge per 4-wheeled wagon - Rs 32.50 for each end or  
Rs 65/- for both ends.

190. We give in Statement 14.1 details of the cost of haulage, the proposed rates for basic scale 100 and the indices of the cost taper and the taper of the proposed rates.

191. The basic scale evolved by us has the following features :

- (i) The taper at 100 kms. and 3000 kms. conforms to the cost taper.
- (ii) The rate levels have been kept relatively higher compared to the costs in the short distance range as a deliberate policy keeping in mind the recommendations of the National Transport Policy Committee in regard to inter-modal split of traffic.
- (iii) The percentage excess of the rate over cost declines gradually from this range but the rates have been kept sufficiently high for leads in the medium

distances as the bulk of the traffic is carried in this range so that adequate surpluses could be generated over and above the costs.

- (iv) The increase in freight burden has been further lightened for traffic over long distances while ensuring that the rates are more than the costs.
- (v) The fully distributed costs are covered for all distances from 100 to 3000 Kms.
- (vi) The absolute level of the rate has been evolved in such a way that the traffic in the various commodities grouped under different classes will give adequate revenues from the freight traffic (Para 14.24).

192. We recommend the minimum distance for charge to be raised from 40 Kms. to 50 Kms. (Para 14.27).

193. We recommend rebate for train loads and rafts of wagons as under when offered by one party to one destination :-

(i) A rebate of 6% in the freight at wagon load rate when traffic is offered in full train loads with a minimum of 60 wagons on the BG and 40 wagons on the MG.

(ii) A rebate of 2.5 percent for rafts of wagons of 30 or more upto 59 wagons on the BG and 20 or more upto 39 wagons on the MG.

(iii) A rebate of 1% for rafts of wagons of 12 or more up to 29 wagons on the BG and 8 or more upto 19 wagons on the MG (Para 14.31).

194. We recommend the rates for smalls traffic as under :-

(i) a terminal charge of Rs 2.25 per quintal for each end or Rs 4.50 per quintal for both ends (Para 14.38(a)).

(ii) a differential scale of smalls rates at suitable percentage classes for consignments weighing (a) upto 1 tonne (b) more than one tonne but less than 3 tonnes and (c) more than 3 tonnes (Para 14.38(b)).

17-45

(iii) 'Smalls' classification for coal and explosive goods should be fixed at class 200 and 300 respectively (Para 14.38).

195. We recommend that no separate transshipment charges should be levied except where the destination point or the booking point is less than 200 Kms. from the transshipment point, in which case transshipment charge of Rs 15/- per tonne should be levied (Paras 14.48 to 14.50).

196. We recommend that for purpose of inter-railway adjustment of earnings on through traffic, the Railway which actually performs the transshipment should be credited with the actual transshipment charge where collected and with a notional transshipment charge of Rs 10/- per tonne where transshipment charge is not leviable. (Para 14.51).

197. We do not recommend any change in the rules regarding routing of goods traffic involving transshipment (Para 14.52).

198. We do not recommend any major change in the classification of commodities as it exists at present. We, however, discuss the classification of (a) certain important commodities which form the bulk of the traffic on the Railways; (b) the commodities which are being shown as suffering losses in transportation at present; and (c) commodities about whose classification representations have been received by us (Para 15.014).

199. We have discussed the classification of coal, iron ore, foodgrains, cement, mineral oils, iron and steel, limestone and dolomite, chemical manures, stones and salt, which form 85 percent of the originating traffic of the Railways

and our recommendations are :-

Commodity	Wagon load classification in the existing Freight Structure	Corresponding classification in the proposed Freight Structure	Classification recommended in the proposed Freight Structure	Remarks	Para number
Coal	37.5 (OR)	75 (OR)	80 (OR)	Rebate of 6% for train loads.	15.029
Soft coke	37.5 (OR)	75 (OR)	75 (OR)	-do-	15.032
Hard coke	42.5 (OR)	85 (OR)	90 (OR)	-do-	15.053
Iron ore	42.5	85	85	-do-	15.056
Grains & Pulses Division B	35	70	75	-do-	15.066
Grains & Pulses Division A	37.5	75	80	-do-	15.067
Cement	52.5	105	110	-do-	15.071
Petroleum & other Hydro-carbon oils (Dangerous)	115	230	260	-do-	15.076
Naphtha solvent having Flashing Point below 24.4°C	115	230	230	-do-	15.076
Petroleum oil and other Hydro-carbon oils (Non-dangerous)	70	140	150	-do-	15.077
Crude oil	95	190	200	-do-	15.078
Lubricating oils	105	210	220	-do-	15.079
Limestone & Dolomite	47.5	95	95	-do-	15.107
Stones NOC	47.5	95	95	-do-	15.110
Salt NOC	40	80	80	-do-	15.113
Salt for Chemical Industries.	45	90	95	-do-	15.116

200. We do not recommend a differential classification for different grades of coal (Para 15.031).

201. We recommend that separate siding charges need not be collected at the booking end for the colliery sidings; the length of the siding should be added to the through distance for charge as is the practice at present on the Eastern Railway (Para 15.037).

202. In regard to movement of raw coal from collieries to washeries we recommend that no separate siding charge be levied at the washery end, if the internal movements are performed by the locomotives of the washeries and supervised by the railway staff paid for by the washeries (Para 15.045).

203. We have discussed the incidence of the freight charges at the proposed rates on coal and other inputs required for the manufacture of one tonne of steel (Para 15.047 to 15.050).

204. We have discussed the incidence of coal freight at the proposed rates to thermal power houses, cement and textile industries. (Para 15.051).

205. We recommend that iron or steel materials be grouped under four Divisions instead of under three Divisions as at present and classified in the new Freight Structure as indicated below

Iron or Steel Division A	Class 185 for wagon loads
Iron or Steel Division B	Class 180 for wagon loads
Iron or Steel Division C	Class 165 for wagon loads
Iron or Steel Division D	Class 135 for wagon loads

206. We also recommend that pig iron and iron and steel scrap be classified at the corresponding class, viz., Class 110 for wagon loads (Para 15.084).

207. We recommend that Chemical Manures which are at present, grouped under **two divisions** may be placed under three Divisions and classified as indicated below :

Chemical Manures Division A	Class 105 for wagon loads
Chemical Manures Division B	Class 100 for wagon loads
Chemical Manures Division C	Class 95 for wagon loads

(Para 15.100)

208. We have reviewed the classification of commodities which are being shown as suffering loss in transportation at present and our recommendations are -

Commodity	Wagon load classification in the existing Freight Structure	Corresponding classifications in the proposed Freight Structure	Classification recommended in the proposed Freight Structure	Remarks	Para Number
Bran	37.5	75	75	-	15.119
Dry grass	52.5	105	105	-	15.119
Fruits & Vegetables (fresh)	47.5(OR)	95(OR)	100(OR)	-	15.120
Gur/Jaggery	47.5	95	95	-	15.121
Bamboos	60	120	120	-	15.122
Firewood & Charcoal	37.5(OR)	75(OR)	75(OR)	-	15.123
Ores other than Iron ore & Manganese ore	42.5	85	85	-	15.124
Molasses	50	100	100	-	15.125

209. We have reviewed the classifications of oil cake, bidies, raw jute waste, safety matches, glass ware, asbestos products, jute and hemp (unpressed), paper NOC, rubber tubes and tyres. We recommend assigning the corresponding wagon load classifications for these commodities in the new Freight Structure (Para 15.126).

210. We have also reviewed the classification of commodities in respect of which representations have been received by us and our recommendations are -

Commodity	Wagon load classification in the existing Freight Structure	Corresponding classification in the proposed Freight Structure	Classification recommended in the proposed Freight Structure.	Remarks	Para Number.
Sugar cane	40	80	75	Rebate of 6% for train loads	15.135
Oil Seeds NOC	52.5	105	100	-do-	15.146
Oils Division A	105	210	210	-do-	15.151
Oils Division B	100	200	200	-do-	15.151
Oils Division C	95	190	190	-do-	15.151
Oils Division D	65	130	140	-do-	15.152
Oils Division E (New Division)	65	130	135	-do-	15.157
Oils, vegetable, refined	85	170	170	-do-	15.154
Timber in logs or ballies	60	120	120	-do-	15.161
Sawn Timber	60	120	115	-do-	15.161
Sand	47.5	95	90	-do-	15.162
Iron & Steel Slag granulated	45	90	85	-do-	15.165
Iron & Steel Slag NOC	45	90	80	-do-	15.165
Cotton (raw), full pressed	87.5	175	175	-do-	15.168
Cotton (raw), half pressed	100	200	200	-do-	15.168

Commodity	Wagon load classification in the existing Freight Structure	Corresponding classification in the proposed Freight Structure	Classification recommended in the proposed Freight Structure	Remarks	Para number
Cotton (raw), loose	115	230	230	Rebate of 6% for train loads	15.168
China Clay	45	90	90	-do-	15.171
China Clay powder	47.5	95	95	-do-	15.171
Milk Powder	100	200	160	-do-	15.172
Reclaimed rubber	70	140	140	-do-	15.173
Rubber scrap	60	120	120	-do-	15.173
Coke breeze	As for hard coke	-	No change	-do-	15.178
Gunny waste	60	120	120	-do-	15.179
Cloth cutting	60	120	120	-do-	15.179
Jute stick	60	120	120	-do-	15.179
Chemical Gypsum	As for gypsum	-	No change	-do-	15.180
Plaster of Paris	60	120	120	-do-	15.181

211. With regard to classification of certain other commodities in respect of which we have received representations, we do not make any recommendation for want of supporting data (Para 15.182).

212. Bearing in mind the recommendations of the National Transport Policy Committee in regard to the inter-modal split of traffic, we recommend that, barring those commodities for which specific classification have been recommended, the highest classification for wagon loads in the new Freight Structure should only be class 240 instead of the corresponding classification of Class 260. We also recommend scaling down the classification of commodities classified above Class 100 in the present Freight Structure (Para 15.183 to 15.185).

213. In regard to other commodities which have not been discussed in this Chapter, we recommend assigning the corresponding classifications. We have also indicated the classifications in the new Freight Structure corresponding to the present wagon load classification (Para 15.186).

214. We suggest that the Chief Commercial Superintendent of Railways be authorised to give tentative classification in respect of new commodities offered for booking (Para 15.187).

215. We recommend that the minimum distance for charge be increased from 40 kms. to 50 kms. (Para 16.01).
216. We recommend that the minimum weight for charge be revised from the present 40 kg to 50 kg (Para 16.02).
217. We recommend that the minimum weight for acceptance of 'smalls' consignments be raised from 7 kg to 10 kg (Para 16.03).
218. We do not recommend any change in the present minimum charge of Rs.10/- for 'smalls' consignments (Para 16.04).
219. We recommend that the weight for charge for bulky articles on the metre gauge be increased from 40 quintals to 45 quintals (Para 16.05).
220. We do not recommend any general change in the minimum weight conditions prescribed for various commodities. We have, however, reviewed the matter in respect of commodities about which representations have been received and we make the following recommendations :

Coir Yarn, Gunnies, Timber, Plywood, Bhoosa, Empty drums, Gram husk, Tobacco unmanufactured, Kendu leaves, Firewood and Coconut with shells.	}	We do not recommend any change in the existing minimum weight con- ditions for these commodities (Paras 16.09, 16.10, 16.11, 16.12, 16.13, 16.15, 16.16, 16.18, 16.19, 16.21 and 16.22).
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Cotton seeds - We recommend that the minimum weight condition on the metre gauge be reduced to W/115 (Para 16.08).

Onions - We recommend revising the minimum weight condition from W/185 BG to W/160 BG (Para 16.14).



Cotton (Raw),  
full pressed.

- We do not recommend any change in the minimum weight condition on the B.G. On the metre gauge, however, we recommend that it should be reduced from W/110 MG to W/90 MG (Para 16.17).

Gur and  
Jaggery

- While there is no justification for making a reduction in the exceptional weight condition of W/460 for BCX wagons in force on the Northern Railway, we recommend that this lower minimum weight condition for BCX wagons should be made applicable on all the Railways (Para 16.20).

Sugarcane

- We do not recommend any change in the chargeable weights fixed for sugarcane on floor area basis on the Northern Railway (Para 16.23).

221. In regard to commodities for which minimum weight condition is CC, we recommend that the minimum weight condition should be notified as a definite weight for different types of wagons instead of 'CC' or 'CC' plus 2 tonnes, and the minimum weight condition fixed should be at least half a tonne less than the maximum permissible weight in the case of commodities loaded in bulk, and one tonne less than the maximum permissible weight in respect of finished products (Para 16.30).

222. In respect of consignments having at present 'AQ' minimum weight condition, we make the following recommendations:

- (i) Apart from appropriate 'smalls' classification as per the 'smalls' classification scheme proposed by us, we recommend that a wagon-load classification at Class 260 with minimum weight condition of 60 quintals on BG, 45 quintals on MG and 35 quintals on NG should be provided for explosives and certain dangerous goods (Para 16.33).

- (ii) In respect of items like Auto Cycles, Auto-rickshaws, etc., which can be offered either in 'smalls' or in wagon-loads, we recommend a 'smalls' classification as well as wagon-load classification (Para 16.34).
- (iii) In respect of articles like motor cars, motor tractors etc., we recommend that there should be only wagon-load classification with a minimum weight condition of 60 quintals on BG, 45 quintals on MG and 35 quintals on NG. We have also indicated the wagon-load classification for the different articles falling under this group (16.35).
- We also recommend that where only one motor car is booked, household effects to the extent of 30 quintals on BG, 15 quintals on MG and 5 quintals on NG may be allowed free in the same van, any excess being charged at the 'smalls' classification applicable to household effects (Para 16.39).
- (iv) We recommend that the existing minimum weight conditions for heavy earth cutting or moving machinery NOC should continue to apply for wagons for all gauges (Para 16.40).

223. We recommend the following rates of Over Dimensional Charges for consignments exceeding the prescribed maximum moving dimensions :

- |           |                                                                    |
|-----------|--------------------------------------------------------------------|
| 'A' Class | Rs.3.00 per km. per wagon subject to a minimum charge of Rs.150/-  |
| 'B' Class | Rs.4.00 per km. per wagon subject to a minimum charge of Rs.200/-  |
| 'C' Class | Rs.15.00 per km. per wagon subject to a minimum charge of Rs.750/- |
- (Para 16.49).

224. We recommend that dummy wagons be charged at Class 200 of the proposed rate structure for a weight of 60 quintals on the broad gauge, 45 quintals on the metre gauge and 35 quintals on the narrow gauge (Para 16.52).

225. We recommend that there should be a planned programme for extension of weighbridge facilities at stations by providing wagon weighbridges or lorry weighbridges (Para 16.59).

226. We recommend that reweighment fee should be increased from Rs.75/- to Rs.125/- on the broad gauge, from Rs.45/- to Rs.75/- on the metre gauge and from Rs.25/- to Rs.40/- on the narrow gauge. The reweighment charge will be in addition to the prescribed haulage charges. Normally, when parties are willing to pay the reweighment charge, requests for reweighment should not, as a rule, be denied (Para 16.62).

227. We recommend that reweighment fee and the haulage charge, if any, should be refunded in cases where claim for shortage is accepted as a result of the reweighment and the claim paid (Para 16.63).

228. Instead of a separate scale for livestock as obtaining at present, we recommend a rate scale within the general Freight Structure as under :

Description of animals	Proposed class	Minimum weight for charge		
		BG Qtls.	MG Qtls.	NG Qtls.
Pigs, Sheep & Goats in wagon-loads and Wild Animals in cages.	160	60	45	35
Cows	170	60	45	35
Horned cattle (other than cows), horses, ponies, mules, donkeys, camels, giraffes, elephants and elephant calves.	180	60	45	35

229. These rates will apply on a per wagon basis subject to the number of animals permitted to be loaded as notified in the tariff. Animals found in excess will be charged extra proportionately (Paras 16.70 and 16.71).

230. We recommend that rates for dry cattle booked for grazing purposes should be 20 per cent less than the normal tariff rates (Para 16.78).

231. We recommend that subject to the conditions mentioned below, export traffic should be given a rebate of 6 per cent of freight on production of a copy of export contract, packing list and a copy of letter of credit:

- (a) The freight rebate should be given only to consignments booked from a station at a distance of more than 500 kms. from any one of the major ports, viz., Bombay, Cochin, Madras, Calcutta and Kandla.
- (b) Only bookings to the normal port terminal will be entitled to the freight rebate.
- (c) Freight rebate should be given only for commodities having a freight classification of Class 140 and above for wagon-loads in the new Freight Structure (Paras 16.84 to 16.86).

232. In order to stimulate more traffic to Kandla Port by rail, we suggest quotation of station to station rates on commercial consideration (Para 16.87).

#### Terminal Charges at Siding End

233. While certain matters connected with sidings will be dealt with in the Final Report, we recommend that as far as terminal charge at the Siding end is concerned, a rebate

of 50 per cent should be given in the case of sidings where tally clerks are provided and the cost of tally clerks is borne by the Siding Owners; and a rebate of 25 per cent should be allowed in the terminal charge in the case of sidings where cost of tally clerks is not borne by the siding owners (Para 16.90).

Loading in Open Wagons

234. We suggest that loading in open wagons should be done in a planned and systematic manner and parties encouraged to cover the wagons with their own tarpaulins and provide escorts for train-loads of such consignments. We recommend the following incentives for such loadings in open wagons in train-loads:

- (i) The senders need not have to 'elect' open wagons as is being done at present;
- (ii) the consignments will be carried at 'owner's risk' with all the liabilities pertaining to 'owner's risk' consignments devolving on the Railways;
- (iii) consignors should arrange to cover the wagons properly with their own tarpaulins;
- (iv) a rebate of 6 per cent in the wagon-load rate should be given for consignments thus moved in open wagons; and,
- (v) a suitable number of escorts may be allowed per train-load, free of charge, on execution of the usual

Indemnity Bond.  
(Para 16.95).

235. At the rates proposed by us, the additional earnings from goods traffic expected to be generated over 1976-77 earnings have been estimated at Rs 515 crores at the same level of traffic and operating efficiency as in that year (Para 16.97).

H.K.Paranjape  
Chairman

K.T.Mirchandani  
Member

V.K.Sthanunathan  
Member

Vinod Pal  
Secretary

New Delhi, 21st April, 1980.