E. C. No. 181

ESTIMATES COMMITTEE 1959-60

NINETY-FIRST REPORT

(SECOND LOK SABHA)

MINISTRY OF RAILWAYS

Action taken on the recommendations of the Estimates Committee contained in the 33rd Report and residual recommendations of the 17th, 21st, 24th and 26th Reports (All of first Lok Sabha)

LOK SABHA SECRETARIAT
NEW DELHI

April, 1960/Vaisakha, 1882 (Saka)

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1959-60

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INTRODUCTION

I, the Chairman of the Estimates Committee, having been authorised by the Committee, present this Ninety-first Report of the Estimates Committee of the Lok Sabha on action taken by Government on the recommendations contained in the Thirty-third Report and residual recommendations of the Seventeenth, Twenty-first, Twenty-fourth and Twenty-sixth Reports (all of First Lok Sabha) of the Estimates Committee on the Ministry of Railways.

2. The Thirty-third Report of the Estimates Committee was presented to the House on the 30th May, 1956. The Government furnished their replies indicating action taken on the recommendations/conclusions in this Report between the 6th November, 1956 and 22nd April, 1960. The replies of Government were considered by the Study Group 'A' of the Estimates Committee (1958-59) on the 28th April, 1959. The Ministry was requested to furnish clarifications on certain points arising out of their replies on the 6th May, 1959. The replies of Government to the recommendations made in this Report (including points for clarification) were again examined by the Study Group 'F' of the Estimates Committee (1959-60) on the 25th August, 1959 and 4th March and 11th April, 1960.

3. Replies to recommendation 60 of the 17th Report, recommendation 21 of the 21st Report, recommendation 36 of the 24th Report and recommendation 10 of the 26th Report which were received after the presentation of corresponding action taken Reports *viz.*, Sixth, Twenty-seventh, Twenty-ninth and Thirty-second (all of Second Lok Sabha) were also examined by the Study Group 'F' on the 11th April, 1960. This Report thus includes replies of the Ministry to the original recommendations|conclusions of the Committee as well as replies to points for clarification in respect of 33rd Report as also replies to the four residual recommendations of the 17th, 21st, 24th and 26th Reports.

4. The Report has been divided into four Chapters:

I. Report.

II. A. Recommendations (33rd Report) that have been accepted by Government.

B. Replies to recommendations contained in the earlier Report of the Estimates Committee on the Ministry of Railways that were outstanding.

III. Replies of Government that have been accepted by the Committee.

IV. Replies of Government that have not been finally accepted by the Committee.

5. An analysis of the action taken by the Government on the recommendations contained in the Thirty-third Report (First Lok Sabha) is given in Appendix VI. It would be observed therefrom that out of 63 recommendations/conclusions contained in the Report, 42 recommendations *i.e.* 66·60% have been fully accepted by the Government, while 8 recommendations *i.e.* 12·7% have been accepted partly. Of the rest, replies of Government in respect of 6 recommendations *i.e.* 8:0% have been accepted by the Committee, while those in respect of 8 recommendations *i.e.* 12·7% have not been finally accepted by the Committee.

H. C. DASAPPA,
Chairman,
Estimates Committee.

NEW DELHI-1;
The 26th April, 1960.
The 6th Vaisakha, 1882 (*Saka*).

CHAPTER I

REPORT

The Estimates Committee, in para 114 of their Thirty-third Report (First Lok Sabha), desired the Railway Ministry to communicate the action taken on the various suggestions and proposals made by the Government Inspectorate of Railways during the previous five years (*i.e.*, 1950-51 to 1954-55). The broad details of these suggestions and proposals are contained in Appendix III to that Report. As the recommendations under different categories are a cumulative total of suggestions made during the course of five years, some of these would have been made as early as 1950-51, 1951-52 and so on. In other words, while all the suggestions are more than five years old, some may date back to nine to ten years. Although the Report in question was presented in May 1956, yet in spite of reminders the Ministry have not been able to furnish complete information as to the action taken or proposed to be taken on the suggestions made by the Government Inspectorate of Railways. The Committee cannot but regret that such inordinate delays should have occurred in (i) taking suitable action on the recommendations made by the Government Inspectorate of Railways and (ii) furnishing the necessary information to the Committee. They recommend that the Ministry of Railways should carefully follow up the recommendations/suggestions made by the Government Inspectorate of Railways and ensure that suggestions which find acceptance are implemented expeditiously. For this purpose the Ministry may call for periodical progress reports from the different zonal Railways and take prompt action in cases of undue delays.

2. In para 150 of the Report, the Committee recommended that the reasons for the high operating ratio of the North-Eastern and Southern Railways required to be very carefully investigated and remedial action taken to bring it down more or less to the same level as on other Railways. The Ministry in their reply have stated that generally speaking, the extent to which a Railway can influence its earnings is limited, as these largely depend on the quantum and nature of agricultural products, industrial development and economic conditions in the areas served by the different Railways and these vary very widely. The working expenses of Railways vary not only because of differences in operational efficiency but also because of the nature and extent of facilities, such as of rolling stock, track etc. They have also stated that the North-Eastern and Southern Railways have both a large proportion of Metre Gauge route; the percentage of M.G. train-miles to total train miles in 1955-56 was 99 per cent. on the North-Eastern Railway and 61 per cent. (*i.e.*, the second highest) on the Southern Railway. Lastly, relatively high operating ratio of the Southern Railways is stated to be mainly due to the fact that the low-rated commodities, such as rice, ores, firewood etc. constitute a substantial portion

of traffic carried over the M.G. system which forms a large portion of this Railway.

A general reading of the reply thus gives an impression that the high operating ratios of the North-Eastern and Southern Railways are inevitable. What the Committee desired was an investigation of the causes with a view to adopt remedial measures. The Committee have however attempted an analysis of the reasons furnished as under:

Western Railway and Southern Railway are fairly comparable in respect of route mileage as per the figures given below:—

Route Mileage open to Traffic on

31-3-1959

	B. G.	M. G.	N. G.	TOTAL
S. Rly.	1858	4207	96	6161
W. Rly.	1636	3668	760	6064

It would be observed that the Southern Railway is favourably placed as compared to the Western Railway as it has a larger mileage of B.G. section and less of N.G. section, yet the figures of gross earnings, working expenditure etc. given in Appendix I show it at a disadvantage. Details of principal commodities carried during 1957-58 and 1958-59 on both the Railways are also given in the statement given in Appendix II. While the route mileage, total capital at charge and yearly investment on both the Railways are of the same order, the figures of gross earnings and working expenditure vary by about 10 per cent., Southern Railway earning less by that figure and at the same time spending 10 per cent more than Western Railway. The Western Railway is a gaining concern while the Southern Railway is a losing one. It is also noticed that while traffic carried on the Southern Railway is less, the annual investment is almost equal to the investment made on the Western Railway. The traffic presently handled both by B.G. as well as M.G. sections of the Southern Railway is comparatively less than that handled by the Western Railway.

The position thus appears to be anomalous and the question regarding high operating ratio on the Southern Railway compared to the Western Railway and other Railways requires to be investigated in detail specially in view of the fact that the Southern Railway has been running at a loss. The Committee would also like to point out that the quantum of general stores and materials for Railways carried on the Southern Railway is much higher than on the Western Railway. *They therefore recommend that this point may also be investigated and remedial measures to reduce the operating ratio on the Southern Railway and the quantum of general stores and materials for Railways carried on that Railway may be taken at an early date.*

As regards North-Eastern Railway which has since been bifurcated into North-Eastern and North-East Frontier Railways, the detailed investigation into the causes of high operating ratio may also be carried out at an early date and remedial action taken.

CHAPTER II

A. *Recommendations (of the 33rd Report) that have been accepted by Government*

S. No. (as in Appendix VII to the 33rd Report)	Reference to paragraph No. of the Report	Summary of Recommendations/ Conclusions	Government's Reply
1	2	3	4
1.	1	In order to make the rail track safe and comfortable and to achieve self-sufficiency in the matter of manufacture and maintenance of rolling stock and other rail equipment, the Indian Railways should devote greater and greater attention to the Research and standardisation work. In this connection, the Committee agree with the following observation of Dr. Kunzru in his speech in the Rajya Sabha on the 16th March, 1956 :— "Considering the Progress that our Railways have to make and considering the fact that	The Ministry of Railways (Railway Board) have had under consideration the question of re-organising the research work on Railways and have decided to place all work connected with Research, Design and Standardisation under one Organisation. The Central Standards Office for Railways and the Railway Testing & Research Centre are being merged into one organisation called the Research, Design and Standardisation Organisation. The new organisation will be headed by an Officer of the rank of General Manager and designated as Director General.

1	2	3	4
		they will have to adjust themselves to new problems altogether..It is time that the Railway Ministry took into consideration the vital and inescapable need of a better research organisation than they have at the present time."	The Central Board of Railway Research which is responsible for directing and co-ordinating research on Railways and securing co-operation of other institutions such as National Laboratories is also being reconstituted and will now consist of the following .— (*i*) Chairman, Railway Board, (*ii*) Member, Engineering, (*iii*) Two representatives to be nominated by the Council of Scientific and Industrial Research, and (*iv*) Director General of Research, Design and Standardisation Organisation as Secretary. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 26-3-57.]
5	14	The Committee were glad to learn that the results of the Research in other countries were being utilised in many ways in the work done by the Railways Research Organisation on Indian Railways.	The observation of the Committee is noted. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 21-2-57.]

6	17	The Committee commend the work done by the Chittaranjan Sub-Centre in the matter of internal treatment of locomotives feed water and recommend that the treatment should be extended early to all the engines running on "bad water" sections to achieve economy from the point of view of greater availability of locomotives and reduction of failures *en route*.	The Committee's suggestion has already been implemented barring a few sections of the Northern Railway. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/ *Recommendation* (33), *dated* 6-11-56].
8	25	The Committee undersatnd that in the U.S.A., the use of light alloy metals has resulted in considerable savings in dead weight and most of the named stream-lined trains are composed of vehicles constructed in this way. Also, the use of light weight metals, and of plastic and composite laminated materials is gradually becoming more general and designs are being developed in several countries, which give greater carrying capacity for the same axle load. The Committee, therefore, recommend that the Railway Research Organisation should study the developments in this respect made in other countries and devise ways and means for extensive use of light alloy metals for construction of coaches and wagons for Indian Railways with a view to minmise the use of steel, which is in short supply and with a view to increase the existing carrying capacity.	Subject only to the availability of light alloy metals, which at present are even more scarce in India than steel, the Railways have no difficulty in introducing the use of such metals. Attention is also invited to the remarks against Item 27 of the 32nd report on the utilisation of aluminium in the building of coaches and wagons. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-56.]
10	27	The Committee understand that the waste wood in various workshops is being sold as scrap by the Railways. The Committee recommend	This matter is already under the consideration of the Railway Research Institute in consultation with the Forest Research Institute so as to

1	2	3	4
		that the Research Organisation should consider the feasibility of utilising the waste in a better and more useful way on the Railways in the construction of coaches and buildings. If necessary, enquiries should be made from commercial firms, which are making doors, windows and furniture from the waste wood so that a more profitable use may be made of waste wood. *Further information called for by the Committee.* Please intimate the latest position in the matter of utilising wood waste. (*Lok Sabha Sectt. O.M. No.* 113-*EC. II*/56, *dated* 6-5-59.)	evolve a cheap method of making fittings and parts from saw dust at the place where it becomes available. In addition to saw dust certain amount of off cuts become available while converting logs into scantlings. These are of such irregular shapes and sizes that they are not useful for any purpose envisaged by the Committee. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-56.] Investigations are being progressed in the Research Centre in consultation with the Forest Institute as to the feasibility of manufacture of building boards from saw dust. [*Min. of Rlys. O.M. No.* 59-*B*(*C*)-6000/33*rd Report*/*Pt. I, dated* 10-7-59.]
11	28	The Committee understand that the Railways are not using indigenous ply-belting, as it is said to be of 'inferior quality' and instead are importing the same from outside. The Committee feel that the Research Organisations should study the defects in the Indian made ply-belting and advise manufacturers to remove the same, so that the	The Railway demand for ply-belting is at present being met from indigenous sources. They have sufficient capacity for Railway needs. [*Min. of Railways O. M. No.* 56-*B* (*C*)-6000/*Recommendation* (33), *dated* 6-11-1956.]

		indigenous factories might not have to close down for want of orders.	
12	29--32	As the introduction of Rail Cycle trolleys on the Railways will result in considerable reduction in the physical strain involved in pushing the present push trolley, apart from considerable saving in the number of trolleymen required to operate them, the Committee recommend that the experimental stage should be finalised quickly and the new type introduced as soon as possible.	Arrangements are in hand for manufacturing 60 BG & MG Trolleys which will be issued to the Railway for extensive service trials. [*Min. of Railways O.M. No. 56-B (C)-6000/ Recommendation* (33), *dated* 11-1-57.]
		Further information called for by the Committee.	
		Attention is also invited to para 101 (*c*) of the Railway Board's Annual Report Part I, 1956-57 wherein it is stated that manufacture of 48 B.G. and 36 M. G. trolleys to the design developed at Lucknow for extensive service trials was commenced. A prototype M. G. light weight motor trolley weighing about 325 lbs. and propelled by a 1·25 h. p. petrol engine was designed and its performance was found satisfactory in preliminary trials. It is requested that revised comments stating the latest developments in the matter may please be furnished. (*Lok Sabha Secretariat O.M. No.* 113-*E.C. II*/56, *dated* 6-5-1959.)	50 cycle trolleys (30 B.G. and 20 M.G.) are under extensive service trials on railways. Another 34 cycle trolleys (18 B.G. and 16 M.G.) are on order on a local firm. On conclusion of these service trials and based on their results, further modification as necessary will be carried out to these trolleys to enable their wider introduction on Railways. [*Ministry of Railways O M. No.* 59-*B* (*C*)-6000/ 33*rd Report*/*Pt. I, dated* 10-7-1959.]

1	2	3	4
13	33-34	The Committee feel that there is a vast field of research in Electrical Engineering specially in Tele-communication which is closely connected with Electrical Engineering and in respect of which Indian Railways are lagging behind. They recommend that the Railway Board should pay more attention to the research work in Electrical Engineering and equip the Research Organisation for that purpose. For instance, one or two radar instruments could be obtained and indigenous research carried on to devise some cheaper instruments on these lines.	The Railway Research Organisation has recently been reorganised and all work connected with research, design and standardisation has been placed under one organisation and an officer each for research in Electrical and Tele-communication Engineering work has been included in it. [*Ministry of Railways O.M. No. 56-B(C)-6000/ Recommendation* (33), *dated* 6-8-1957.]
14	35	At present passengers are suffering great hardships due to the excessive tropical heat in summer, continuous spraying of dust and coal particles in compartments during the journeys and invasion of compartments by insects during the monsoons. The Committee, therefore, reiterate their recommendation made in para 28 (*ii*) of their Seventeenth Report that the Research Centres of the Railways should concentrate on devising some cheap method, by which some degree of cooling can be effected in third class compartments. Efforts should be made to provide dust free ventilation and to overcome the nuisance of insects during	Nothing short of complete air-conditioning will solve the twin problem of heat and dust. Complete insulation against dust without air-conditioning would lead to suffocation. Pressure ventilating and humidifying equipment was tried some years back with a view to evolving a cheap method for producing cool and dust free air for class III compartments but without success. Recenty air-conditioned class III coaches have been introduced and the economics of this amenity will be studied. Meanwhile it does not appear worthwhile making any attempt to design a cheaper method of air-conditioning consistently with the requirements of comfort and health.

		monsoons in railway carriages. These problems must have been faced and tackled in foreign countries also. Experience gained by them might be tapped with advantage by the Indian Railways.	However an effort has been made to exclude dust from class III Coaches by providing rubber sealing strips along the bottom edge of the doors to seal off the most vulnerable dust inlet and to that end instructions have been issued to Railway Administrations. [*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-1956].
16	40	The Committee recommend that the work of standardising the equipment commonly used in the Railways should be expedited because the preparation of standard designs and specifications would facilitate the indigenous production of those items.	Accepted. Progressive preparation of standard designs and specifications for equipment used in Railways not covered so far is being expedited. [*Ministry of Railways O.M. No.* 56-*B* (*C*)-6000/*Recommendation* (33), *dated* 5-4-57].
17	41-42	The Committee suggest that some of the senior retired Railway officials with requisite technical knowledge should be associated with some of the Standards Committees.	The Committee's suggestion has been noted. It may, however, be stated that very few senior retired officials are inclined to keep up their technical studies intensively enough to be of active help in the work of standardisation. Available talent will, however, be utilised in the best manner possible. [*Ministry of Railways O. M. No.* 56-*B* (*C*)-6000/*Recommendation* (33), *dated* 29-3-57].
19	52	The Committee recommend that a detailed and scientific analysis should be made by the Railway Ministry about the relative advantages and disadvantages of the mechanised process	Noted. [*Min. of Railways O.M. No.* 56-B(*C*)-6000/*Recommendation* (33), *dated* 11-1-57].

of relaying versus the present manual process of relaying after keeping in view the employment potential in manufacturing the track relaying and handling equipment indigenously and if it is found, as a result of this analysis, that the advantages are in favour of the mechanised prosess, the same may be introduced gradually on Indian Railways. The extra traffic that would be carried due to reduction in in the duration of blocks and speed restrictions should be given full consideration before coming to a decision on this point.

Further information called for by the Committee.

Please state the steps taken to implement this recommendation.

(*Lok Sabha Sectt. O.M. No.* 113-*EC. II*/56 *dated* 6-5-59.)

The suggestion to introduce mechanised relaying of track has been carefully considered. As plenty of labour is available and sufficient time in between trains can still be found for manual re-laying, there is no particular advantage in introducing mechanical methods of re-laying, specially as all equipment has to be imported. However, to curtail the long periods of speed restrictions after relaying, the introduction of mechanical tampers for more scientific packing and quicker consolidation of track is under active consideration.

[*Min. of Railways O.M. No.* 59-*B*(*C*)-6000/ 33*rd Report Pt. I, dated* 2-11-59].

20	55	The Committee suggest that the Railway Ministry should formulate their tentative plans for electrification (and dieselisation) during the Third Five Year Plan also so that the ancillary electrical industries may be gradually developed in the country, thus reducing the need for imports from foreign countries.	The Recommendation of the Estimates Committee is accepted. [*Min. of Railways O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-56.]
21	56-59	Good communications are a *sine qua non* for good operation on Railways. As far as signalling and Tele-Communications are concerned, Indian Railways are behind other foreign countries. There are many sections on the main line, which have low standard of interlocking, thereby necessitating imposition of speed restrictions. Even the main line route oyer which the Grand Trunk Express passes has sections with non-interlocked stations. Moreover most of the branch lines are non-interlocked. Block instruments are also not provided on a large number of sections. The Committee are of the opinion that there is vast scope for improvement in the working of Indian Railways by introducing modern methods of signalling and interlocking.	1. Funds to the extent of over Rs. 20 crores have been set aside for the Signalling, Interlocking and Tele-communication works in the Second Five Year Plan. By the execution of the works planned during the period considerable improvement would result. 2. The provision of interlocking at non-interlocked stations on the Grand Trunk Express Route has been included in the Second Five Year Plan and the work at some of the stations is already in progress. 3. The scope for improvement in the working of Indian Railways by introducing modern methods of signalling and interlocking is always kept in view while considering new or replacement works. [*Min. of Railways O.M. No.* 56-*B*(*C*)-6000/ *Recommendation* (33), *dated* 2-2-57].

22	60	The Committee recommend that the Railway Ministry should take special measures to build up indigenous capacity for manufacturing signalling equipment in the country.	The following steps have been taken for the manufacture of the signalling equipment in the country : (*i*) Private firms have been encouraged to take up the manufacture of signalling equipment. Their response has been every encouraging. D.G.S. & D. are negotiating with the prospective manufacturers of signalling equipments for placing running countracts for important items of which there is a short supply in the country. (*ii*) The existing signal workshops on Railways are being expanded and modernised. This is with a view not only to cover increased maintenance requirements but also to meet part of the demands of equipment required or new works which are now being held up because of inadequate supplies from private manufacturers in the country. (*iii*) For developing indigenous manufacture of signalling equipment, which are at present imported, the development cell formed in the Ministry of Railways is placing development orders for such items whenever interest is shown by prospective indigenous manufacturers.

[*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33) *dated* 11-1-1957.]

Further information called for by the Committee.

Please indicate the progress made in expanding the indig: eous manufacturing capacity of signalling equipments both in the railway workshops and the private sector, the development expenditure incurred from 1956-57 onwards and the extent to which this has met the requirement of the country.

(*Lok Sabha Sectt. O.M. No.* 113-*EC. II*/56 *dated* 2-9-1959).

Considerable progress has been made in expanding the indigenous manufacturing capacity of signalling equipment both in the Railway Workshops and private sector.

2. New Railway Workshops have been set up at Sabarmati, Gorakhpur and Podanur. The expansion and modernisation of the existing workshops at Ghaziabad, Mettuguda, Howrah and other places is being progressed expeditiously.

3. The estimated cost of all works programmed in the Second Five Year Plan for establishing new signal workshops, and for improving and expanding the existing workshops, is Rs. 143·5 lakhs, out of which the following expenditure has already been incurred as detailed below :—

1956-57	Rs. 17·1 lakhs	
1957-58	Rs. 35·6 lakhs	
1958-59	Rs. 30·9 lakhs	
1959-60	Rs. 43·4 lakhs	(anticipated)

Balance to complete the work Rs. 16·5 lakhs.

In the current year, it is expected that the out-turn of all the signal workshops will be about Rs. 108 lakhs.

4. A special concerted drive has been initiated by the Railway Board in conjunction with the D.G.S.&D. for improving the capacity of indigenous firms. New firms are encouraged to take up the manufacture of signalling items by placing educational orders on them. The various firms have been assisted in securing steel and pig iron quotas, import licences, where justified, and by speedy disposal of references made by them in technical matters.

5. As a result of the steps taken above, the capacity has now doubled, both in the private sector and the Railway Workshops. Indigenous manufacturing capacity, which was about Rs. 2·5 crores in 1957, now stands at nearly Rs. 5 crores. (Mechanical Signalling 4·6 crores, Electrical Signalling ·50 crores and cables.12 crores).

6. The progress made in developing the indigenous manufacture of signalling material, although very encouraging, still leaves an important gap which has to be filled. Whereas in mechanical signalling practically all our requirements are now

being met, in the field of cables and electrical signalling the present production falls short of our requirements. Out of the annual demand of about Rs. 50 lakhs of cables, the indigenous production is to the extent of about Rs. ·12 lakhs a year. Our annual requirement of electrical signalling material is about Rs. 1·5 crores whereas the annual production is no more than Rs. 52 lakhs. Some of the special measures taken for stepping up the producton and attaining self-sufficiency are indicated below :—

(*i*) The Indian firm has entered into collaboration with a foreign manufacturer of Electrical Signalling materials. Other firms are also negotiating for collaborating with other foreign firms. With the availability of technical know-how because of collaboration with established foreign firms, it will be possible for the Indian firms to manufacture all items of electrical signalling materials progressively in the country.

(*ii*) A global development-*cum*-procurement tender for electrical signalling material amounting to nearly Rs. 2 crores, has been issued recently. While placing orders, preference will be given to those firms which will start indigenous manufacture in the country, beginning with assembly form imported components.

(*iii*) The services of a Production Engineer Expert for electrical signalling items has been secured through the United Nations Technica]

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			Assistance Administration for advising the Indian Railways in the production of electrical signalling items in the Railway Workshops. (*iv*) An organisation with a Dy. Director at Calcutta and an Assistant Director at Bombay has been set up for keeping close contact with the various firms and their duties include asssisting the firms in the manufacture and testing of electrical signalling equipment. 7. Considering the efforts being made for encouraging the manufacture of electrical signalling materials and cables in this field as well, we should be self-sufficient before the end of the Third Five Year Plan. [*Min. of Rlys. O.M. No. 59-B(C)-6000/33rd Report/Pt., I, dated* 27-10-59.]
23	63	The Committee recommend that the Railway Ministry should take up the question of encouraging the manufacture of Railway Signalling equipment in the private sector as soon as the report of the Railway Equipment Committee is received, without any loss of time, because for want of modern signalling equipment, Railways are very much handicapped. The ques-	The Railway Equipment Committee have indicated in their report that response from existing and prospective indigenous manufacturers for setting up additional and new capacity for signalling equipment was very encouraging. They consider that if the majority of the offers received could be brought to fruition, practically the entire requirements of Indian Railways could be met

tion of enlarging the capacity of existing Railway Signalling equipment workshops should also be pursued rigorously, so that the existing position of helplessness of the Railways in the matter of improved signalling equipment is set right as soon as possible.

within the country. In order to encourage the private sector, the D.G. S. & D. is holding negotiations with prospective firms for placing of running contracts for the manufacture and supply of various important items.

Further information called for by the Committee..

(Please see under recommendation 22 above.)

As regards enlarging the capacity of Railway Signal Workshops, construction of new signal workshops or expansion of the existing ones has been provided in the works Programme for 1956-57 for the following Railways :—

Western Railway	.	Sabarmati.
Northern Railway	.	Ghaziabad.
North Eastern Railway	.	Gorakhpur.
Southern Railway	.	Podanur.
Central Railway	.	Secunderabad.
Eastern Railway	.	Howrah.

[*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 11-1-57.]

24 65 The Committee suggest that the Railway Ministry should ascertain the prevalent practice in the foreign countries, with regard to the existing facilities in respect of telegraph and telephone lines utilised by the Railways, assess the results achieved there and then pursue the matter with the Communications Ministry

The Suggestion has been noted.

[*Min. of Rlys. O.M. No.* 56-*B* (*C*)—6000/*Recommendation* (33), *dated* 11-1-1957.]

1	2	3	4
		and come to some agreement so that the programme of improvement in the means of communications on the Railways is expeditiously carried out in the larger interests of the country as a whole.	
		Further information called for by the Committee	
		Please state the steps taken to implement this recommendation.	The Prevalent practice in foreign countries with regard to the existing facilities in respect of telegraph and telephone lines utilised by the Railways, has been studied. In these countries, the P.&T. and the Railways run their own separate alignment which is installed and maintained by them. This position has been found to be satisfactory.
		(*Lok Sabha Sectt. O.M. No.* 113-*EC-II*/66, *dated* 6-5-1959).	The line wires of the Railways in India form an extensive network (at present installed and maintained by the P&T Deptt.). To run independent alignment at this stage would cost several crores and would require the additional staff for maintenance. For the present, therefore, the best course is to maintain close contact with the P&T at all levels to achieve maximum utilisation of the existing assets. This contact is being maintained and has been intensified.

A retired P.&T. Chief Engineer has been appointed as Telecom. Adviser in the Board's Office, who will maintain closer liaison between the P.&T. and the Railways and will also review the position whether the line wires required by the Railways should not be installed on a separate alignment and maintained by them.

[*Min. of Rlys. O.M. No. 59-B (C)-6000/33rd Report/ Pt. I, dated* 27-10-59].

66 The Committee are of the opinion that the present means of communications (telegraph, telephone, teleprinters etc.) on Indian Railways are inadequate and in many cases outmoded. They feel that, if proper and adequate means of communications are provided on Railways, there will be great improvement in the operating position and the movement of traffic will be considerably accelerated. The Committee, therefore, suggest that the Railway Ministry should arrange for a proper survey of the existing facilities by a foreign expert, who should make suitable recommendations for modernising signalling and tele-communications on Indian Railways. His recommendations should form the basis of a proper and integrated plan for the expansion of these facilities during the Second Five Year Plan. Proper training in the use of modern equipment as and when installed should also be given due attention.

The Estimates Committee are aware that one of the subjects for study referred to the surveying Team of American Engineers who are now in the country is improvements in signalling on certain sections and sections where introduction of C.T.C. may be considered. A German expert in signalling has also been engaged to prepare a scheme for increasing the line capacity of the east coast section by improved signalling. The suggestion that a foreign expert should be called to make suitable recommendations for modernising signalling and telecommunications on Indian Railways is under consideration. In fact, one expert may not be competent to advise both on signalling and tele-communications. The Committee's recommendation that proper training in the use of modern equipment, as and when installed, should be given due attention, is noted and accepted.

[*Min. of Rlys. O.M. No. 56-B(C) 6000/Recommendation (33), dated 9-5-57.*]

26	70	The Committee appreciate the difficulties of the Railways in carrying out improvements in the existing telephonic communications and are glad to note that the Railway Ministry propose to discuss the question of provision of tie lines from P. & T. Exchanges to the Railway Exchanges with the Ministry of Communications at a high level shortly to remove the existing difficulties. The Committee recommend that the question of providing direct carrier channels between Delhi and Bombay and Delhi and Calcutta should also be pursued at the proposed meeting and the plans regarding installation of additional carrier channels should be finalised early.	The recommendation has been noted. [*Min. of Rly. O.M. No. 56-B(C)-6000/Recommendation (33), dated 11-1-1957*].
		Further information called for by the Committee.	
		Please state the steps taken to implement this recommendation. (*Lok Sabha Sectt. O.M. No. 113. EC II/56, dated 6-5-59*).	The matter was pursued with the P&T Department for their early agreement to the provision of tie lines between the Railway Exchanges and P&T Exchanges but they explained that it would not be desirable to have tie lines between the Railways and the P&T Exchanges as the P&T Circuits have to be of an International Standard. This matter is being further pursued with the P. & T. Department.

			As regards direct carrier channels between Delhi-Bombay and Delhi-Calcutta, the P&T Department has promised to provide the same early as soon as their work of completing overhead alignment between Delhi and Bombay and the underground cable between Delhi and Calcutta is completed. Additional Carrier Channels between Delhi-Kanpur-Allahabad, Calcutta-Dinapore and Calcutta-Waltair have been provided by the P&T Department. [*Min. of Rlys. O.M. No. 59-B(C)-6000/33rd Report/Pt. I, dated 27-10-1955*].
29	79	The Committee endorse the recommendation of Shri Kripal Singh that telephone connections should be provided more liberally to facilitate Railway working and recommend that the Railways should pay more attention to the development of communication facilities with a view to increasing the efficiency of Railway operation.	The Committee's recommendation has been noted. The proposals by railways for telecommunication works in the Second Five Year Plan period amount to Rs. 1·8 crores. The actual expenditure will depend upon the availability of material and foreign exchange. Introduction of teleprinter services between major marshalling yards and important traffic and industrial centres to help wagon movement is under consideration. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation (33), dated 9-5-1957*]
		Further information called for by the Committee. It is requested that revised reply indicating the latest action taken towards implementation of the recommendation may be furnished. It	Due attention is being paid to the development of communication system on the Indian Railways and the progress in this regard is satisfactory.

may also be stated whether the provision of Rs. 1·81 crores for telecommunication works in the Second Five Year Plan period was likely to be fully utilised.

(*Lok Sabha Sectt. O. M. No. 113-EC.II/56. dated 6-5-1959*).

The following are some of the important telecommunication works carried out during the first three years of the Second Plan :

Exchanges :

(*a*) 21 new exchanges have been installed ;
(*b*) 15 existing manual exchanges have been replaced by automatic ones ;
(*c*) The capacity of 11 exchanges has been expanded to meet the increased requirements.

Control :

Train Control/Deputy Train Control has been provided over about 3000 miles.

Wireless :

(*a*) 10 new H.F. links have been provided to connect important stations to clear important telegraph traffic ; and

(*b*) Three single-channel and 1 multi-channel V.H.F. links have been provided during the period.

Teleprinters :

10 Teleprinter links have been provided to replace Morse instruments on Sections with heavy telegraph traffic.

Preliminary arrangements for the procurement of about 30 teleprinters for use in Marshalling Yards and important traffic and industrial Centres to help wagons movement have been completed and orders for their import are being placed.

Marshalling Yards :

Three Marshalling Yards have been provided with Talk-back and Paging Loudspeaker equipment to facilitate quick shunting operations in the yards.

2. Details of some of the important telecommunication works to be carried out during the next 2 years of the Second Five Year Plan are as under :

Exchanges :

(*a*) 10 new exchanges are to be installed ;

(*b*) 34 of the existing Manual exchanges are to be replaced by Automatic ones ;

(*c*) The capacity of 12 Exchanges is to be expanded to meet the increased requirement.

Control :

Train Control/Deputy Control is to be provided over about 5000 miles.

1	2	3	4
			Wireless : (*a*) Six new H.F. links to connect important stations to clear important telegraph traffic ; (*b*) Four single-channel and 2 multi-channel V.H.F. links. *Teleprinter* : 21 Teleprinter circuits are to be provided between the important Marshalling Yards to facilitate quicker wagon movement. *Marshalling Yards* : 10 Marshalling Yards are to be provided with Talk-back and Paging Loudspeakers to facilitate quick shunting operations in the yards. 3. During the 3rd Five Year Plan, an amount of Rs. 4 crores is being earmarked for expenditure on replacement and development of communication facilities on the Railways. [*Min. of Rlys. O.M. No. 59-B(C)-6000/33rd Report/Pt. I, dated* 27-10-1959].
30	81	The Committee are glad to note that there has been a steady decrease in the total number of	The Committee's observations are noted.

accidents on Indian Railways during the last four years. During 1954-55, the number of accidents has shown a decrease of 770 as compared with the number in the previous year.

[*Min. of Railways O. M. No.* 56-B(C)-6000/*Recommendation* (33), *dated* 11-1-57].

31 85-86 The incidence of accidents per million trains miles occurring on the Southern & Western Railways in 1953-54 is disproportionately high. The excessive number of accidents on the Southern Railway is however due to the erroneous method of compilation of statistics in so far as it includes as many as 1,697 accidents due to trains running over cattle. If due allowance is made for this particular item, the result would not be unfavourable, when compared with other Railways. The position on the Western Railway, however, appears to be favourable in comparison with other Railways. The Committee recommend that the position should be carefully analysed and remedial action taken.

A brief analysis of the number of accidents on the Western Railway according to classes during 1951-52 to 1955-56 is indicated below :

	1951-52	*1952-53*	*1953-54*	*1954-55*	*1955-56*
(*i*) Collisions	17	16	12	16	15
(*ii*) Derailments	268	86	92	103	112
(*iii*) Accidents due to failure of engines and rolling stock	2,526	1,734	928	936	1,004
(*iv*) Accidents due to failure of permanent way	79	63	48	44	20
(*v*) Accidents due to fire	59	42	41	46	58
(*vi*) Other accidents	1,442	816	546	536	494
TOTAL	4,391	2,757	1,668	1,681	1,703

It will be observed that there has been an all round decrease during 1953-54 as compared to the two

previous years and the position during the two following years is more or less the same.

The incidence of accidents has been analysed and the following steps have been taken by the Western Railway to minimise the incidence of accidents :—

(*i*) In regard to cases of failure of material, the manufacturing technique and the means and method of testing materials are reviewed and action taken to bring about improvements wherever possible.

(*ii*) In regard to cases of human failure, the following steps are taken to improve the efficiency of Railway staff :—

(*a*) Training is given to staff and it is followed by refresher courses for those who have put in 5 years' service ;

(*b*) At every level the need to observe rules and prevent accidents is being brought home to the staff and periodical meetings are held by the Divisional Officers with senior staff and by Station Masters with the staff at the stations ;

(*c*) The attention of the staff is drawn to salient features of safety rules and to the cases where such safety rules are breached resulting in accidents.

With a view to bringing home to the staff the imperative need to observe safety rules, special notifications in the Weekly Gazette are issued from the Headquarter Office. In addition to the Weekly Gazette notification, each Divisional Officer makes a quarterly review of accidents occurring in his division and issues special instructions to the staff of the division indicating their lapses and consequences thereof.

(*iii*) Each accident is enquired into thoroughly at appropriate level and the facts are examined with a view to establishing whether there has been any laxity in working or any other reasons for the accidents and such remedial measures as are required to avoid a recurrence of such accidents, are immediately taken.

(*iv*) Effective, timely and adequate punishments are given to the staff who are held to blame for negligence of duty.

(*v*) In case of track, guard rails at major bridges are provided on the main line and this work is on hand on the major bridges on the branch lines also.

1	2	3	4
			(*vi*) During monsoon special patrols are employed at night to patrol the line and to give timely intimation about any damage to track by rains. [*Ministry of Railways O.M. No. 56-B(C)-6000 Recommendation (33), dated 11-1-1957*].
32	88-89	During 1954-55 there were 1352 accidents due to collisions and derailments as against 1364 during the previous year. This indicates that there is no appreciable improvement in this respect. In fact, the figures on the Central Railway have shown a steady and sharp increase under these two heads. Disconcerting as it is, this point requires careful examination and suitable remedial action	The Ministry of Railways and the Railway Administrations are fully alive to the necessity of minimising the incidence of accidents and continue to take effective steps to that end. Among the measures taken by the Railways to minimise the incidence of such accidents are : The manufacturing technique and the means and method of testing materials are reviewed and action taken to bring about improvements wherever possible. Systematic examination and intensive inspection of Permanent Way and Rolling Stock etc. Effective disciplinary action against railway staff held responsible for accidents. Education of staff in the safety rules through periodicals, circular letters etc. Tightening up of supervision and control. Frequent warnings to staff to remain vigilant and cautious and making them more safety minded.

			Provision of refresher courses at training schools at regular intervals. More intensive patrolling of selected lengths of the Permanent Way in consultation and collaboration with the State Governments where necessary. All stations are periodically inspected by Officers and/or Senior Subordinates. Staff, who by their alertness and devotion to duty, avoid accidents, are given special publicity through the medium of Weekly Gazettes and Railway Magazines and are also given rewards when they so deserve. [*Min. of Rlys. O.M. No. 56-B(C)-6000/ Recommendation (33), dated 11-1-1957*].
33	90	On the M.G., engine miles per engine failure have shown a substantial increase in practically all the months of the year 1953-54. On the B. G. also a general improvement has been recorded, The figures seem to indicate that engine failure generally increases during the months of May and June, perhaps due to the rigours of climate during these months.	Noted. No comments. [*Min. of Rlys. O.M. No. 56-B(C)-6000/ Recommendation (33), dated 6-11-56*].
34	92	The accidents at level crossings have been on the increase during the last two years and this *prima facie* indicates the need of improving the types of level crossings, according to the increased flow of traffic.	The general question of improvement of the level crossings is already under the active consideration of the Railway Board and certain steps have already been taken in this direction. [*Min. of Rlys. O.M. No. 56-B(C)-6000/ Recommendation (33), dated 26-3-57*].

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35	94	Per million train miles, the number of collisions and derailments on all Railways decreased from 7·53 in 1951-52 to 5·51 during 1954-55. The North-Eastern Railway despite a slight decrease maintains a figure more than double the average. Reasons for this high figure should be analysed in detail and remedial action taken.	The Ministry of Railways and the Railway Administrations are fully alive to the necessity of minimising the incidence of accidents and continue to take effective steps to that end. However, as indicated by the Committee, an analysis in detail has been made of the high incidence of accidents on the North-Eastern Railway and suitable remedial action is vigorously pursued. The remedial measures generally taken on the various Railway Administrations to minimise the incidence of accidents are already indicated in the remarks of this Ministry under Recommendation No. 32 of this report. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 2-2-1957].
36	102	The total number of casualties in workshops, lines under construction etc. recorded an increase during 1954-55 the number being 20 killed and 19,278 injured during the year as compared with 7 killed and 19,170 injured during the previous year. The above figures indicate that accidents resulting in injuries to Railway employees in the Railway workshops are very heavy. The Committee suggest that this point should be specially investigated	A directive has been issued to Railways that the position in respect of accidents in the workshops should be watched by the Chief Mechanical Engineers and the connected. Accidents Committees in workshops should examine the causes of accidents in greater detail so as to reduce the incidence of injuries to employees. [*Min. of Rlys. O.M.* No. 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 18-9-1957].

		by the Railway Ministry and remedial action taken.	
37	103	Cases of injuries are much more frequent on the Western, the Eastern and the Central Railways. The point needs further careful examination by the Railway Ministry.	Please refer to the remarks offered against item 36 of the 33rd Report of the Estimates Committee. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendations* (33), *dated* 18-9-1957].
38	104—105	A comparative study of the accidents on the Railways in India, the U.S.A. and the U.K. made by the Accidents Enquiry Reviewing Committee indicates that the results on Indian Railways do not generally compare unfavourably with those on the Railways in the U.S.A. and the U.K. and that the conditions on the Indian Railways cannot be said to show any cause for alarm. All the same, the detailed analysis of accidents on Indian Railways shows that there is no ground for complacency either. Apart from the cost of damages caused to rolling stock, of which there is acute shortage on Indian Railways, and the set-back to the flow of traffic as a result of accidents, the question involving the safety of passengers must continue to receive constant attention of the Railway Ministry. Train accidents are mainly contributed by failure of station and train staff to follow the rules and by flaw in metal or design of rolling stock.	It will be seen from the remarks under Recommendation No. 32 that the remedial measures suggested are already being taken. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 18-1-1957].

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39	107	The problem of decreasing the number of accidents due to failure of human element is more or less identical with the problem of increasing the general efficiency of Railway employees.	The observations made by the Estimates Committe. have been noted by the Railway Board. [*Miny. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-1956].
40	108	The Committee have already discussed the various problems regarding the recruitment, training, discipline etc. of Railway employees in their Twenty-fourth Report on "Staff Matters" and they have no doubt that prompt implementation of their recommendations will result in all-round improvement in the efficiency of Railway Staff which, in turn will be reflected in the decrease in the number of accidents.	The above recommendation has been noted. No remarks are called for. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-1956]
41	110	The Departmental Committee on Railway Accidents had made a number of useful recommendations and the Committee were assured that the same were being followed up by the Railway Ministry in this connection, the Committee would, however, like to lay special stress on the following recommendations made by that Committee and suggest that the same should be pursued vigorously:	

(1) Adequate facilities for training and refresher courses should be provided for the employees of Traffic, Mechanical, Civil Engineering Departments. (This point has already been referred to by the Committee in detail in their 24th Report.)	The observations of the Committee are noted.
(2) Night and surprise inspections must be conducted by Officers and Inspectors.	Steps have already been taken by the Railways to implement the relevant recommendation of the Accident Enquiry Committee.
(3) On sections of heavy traffic high standard of interlocking should be provided and on all sections, where traffic is light, some sort of rudimentary interlocking must be made available. On the main trunk routes no station should be left un-interlocked and the standard of interlocking at all stations on a section should be the same. Further, at large stations, track circuiting should be provided.	Works required under these items are already being carried out on a programmed basis.
(4) Complete lock and block should be planned for all double line sections.	Works required under these items are already being carried out on a programmed basis.
(5) Where on single line sections, traffic is in excess of three trains each way, token instruments must be provided and where token instruments are installed the last stop signal should be inter-locked with the token instruments.	Ditto.
(6) When paper line clear system is in force a train signal register should be maintained.	Recommendations accepted.

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		(7) No section of the double line should be worked on paper line clear system.	Provision of Block Instruments on all double line sections, where not yet installed, is being arranged on programmed basis.
		(8) Standards of interlocking should be gradually raised.	The accepted policy of the Board is to provide standards of interlocking commensurate with the importance of the section and the traffic dealt with on every section of Railway.
		(9) Speedometers should be provided on all engines working trains carrying passengers.	Instructions are already in force for providing speed indicators on all locomotives operating the Main and Express Passenger trains, and for their maintenance in good state of repairs. The attention of the Railways have again been drawn to these instructions. In order to obtain from the drivers unfailing respect for speed restrictions, all new passenger engines, both Broad Guage and Metre Gauge, are being obtained duly fitted with TELCO Speed Recorders, which have been standardised for adoption on Indian Railways for the present, pending the results of trial now being carried out with TELCO and DEUTA WERKE type speed recorders.

	The replacement of speed indicators on existing locomotives by speed recorders will be considered when the above trials are concluded.
(10) Standard of lighting in yards and platforms should be improved.	Under consideration.
(11) Continuous night duty by Assistant Station Masters should be avoided.	The recommendation of the Estimates Committee has been accepted and its implementation on Railways is being pursued.
(12) The area of a yard in which train examination is done as also the sickline area should be provided with flood lighting.	Under consideration.
(13) On the Metre Gauge, pit lines should be provided at stations, where intensive train examination is done.	Under consideration.
(14) Supersonic crack-detectors should be provided in all Railway workshops.	The Railway Ministry have already obtained two supersonic crack-detectors on a trial basis. If satisfied with their practical utility, the equipment is likely to be standardised and all railways provided with supersonic crack-detectors.
(15) A proper and well-defined technique in welding should be prescribed in all workshops and proper welding equipment should also be provided. Supervision on welding work should be effective and courses of training for welders should be introduced.	The Railways have already been suitably instructed in this matter. The following two processes are usually adopted on Indian Railways in the matter of welding: (*a*) Forge-welding by hand or under power hammer.

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			(*b*) Electrical resistance butt-welding. All workshops have been provided with the regular attention and machines are added to or replaced as and when necessary. Welding work is mostly carried out under the supervision of trained staff for which training courses have already been provided.
		(16) Arrangements for annealing should be provided in all workshops and an organisation should be setup to ensure annealing all welds.	Comprehensive instructions have already been issued. This is normally done under the expert guidance of a Chemist and Metallurgist or some other equally responsible officer.
		(17) Snatch test arrangements for draw-bars should be provided on all workshops and it should be ensured that every single draw-bar is given snatch test before it is brought into use on Rolling Stock.	All draw-bars are given proof load-testing and 2% of them are tested to destruction *i.e.*, given snatch test. This percentage will be revised if and when found necessary.
		(18) At the time of periodical overhaul each wagon draw-bar should be annealed and given a snatch test.	All draw-bars are either annealed or normalised during periodical overhaul of wagons.
		(19) The deficiency of gauge glass protectors on engines must be removed.	The recommendation has been accepted and necessary instruction issued to all Railways. [*Min. of Rlys. O.M.* **No.** 56-B (*C*)—6000/*Recommenaation* (33), *dated* 18-9-1957].
		(20) Standard of lighting in yards and platforms should be improved.	This recommendation has been accepted in principle.

		Upto the end of First Five Year Plan, 1242 stations were electrified. 900 more stations are proposed to be electrified during the Second Five Year Plan, subject to the availability of material and power. Improvement in standard of lighting of important yards is also being carried out on a programmed basis. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)--6000/*Recommendation* (33), *dated* 5-2-1958]
	12) The area of a yard in which train examination is done as also the sick-line area should be provided with flood lighting.	The recommendation has been accepted in principle and even greater intensity of illumination than can be achieved by flood lighting is being provided by the Railways in the sick lines where repair work is carried out. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 10-10-1957]
	(13) On the Metre Gauge, pit lines should be provided at stations, where intensive train examination is done.	The recommendation has been accepted and necessary instructions have been issued to the Railways on the subject. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 9-11-1957]
45	118—120 The Committee have come across a number of cases where the implementation of recommendations of the various Committees appointed	Every effort is made to implement expeditiously the recommendations made by the various Committees appointed by the Government from time to time.

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		from time to time to investigate specific problems has been inordinately delayed. A time-limit should be fixed by which decisions should be taken and action initiated on the recommendations made by the Committees. Further, it should also be ensured that the recommendations of such Committees are properly considered and not rejected merely on the plea that the Committees so constituted are not expert bodies. It is a waste of public money to appoint Committees, print and publish their reports, but delay action on the recommendations or suggestions made by them for inordinately long periods.	Sometimes, however, the recommendations are of such a nature that other Ministries and Railway Administrations have to be consulted before final orders are issued. In such cases some delay is unavoidable. The observations made by the Estimates Committee have, however, been noted. [*Min. of Rly. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 29-4-1957].
49	129	The Committee recommend that the Railway Ministry should also adopt measures as is being done in the Soviet and the Japanese National Railways, to disseminate general technical knowledge about the Railway working. A beginning can be made in Delhi by installing Children's Railway, which should be placed incharge of qualified instructors.	It is proposed to construct a 'Toy' railway for the Bal Bhavan at Delhi. The gauge of the 'Toy' Railway will be 15" for which a steam locomotive has been presented by Tatas. The Northern Railway have been instructed to prepare an estimate for manufacturing suitable coaches and for construction of half a mile long track in the Bal Bhavan with sheds, signalling equipment etc. etc. [*Min. of Rlys. O.M. No. 56-B (C)-6000/Recommendation* (33), *dated* 10-10-1957].

50	130–131	The Committee hope that the examination of the question of delegation of further powers to the General Managers will be completed soon and powers will be delegated to the maximum extent possible, particularly in respect of incurring expenditure and dealing with staff matters.	The Board are fully alive to the need for delegation of powers to General Managers to the maximum extent justified, especially in the context of the Second Five Year Plan, and increased powers have recently been delegated to General Managers. The necessity for a further enhancement of powers is continuously under examination. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 1-5-57].
52	137	On Soviet Railways there is a Planning Cell on each Division, in each Shed, Workshop and Production Unit, which functions under the Seniormost Command Staff in the control of the Division or the Unit. The Committee suggest that the feasibility of introducing this system on Indian Railways should be examined by the Railway Ministry.	This recommendation is accepted. The question of installing Planning Cells on Indian Railways at the Divisional level and in sheds workshops etc. has already been investigated and General Managers have been advised to set up the Cells on their respective Railways according to their requirements. The Cells at the Divisional level will work directly under the supervision of the Divisional Superintendent and similarly the cells in sheds, depots, etc. will work under the senior most official incharge of the shed or depot. The main function of the Planning Cells will be to watch the implementation of the Plan closely and bring all shortcomings to the notice of the Divisional Superintendent or the official incharge of the shed/depot, as the case may be. Such Planning Cells are already in existence in the Railway Board and at the Headquarters of each Railway for some time. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 11-1-57].

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54(a)	142	In order to enable the Railway Board to keep a careful watch over the progress of the Plan, the Committee suggest that the Chairman, Railway Board, should have a big chart in his office, which will give him at a glance the monthly rate of expenditure incurred Railway-wise. There should also be a similar chart giving physical progress of the works undertaken by the Railways as also a chart showing the amount of traffic carried every month.	Regarding the maintenance of a chart showing monthly rate of expenditure incurred Railway-wise, it is submitted that at present figures of expenditure under the Plan-heads are being received from the Railways for every quarter and a chart showing the progress of expenditure for every quarter is proposed to be maintained. Monthly figures of expenditure under Plan-heads are not being received in the Railway Board's Office and it is considered that figures given in the Quarterly Financial Reviews may be shown on the graph at this stage. Regarding the chart showing the physical progress of Works, it is considered that a chart showing the physical progress of selected important Works, such as those exceeding Rs. 20 lakhs and over only may be maintained, but the cost factor need not be the only determinant factor. In regard to the chart showing the amount of traffic carried every month, this will be maintained. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 11-1-57].

54(b)	144	In view of the acute shortage of coaching stock on Indian Railways, overaged coaches are bound to continue in service for many years to come. Hence, the Committee suggest that the policy of providing fans in the old coaches should be liberalised by the Railways.	Railways have been advised that fans should be fitted in all third class coaches irrespective of their age, provided they are likely on condition basis, to be retained in service at least for another five years. The work is to be taken in hand on a programme basis, the younger coaches being fitted first. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 15-5-1957].
56	148(i)	The Committee feel that some of the interesting features of the Japanese National Railways revealed in the Report submitted by Shri Kripal Singh can, with advantage, be gradually adopted by the Indian Railways.	
		(*i*) Most of the busy sections have either already been electrified or are being electrified. About 59 % of the total passenger traffic is being carried by electric traction.	Electrification on the Indian Railways as a means of augmenting line capacity has been accepted by the Board. As the electrification requires heavy capital expenditure a large portion of which is to be spent abroad in purchasing equipment and machinery, priority for electrification is given to those sections where traffic density is high and where sections are saturated for steam traction. The programme of electrification is, therefore, spread over a number of years depending on the availability of funds including Foreign Exchange.
		The Japanese National Railway owns and runs two Hydro-Electric Power Stations which supply power for electric operation in Tokyo and its vicinity, surplus electricity during the off peak hours being sold to private electric companies. It is claimed that a net saving of about 1,200 million yens is accruing to the J.N. Railway on account of their producing electricity for their electric train operation instead of purchasing it from private sources.	In the past 244 Route Miles of track in Bombay and Madras area were electrified. During

the First Plan the electrification of Howrah-Bandel-Burdwan and Tarakeshwar Branch covering a distance of 88 route miles was taken in hand which is nearing completion.

Under the Second Five Year Plan the electrification of 1442 route miles had been programmed.

It has also been decided tentatively to electrify all important and busy trunk routes during the 3rd and 4th Plan Periods.

Dieselisation is also progressing ahead and the number of diesel rail cars is increasing every year. In 1953-54 alone the number increased from 238 to 458. These rail cars are being operated for inter-urban services on most of the Branch lines and a part of the Main Line.

In India, electric power generation is being nationalised and the Railways would receive power for their electrification projects from the State Electricity Authorities or Corporations. This would avoid duplication of generation and would provide a single system of generation, transmission and distribution which is the most economical method of power supply.

Dieselisation.

Diesel Rail Cars are essentially suitable for light suburban/inter-urban traffic and can be used on certain specified sections. Under present conditions when the average passenger travels

with heavy luggage, the rail cars are not suitable for general inter-urban traffic.

The comparative economics of operation maintenance and utility of Diesel Rail Cars *vis-a-vis* shuttle trains hauled by locomotives are under study.

It may be stated that in view of the present position regarding foreign exchange, there is no likelihood of any large scale extension of diesel Rail Cars on Indian Railways, in the near future.

For the present, against 24 B.G. Diesel Rail Cars on order, 12 have been received on the Southern Railway. 12 more are expected in a few months time for use on Northern Railway.

Two more Narrow Gauge Diesel Rail Cars are also provided for the Matheran Light Railway Section of the Central Railway in the Budget for 1958-59.

It may be stated that, in view of the present position regarding foreign exchange, there is no likelihood of any large scale extension of diesel Rail Cars on Indian Railways in the near future.

For the present, against 24 B.G. Diesel Rail Cars on order, 12 have been received on the Southern Railway. 12 more are expected in a few months time for use on Northern Railway.

1	2	3	4
			Two more Narrow Gauge Diesel Rail Cars are also provided for the Matheran Light Railway section of the Central Railway in the Budget for 1958-59. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 11-9-58].
	(ii) All Railway Stations on the J. N. Railway are electrified, the electric supply being obtained mostly from private electric supply companies. Where no such source of supply is available, the Railways have put up their own generators. (About 95 per cent of the total population of Japan is provided with electricity in their homes and places of work. The rest 5 per cent have not been able to have any such supply on account of their living in distant hills and forests.)		It is the accepted policy of the Board that wherever power supply is available at a reasonable rate, advantage is taken to electrify the stations. The priorities for electrifying these stations are being decided on the basis of their importance in consultation with the Passenger Amenity Committee. Consistent with this policy, upto the end of the Ist Five Year Plan 1316 stations were electrified and during the Second Five Year Plan it is expected that all the 900 stations where electric power is available at present will be electrified. Unlike Japan electric power is not available at all railway stations in India, nor are resources available with the Railways to instal their own generating sets for lighting only. [*Min. of Rlys. O. M. No. 56-B(C)-6000/ Recommendation* (33), *dated* 20-6-58].

(*iii*) There is colour light system of signals with three aspects, four aspects and five aspects of colour lights operating on various sections of the Japanese Railways, the five-aspect colour light system being as under :

Proceed	.	Green
Reduced speed	.	Yellow over Green.
Caution	.	Yellow
Alarm	.	Yellow over Yellow
Stop	.	Red.

(*iv*) Cab signals repeat in the driver's cab the position of the signal ahead as the train approaches it within a certain distance.

(*v*) There is not a single non-interlocked station on the Japanese National Railway.

(*iii*) Three-aspect colour light signalling is already in use on some of the suburban sections of the Railways. This type of signalling is being extended on considerations of increasing sectional capacity.

Provision of four-aspect signalling has been proposed for the Section Bhandup-Thana of the Central Railway.

At present, it is not considered necessary to provide five-aspect signalling.

(*iv*) Cab signalling costs approximately Rs. 1 lakh a mile. With the resources available, at present it is proposed to concentrate on signalling improvements and pulling up arrears of renewals and replacements. Though cab signalling is one of the best-known safety devices, we may not be able to afford it for many years to come.

[*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (*33*), *dated* 14-4-1958].

Note: Interlocking of nearly 350 non-interlocked stations has been planned during the Second Five Year Plan period. The provision of rudimentary interlocking at the rest of non-interlocked stations has also been programmed during the Plan period.

[*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*33rd Report, dated* 9-12-1958].

1	2	3	4
		(*vi*) On the single line, the highest number of trains run in any section is 62 in the down direction and 65 in the UP direction on the Ube-Ino Block section on the Ube line.	The Ube-Ino block section on the Japanese Railways on which 62 trains are running in the down direction and 65 in the UP direction has the following operating features as described in para 16 of Shri Kripal Singh's Report : (*i*) The section is provided with automatic block working. (*ii*) The length of the block section is very small *i.e.*, 1·12 miles. (*iii*) Out of 62 down trains and 65 UP trains, 53 in each direction are electric cars, many of which follow each other in quick succession. (*iv*) The number of goods trains is only 8 UP and 8 down. (*v*) The total length of the line on which this block section is situated is only 35 kilometres *i.e.*, approximately 22 miles. (*vi*) The line is electrified. (*vii*) The running time of electric cars on the short block section of 1·12 miles is very little. 2. It will be appreciated that the high density of train service has been achieved only under

exceptionally favourable operating conditions. Such conditions do not obtain on any single-line section of the Indian Railways.

3. On Indian Railways the optimum number of trains which can be run on an average single-line section on the main line, with steam traction, fairly easy gradients and block sections of about 5 miles, is about 17 to 18 trains each way per day. With electrification, automatic signalling, reduction of the length of block sections and a conveniently grouped train service with other improvements of the type provided on the Japanese Railways it will be possible to increase the density of train service in India also.

In fact about 175 trains each way per day are being run on the Church Gate-Grant/Road double line suburban section of the Western Railway in Bombay, where more or less similar facilities are provided. This performance is comparable with example the quoted on the Japanese Railways.

[*Min. of Rlys. O.M. No. 56-B(C)—6000/Recommendation* (33), *dated* 11-9-1958].

(*vii*) The standard unit of time on which booking of running time is done is 15 seconds except in the case of electric cars in suburban areas, where this unit is 10 seconds and all trains and electric cars must run punctually in this low unit of time. The watches supplied to the drivers and guards show the seconds quite clearly.

The opinions expressed by the Railways are against the proposal, as they consider that in the present context, the proposed arrangement is not likely to achieve the objective as the sense of time in terms of seconds unfortunately is not there with long time being allowed on engineering restrictions etc. They feel this is not a propitious time to try out this experiment.

1	2	3	4
			It is, however, proposed to have a discussion with the Chief Operating Superintendents at their next meeting, which is likely to be held early in September when a definite reply will be given. [*Min. of Rlys. O. M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 2-8-1958].
			Further to the reply already given to para 148(*vii*) of 33rd Report of the Estimates Committee, the matter was discussed with the Chief Operating Superintendents of the Railways at the 11th Operating meeting and it was decided that as halts of half a minute are provided on the suburban sections, intermediate running time should be shown in half minutes (30 seconds) also. [*Min. of Rlys. O. M. No.* 56-*B*(*C*)-6000/33*rd Report, dated* 6-1-1959].
	(*viii*) The Japanese National Railway owns and operates its own telecommunications.		The suggestion has been noted. [*Min. of Rlys. O.M. No.* 56-B(*C*)-3000/- *Recommendation* (33), *dated* 23-7-1958]
	(*ix*) The shortest headway between electric cars is 1 minute 50 seconds on the Tabata Tamachi section on which Tokyo is situated.		The minimum headway between consecutive suburban electric with electric multiple unit stock varies between 3 minutes and 5 minutes on the Indian Railways.

2. The minimum headway depends on various factors, such as type of signalling, reception and despatch facilities at terminals and at stations on the way, duration of halts at stations, capacity of the electric multiple unit trains for accelleration and deceleration etc. Conditions vary between the Japanese and Indian Railways' suburban sections and some of the points of difference are given below:

(*i*) The Japanese Railways have a 4 and 5 aspect automatic signalling system as against 3-aspect automatic signals provided in this country. The Japanese signalling provides greater scope for prewarning of the condition of the line ahead.

(*ii*) The duration of suburban halts is only about 20 seconds on the Japanese Railways whereas on Indian Railways these vary between 40 seconds and 1 minute.

(*iii*) The speed on turn-outs in Japan varies between 15.5 to 37 miles per hour depending on the type of turn-out, against 10 miles per hour in India.

3. It is not easy to achieve a headway of 1 minute 50 seconds as in Japan, on the suburban sections in India under the present conditions, due to the difficulties in obtaining foreign exchange, which is required for carrying out improvements in the electric signalling on the suburban sections.

202(Aii) L.S.—4.

The existing resources of rolling stock, signalling and other facilities are being utilised to the maximum possible extent, and subject to the limitations, every attempt is made to provide the minimum headway between suburban trains on the electrified suburban sections of the Indian Railways.

4. The interesting features of the Japanese National Railways, as revealed in the report submitted by Shri Kripal Singh, have been noted and are kept in view while considering proposals for increasing line capacity.

[*Min. of Railways O.M. No.* 56-*B*(*C*)-6000/ 33*rd Report, dated* 13-10-1958].

(*x*) Japanese National Railway trucks are quite extensively used for the collection and distribution of goods to and from central freight stations.

In this country also, at the larger cities, where there are more than one station serving the area, all of them are not open for goods booking. Also, wherever feasible, transport of goods between the rail heads and the merchants' godowns, as also between the City Booking Office and the rail-heads, is arranged through road transport. The road transport, however, instead of being operated departmentally, is arranged through contractors, selected through tenders.

[*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 2-8-1958].

(*xi*) Suburban electric trains stop only for 20 seconds at wayside stations. At important stations where there is heavy traffic, they stop for 40 seconds. At Tokyo station which is the heaviest passenger traffic station in Japan such of these trains as do not terminate there, stop only for 60 seconds. On account of the active and disciplined habits and light travelling of the passengers, no difficulty is experienced in entraining and detraining at these stations with these very short stops. There is no pushing or jostling about amongst the passengers.

Normally, on the suburban sections, a halt of 30 seconds is allowed at ordinary stations and 1 minute at large stations. In actual practice, however, trains are given a slightly higher or lesser halt depending on the quantum of traffic to be cleared, to avoid trains being stopped by pulling alarm chain apparatus.

2. As indicated by Shri Kripal Singh himself in his Report, conditions in India are very dissimilar. Until the travel habits change appreciably and over-crowding in trains is reduced, halts of 20 seconds at wayside stations, 40 seconds at comparatively more important stations and 60 seconds at big stations like Tokyo for non-terminating trains will be difficult to enforce.

[*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/ *Recommendation* (33), *dated* 2-8-1958].

(*xii*) Even third class coaches have cushioned seats. All carriages are inter-connected with each other by collapsible doors at the ends.

4. Vestibuled Janta rakes have been put into service and 4 more fully air-conditioned vestibuled rakes are under construction. This is being done as an experimental measure. The adoption of vestibuling as a standard practice will depend upon the results of these experiments.

1	2	3	4
			As regards cushioning of seats in Class III coaches, it may be pointed out that the present standard of amenities in Class III is almost a revolutionary change for the better when compared with conditions prevailing a few years ago. Now we must get more coaching stock as fast as we can. Any further modifications in the standards of amenities at this stage may retard our construction programmes. The provision of cushioned seats in Class III coaches will, therefore, have to remain a long term objective. Six Day/Night sleeper coaches with upper berths being fitted with 2 inches thick pliofoam cushions are to be built as an experiment and these coaches are expected to be in service early next year. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-1956].
	(*xiii*) The standard of discipline and sense of responsibility amongst the railway staff of all ranks on the Japanese National Railway are of a very high order.		The general observation is noted. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 20-6-1958].

(*xiv*) On the average it takes 12 minutes for sorting out a full load over the hump in the Shintsumni Marshalling Yard and the average detention to through loaded cars in this yard is 8·6 as against the target of 9 hours.	It is proposed, in the 2nd Five Year Plan, to provide electro-pneumatic operation of points and retarders in the marshalling yard at Moghalsarai. This will increase the handling capacity of the yard and reduce the average detention to through cars, as in the Shintsumni Marshalling Yard in Japan, which is provided with electro-pneumatic power switches and retarders below the lump. After some experience is gained this system of working is likely to be extended to other marshalling yards, as justified, but this is likely to be taken up in the 3rd Five Year Plan. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 20-6-58].
(*xv*) Every train carries two portable telephones to communicate with the Train Despatcher in case of an emergency between stations.	Noted. Guards of all Mail and Express trains have already been provided with one portable telephone for use in emergency. Instructions have been issued to provide portable telephone on all passenger trains also running on controlled sections. These are being arranged by Railways. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 23-7-58].

2		3	4
57	149	The Committee feel that uniformity should gradually be introduced in siding charges, according to a phased programme. If necessary, the Railway Ministry may refer this problem to the Railway Freight Structure Enquiry Committee to evolve a suitable formula for introducing uniform siding charges on all Indian Railways.	The Committee's recommendation, that the objective should be uniformity in the calculation of siding charges, has been accepted and the phasing of the steps to be taken to achieve such unifomity is under consideration. Also a uniform formula has already been evolved by the Commercial Committee of the I.R.C.A. so that a reference to the Enquiry Committee for evolving such a formula is not found to be necessary. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 6-11-56].
59	151	The Committee observed that all the Narrow Gauge Railways are heavily losing concerns except the Narrow Gauge system on the Central Railway. It is, therefore, necessary that the process of Conversion of Narrow Gauge line into Meter Gauge or Broad Gauge, as the case may be, should be expedited. Besides the operating ratio for the Metre Gauge sections is higher than for the Broad Gauge sections on the same Railways.	Noted. [*Min. of Rlys. O.M. No.* 56-*B*(*C*)-6000/*Recommendation* (33), *dated* 11-1-57.]
	166	While there has been considerable drop in the number of outstanding registrations on the Broad Gauge on 31-3-1956, when compared with the corresponding figures on 31-3-1955, on the Metre Gauge there has been an increase, despite better loading figures achieved.	The Committee's conclusion is noted. Ever effort will be made to reduce the outstanding registrations. Special efforts are also made to clear old registrations by giving preferential movement. The comparative position of the outstanding indents for free destinations is given

The need for providing additional rail transport still remains as pressing as before.

below :—

Broad Gauge and Metre Gauge

Month	Outstanding indents for free destinations, at the end of each month (In terms of wagons)			
	Broad gauge		Metre Gauge	
	1955	1956	1955	1956
April . .	42,463	42,914	55,874	46,876
May . .	53,055	41,770	59,932	41,856
June . .	55,579	51,212	60,766	40,136
July . .	46,715	40,857	62,602	29,083
August. .	31,006	25,971	54,118	14,657

It will be observed from the above figures that the position of the outstanding indents has been better during 1956 as compared to the corresponding period of last year.

As a result of the special efforts made during the busy season of 1955-56 it has been possible to move 7·6% more traffic on the Broad Gauge and 13 per cent on the Metre Gauge as compared to the busy season of last year. The increase effected in loading has been largely with the limited resources available and better utilisation of available rolling stock.

[*Min. of Rlys.' O.M. No. 56-B(C)-6000/Recommendation* (33), *dated* 11-1-57].

1	2	3	4
63	167	The Committee have no doubt that the implementation of the suggestions made by them and the recent drive initiated by the Railway Ministry to improve goods loading, will enable the Railways to achieve better and better results. The Second Plan of the country is a gigantic programme of an all round increased production; and the main brunt of distributing the raw materials and the finished products will have to be borne by the Railways. The country will, therefore, watch the programme of the Railways with interest and anxiety—with anxiety, because there is a fear that the Railways might prove to be a serious bottleneck in the movement of goods during the Second Plan period. However, the improvement in the goods loading effected during the last few months and the assurance of the Planning Commission that there will be periodical reviews of the allocation of funds to Railways give grounds for hope that the Railways might be able to meet the requirements to a reasonable extent. The Committee close their examination of the estimates relating to the Ministry of Railways with this message of hope and cheer to all Railwaymen that they may succeed—nay, they must succeed—in delivering the goods of the Nation.	The Committee's conclusion is noted. [*Min. of Rlys. O.M. No. 56-B(C)-6000/Recommendation (33), dated* 11-1-57.]

B. Replies to recommendations contained in the earlier reports of the Estimates Committee on the Ministry of Railways

Report No.	Sl. No. of the recommendation/ conclusion	Summary of recommendations/ conclusions	Government's reply
1	2	3	4
Seventeenth	60	The Committee understand that certain proposals for mechanical handling of bulk cargo at Madras and Calcutta Ports are under consideration and recommend that the question of providing similar facilities in Bombay Port as well as some of the important intermediate Ports like Bhavnagar, Bedi etc. may be examined.	The question of providing facilities for the mechanical handling of bulk cargo at Bombay Port has been considered fully in this Ministry in consultation with the Bombay Port Trust authorities. The views of this Ministry are as under :— (*i*) Except the ore traffic, there are no other major bulk commodities handled by the Railway Department of the Bombay Port Trust to justify mechanisation. As regards ore traffic (manganese and iron ore) the loading and unloading of local and foreign ore wagons is concentrated at the Manganese Depot at the Port and is done by the *parties*. The unloading of local wagons in the Dock is done with the help of dock cranes. In so far as the loading and unloading operations at the Railway depots of the Port Trust are concerned,

1	2	3	4
			the private parties who carry out the operations may not, it is feared, be ready to share any additional financial burden resulting from mechanisation.
			(*ii*) The major item of imports of dry cargo in bulk is foodgrain while the minor items of imports of dry cargo in bulk are Rock Phosphate and China clay. The former is handled exclusively by Government through contractor's labour. The Government has acquired two Buhler plants for the mechanical handling of grain but these have not been installed due to the objection of the Labour Unions against their use which would involve displacement of labour. As regards the imports of the latter type, the total volume of imports would not justify the provision of mechanical handling plant.
			(*iii*) Regarding export traffic, the bulk cargo are manganese ore and iron ore. These are either railed down alongside in rail wagons or by motor lorries. At Shipside, the ore is filled into tipping tubs which in turn are lifted into ship holds by means of Shoreside cranes. Further the lay-out of the three Docks at the Harbour does not permit

of the accumulation of ores, formed into stacks, at selected berths, as at other Ports. Had there been feasibility ore loading by cranes would have been feasible. Mechanisation of the process of handling of ores at the Bombay Harbour Docks is not, therefore, feasible beyond the existing level.

[*Ministry of Railways O.M. No.* 19-*PDI* (173)/57 *dated* 11-4-1958]

In the intermediate and minor ports (with the exception of Okha and Bhavnagar ports), ships have to lie at anchor in the roads. Therefore, mechanisation of handling facilities at such ports would involve the mechanical handling of cargo into lighters or reloading of cargo into ships in the roads. Loading into, or unloading from, ships in the roads can only be done by the ships' derricks. The ultimate rate of such loading or unloading would be entirely governed by the speed of operation and capacity of the derricks on the ships. This is to say, however fast the cargo is transferred to or from lighters at the shore by mechanical means, the rate of loading or unloading between lighters and ships would be governed by the ships' derricks. Thus the turnround of ships cannot be made quicker by mechanisation on the shore. This factor, therefore, limits the scope of full mechanisation at intermediate ports (other than Bhavnagar and Port Okha), where ships have to anchor in the roads.

1	2	3	4
			Many of the intermediate ports, including the important Saurashtra Ports, are already equipped with crane facilities for handling cargo between shore and ship or between shore and lighter. Provision has been made in the Second Plan for replacement of some cranes at Bhavnagar and for repair of the boilers of cranes at Navlakhi. Schemes for partial mechanisation at other intermediate ports, wherever possible, have also been included in the Second Five Year Plan. Some of these works are listed below :— *Pondicherry* : (1) Provision of three 2-ton electric cranes on the new pier for handling cargo. (2) Provision of mobile crane and grab on the shore for handling general cargo and ore. (3) Diesel locomotive with trucks to transport general cargo and ore from dump and transit sheds to pier. (4) Electric capstan for handling trucks and craft near the pier head. *Kakinada* : Provision of cranes and trollies for handling ore.

Kozhikode :

Substitution of manual cranes by electric cranes on the piers for handling general cargo.

Okha:

Replacement of dilapidated steam cranes by modern 2-ton and 5-ton electric cranes, provision of wagons and locomotives.

Mangalore :

Provision of one electric crane for handling.

Alleppey :

Erection of new electric cranes on the existing pier for handling cargo.

The question of provision of facilities for the mechanical handling of bulk cargo was considered by Government of Bombay, particularly in respect of the Saurashtra ports. The views of the Government of Bombay are contained in the attached statement.*

[*Ministry of Railways O.M. No. 19-PDI(73)'57 dated* 13-3-1959].

1	2	3	4
Twenty-first	21	The Committee are glad to learn that a survey of the capacity of particular ports as well as mines is being undertaken before a final decision on the question of export of ore by the Government themselves is reached. The Committee suggest that this survey may be completed expeditiously and the final decision arrived at quickly so as to facilitate quick inflow of steel in return from the importing countries.	The recommendation mainly pertains to the Ministry of Transport who are dealing with the Ports and the Ministries of Commerce & Industry, and Steel, Mines and Fuel who are concerned with the export of ore etc. and development of the mines. Accordingly, this recommendation was referred to these Ministries for their comments. They have offered the following remarks:— *Ministry of Transport*: The survey of the handling capacity of major ports has been carried out by them. The actual capacity of major ports for 1955-56 was 23 million tons. Various steps are being taken to raise the capacity of these ports to about 33 million tons by provision of additional berths and introduction of greater mechanization during the Second Plan. As regards minor ports, the implementation of the development works contemplated in the Second Plan will result in the stepping up of the ore handling capacity from 12·58 lakh tons to 14·58 lakh tons per annum.

Besides the above facilities, the question of providing port facilities for the export of an additional quantity of 2 million tons of iron to Japan has been examined by a study group consisting of the representatives of the Ministries of Transport, Commerce and Industry (State Trading Corporation) and Railways, and the Director, Geological Survey of India, Calcutta. The question as to which minor/major ports should be developed for this purpose, is under consideration. A statement showing the facilities already provided or which it is proposed to provide at the major and minor ports for stimulating ore exports] is enclosed. (Annexure 'A').*

Ministry of Steel, Mines and Fuel: The export trade of a mineral depends on several factors—(1) reserves of each mineral; (2) the size of and shape of individual deposit; (3) the finance available; (4) tools, equipment and machinery available for mining; (5) demand for the mineral for interna consumption; (6) demand for the mineral in the foreign countries at economic rate ; (7) facilities of transport from the mine site to the railway station ; (8) road, rail and river transport, port and shipping facilities. The position in

respect of various important minerals is given below:—

(*million tons*)

Coal

Reserve	Bengal	8,096
	Bihar	16,215·8
	Orissa	743·0
	Madhya Pradesh	1,973·5
	Andhra Pradesh	196·2
	Bombay	428·5
	Assam	1,226·1
	Jammu & Kashmir	200·0
	Rajasthan	20·0
	Madras	2,000·0
	Kerala	276·0
	Kutch	11·0
	TOTAL	31,386·1

	1956	1957
Production	39·434	43·504
Exports	1·728	..

Of the total production during 1956 and 1957, collieries in Bengal and Bihar accounted for 31·38 million tons and 34·78 million tons. The nearest port for these collieries is Calcutta.

Iron Ore

Reserves	*Million tons*		*Nearest port*
(1)	(2)	(3)	(4)
	(Proved)	(Estimated)	
Hematite Ores			
Bihar . .	1,052	8,000	Calcutta
Orissa . .	1,696		
Bombay . .	27	500	
Madhya Pradesh	1,564	7,000	Visakhapatnam.
Mysore . .	904	2,200	Mysore
Andhra . .	41	N.A.	Hannover
Rajasthan .	5	30	Kandla
U.P. . .	10		
Punjab . .	2		
Magnetite Ores			
Andhra Pradesh	20·0	50·0	
Bihar/Orissa .	5·0	..	

(1)	(2)	(3)	(4)
Himachal Pradesh . .	60·0	60·0	
Madras . .	305·0	1,000·0	Madras
Mysore . .	215·0	500·0	Hannover
Limonitic and Spathic ores:			
Bengal . .	500·0	21,140·0	Calcutta

	1956 (m. tons)	1957 (m. tons)
Production .	4·858	5·074
Exports . .	1·981	2·262

Very recently, the Government of India has entered into an agreement with the Government of Japan for the export of iron ore on a long term basis commencing from the year 1964 of approximately two million tons per annum from Rourkela area in Orissa from Visakhapatnam port. For this purpose, an agreement has been signed with the U.S.A. for the loan assistance of $20,000,000 from the U.S. President's Development Fund for the completion of railway between the mine and the port and for the mechanisation of facilities at the port suitable for loading ore-carriers.'

There are also proposals under consideration for the development of Sukinda Port for the export of half a million tons of iron ore from Orissa, and the development of a port on west coast for the additional exports of iron ore from Mysore area.

Manganese

Reserves :	(*Million Tons*)
Bombay	25(2-5 m. tons of shipping grade ore)
Madhya Pradesh	20 indicated reserves (60 m. tons inferred reserves)
Mysore	3·15
Orissa	1·07

Total reserves of all grade manganese ore in India are 100 million tons. Manganese ore is exported through Visakhapatnam, Bombay, Bedi and Kandla.

	1956	1957
	(m. tons.)	
Production	1·687	1·568
Export	1·386	1·706

The target for the export of manganese by the end of II Five Year Plan is 2 million tons.

Mica:

Reserves :—No reserves have been estimated for any mica deposit. It mainly occurs in Bihar, Rajasthan and Andhra.

	1956 (Cwts.)	1957
Production .	560,685	607,000

Export :—Almost all the mica produced in India is exported.

The bulk of production is from Bihar which is exported through Calcutta.

Ilmenite and Rutile

Reserves :	Ore tonnage (Short tons)	Mineral percent	Content tonnage	Titanium metal tonnage
Bihar (Singhbhum)	4,500,000	28 I	1,260,000	400,000
Bombay (Ratnagiri)	N.A.	N.A.	N.A.	N.A.
Kerala (Quilon) .	364,000,000	55 I	200,000,000	63,250,000
		4 R	14,560,000	8,740,000
Madras	N.A.		N.A.	N.A.
TOTAL .	368,500,000		201,260,000(I) 14,560,000(R)	72,390,000

I Ilmenite
R Rutile

	1956 (tons)	1957	
Production	335,590	296,221	(in Kerala and Madras
Exports	208,201	347,212	

Exports are routed through the port of Cochin.

Magnesite

Reserves :

Chalk Hill deposits of Salem District, Madras	82·5 m. tons
Almora, U.P.	1·5 m. tons

	1956 (tons)	1957
Production	91,711	85,858
Exports	34,546	22,736

Exports are routed through Madras port.

Chromite

Reserves :		Tons
Bihar	(Singhbhum)	20,500
Bombay	(Ratnagiri)	66,000
Madras	(Salem)	220,000
Mysore	(Chitaldrug)	25,000
	(Hassan)	500,000
	(Kadur)	20,000
(between Mysore and Narjangud)		20,000

Orissa	.	(Keonjhar)	. 80,000
		(Banla)	. 1,323,000
		(Cuttack)	200,000
		(Dhenkanal) ..	. 120,000

		1956 (tons)	1957
Production	.	52,686	78,542
Exports	.	43,000	41,000

Kyanite

Reserves :

Lapsaburu, District Singhbhum, Bihar — 700,000 tons

		1956, (tons)	1957
Production	.	20,135	21,637
Exports	.	26,564	25,273

Exports are routed through Calcutta port.

Bauxite

Reserves : Tons

Ranchi & Palamau Distts. Bihar . 100,000,000

Top of Hill and Plateaus in Karlapat, Kashmir and Mahalpatnam Zamindaris of Kalhand District, Orissa . .	500,000
Khariar Highlands, Nowpara Sub-division, Sambalpur district	2,000,000
(*i*) Kondomal Hills	
(*ii*) Barapat Dongor Hills	
(*iii*) Hills West of Saina Para .	
(*iv*) near Sandhahli .	300,000
Districts Sarguja, Jashpur and Bilaspur	60,000,000
Districts Balaghat, Mandla, . . Kawardha, Madhya Pradesh .	20,000,000
Bilaspur, Shahdol, M.P. . .	6,000,000
Jabalpur District, M.P. . .	5,000,000
Belgaum District, Mysore .	6,000,000
Kolhapur District, Bombay .	20,000,000
Salem District, Madras .	29,000,000
Jammu and Kashmir . .	2,000,000

	1956 (tons)	1957
Production .	91,225	96,071
Export .	4,405	9,671

In view of the foreign exchange position they, are not in favour of import of Steel on barter basis. They would, however, welcome improved facilities for import of Steel.

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			[*Ministry of Railways O.M. No. 56-B (C)-6000/ 21st Report, dated* 24-11-1958.]

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			even better. Thereafter, these men acquire years of practical experiece in Railway matters and are generally not promoted to Class II within less than 15 to 20 years of service. It may be added that not unoften even persons with a Degree qualification in Engineering seek admission to the Class III Service and as far as educational qualification is concerned, are more or less on a par with the recruits taken by open competitive examination into the Class I Service.
			In respect of the specialised cadres, a proportion of the recruitment to the Class III Service is made with the minimum educational qualification of a degree. On the Transportation and Commercial side, these men are given intensive training as Traffic Apprentices and put into the higher grades of the Class III Service to acquire the necessary experience. The same procedure obtains in respect of the Stores and Accounts cadres.
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a written paper and/or an oral test and the service record of the employee is taken into account. The list as drawn up by the Selection Board is subject to approval by the General Manager personally and the procedure prescribed is such as to ensure that none but the really good ones get selected for promotion to the Class II Service.

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26	10	The Committee feel that there is a case for investigation as to what extent, if any, the air-conditioned class or the first class is being subsidized by other classes. The Committee, therefore, recommend that the capital cost of various classes of Rolling Stock should be worked out and then the earnings compared with the capital cost of stock, interest, maintenance and depreciation charges thereon and the cost of haulage per vehicle. Indian Railways should develop a system of accounting and analysis which would enable them to ascertain, with a fair measure of accuracy, the cost of various services and the average and dependent cost of haulage of different commodities. This knowledge will be of considerable use in working out goods tariffs from time to time.	The Committee's suggestion for investigation as to what extent, if any, the air-conditioned class or the first class being subsidised by other classes had been given very careful consideration. The provision of different classes of accommodation on trains is decided upon on the basis of the public need and demand for such accommodation and the charges levied are based on the principle of 'What the traffic will bear' having due regard, at the same time, to the additional operating costs of providing such a service. From the detailed calculations made on the basis of data readily available, it is seen that the air-conditioned class and the first class cannot be regarded as uneconomic in themselves and that they are remunerative when the occupation

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			ratio is of the order of 45 per cent for the air-conditioned class B.G. and 25 per cent for the first class B.G., the corresponding figures for the M.G. being 52 per cent and 30 per cent. The problem thus is really one of keeping a constant watch with a view to curtailing the specific services which give occupation ratio which are particularly low. [*Ministry of Railways O.M. No.* 58-*B*(*C*) 6000/*II*/32*nd Report, dated* 21-6-1959.]

CHAPTER III

Replies of Government that have been accepted by the Committee

S. No. in the Appendix VII to the 33rd Report	Reference to paragraph No. of the Report	Summary of Recommendations/ conclusions	Reply of the Government
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2	9	The Committee were informed that difficulty was being experienced in getting staff for the Research Centres, as the Railway Officers selected were apprehensive of losing their chances of promotion on the Railways. To overcome this difficulty, the Committee suggest that the Research Organisation should consist of men engaged permanently in Research work and they should be given reasonable avenues of promotion in the organisation itself. The	(a) *Providing avenues of promotion to those employed on Research work permanently.* In connection with the reorganisation and enlargement of the Research Organisation, which is already engaging the attention of the Railway Board, the question is being examined of prescribing scales of pay without any break to a person engaged in research work to enable him to start on the time scale and finish at an appropriate level

Committee further suggest that some research should also be done in the bigger Railway workshops by having some Research laboratories installed in them. The Committee further recommend that Research and Standardisation should not be confined only to technical and scientific aspects of the Railways, but also to other matters, such as administration, accounting, public relations, commercial side and other miscellaneous activities of the Railways. Experiments should be conducted from time to time in order to bring about simplicity and standardisation in all the Railways with regard to all these matters with a view to increase efficiency and to eliminate delays or waste. Railways should make increasing use of the work done by bigger research institutes (*e.g.*, the Forest Research Institute, National Physcial Laboratory etc.) and should submit problems to them for advice. This will enable Railways to get experienced and mature advice in these matters and also help in pooling of ideas and avoid any duplication of efforts on the same subject.

corresponding to what he would have received on the comparable cadres on the Railways. This should meet the Committee's objective of ensuring reasonable avenues of promotion for those employed permanently on research work.

(*b*) *Installation of Research Laboratories in Workshops.*

As it is, due to shortage of men there is difficulty in building up a proper research organisation and to start research in different workshops will only add to the difficulty. Further, the problems that arise on various Railways being similar, they require common solution and the tendency the world over is to centralise the work of Railway research.

(*c*) *Extension of Research to Non-technical activities on Railway Working.*

It appears worth-while developing at an efficient level the work in the technical field where research and development is most needed before any extension of research to other desirable activities is undertaken. In fact, there should not be any

great difficulty in our country in doing the more theoretical and non-technical work.

(d) *The need for making increasing use of the work done by bigger institutes.*

Of course, advantage will be taken of the results of research in the National Laboratories to the extent they can be applied on the Railways. The latter are doing original and some applied research, whereas the Railway Research Centre is doing mostly applied research specifically on railway problems. However, the Railway Board are already contemplating the association of the Director of C.S.I.R. on the Controlling Committee of railway research so that any chance of duplication feared by the Committee will also be avoided.

[*Ministry of Railways O.M. No. 56-B(C)-6000/ Recommendations* (33), *dated* 6-11-1956.]

Further information called for by the Committee.

Attention is invited to last sentence of point (d) of the Ministry's reply in respect of this recommendation and it is requested that the latest position in regard to the contemplated association of the Director of C.S.I.R. on the controlling Committee of Railway Research may please be furnished.

With the re-organisation of Research, Designs and Standards Organisation, a Committee consisting of the following members has been reconstituted to function as a Central Board of Railway Research:-

1. Chairman, Railway Board.
2. Member(Engineering), Railway Board.

of the accumulation of ores, formed into stacks, at selected berths, as at other Ports. Had there been feasibility ore loading by cranes would have been feasible. Mechanisation of the process of handling of ores at the Bombay Harbour Docks is not, therefore, feasible beyond the existing level.

[*Ministry of Railways O.M. No.* 19-*PDI* (173)/57 *dated* 11-4-1958]

In the intermediate and minor ports (with the exception of Okha and Bhavnagar ports), ships have to lie at anchor in the roads. Therefore, mechanisation of handling facilities at such ports would involve the mechanical handling of cargo into lighters or reloading of cargo into ships in the roads. Loading into, or unloading from, ships in the roads can only be done by the ships' derricks. The ultimate rate of such loading or unloading would be entirely governed by the speed of operation and capacity of the derricks on the ships. This is to say, however fast the cargo is transferred to or from lighters at the shore by mechanical means, the rate of loading or unloading between lighters and ships would be governed by the ships' derricks. Thus the turnround of ships cannot be made quicker by mechanisation on the shore. This factor, therefore, limits the scope of full mechanisation at intermediate ports (other than Bhavnagar and Port Okha), where ships have to anchor in the roads.

1	2	3	4
			Many of the intermediate ports, including the important Saurashtra Ports, are already equipped with crane facilities for handling cargo between shore and ship or between shore and lighter. Provision has been made in the Second Plan for replacement of some cranes at Bhavnagar and for repair of the boilers of cranes at Navlakhi. Schemes for partial mechanisation at other intermediate ports, wherever possible, have also been included in the Second Five Year Plan. Some of these works are listed below :— *Pondicherry* : (1) Provision of three 2-ton electric cranes on the new pier for handling cargo. (2) Provision of mobile crane and grab on the shore for handling general cargo and ore. (3) Diesel locomotive with trucks to transport general cargo and ore from dump and transit sheds to pier. (4) Electric capstan for handling trucks and craft near the pier head. *Kakinada* : Provision of cranes and trollies for handling ore.

Kozhikode :

Substitution of manual cranes by electric cranes on the piers for handling general cargo.

Okha:

Replacement of dilapidated steam cranes by modern 2-ton and 5-ton electric cranes, provision of wagons and locomotives.

Mangalore :

Provision of one electric crane for handling.

Alleppey :

Erection of new electric cranes on the existing pier for handling cargo.

The question of provision of facilities for the mechanical handling of bulk cargo was considered by Government of Bombay, particularly in respect of the Saurashtra ports. The views of the Government of Bombay are contained in the attached statement.*

[*Ministry of Railways O.M. No. 19-PDI(73)'57 dated* 13-3-1959].

1	2	3	4
Twenty-first	21	The Committee are glad to learn that a survey of the capacity of particular ports as well as mines is being undertaken before a final decision on the question of export of ore by the Government themselves is reached. The Committee suggest that this survey may be completed expeditiously and the final decision arrived at quickly so as to facilitate quick inflow of steel in return from the importing countries.	The recommendation mainly pertains to the Ministry of Transport who are dealing with the Ports and the Ministries of Commerce & Industry, and Steel, Mines and Fuel who are concerned with the export of ore etc. and development of the mines. Accordingly, this recommendation was referred to these Ministries for their comments. They have offered the following remarks:— *Ministry of Transport*: The survey of the handling capacity of major ports has been carried out by them. The actual capacity of major ports for 1955-56 was 23 million tons. Various steps are being taken to raise the capacity of these ports to about 33 million tons by provision of additional berths and introduction of greater mechanization during the Second Plan. As regards minor ports, the implementation of the development works contemplated in the Second Plan will result in the stepping up of the ore handling capacity from 12·58 lakh tons to 14·58 lakh tons per annum.

Besides the above facilities, the question of providing port facilities for the export of an additional quantity of 2 million tons of iron to Japan has been examined by a study group consisting of the representatives of the Ministries of Transport, Commerce and Industry (State Trading Corporation) and Railways, and the Director, Geological Survey of India, Calcutta. The question as to which minor/major ports should be developed for this purpose, is under consideration. A statement showing the facilities already provided or which it is proposed to provide at the major and minor ports for stimulating ore exports] is enclosed. (Annexure 'A').*

Ministry of Steel, Mines and Fuel: The export trade of a mineral depends on several factors—(1) reserves of each mineral; (2) the size of and shape of individual deposit; (3) the finance available; (4) tools, equipment and machinery available for mining; (5) demand for the mineral for interna consumption; (6) demand for the mineral in the foreign countries at economic rate ; (7) facilities of transport from the mine site to the railway station ; (8) road, rail and river transport, port and shipping facilities. The position in

respect of various important minerals is given below:—

(*million tons*)

Coal

Reserve	Bengal	8,096
	Bihar	16,215·8
	Orissa	743·0
	Madhya Pradesh	1,973·5
	Andhra Pradesh	196·2
	Bombay	428·5
	Assam	1,226·1
	Jammu & Kashmir	200·0
	Rajasthan	20·0
	Madras	2,000·0
	Kerala	276·0
	Kutch	11·0
	TOTAL	31,386·1

	1956	1957
Production	39·434	43·504
Exports	1·728	..

Of the total production during 1956 and 1957, collieries in Bengal and Bihar accounted for 31·38 million tons and 34·78 million tons. The nearest port for these collieries is Calcutta.

Iron Ore

Reserves	*Million tons*		*Nearest port*
(1)	(2)	(3)	(4)
	(Proved)	(Estimated)	
Hematite Ores			
Bihar . .	1,052	8,000	Calcutta
Orissa . .	1,696		
Bombay . .	27	500	
Madhya Pradesh	1,564	7,000	Visakhapatnam.
Mysore . .	904	2,200	Mysore
Andhra . .	41	N.A.	Hannover
Rajasthan .	5	30	Kandla
U.P. . .	10		
Punjab . .	2		
Magnetite Ores			
Andhra Pradesh	20·0	50·0	
Bihar/Orissa .	5·0	..	

(1)	(2)	(3)	(4)
Himachal Pradesh . .	60·0	60·0	
Madras . .	305·0	1,000·0	Madras
Mysore . .	215·0	500·0	Hannover
Limonitic and Spathic ores:			
Bengal . .	500·0	21,140·0	Calcutta

	1956 (m. tons)	1957 (m. tons)
Production .	4·858	5·074
Exports . .	1·981	2·262

Very recently, the Government of India has entered into an agreement with the Government of Japan for the export of iron ore on a long term basis commencing from the year 1964 of approximately two million tons per annum from Rourkela area in Orissa from Visakhapatnam port. For this purpose, an agreement has been signed with the U.S.A. for the loan assistance of $20,000,000 from the U.S. President's Development Fund for the completion of railway between the mine and the port and for the mechanisation of facilities at the port suitable for loading ore-carriers.'

There are also proposals under consideration for the development of Sukinda Port for the export of half a million tons of iron ore from Orissa, and the development of a port on west coast for the additional exports of iron ore from Mysore area.

Manganese

Reserves :	(*Million Tons*)
Bombay	25(2-5 m. tons of shipping grade ore)
Madhya Pradesh	20 indicated reserves (60 m. tons inferred reserves)
Mysore	3·15
Orissa	1·07

Total reserves of all grade manganese ore in India are 100 million tons. Manganese ore is exported through Visakhapatnam, Bombay, Bedi and Kandla.

	1956	1957
	(m. tons.)	
Production	1·687	1·568
Export	1·386	1·706

The target for the export of manganese by the end of II Five Year Plan is 2 million tons.

Mica:

Reserves :—No reserves have been estimated for any mica deposit. It mainly occurs in Bihar, Rajasthan and Andhra.

	1956 (Cwts.)	1957
Production .	560,685	607,000

Export :—Almost all the mica produced in India is exported.

The bulk of production is from Bihar which is exported through Calcutta.

Ilmenite and Rutile

Reserves :	Ore tonnage (Short tons)	Mineral percent	Content tonnage	Titanium metal tonnage
Bihar (Singhbhum)	4,500,000	28 I	1,260,000	400,000
Bombay (Ratnagiri)	N.A.	N.A.	N.A.	N.A.
Kerala (Quilon) .	364,000,000	55 I	200,000,000	63,250,000
		4 R	14,560,000	8,740,000
Madras	N.A.		N.A.	N.A.
TOTAL .	368,500,000		201,260,000(I) 14,560,000(R)	72,390,000

I Ilmenite
R Rutile

	1956 (tons)	1957	
Production	335,590	296,221	(in Kerala and Madras
Exports	208,201	347,212	

Exports are routed through the port of Cochin.

Magnesite

Reserves :

Chalk Hill deposits of Salem District, Madras	82·5 m. tons
Almora, U.P.	1·5 m. tons

	1956 (tons)	1957
Production	91,711	85,858
Exports	34,546	22,736

Exports are routed through Madras port.

Chromite

Reserves :		Tons
Bihar	(Singhbhum)	20,500
Bombay	(Ratnagiri)	66,000
Madras	(Salem)	220,000
Mysore	(Chitaldrug)	25,000
	(Hassan)	500,000
	(Kadur)	20,000
(between Mysore and Narjangud)		20,000

Orissa	.	(Keonjhar)	. 80,000
		(Banla)	. 1,323,000
		(Cuttack)	200,000
		(Dhenkanal) ..	. 120,000

		1956 (tons)	1957
Production	.	52,686	78,542
Exports	.	43,000	41,000

Kyanite

Reserves :

Lapsaburu, District Singhbhum, Bihar — 700,000 tons

		1956, (tons)	1957
Production	.	20,135	21,637
Exports	.	26,564	25,273

Exports are routed through Calcutta port.

Bauxite

Reserves : Tons

Ranchi & Palamau Distts. Bihar . 100,000,000

Top of Hill and Plateaus in Karlapat, Kashmir and Mahalpatnam Zamindaris of Kalhand District, Orissa . .	500,000
Khariar Highlands, Nowpara Sub-division, Sambalpur district	2,000,000
(*i*) Kondomal Hills	
(*ii*) Barapat Dongor Hills	
(*iii*) Hills West of Saina Para .	
(*iv*) near Sandhahli .	300,000
Districts Sarguja, Jashpur and Bilaspur	60,000,000
Districts Balaghat, Mandla, . . Kawardha, Madhya Pradesh .	20,000,000
Bilaspur, Shahdol, M.P. . .	6,000,000
Jabalpur District, M.P. . .	5,000,000
Belgaum District, Mysore .	6,000,000
Kolhapur District, Bombay .	20,000,000
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1	2	3	4
		(*Lok Sabha Secte. O. M. No.* 113-*EC*.II/56, *dated* 6-5-1959).	3. Two representatives from the Council of Scientific and Industrial Research. 4. D.G. (R.D.S.O.) as Secretary. With the appointment of D.G. (R.D.S.O.), it is proposed to form a Central Board of Railway Research. The D.G. of Scientific & Industrial Research has been addressed to nominate two representatives on this Committee. This Committee will be responsible for directing and co-ordinating research on Railways and securing co-operation of other institutions like National Physical Laboratory. [*Ministry of Railways O.M. No.* 59-*B*(*C*)-6000/33*rd Report*/*Pt. I, dated* 10-7-1959].
3	11—12	There is great scope for expanding the activities of the Research Organisation on Railways. The Committee feel that the programme for expansion contemplated during the next two or three years is good as far as it goes, but that it does not go far enough. The Committee recommend that the Railway Ministry should make out a bigger and a more detailed programme of expansion covering the entire Second Five Year Plan period. The Ministry should also examine the feasibility of setting up one	The Ministry of Railways (Railway Board) have decided that all work connected with Research Design and Standardisation should be placed under one organisation. The Central Standards Office for Railways and the Railway Testing & Research Centre are being merged into one organisation called the Research, Design & Standardisation Organisation. The new organisation will be headed by an officer of the rank of General Manager and designated as Director General.

Research Centre on each Railway. The Research problems to be dealt with at these centres should not, however, be on a territorial basis, but on the basis of specialised subjects.

In considering the suggestion of setting up a Research Centre on each Railway, it has to be borne in mind that the problems that arise on various Railways are similar and call for common solutions, and the tendency the world over has, therefore, been to centralise railway research. Also, there is always a dearth of personnel with a real flair for technical research. The balance of advantage, therefore, seems to be in favour of a central research centre, adequately equipped and suitably manned, rather than in the dispersal of equipment and research talent over more than one.

[*Ministry of Railways O.M. No.* 56—*B*(*C*)—6000/*Recommendations* (33), *dated* 9-5-1957.]

4 13 As research is a highly technical subject, the Committee would suggest that Railway Research might form a separate wing under the Council of Scientific and Industrial Research, with the Director, Scientific & Industrial Research, as the Chairman, and the technical officers of the Railways might be associated with it. Alternatively, the Railway Research Controlling Committee might be reconstituted to associate the representatives of the important laboratories and scientific research institutions with the research problems of the Railways. Thus, there should be a representative of the Forest

Railway research problems being of a highly specialised nature, an intimate knowledge of railway working is an essential prerequisite for tackling them successfully. Therefore, any theoretical advantage in making railway research a wing of the C.S. & I.R. will be entirely incommensurate with the difficulties and delays in procedure and planning that will be involved in such an arrangement. However, close association of the C.S. & I R. with Railway research has always been considered useful, and in fact the Director General, C.S. & I.R., has agreed to be a member of the Railway Research Controlling Committee.

		Research Institute to advsie on questions of wooden sleepers, a representative of the Fuel Research Institute, Dhanbad to advise on questions of fuel economy and so on. The Committee also suggest that some senior retired Railway Officials who have a flair for research work should also be included in this Committee. The advantage of reconstituting the Committee thus will be that it will be ensured that Railway Research is not duplicated and that all work that can best be done by national or university laboratories and institutions is framed out. It will also mean that there will be a greater pooling of knowledge, as far as research problems are concerned.	The D.G., C.S.I.R. covers also the Forest Research and Fuel Research Institutes and separate representation of these bodies on the Railway Research Controlling Committee does not, therefore, arise. If, however, circumstances arise in which it is found useful to associate representatives of these Institutes specifically with the Committee, the situation will be considered on its merits. [*Ministry of Railways O.M. No.* 56—*B*(*C*)—6000/ *Recommendations* (33), *dated* 12-4-1957.]
7	18—21	The Committee reiterate their recommendation in para 90 of their 21st Report that in view of the shortage of wooden and steel sleepers, the use of cement concrete sleepers should be extended on Indian Railways and that there should not be any insurmountable difficulties in the way, especially when the French Railways are successfully using them.	Indian Railways are experimenting with concrete sleepers of different designs. Recently, the Railway Board have approved of experimenting with new types of concrete sleepers including the Roger Sonneville-type now being used on French National Railways. This type of sleepers require the use of double elastic clip of special steel and rubber pads. These clips, if not the rubber pads, also are to be imported from France. Durability of these rubber pads, under conditions of tropical sun and rain, is to be tested. Concrete sleepers are very heavy and these are mechanically

handled in France and Germany. These sleepers are also mechanically stamped in these countries, thus completely avoiding the risk of chipping off the concrete surface at the bottom and sides, due to manual packing, which is the practice on Indian Railways. For these reasons, it is considered, that the time has not come when Indian Railways can launch on a programme of extensive use of concrete sleepers as in France and West Germany, where designs of these sleepers are being changed every 2 or 4 years, if not earlier.

[*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/ *Recommendations* (33), *dated* 13-2-1957.]

The Committee recommend that early action should be taken to obtain the Universal Fatigue Testing Machine by suitably modifying the original specifications, if necessary, as its usefulness cannot be over-emphasised in view of the possibilities of economies that are likely to be achieved in retaining serviceable parts and materials of rolling stock, which are otherwise likely to be condemned as scrap. The problem might also be given to some of the National Laboratories to devise a suitable machine indigenously.

Specifications have already been relaxed to the extent possible consistently with the standard required of the machine to provide certain experimental conditions for test and yet no reply from the firm has been received. If the negotiations with the firm are not successful, fresh quotations will be called for. The manufacture of the machine as recommended by the Committee is, however, outside the scope of the work done in the National Laboratories in India or even elsewhere.

[*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/ *Recommendations* (33), *dated* 11-1-1957.]

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		Further information called for by the Committee.	
		Revised reply indicating the latest position in the matter may please be communicated. (*Lok Sabha Secrt. O.M. No. 113-EC.II/56 dated 6-5-1959.*)	A 200-ton fatigue testing machine which was to be supplied by the M.A.N. from Germany was not accepted because it was found on tests to give a lower performance. Quotations have been called from a number of firms on revised specifications but the cost of the machine has gone very high. Due to the difficult foreign exchange position, the purchase of this machine has been postponed and in the meanwhile some of the problems which were to be tackled by the Universal Testing Machine would be progressed by using another machine recently acquired from Germany. [*Ministry of Railways O.M. No. 59-B(C)-6000/33rd Report Pt. I, dated 10-7-1959.*]
15	39	The number of patents taken so far by the Government of India relating to Railway vehicles and locomotives is five, which appears to be very small and indicates that there is considerable scope for accelerating progress in various directions.	Noted. Progress in various directions is being accelerated. The number of patents taken, however, is not a true measure of the progress as patents need not necessarily be taken for items for which Railways are the only consumers. The Central Standards Office for Railways is not primarily intended for original work. As its name indicates, it helps to standardise the types of fittings and equipment used by the Railways.

			The Designs and Research side which has been given a certain amount of prominence three years ago, should, in course of time, be doing a lot of original work for which patents will have to be obtained. Greater prominence has been given to this with the strengthening of the Designs & Research Organisation, and one of the objectives in doing this is that a far greater amount of original work should be done there. [*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/ *Recommendation* (33), *dated* 2-4-1957].
18	44	The Committee regret to note that the Railway Ministry have not been able to indicate the saving effected by replacement of foreign Consultants by the Central Standards Office. The Committee suggest that the Railway Board should obtain these figures and supply them to the Committee as early as possible to enable the Committee to examine the savings effected.	During the years 1942 to 1948, Messrs Rendel, Palmer & Tritton, foreign Consultants (in U. K.), were paid approximately £25,000 a year on the average, for the service they rendered both in the shape of consultation and inspection on behalf of the Indian Railways. The expenditure rose to £30,000 (Rs. 4,00,000) a year for the years 1948-49 and 1949-50, *i.e.*, immediately before the five years' notice was served on them on 1-3-1950. The average annual expenditure incurred by the Government on account of the agreement with Messrs Merz & McLellan, Electrical Consultants, during the four years 1946-47 to 1949-50 was about £7,000 (approx.) or Rs. 93,000 (approx.) The total annual expenditure on Foreign Consultants was, therefore, of the order of Rs. 4·93 lakhs.

The arrangements with Messrs Merz & McLellan terminated in March, 1951, while the arrangements with Messrs Rendel, Palmer & Tritton terminated in March, 1955. The saving effected by replacing these Foreign Consultants by the Central Standards Office, therefore, can be approximately assessed by seeing how the expenditure on the Designs & Standards Organisation (which has replaced the Central Standards Office) together with the expenditure on the Technical Cell of the Railway Adviser in London has increased since the services of the foreign consultants were dispensed with. The figures in this connection are given in the statement below:—

(Figures in thousands of Rs.)

Year	Expenditure on Designs & Standards Organisation (Civil & Mech.)	Expenditure on Tech. & Inspection Cell in D.G., I.S.D's Orgn., London.	Increase in expenditure over the previous year.	Total 2 & 3	Increase in expenditure over the previous year.
1949-50	7,47	..	..	7,47	..
1950-51	7,68	..	..	7,68	21
1951-52	8,68	21	21	8,89	121

1952-53	. .	10,95	29	8	11,24	2,35
1953-54	. .	11,13	44	15	11,57	33
1954-55	. .	13,26	48	4	13,74	2,17
1955-56	. .	14,24	1,01	53	15,25	1,51
1956-57	. .	16,11	1,18	17	17,29	2,04
1957-58	. .	19,32	96	—22	20,28	2,99

As will be seen, the total departmental expenditure (column 5) did not increase appreciably in the years 1950-51 and 1951-52 as compared to 1949-50. The average annual increase in expenditure in these years *viz*. Rs. 0·71 lakhs represents the maximum increase in departmental expenditure, if at all as a direct result of dispensing with the services of the Electrical Consultants at the end of 1950-51. Whatever increase there was from 1952-53 and later was due to increased quantum of work generally and not on account of electrical work. Half the increase in expenditure in the year 1954-55 and the increase in expenditure in 1955-56 together, as compared to the expenditure in 1953-54—which is appreciable and amounts to Rs. 2·60 lakhs—can be taken as roughly representing the annual increase in departmental expenditure resulting from the termination of the arrangements with the foreign consultants in March, 1955. The strengthening of the departmental organisation was probably taken in hand in 1954-55 to some extent, in preparation for the termination of the arrangements with the consultants in March, 1955, and half the increase in departmental expenditure in this year is,

therefore, taken in addition to that in the following year. The aforesaid total increase in expenditure includes also a certain element of increase due to increased quantum of work, but even taking the entire increase of Rs. 2·60 lakhs plus the increase of Rs. 0·71 lakhs earlier as a result of dispensing with the services of the electrical consultants *i.e.* Rs. 3·31 lakhs total as being directly related to the termination of the services of the foreign consultants, it represents a clear saving of Rs. 1·62 lakhs per year over the average annual expenditure of Rs. 4·93 lakhs incurred earlier on foreign consultants.

The foreign consultants, M/s Rendel, Palmer & Tritton conducted also inspection in respect of certain types of equipment, but the cessation of such inspection work by the consultants has not appreciably affected the D.G., I.S.D's inspection charges, which had been and is still levied on an overall percentage basis—namely 1% upto 31-3-1956 and 0·5% thereafter—on the total value of stores imported. The saving computed in the foregoing paragraph is not therefore appreciably affected by this factor.

[*Ministry of Railways O.M. No. 56-B(C)-6000/ 33rd Report dated* 8/9-7-1959].

27	74	The Committee recommend that in view of the great advantages of radio communication on trains, the Railways should examine the matter further in the light of the results achieved in foreign countries and introduce this innovation as an experimental measure.	It is considered that the time is not yet ripe for the introduction of radio communication on trains. At present radio communications from the running trains to the fixed station in the area is provided in the V.I.P. Specials and General Managers' Inspection Specials. [*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/ *Recommendations* (33) *dt.* 15-5-1957].
		Further information called for by the Committee. Please intimate the latest position in the matter. [*Lok Sabha Sectt. O.M. No.* 113-*EC. II*/56 *dt.* 6-5-1959].	Radio communication between the driver of the leading and the banking engine/break van on long load trains has been tried and found satisfactory. It will be adopted extensively for such requirements during the Third Five Year Plan. 2. Apart from Radio communication provided in the V.I.P's specials and General Managers' Inspection Specials, there is at present no proposal to provide Radio Communication on trains. Further so far as it is known, Radio Communication on trains has not been provided in other foreign countries except to a very limited extent. A reference has, however, been made to the Railway Adviser attached to the High Commissioner for India in U.K. to ascertain the prevailing practice in U.K. and Continental countries with regard to the use of Radio Communication on trains to see whether the same facilities could not be provided on Indian Railways also. [*Ministry of Railways O.M. No.* 59-*B*(*C*)-6000/ 33*rd Report*/*Part I, dt.* 27-10-1959).

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48	125	The Committee consider that it would be advantageous to depute one or two officers to make an 'on the spot' study of the Railways in the U.S.A. and find out the exact reasons for their being able to carry a heavy load of traffic efficiently with comparatively less number of staff.	The Railway Board have given careful consideration to this question and are of the view that the problem is beyond the scope of one or two officers visiting the U.S.A. for an 'on the spot' study as no useful comparisons can be drawn between the two countries owing to the great difference in the extent of their industrial and technological development and the consequent differences in the extent of mechanisation, etc. [*Ministry of Railways O.M. No. 56-B(C)-6000/ Recommendations* (33), *dt.* 29-8-1957]
51	133	The Committee feel that there should be uniformity in regard to the delegation of powers to officers subordinate to General Managers on different Railways and that the question of delegating powers at lower levels should also be dealt with by the Railway Board. The Committee suggest that maximum decentralisation of powers should be effected on all the Railways at Divisional levels on a uniform basis. The Committee suggest that the Railway Board might lay down two schedules of powers for Divisional Superintendents, one schedule applying to Divisional Superintendents, who had put in particular length of service and another schedule for the rest.	Under the extant orders, General Managers have authority to re-delegate powers to subordinate authorities, in consultation with their FA & CAOs. In view of this, it was considered that the delegation of powers to authorities subordinate to the General Managers may be left to the General Managers themselves, but a directive was issued to the Railways urging them to delegate appropriate powers to lower authorities to the maximum extent necessary and justified. The laying down, on a rigid and uniform basis, of the extent of delegation to lower authorities would virtually result in the authority for delegation being centralised in the Railway Board, and would tend to lessen the authority of the General Managers to vary the delegation to suit local conditions

practically in matters in which there is no special need for uniformity. The Board have, however, called for a report on the delegation made to lower authorities in the pursuance of the directive referred to, so that it could be examined whether reasonably adequate powers had been delegated by the General Managers to lower authorities before deciding the extent to which the Board should prescribe such delegation. The matter is being pursued separately.

Incidentally, as will be readily appreciated all the Indian Government Railways are not yet fully organised on a divisonal basis, and the question of obtaining uniformity in the matter of delegation of powers to levels below General Managers will be considered when divisionalisation of all Railways is completed.

As regards the suggestion to have two schedules of powers for Divisional Superintendents, one schedule applying to Divisional Superintendents who had put in particular length of service and another schedule for the rest, it is considered that the existing system of delegation of powers according to rank of the officers is working satisfactorily and that there is no reason to have delegation of powers according to length of service of officers.

[*Ministry of Railways O.M. No. 56-B(C)6000/-Recommendations* (33), *dt.* 2-4-1957].

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53	139	The Committee suggest that the Second Five Year Plan of the Indian Railways should be divided into annual, quarterly and monthly plans so that the targets to be achieved in each month are placed clearly before the Railwaymen all over the country. The monthly targets laid down for each Railway and the results achieved can with advatage be included in the magazine 'Indian Railways' recently started by the Railway Board. The Committee also reiterate their recommendation in para 26 of their Eighteenth Report that the Railways should draw up a long term plan for general guidance.	The suggestion is being implemented in regard to preparation of Annual and Quarterly Plans and instructions have been issued to the Railways to prepare Annual Plans and quarterly plans for their systems. Monthly plans are not being prepared at the present stage, but this may be considered after some experience is gained in the preparation and implementation of annual and quarterly plans. In regard to informing the staff of the targets to be achieved from time to time the Railways will no doubt lay down the targets of performance for Divisions/Sections/Yards/Depots etc. for the information of the staff, as soon as their Quarterly Plans are finalised. A special booklet will also be prepared by each railway for the information of the staff which will give the works included in the annual plan at each station so that the staff working at every station on the railway will know what development is proposed at their respective stations. In regard to the Committee's suggestion that the monthly tagrets laid down for each railway and the results achieved should be published in the magazine 'Indian Railways', it is considered that important statistical results may be published by the Railways in the magazines from month to month with comparative figures for the corresponding month of the previous year. It may not,

however, be desirable to publish the targets, as these are necessarily fixed at a fairly high level to ensure that sustained efforts are maintained in improving operation and a comparison of the targets and the performance may not, therefore, give a realistic picture of the achievements. On the other hand if the comparative performance of the previous year and current year is given from month to month, it will give a realistic picture of the progress and improvement achieved from time to time and this can be correlated to the targets of increased movement and efficiency which have been laid down in the Railways' Second Five Year Plan.

In para 26 of their 18th Report, the Committee have recommended that a bold and comprehensive plan keeping in view the future requirements of the country and the need for the development of new areas should be worked out on a long term basis. The Committee have also recommended in this para, that the following two criteria should be kept in mind while working out the long term Plan.

"(i) Mackay Committee's recommendation made as early as in 1908 that India should have 100,000 miles of railways, and

(ii) Every village with a population of more than 1,000 persons should not be away from the railway-line by a distance exceeding say 25 miles.

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			A very rough estimate of the expenditure and the period for the fulfilment of this Plan should also be indicated." The present mileage of the Indian Railways is of the order of 35,000 miles and approximately 350 miles of new lines are included in the Second Five Year Plan. It will, therefore, be appreciated that the preparation of a long term plan with the objective of 100,000 miles of railway lines and every village with a population of more than 1,000 being not more than 25 miles from the Railway line, will be only of academic interest at the present stage. Preparation of such a plan will involve considerable technical effort which could be better utilised for tackling the immediate problem of the Second Plan. A long term plan for the railways for the next 15 or 20 years will, however, be of definite advantage and preparation of such a plan will be taken in hand in due course, as soon as a better picture of the future development can be furnished by bodies like the Planning Commission etc. [*Ministry of Railways O.M. No. 56-B(C)-6000/ Recommendations* (33), *dated* 11-1-1957.]
55	147	The Committee suggest that a system of incentives and bonuses similar to that prevalent on Soviet Railways might be introduced with advantage on Indian Railways also. "Produce more transport and earn more wages" should be the slogan to be adopted by the Indian Railways	Attention is invited to the remarks against Recommendation No. 57 of Twenty-first Report of the Estimates Committee. [*Ministry of Railways O.M. No. 56-B(C)-6000/ Recommendations* (33), *dt.* 20-6-1957].

during the Second Five-Year Plan. The Committee would, in this connection, like to refer to para 129 of their 21st Report on the same subject.

61 165 The Committee, in this Report, as well as in their previous Reports, have made a number of recommendations on the basis of observations made by the Indian Railway Delegation to the Soviet Railways and other European Railways. The Committee enum rate below some more features of the Foreign Railways referred to by the Delegation and suggest that the Railway Ministry examine the feasibility of introducing these features on Indian Railways with such modifications as are considered necessary to suit local conditions:—

(*i*) On the Soviet Railways, leave for staff is planned in advance, so that the mximum number of staff are available on duty during peak periods and the maximum number avail of leave during the slack periods.

(*i*) The recommendation has been accepted in principle. The Railways have been advised of the decision.

(*ii*) The budget of each Railway in Soviet Union is supported by full details concerning each department, plant and other Units, the performance in respect of the roles assigned to each in the operative plan and reasons for variations between allocations and actuals in the current year. So far as Programmes of Works are concerned, only those items are included for which full drawings and plans have already been prepared and approved of by compenent

(*ii*) The "details" relating to the aspects touched upon in the introductory portion of this recommendation are not available in the report of the Indian Railway Delegation to the Soviet Railways or with the members of the delegation, as they did not have access to the relevant documents of the Russian Railways; in the absence of such details, any consideration of this portion of the recommendation is not feasible.

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		authorities. Projects, which are still in the state of investigation and have not been boiled down to the drawing boards are expressly excluded, and the practice of appropriations on an approximate basis or on token account does not seem to obtain.	As regards the portion of the recommendation pertaining to inclusion of works in the programmes, the procedure in vogue on the Soviet Railways in its broad features is already in force on Indian Government Railways, since only works for which plans and at least rough estimates are ready are included in the Works Programmes. Due to various difficulties, such as paucity of recruits for posts of draftsmen, estimators and other technical categories, however, it has not been possible to enforce this procedure strictly in all cases.
			No attempt is made to ensure that *full* drawings and plans are got ready in every case before the Works Programmes are approved. The preparation of the Works Programme for a financial year starts 12 to 15 months before the commencement of the year.
			The second Five Year Plan is dynamic one, and if, at this stage of development, plan and estimates are to be *finalised* for all works before their inclusion in the programme, considerable delay is likely to take place in the execution of the plan. Efforts spent in working out the *detailed* plans and estimates of a number of works would also be wasted

if, due to changing circumstances during the 12 to 15 months, some of the works are no longer found to be necessary as originally conceived.

Inclusion of works in a Programme is only for securing general administrative approval of the works and for budget purposes. Before any work is actually taken in hand, an estimate is prepared for obtaining the sanction of the competent authority, except in a few cases in which urgent works—whether included in the Works Programme or not—have to be started on Urgency Certificates as permitted by the Code rules.

The objective of finalisation of plans and estimates as far as possible before inclusion of items in the works programme as suggested by the Estimates Committee will continue to be kept in view, consistently with the present need for expeditious execution of works.

(*iii*) Each Railway system is permitted to utilise its receipts for purposes of meeting the expenditure as sanctioned in its budget. Funds required in excess of their respective receipts are made available by the Ministry of Communications through credits placed in the Branches of the State Bank.

(*iii*) It is observed that the Committee have not made a categoric recommendation but have only asked the Railway Board to examine the feasibility of introducing the procedure, as in the case of the civil side, on the Railways also, it is a general rule that departmental receipts should not be utilised for departmental expenditure, but the rules also provide for a

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		departure in a limited way for meeting expenditure in emergencies. The Government are enforcing this salutary principle as any general practice of utilising departmental receipts for departmental expenditure on a large scale would lead to confusion in acounting and also possible leakage of revenue. As the present system is working satisfactorily, the Board consider that there is no need for introducing on a larger scale than is prevailing at presen the system of utilising departmental receipts for departmental expenditure with all its attendant risks.
(*iv*) For each of the Railways systems and for the Soviet Railways as a whole a monthly and a quarterly review of the finances is prepared and circulated. The review presents a critical analysis of expenditure and the pattern of income and is not intended to serve as an instrument for the effectiveness of its control.		(*iv*) It is observed that the Committee have not made a categoric recommendation but have only asked the Railway Board to examine the possibilities of introducing the procedure. The Railways prepare financial reviews 8 times in the year namely, the August Review; the Revised Estimates; the First and Final Modifications which are budgetary returns and 4 other reviews in the months of September October, December and Jany. The Railway Board themselves review the expenditure on the Railways as a whole on three occasions in the course of the year once at the time of August Review; the second in connection with the revised Estimates and the third

	while sanctioning final modifications. Apart from these, the Board also obtains quarterly reviews from the Financial Adviser & Chief Accounts Officers in the months of June, October and March. The Ministry of Railways consider that these existing reviews serve the necessary purpose and that no purpose would be served in increasing the number of reviews.
(v) Owing to the presence of conductors in each coach there is little or no ticketless travel on the Russian Railways. Passengers found travelling without tickets are required to pay fare with fairly heavy penalties. In case they are unable to pay while travelling on the trains, charges are recovered from their homes with the assistance of police, if necessary. There is no difficulty in identifying a person, because every one carried with him an identity card.	(v) At present Railways are experimenting with one Travelling Ticket Examiner for two coaches on certain important trains. After watching the results, the question of extending this system to all trains will be considered. As regards penalties, the penalties laid down in the Indian Railways Act are by themselves sufficiently deterrent.
(vi) An essential feature of the policy of the Soviet Railways appears to be not to make wholesale radical changes in their equipment, but to introduce as many latest developments on the old assets as feasible, in order to achieve better results and more efficiency.	(vi) The underlying principle of the policy in the Soviet Union in respect of changes to the equipment is also being generally followed on Indian Railways.

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		(*viii*) Westbahnhof (the main terminal station in Vienna) which the Delegation visited is a remarkable example of modern station architecture in Europe. Every Indian Railway should have a few model stations of this type with all modern amenities. The funds for constructing such stations should not, however, be taken from the passenger amenities fund.	(*viii*) In order to study the detailed layout of modern station buildings at Vienna, Rome etc. and to see how best to adopt the layout of the amenities to suit Indian climatic conditions and local requirements, plans, photographs etc. have been called for. However, in view of acute shortage of funds and essential building materials such as steel, cement etc., and in order to conserve the limited resources available for essential line capacity and other safety works pertaining to track, bridges, improved signalling and interlocking arrangments etc., it is not proposed to construct any new big station buildings during the Second Five Year Plan and construction of big and modern station buildings will have to pend for the present.
		(*ix*) In German Federal Railways, at large stations, the Railways provide cinema halls, where they exhibit short informative feature films generally, having educative, social or propaganda value. Only passengers holding current outward or transit rail tickets are permitted to these shows. There is no charge.	(*ix*) This recommendation has been accepted. Feature films of educative value are already being exhibited in third class waiting halls and the concourses of some large stations and proposals are in hand to extend this arrangement. Also, with effect from 15-11-56 a cinema-*cum*-buffet car service has been introduced as an experimental measure on

the Delhi-Howrah Janta trains to operate between Jajha and Kanpur.

[*Ministry of Railways O. M. No. 56-B(C) 6000/Recommendations (33) dated 20-5-1957*]

(vii) The Soviet Railway Authorities claim that the Scheme of training obtaining on their Railways is unique and comprehensive. There are four distinct links in the scheme, each fulfilling a specific purpose and enabling the Railways to recruit qualified staff and arrange for their further training throughout their professional career. The Indian Railway Delegation has described the scheme in great detail. In this connection the Committee refer to para 56 of their 24th Report in which they have suggested that a Committee of Educationists should be appointed to look into the problem of training both from the point of view of getting men trained for the various departments as well as for overhauling the entire system of training. It would be worthwhile for that Committee to study the scheme obtaining on the Soviet Railways.

The four distinct links on the Soviet Railways referred to by the Estimates Committee, are:—

(*a*) Educational Institutions;
(*b*) Technical Schools;
(*c*) Engineering Colleges; and
(*d*) Higher Technical Institutions;

which impart education to the children of railwaymen, prepare apprentices for technical appointments on Railways, provide training for middle-grade technicians and give degrees in Engineering to qualified candidates, respectively.

2. (*a*) In India general education is the responsibility of the State Governments. Indian Railways, however, provide or aid schools, if otherwise the children of Railway employees are likely to be left without educational facilities. Some of the existing Railway schools are also being converted into multi-purpose schools so that basic training in crafts and trades may be acquired as a preliminary to recruitment on Railways.

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			(*b*) & (*c*) Indian Railways have an adequate number of basic and technical training schools to meet their requirements for training apprentices and middle grade Technicains and supervisors recruited by them. These institutions are being expanded to meet the increasing demands during and after the Second Five Year Plan. (*d*) The Indian Railways have no institutions to give education upto the degree standard to candidates and depend mainly on the technical colleges in the country for their graduate requirements but supplement such training at the Staff College, Baroda. This arrangement is working satisfactorily and is in line with the recruitment policy of Government. A departure therefrom is, therefore, unnecessary. [*Ministry of Railways O.M. No.* 56-*B*(*C*)-6000/*Recommendations* (33), *dated* 8-1-1958.]

CHAPTER IV

Replies of Government that have not been finally accepted by the Committee

S. No. (as in Appendix VII to 33rd Report).	Reference to paragraph No. of the Report	Summary of Recommendation/ Conclusion	Reply of the Government	Comments of the Committee
1	2	3	4	5
28	76	The Committee were informed that a proposal of introducing as an experimental measure the system of Centralised Traffic Control at one section near Katihar, where there was a bottle-neck and where wooden sleepers had beenlaid is under consideration by the Indian Railways.	A team of American Survey Engineers who are in the country to advise the Railway Board in regard to steps to be taken to increase line capacity, have submitted their report of Signalling Studies on the following two sections :—	The latest reply furnishes information regarding action proposed on one point only. The Ministry was requested to state if the team of American Survey Engineers made only this single recommendation and, if not, to furnish particulars of other recommendations as also the decisions of

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		The Committee suggest that the proposal should be expedited and if the results are found to be satisfactory, it should be extended to other heavily occupied single line sections.	(*i*) Broad Gauge : Kotah-Gangapur City and (*ii*) Metre Gauge : Gorakhpur Chapra. The report is under examination by the Board and a decision to introduce centralised traffic control on these or other sections will be taken in due course. [*Min. of Rlys, O.M. No. 56-B (C) 6000/Recommendation (33), dated* 15-5-57]	the Ministry thereon. This information has not been received.*
		Further information called for by the Committee Particulars regarding the actual recommendations made by the team of American Survey Engineers and the decisions taken thereon by the Railway Board may please be furnished. (*Lok Sabha Sectt. O.M. No. 113-EC. II/56 dated* 6-5-59)	The Board decided in June, 1957 to introduce C.T.C. on the Kathihar-Barauni Section of the North Eastern Railway. The foreign exchange element of the proposed scheme was intended to be obtained from the T.C.M. aid. The negotiations with the T.C.M. authorities, however, fell through and the scheme could not be progressed.	

			With the intensive drive that is now under way for encouraging the indigenous manufacture of electrical signalling equipment, it is expected that the element of foreign exchange for the C.T.C. equipment will be considerably reduced. The provision of the C.T.C. on two sections has therefore now been included in the draft Third Five Year Plan. [*Min. of Rlys. O.M. No. 59-B (C)—6000/33rd Report/Pt. I, dated* 27-10-59]	
42	111	The Committee understand that on the Japanese Railways, a certificate is awarded to the yard by the Divisional Superintendent, if there is no accident for three months and a medal is awarded by the President of the Japanese National Railway, if there is no accident for a whole year. The Committee suggest that this procedure be adopted on the Indian Railways also in respect of certain important marshalling yards.	The recommendation of the Estimates Committee has been noted for consideration. [*Min. of Rlys. O.M. No. 56-B (C)* 6000/Recommendation (33), *dated* 6-11-56]	The Ministry was requested in May, '59 to indicate the action taken to implement the recommendation. Their reply is still awaited.

*N. B. Information has been subsequently received but being lengthy not reproduced.

1	2	3	4	5
43	114	The Committee would like the Railway Ministry to communicate in due course, the action taken on the various suggestions and proposals made by the Government Inspectorate of Railways during the last five years (*viz.* 1950-51 to 1954-55).	Replies to items (i) to (xv) of minor head A(i), items (ii) to (v) and (vii) of minor head A(iii), items (i) to (iv) and (vi) of minor head A (iii), items (i) to (iii) and (xiii), (iv), to (xii) and (xiv) of minor head A(iv), items (i), (vi), (ix) and (x) of major head B, items (i) and (ii) of major head C and items (i), (iv), (ix), (xii) and (xvii) of major head D Appendix III have been received and accepted.	The replies indicating action taken on the various suggestions of the Government Inspectorate of Railways in respect of items mentioned in column 4 were received from time to time. These have not been included here as the information is quite bulky. Moreover, complete information has not yet been received. Please also see para 1 of Chapter I.
44	115–117	The Committee have noticed that there is lack of uniformity of practice and procedure in respect of a number of points on the Railways. The Committee wish to emphasise the need for achieving uniformity of procedure on all the Railways to the maximum extent possible.	The purpose of this recommendation appears to be that the train services should be increased to the level prevailing prior to World War II, subject, of course, to the traffic demands. The Railways have increased the total train mileage on the system as will be seen from the total train mileage of each of the individual Railways indicated in the attached state-	

			ment (A).* The additional passenger train services have been introduced according to the relative urgency of the traffic demands and the total passenger train mileages are greater than in the pre-war period. In effect, the spirit of the recommendation of the Committee has been implemented. [*Min. of Rlys. O.M. No.* 56-B (*C*)—6000/- *Recommendation* (33), *dated* 13-2-57].	
			Efforts have been and are constantly being made to introduce uniformity in the practice and procedure on the Railways to the maximum extent feasible and desirable. [*Min. of Rlys. O.M. No.* 56-B (*C*)—6000/*Recommendation* (33) dated 17-7-57.]	The increase in the daily passenger train mileage on Ce ral and Southern Rlys. have been comparatively slower than on other zonal Railways during the 16½ years referred to in the reply dated 13-2-57. The reasons for the slow progress called for from the Ministry are awaited.
46	12	The Committee recommend that the Railway Ministry should publish a pamphlet	The question of making available to the Chairman of the Estimates Committee some	

1	2	3	4	5
		giving statistical data with regard to each aspect of administration, detailing the position before and after integration in respect of the former Indian State Railways. The pamphlet may briefly compare the position at the time of integration with the position as on 1-4-1956 with regard to Staff Masters, number of Locomotives, Coaches, punctuality of trains, availability of wagons for loading etc. This pamphlet should be widely circulated with a view to dispelling any doubts in the minds of the people regarding the alleged stepmotherly treatment accorded to areas covered by former Indian State Rlys.	information on specific points has been further looked into. The Committee required comparison of the position at the time of integration of the former Indian States Railways (*i.e.* 1-4-51) with the position on 1-4-56 with regard to staff matters, number of locomotives, coaches, punctuality of trains, availability of wagons for loading etc. So far as staff matters are concerned, there is little doubt about the substantial benefits accruing to ex-State Railway Staff after the integration arising out of the application of the liberalised conditions of service obtaining on Government Railways, such as those relating to pay scales, dearness, city, house rent and compensatory allowances, rest rules, overtime rules introduced under the Adjudicator's Award, enhanced chances of promotion after	The background of the recommendation is clearly stated in para 121 itself. The Committee therefore do not fully appreciate the hesitation of the Railway Ministry in publishing a pamphlet on the lines suggested in the recommendation.

integration, leave benefits, medical and education assistance etc., etc. As almost the entire staff availed of the benefits of C.P.C. scales of pay and enhanced dearness allowance etc. there is hardly any need for quoting specific statistics in this context.

Regarding the comparative position of rolling stock on line and punctuality of trains as on 1-4-1951 and 1-4-1956, it is regretted that complete data for all the Railways on a uniform basis is not available. Even if these were available, any reduction or increase in the number on these two dates would not have been of any real significance, seeing that the goods stock in practice functions as a common pool for the Northern and the Southern Metre Gauge Railways as a whole. The comparison of punctuality of trains for the two particular dates also would hardly be conclusive as the figures are affected by local factors of

transient nature occurring in particular periods.

A better index of service rendered is provided by the number of train miles and net ton miles and both these indices recorded improvements in 1956 over 1951. These figures, as far as could be collected, are detailed below for ready reference :

Name of the erstwhile State Rlys.		Train miles (in thousand)				Net ton miles (In thousands)	
		Goods & Prop. of mixed.		Pass & Prop. of mixed.			
		1950-51	1955-56	1950-51	1955-56	1950-51	1955-56
Nizam State	B.G.	1,157	1,551	1,178	1,287	514,792	826,146
Nizam „	M.G.. . . .	632	717	1,546	1,635	137,353	179,736
Scindia „	N.G.	105	@304	331	@204	13,023	@17,754
Dholpur „	N.G.	59	@	..	@	2,006	@

Jodhpur „	M.G. . . .	64	93	52	81	*360	*552
Bikaner „	M.G. . . .	84	112	120	152	*198	*513
Mysore „	M.G. . . .	2,556	2,769	1,628	1,688	143,853	187,214
„ „	N.G.	156	106	210	211	—	—
Saurashtra „	M.G. . . .	1,517	2,018	1,799	2,661	212,941	333,360
Cutch „	N.G.	%	%	%	%	%	%
Rajasthan Rly.	M.G. . . .	97	143	307	336	13,697	26,496
Jaipur State	M.G. . . .	210	525	377	660	22,735	56,055

@ The figures for the Scindia and Dholpur State Railways are combined, as separate figures are not available.

% It has since been converted into M.G. As such comparative figures are not available.

* Figures are daily average based on the figures of 1950-51 & 1955-56.

(*Min. of Rlys. D.O. No. 2715-ST/55-6/ECR46/33, dated 20-5-58*)

1	2	3	4	5
47	124	The Committee recommend that the Efficiency Bureau should further pursue the problems of speeds of goods trains vigourousy and suggest remedial measures. In view of the useful work that is being done by the Bureau, the Committee suggest that a permanent organisation should be set up with a view to organising the work on a sound footing. The officers working therein would then have an opportunity of having an up-to-date knowledge of the latest techniques in other countries. It would be useful to have certain officers trained in the latest techniques to form a nucleus of the organisation. Along with this nucleus, the present practice of recruitment of Service personnel on the basis of their experience and aptitude might continue. The committee also	Efficiency Bureau has already taken up the problem of speed of goods trains. A new report on the Speed of broad gauge goods trains has been submitted to the Board during Dececember, 1956. The recommendations made there in for improving the speeds of goods trains have been accepted and necessary action is being taken to implement them. The Estimates Committee's recommendation for setting up an Efficiency Bureau as a permanent organisation with a view to organising the work on a sound footing is also accepted in principle but the question of making it a permanent organisation in its present or any other form would be examined after the Bureau, as recently strengthened, functions for some time more. As regards the com-	The Ministry were asked to furnish a few copies of the Second Report of the Efficiency Bureau on speeds of trains. They are still awaited.

		recommend that the Reports of the Efficiency Bureau and the action taken thereon should be promptly published.	mittee's recommendation that the Report of the Efficiency Bureau and action taken thereon should be promptly published, it has been decided to publish all important reports of the Bureau. [*Ministry of Railways O.M. No. 56-B(C)-6000/Recommendation (33), dt.* 16-7-1957]	
58	150	The reasons for the high operating ratio of the North-Eastern and Southern Railways require to be very carefully investigated and remedial action taken so that they may be brought down more or less to the same level as on other Railways.	Generally speaking, the extent to which a Railway can influence its earnings is limited, as earnings, largely depend on the quantum and nature of agricultural products, industrial development and economic conditions in the area served by the different Railways, and these vary very widely. Similarly, the working expenses of Railways also vary widely, depending not only on differences in operational efficiency but also on the extent of facilities on the Railways such as rolling stock and track, equipment etc. as well as on the nature of the terrain traversed by the Railways. Appreciable differences in the operating ratios on different Railways are, therefore, largely	Please *see* para 2 of Chapter I.

inevitable. Nevertheless, an investigation to the extent it is feasible, in the case of the two Railways specifically referred to in the Estimates Committee's recommendation under reference, *viz.* North-Eastern and Southern Railways, will be made as explained in the succeeding paragraphs.

2 The North-Eastern and Southern Railways have both a large proportion of Metre Gauge route; the percentage of M. G. train miles to total train miles in 1955-56 was 99% on the North-Eastern Railway and 61% (*i.e.* the second highest) on the Southern Railway. The lower average net freight load per train mile on the Metre Gauge than on the Broad Gauge itself accounts for proportionately a much higher operating cost in the case of the Metre Gauge lines than in the case of the Broad Gauge lines. The Ministry of Railways

have appointed an Officer-on Special-Duty (Gauge Conversion) for examining the comparative merits and economics of the Broad Gauge, Metre Gauge, etc. Apart from improvements to be effected on the long-term basis as a result of the acceptance of any recommendations that may be made by this Officer, the Ministry of Railways already have in hand a review of the immediate steps required to bring up wherever feasible, the standards of M. G. Lincs, (*viz* feasibility of increasing the loads and speeds by stengthening track, etc.)

3. The high working expenses per train mile on the North Eastern Railway are explained by the fact that the Railway passes through an area liable to frequent floods and breaches and also traverses many rivers, the training and bridging of which is difficult and costly. The relatively high operating ratio of the Southern Railway is mainly due to the fact that low-rated

1	2	3	4	5
			commodities, such as rice, ores, firewood, etc., from a substantial portion of traffic carried over the M. G. system which forms a large portion of this Railway. An analysis of the unit costs under certain heads of working expenses, in compliance with recommendation of the Estimates Committee in their note sent with Lok Sabha Secretariat U.O. No. 27-E-II-55, dated 20-1-56, is, however, in hand for these two Railways, as well as for other Railways, to see what scope there is for economics. [*Ministry of Railways O.M. No. 56-B(C)-6000/Recommendation (33), dated* 10-7-57].	
60	162	The analysis of working of coaching and goods services seems to indicate that the Metre Gauge Railway system in India is costlier to work than the Broad Gauge system. In this connection, the Committee would refer to	Please see remarks against recommendation No. 21 of the 18th Report of the Estimates Committee, 1955-56. [*Ministry of Railways O.M. No. 56-B(C)-6000/Recommendation (33), dated* 22-2-57]	The Ministry of Railways were requested to supply the details of the decision taken by them on the recommendations of the O.S.D. appointed to investigate into the question of Gauge conversion and of increasing line capacity on the Metre Gauge Their reply is still awaited

Para 32 of their Eighteenth Report and suggest that the Railway Ministry should pursue these investigations and submit the results with their observations in due course. A very detailed and careful examination is necessary before laying down a firm policy regarding the future expansion of Railways in India, whether it should be the Metre Gauge system or Broad Gauge system.

In the meantime, in view of the distinct advantages of the B.G. System over the M.G. it would be advisable to prefer B. G. over M. G., other things being equal, wherever there is a choice, in new construction or conversion.

NEW DELHI,
The 26th April, 1960
The 6th Vaisakha, 1882(*S*)

H. C. DASAPPA,
Chairman,
Estimates Committee.

APPENDIX I

Statement showing information regarding capital at charge, gross receipts, working expenditure etc.

(In crores of Rupees)

	Total Capital at Charge*	Gross Receipts**	Working expenditure (including appropriation to D. R. F. and Suspense)@	Dividend to General Revenue‡	Investment†	Net gain (+) or loss(—)$
Southern Railway						
1956-57	145·15	49·98	44·06	5·04	169·25	—0·49
1957-58	160·06	52·53	50·63	5·97	190·22	—5·66
1958-59	172·60	55·03	51·39	6·65	209·60	—2·93
Western Railway						
1956-57	145·33	55·29	38·96	5·19	177·34	+9·61
1957-58	161·65	62·27	44·94	5·93	205·98	+9·10
1958-59	183·55	63·38	47·46	6·65	233·82	+9·60

*Figures taken from col. 16 of Statement 2(*a*) of Annual Report Vol. II
**Figures taken from col. 4 of Statement 1 of Annual Report Vol. II
@Figures taken from col. 8 of Statement 1 of Annual Report Vol. II
‡Figures taken from col. 16 of Statement 1 of Annual Report Vol. II
†Figures taken from col. 15/16 of Statement 3 of Annual Report Vol. II
$Figures taken from col. 16/17 of Statement 1 of Annual Report Vol. II

	Traffic carried (in hundreds of tons)											
	Southern Railway						Western Railway					
	B. G.		M. G.		N. G.		B. G.		M. G.		N. G.	
	1957-58	1958-59	1957-58	1958-59	1957-58	1958-59	1957-58	1958-59	1957-58	1958-59	1957-58	1958-59
Agricultural Products . .	23898	23693	20507	19732	102	103	25943	30261	21440	21410	2477	2140
Products of animals . . .	652	605	190	224	5	4	1012	1218	1174	914	18	15
Products of mines other than oils .	22611	22187	21250	22555	1	1	41847	42891	24331	22092	2351	1499
Mineral oils	5388	5794	3693	3839	2	1	4033	3956	4813	6014	191	147
Forest Products	4491	5155	5760	5784	2	1	4470	4920	3095	2915	2054	1673
Manufacturers Products . .	18269	19048	16845	16891	45	39	25228	25653	20865	21616	1065	864
Miscellaneous	14430	14355	7478	7828	50	64	9788	11372	11573	8134	639	508
Military Traffic	508	687	104	97	..	..	791	1110	566	389	5	4
TOTAL A—Revenue Traffic	90747	91524	75827	76950	213	215	113112	121381	87857	83484	8800	6850
Railway Coal	18548	16908	7074	8028	10	11	17775	17814	5233	4339	319	320
General Stores and Materials for Railways.	15507	20001	10936	10554	90	69	7130	6937	8308	6764	557	537
TOTAL B—Non-Revenue earning Traffic	34057	36909	18010	18585	100	80	24905	24751	13541	11103	876	85
GRAND TOTAL . .	124804	128433	93837	95532	313	295	138017	146132	101398	94587	9676	7707

APPENDIX III

Statement showing the conclusions reached by the Government of Bombay on the provision of additional facilities for mechanical handling of bulk cargo at important Saurashtra Ports

(1) *Bhavnagar Port.*—The bulk of commodities at this port are mainly salt exports. The cargo is loaded into ships lying close to the jetty by manual labour. For the present traffic, the existing arrangements are quite adequate. When the cargo traffic increased, mechanical handling may perhaps be essential. This will be considered at the appropriate time.

(2) *Porbunder Port.*—This is a lighterage port and the present exports are mostly of salt and cement. It is expected that there will be substantial increase in exports of soda ash and cement exports. The State Government have already taken up the question of expanding the terminal facilities. The provision of mechanical handling equipment will also be considered at the appropriate time.

(3) *Okha Port.*—At this port also the main bulk commodities handled at present consist of cement and soda ash. The present arrangements of handling are satisfactory. The provision of mechanical handling equipment will be considered at the appropriate time.

(4) *Bedi and Veraval Ports.*—These ports have no natural potentialities of bulk traffic except salt cargo at Bedi port, which is being handled by the salt manufacturers themselves. Therefore, there is no necessity to consider the provision of mechanical handling equipment for these ports.

APPENDIX IV

Facilities at Major and Minor Ports for Stimulating Ore Exports

The following are the facilities which have already been provided or which it is proposed to provide at the Major and Minor Ports for stimulating ore exports:—

I. *Major Ports*

(*a*) Calcutta . . . A new mechanical Berth with a loading capacity of 500 tons per hour is under construction and it is expected to be completed shortly. Three of the existing berths and the Garden Reach Jetty have been reserved for the export of ores. Present traffic needs are adequately met by these facilities. In fact, if wagon supply sufficient for moving 1 million tons of ore direct to ship's side were available, the Port's capacity for export of ores would be 2 million tons. The feasibility of putting in a ropeway between the ore dumps at Sonai Yard and the mechanical ore berth 3/4 mile away is also under investigation.

(*b*) Madras . One new berth with the requisite mechanical equipment for handling ores is under construction and will be completed in a year's time, when the existing ore exporting capacity of 3 to 4 lakh tons will be doubled.

(*c*) Visakhapatnam . Two berths have been reserved exclusively for the export of ores. The port can easily handle about 1 million tons of ore with the existing facilities. As traffic in coal is fading out, one of the coal berths can also be used for the shipment of ores most of the time. A project for putting in five additional berths is under consideration and when completed the ore exporting capacity will be stepped up by 2 million tons.

(*d*) Kandla . The existing facilities are adequate to handle about 2 1/2 lakh tons of ore at this port. Two Additional berths with a capacity of 5 lakh tons are being provided specially to cater for ore export traffic from Rajasthan. When they are put in Commission the berth that is now used

for ore traffic will be used for general cargo. So that the ultimate ore exporting capacity of Kandla Port will be 5 lakh tons.

The existing facilities at Bombay are adequate to cope with 7 lakh tons of ore traffic, while Cochin can handle all the ore that can economically be routed through the port *i.e.* about 5 lakh tons. The present ore handling capacity of major ports is thus about 5 million tons and this is expected to go up to 7·25 million tons by the end of the Second Plan period.

II. *Minor Ports*

At present the minor ports can handle about 12·58 lakh tons of ore and as a result of the implementation of the development works contemplated under the Second Five Year Plan, this capacity will be increased by 2 lakh tons at the end of this period.

APPENDIX V

Statement showing daily passenger train mileage on the Zonal Railways

Railways	Daily passenger train mileage on			
	1-10-1939		1-4-1956	
	B.G.	M.G.	B.G.	M.G.
Central .	35,253	3,424	38,596	3,988
Eastern .	24,542	..	35,980	..
South-Eastern	17,713	..	18,605	..
North-Eastern	..	27,565*	..	37,477
Northern	39,907	8,282	47,716	9,954
Southern	20,849	36,169	23,709	39,547
Western	12,290	15,836*	18,783	24,709
TOTAL .	1,50,554	91,276	1,83,389	115,675

*Excludes the figures of the Gondal Region of the Western Railway and North Bank Traffic of the North Eastern Railway.

APPENDIX VI

Analysis of the Action taken by Government on the Recommendations contained in the 33rd Report (First Lok Sabha) of the Estimates Committee

1. Total Number of Recommendations	63
2. Recommendations accepted fully by Government (*vide* recommendations in Chapter II-A) :	
Number . .	42
Percentage to total .	66·6%
3. Recommendations accepted partly or with modifications (*vide* recommendations 2, 4, 7, 9, 51, 53, 55 and 61 of Chapter III) :	
Number . . .	8
Percentage to total	12·7%
4. Recommendations not accepted by Government but replies in respect of which have been accepted by the Committee (*vide* recommendations 3, 15, 18, 27 and 48 of Chapter III) :	
Number . . .	4
Percentage to total . .	8·0%
5. Recommendations in respect of which replies of Government have not been accepted by the Committee (*vide* Chapter IV) :	
Number . .	8
Percentage to total .	12·7%

GMGIPND—LSI—202 (Aii) LS—27-4-60—1400