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Report

of the

MALAYAN RAILWAY ECONOMICS COMMISSION

(March-July, 1961)

(VOLUME I)


PERDANA
LEADERSHIP
FOUNDATION
YAYASAN
KEPIMPINAN
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THE RAILWAY ECONOMICS COMMISSION

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REPORT OF THE MALAYAN RAILWAY ECONOMICS COMMISSION

SECTION I

INTRODUCTORY

The Commission which was deputed by the Government of India at the request of the Government of the Federation of Malaya, assembled in Kuala Lumpur on 21st March, 1961. It took the earliest opportunity to meet the Hon'ble Minister for Transport, and discuss with him the terms of reference and the scope of the Commission's work. The result of our discussions has been embodied in the letter of the Secretary to the Minister for Transport dated 24th March, 1961, which is reproduced below:

"Sir,

I am directed by the Minister to refer to his meeting with the members of the Commission on 22nd March and to say how much he appreciated their calling on him and their helpful and co-operative approach to their assignment.

2. As regards the Commission's terms of reference, which were discussed, I am to confirm that, as approved by the Government of the Federation of Malaya and as conveyed to the authorities of the Government of India, they are as follows—

'To enquire into the financial and economic position and prospects of the Malayan Railway and to make recommendations regarding:

(a) the role which it should play in the future economy of the Federation;

(*b*) whether, in discharging such role it can pay its way, and if not, how any dificit should be met; and

(c) its capital structure and the terms on which loan funds should be provided by the Government.'

I am also to add that the Government will appreciate it if the Commission will examine and advise on the Railway Administration's expenditure programme as included in the Government's Second Five-Year Plan.

3. In amplification of these terms of reference, I am to state that they do in fact pose the specific questions upon which the Government seeks the Commission's advice and recommendations, so as to enable the Government to lay down its overall transport policy. In order to provide such advice and recommendations, it would appear likely, as suggested by the Minister during the discussion, that the Commission may well wish to study the transport requirements of the country as a whole in the light of the Five-Year Plan and the Government's economic and financial policy and arrangements, to examine the economics and functions of the other transport media available, to seek information from various Ministries and authorities, and to make in its Report such mention of these matters as may be relevant to the terms of reference.

4. At the same time I am to say that should the Commission, in the light of its discussion with the Minister and of this letter, feel that any modification in the wording of its terms of reference would facilitate its prescribed task, the Minister would be happy to consider any proposal it may desire to make".

1.02. It may be added that at the meeting, we understood that we were not expected to undertake a detailed investigation of the technical aspects of railway operation for which the Malayan Railway Administration had adequate resources themselves.

1.03. The Commission also met the Prime Minister, Deputy Prime Minister, Ministers for Finance, Public Works, Agriculture and Commerce and Industry and important officials, a list of whom is given in Appendix 14.

1.04. Next, a questionnaire was prepared and sent to all State Governments, Chambers of Commerce and other persons and the Press, and an appeal was issued to all interested to help the Commission with their views.

1.05. The Commission also visited the various States and discussed Railway and other transport matters with the State Authorities and other public bodies.

We tried to collect as much statistical information as possible in relation to our work, and we gladly acknowledge the readiness of all departments to assist us. It was not, however, possible to obtain full information on some of the points, and, in respect of them, the Commission have made such estimates and guesses as appeared reasonable from the discussions with the officials and their own impressions gathered during the tours.

1.06. In this Report, we have limited our examination of the operating, technical and financial aspects of the Malayan Railway Administration to the extent they have a direct and material bearing on the terms of reference as laid down in the letter quoted in para.
1.01. Similarly, we have reviewed the position regarding roads and civil aviation to the extent necessary for this purpose.

1.07. The plan of the Report is briefly as follows:

After the introductory section, we deal with the general considerations bearing on the problems before us. We give next a short summary of the Federation's Second Five-Year Plan as it provides the economic setting for our investigations. Section IV contains a brief historical review of the Malayan Railway. This is followed by two sections analysing the operational and financial results of the Railway in recent years. In Sections VII and VIII, the factual position regarding air and road transport is analysed.

1.08. We next proceed to deal with the terms of reference in their serial order. First, we have tried to make an assessment of the position and prospects of the Malayan Railway in the light of our investigations. Then we go on to define the role of that Railway in the present context as well as that of the future economic development of the Federation. This leads us to the discussion of the difficult issue as to whether the Malayan Railway can pay its way either in the immediate future or ultimately.

1.09. The next Section deals with the capital structure of the Railway and the methods by which its further capital needs are to be met. Section XIII contains an analysis of the allotment to the Malayan Railway in the Second Five-Year Plan of the Federation with our recommendations regarding the changes needed in that allotment. Section XIV deals with certain other problems relating to road and rail transport. The next Section is devoted to a few concluding remarks. The last Section contains a summary of our observations, findings and recommendations.

SECTION II

GENERAL CONSIDERATIONS

Transport policy of a country has to be suited to its special circumstances, needs and resources but there are some general considerations which are to be borne in mind if that policy is to ensure maximum benefit at minimum cost. It is not necessary to emphasise the supreme importance of transport in modern economy. The continuous stream of agricultural produce to manufacturing and consuming centres, of manufactures to internal markets and of all imports and exports has to be kept up in steady and orderly movement all the time. Any obstruction or stoppage will have serious repercussions on all economic and social activity. While this is true for all countries, the avoidance of clogging or interruption is vital to the economy of Malaya where production is mainly for export and most of the articles of consumption including a considerable proportion of foodstuffs have to be imported.

2.02. There are still some countries where animal transport continues to play a part but, in most advanced economies, transport has become wholly mechanised. Malaya belongs to the latter category and all her development plans depend upon adequate facilities of mechanical transport of produce and personnel.

2.03. Till the end of the first World War, the steam engine used in locomotives and ships was the main form of power available for transport. Therefore, the extension of the railway system was an essential condition precedent to any form of economic development within a country. The emergence of motor transport and the aeroplane have brought about radical changes in the transport systems of all countries. The formulation of transport policy which enables a country to utilise all available forms of power transport in the most profitable and economic way has become difficult and complicated.

2.04. Coastal shipping and the Railway were the first users of steam power and have developed side by side more or less under comparable conditions. Their respective shares of traffic have come to be determined by economic factors, and they should in fact be deemed complementary and the limited competition between them has not given rise to any serious problem in Malaya.

2.05. Civil Aviation is comparatively a new-comer in the field of transport, but it has already become a serious competitor to rail and road transport in respect of the carriage of passengers and mail. It is also likely to appropriate increasing shares of transport of perishables and articles of high value. The diversion of long distance passenger traffic from the Railways to air transport presents a difficult problem to the former, especially in relation to the upper class. At the same time, it should be recognised that the aeroplane is promoting new traffic and fulfilling new wants which it is itself creating.

2.06. It is the competition between Railway and motor transport that constitutes a major problem to all those who are concerned with the formulation and implementation of transport policy. This competition is keen in relation to passengers as well as goods. The private car, the taxi and the bus are taking away to an ever-increasing extent the passenger traffic of the Railway. As a result, the utilisation

of various types of carriages, elaborate station arrangements and other facilities which have been provided by the Railway at great cost, capital and recurring, tends to diminish. The motor truck is taking away the goods traffic especially the more lucrative part of it. The advantages of motor transport over the Railway are obvious. The former is ordinarily more flexible, speedy and convenient. It can take in passengers at a large number of points and leave them at their destinations, if not at their door-steps. Similarly, goods can be loaded in trucks at the producing centres or ports and taken straight to the house or godown of the consumer or the trader.

2.07. The Railways find it difficult to face the competition of motor transport on account of the monopolistic conditions under which they developed and partly because they have to function as public utilities. Their rates and fares are subject to statutory regulations, they are obliged to carry all goods offered and are subject to other conditions which do not apply to all forms of motor transport. When the Railway is a Government undertaking and motor transport is a private enterprise, there is the further difference that Railway employees have to be treated as Government servants entitled to security of tenure, special conditions of service, elaborate procedure of disciplinary action and other privileges of Government service, while the owners of motor services are able to ensure greater discipline and economy. The Railway has to construct and maintain its track at its own cost and for its exclusive use, whereas public authorities construct and maintain the roads, ports and aerodromes. Therefore, the capital structures of Railways are radically different from those of other forms of transport.

2.08. On general principles, the consumer of transport is entitled to choose that form which is cheaper and more convenient to him. No restrictions on his choice can be justified unless they can be proved to be necessary in the general interest of the community. If no inconvenience to the public will result, there is no reason why the Railway should not be allowed to be superseded in the same way as it superseded animal transport. On the other hand, if a Railway has to be supported in the public interest, it appears preferable to do so through direct subsidies instead of raising the cost of transport all round through unreasonable restrictions on motor transport.

2.09. These are weighty arguments for free competition between rail and road transport, but they have to be considered in conjunction with the no less weighty considerations relating to the social and economic consequences of unrestricted competition and the imperative public need for co-ordination and regulation. In the interests of national economy, Railways are obliged to regulate their tariffs on the principle of what the traffic can bear. Bulky and heavy goods like coal, ores and foodgrains and raw materials for industries are carried at less than the full costs of the transport and the difference is recouped from more valuable goods. Telescopic rates are also generally charged whereby consumers of remote areas do not have to pay disproportionately higher prices. Motor transport is not subject to these restrictions and tends to concentrate on the carriage of goods which can be charged high rates. Also motor transport tends to become uneconomic and unsuitable over long distances. The loads of individual lorries have to be increased considerably to make them profitable for long distance transport of goods and this causes damage to roads and increases the risk of accidents.

2.10. It may also be observed that it is not enough to consider the cheapness of transport to the individual user. If the foreign exchange involved is greater for motor transport than for the railway, it may be desirable to conserve it for more essential imports like industrial machinery. The fact that the Railway provides employment for higher technical personnel to a greater extent is also a material factor to be taken into account, particularly in a country which is not advanced industrially.

2.11. For a country which is in the early stages of economic development, expansion of transport has to be greater than the rise in national income. In India, while the national income increased by about 18 per cent and 20 per cent during the First and Second Five-Year Plans, railway traffic increased by 25 per cent and 42 per cent respectively while road traffic nearly doubled during these ten years.

2.12. Where the development of a country is uneven or large parts are under-developed, roads and railways have to be built not purely on commercial grounds but as national investments.

2.13. We may now make some observations which are specially applicable to the Federation. The population is increasing at a rate of 3.3 per cent per annum. If it were evenly spread throughout the territory, it would not cause much concern as the country can easily support a much larger population. At the present stage and given facilities for agricultural and industrial development, growth of population is an asset to Malaya and may even be a necessity. But it is desirable to prevent the crowded areas in the west from becoming more crowded. It would require conscious and long-term effort to open up the vast areas in the east and the centre and induce the people to move into them. We shall be dealing with the rural development programme later but here we wish to stress the necessity to provide adequately for transport and communications in the undeveloped areas.

2.14. The Federation's balance of payments are in a very satis factory position at present. We note that during the period 1961 to 1965, investments of the order of $2,150 millions in the public sector and $2,900 millions in the private sector are expected to be made. There will be a considerable time-lag before these investments increase the volume and value of national output. Meanwhile, the development expenditure will exercise a strong inflationary pressure. It is true that, so long as imports are freely allowed, subject only to moderate duties, inflation will not bring about increase of prices but imports may increase at a rate which may upset all previous calculations and create a foreign exchange problem from which the Federation is now happily free. It is enough to draw attention to the Table on page 67 of the Second Five-Year Plan which shows that the export surplus of $610 millions in 1960 is expected to be reduced to $50 millions in 1965 and the favourable balance of $250 millions of the former year will become an un-favourable balance of $340 millions in the latter.

2.15. Industrial development of the Federation is as inevitable as it is desirable. It is not for us to suggest what industries should be developed, where, when and what facilities and inducements should be offered. We wish, however, to stress the importance of relating and co-ordinating such developments with their transport facilities

and the need to make timely and adequate provision for their expansion.

Table No. 1 below gives the position of the Federation of Malaya in the field of Transport as compared to certain countries of the ECAFE region.

TABLE NO. 1

* RAILWAY, HIGHWAYS AND MOTOR VEHICLES PER 1,000 POPULATION AND PER 1,000 SQ. KILOMETRES

Country	Kilometres of Railway		Kilometres of Highway		Number of motor vehicles	
	per 1,000 of popu-lation	per 1,000 sq. k.m. of area	per 1,000 of popu-lation	per 1,000 sq. k.m. of area	per 1,000 of popu-lation	per 1,000 sq. k.m. of area
Burma	0.056	1.6	0.8	21.8	1.5	45.1
Ceylon	0.162	21.9	2.5	340.9	9.1	1,234.8
Federation of Malaya ..	0.279	15.9	1.7	78.6	14.3	682.4
Singapore			0.6	1,000.0	43.6	84,285.7
India.	0.130	15.3	1.1	131.7	1.0	115.0
Indonesia	0.079	4.5	0.6	33.1	1.6	87.6
Japan	0.223	54.3	1.6	389.5	5.7	1,396.8
Pakistan	0.136	12.0	1.2	102.6	0.6	53.3
Philippines	0.043	3.2	1.4	99.7	6.0	449.2
Thailand	0.168	6.7	0.4	14.4	2.5	98.8

*Table 17 of Economic Survey for Asia and Far East, 1958.

SECTION III

TRANSPORT IN THE SECOND FIVE-YEAR PLAN

It is beyond our scope to examine the Second Five-Year Plan of the Federation or to comment upon it, but a brief review of the proposals is necessary to appreciate the provisions made in it for transport in general and for the Malayan Railway in particular. Against an increase of population of 16 per cent to 17 per cent, the Second Plan is intended to increase national output by 22 per cent and employment by 15 per cent. Public investment is estimated at $2,150 millions and investment by private enterprise at $2,900 millions. The following figures relating to the First and Second Plans indicate the distribution of investments and the shifts in emphasis:

(In millions of Malayan Dollars)

	First Five-Year Plan	Second Five-Year Plan
Agriculture	227.5	545.3
Transport	206.5	362.0
Communications	51.6	72.9
Utilities	238.6	402.0
Industry	12.1	27.0
Social Services	138.8	491.0
General	73.0	121.1
TOTAL	*1,007.0	*2,150.0

*Includes allotment for Defence also.

The distribution of transport allotments among the various forms are as follows:

Roads and Bridges	..	..	95.2	..	190.0
Railways	.. ..		71.4	..	65.0
Ports	..	..	37.0	..	55.0
Civil Aviation ..	..	..	2.9	..	52.0

Two further remarks are needed to realise the significance of these figures. Road transport, coastal shipping and air transport are to be provided by the private sector. Out of the provision of $65 millions for the Railway, only $25 millions is to be met from loans, the rest being expenditure from the Renewal Funds and other savings of the Railway.

3.02. In this connection, it is interesting to compare the provision for transport in the Indian Third Five-Year Plan with those of the Federation's Second Five-Year Plan. In the former, out of a total public investment of Rs. 62,000 millions, Rs.13,650 millions or 22 per cent are allotted for transport and are distributed as follows:

			(Rupees in millions)
Railways ..	..	..	8,900
Roads	..	..	2,680
Ports and Shipping	..	..	1,520
Civil Aviation ..	..	..	550

It should be pointed out that the provision for Railways given above does not include Rs. 3,300 millions to be spent from the Depreciation Funds and other savings of the Railways. Air transport and part of shipping are in the public sector in India.

3.03. The two plans are not strictly comparable though the increase in national output contemplated is nearly the same. Industrialisation and particularly the development of heavy industries is a dominant factor in the Indian Plan while the main increase in national output in the Federation is to be from agriculture and mining. The major means of transport in Malaya, buses and trucks, are to be provided by the private sector, but no estimate has been given of investments to be made in them. Therefore, it is not possible to evaluate the significance of the allotment of only 17 per cent for transport in the public sector in the Plan of the Federation against 27 per cent in India (the figures in both cases including the expenditure of the Railways from their own resources).

It may, however, be pointed out that Jan Tinbergen in his "The Design of Development" states that "investments in transport facilities are a fairly constant proportion of total investment, amounting to about 20-25 per cent. This applies to countries of differing structure and to periods of different 'prime movers' of development; it applies to the era of railway construction as well as to the era of industrial development."

3.04. Agricultural development which gets nearly one-fourth of the total public investments is to consist of extensive new settlements covering over three hundred thousand acres, replanting of rubber in 650,000 acres and provision of irrigation and drainage facilities

for 300,000 acres. Generally, provision has been made for road links for these new settlements but we wish to suggest that the transport requirements of these projects should be given greater and more detailed consideration. The new links should become feeders to the existing road system and, wherever possible, the settlements should be connected to the railway also so that the settlers may not become unduly dependent on a single form of transport. It may take some time before private operators will find it profitable to provide commercial motor transport to these remote areas and interim arrangements may have to be made through some public agency, co-operative or State.

SECTION IV

HISTORICAL REVIEW

The first railway lines in Malaya were constructed to connect tin mining areas to the West Coast. The railway between Taiping and Port Weld was the first to be opened in the year 1885. This was soon followed by lines from Klang to Kuala Lumpur, Taiping to Kamunting and Seremban to Port Dickson.

4.02. From these beginnings were developed the various State Railways which were amalgamated in 1901 to form the Federated Malay States Railways. By 1903, the line from Prai to Seremban was completed and this was extended to Gemas by 1906 and to Johore Bahru by 1909. The 17-mile long Singapore Government Railway, which had been opened in 1903 connecting Singapore with Woodlands opposite Johore Bahru, was purchased by the F.M.S. Railways in 1913.

4.03. By the year 1918, the entire length from Padang Besar on the Thai border to Singapore in the south was connected by rail except for the gap between Johore Bahru and the island of Singapore. The causeway over this gap was built in 1923, by which time all the branch lines on the West Coast had been opened and the construction of the East Coast line to connect Gemas with Kelantan had been commenced. This East Coast Line was completed in 1931. By 1932, the Railway had attained its maximum size.

4.04. The year 1937 was the peak year for goods traffic in the seven-year period between 1932 and the outbreak of World War II when an 84 per cent quota for Rubber was allotted to the Malayan Rubber under the Rubber Restriction Agreement and 107 per cent quota for tin under the International quota agreement.

4.05. At the outbreak of the Pacific War in December, 1941, the Malayan Railway had reached a high standard of efficiency. Its main lines were constructed to a comparatively high standard for metre gauge railways and its locomotives and rolling stock were modern and the service to the public was good.

4.06. The fighting leading to the fall of Singapore in 1942 followed by the Japanese occupation had a disastrous effect on the Railway. Considerable damage was caused by the actual fighting in 1941-42 and by bombing from either side later on.

4.07. The following extract from the Annual Report of the Malayan Railway for 1946-47 gives a summary of the damage suffered by the Railway during the War and its resultant position in 1945:

"When the British Forces entered Malaya in September, 1945, it was found that the permanent way between Singapore and the Siamese frontier and on the Port Swettenham and Port Dickson branch lines was intact but its condition necessitated reduced maximum speeds. Rails had been removed from 200 miles of the East Coast Line between Mentakab and Krai and also from the Tronoh, Teluk Anson and Malacca branches—in all 276 miles of running line and 57 miles of second line and sidings no longer existed. A large proportion of the rails and fittings had been taken out of Malaya and used in the construction of the Burma/Siam and Kra Isthmus lines. A total of 10,000 linear feet of bridging (approximately two miles) had been destroyed or removed.

Signalling installations were in working order but in need of overhaul. Many short section and long section tablet instruments were missing. Railway telecommunications had suffered severely from neglect and bad workmanship and much equipment had been removed.

Out of a total of approximately 7,000 staff quarters which were in existence prior to the war, 260 were totally destroyed and 300,000 square feet of godown accommodation had been lost as a result of bombing.

One-third of the pre-War stock of locomotives had been removed to Siam and Burma, one-third were out of service awaiting heavy workshop repairs and the remaining one-third, although in use, were in a very bad condition. Locomotives imported by the Japanese including 25 from Java were also in a serious state of disrepair.

About one-half of the pre-War stock of 5,800 wagons had been taken to Siam and Indo-China. The Japanese had moved approximately 1,250 Java wagons into Malaya. Of these about 750 were fit for use, but as they have buffers six inches higher than the Malayan standard, their use caused many operating difficulties.

Less than two-thirds of the passenger coaches were in usable condition. One hundred and fourteen had been destroyed, badly damaged or moved out of Malaya, and the remainder had been stripped of fittings, upholstery and windows.

The main Workshops at Sentul had been very badly damaged by Allied bombing. Of a total covered area of 14 acres, 63 per cent had been completely destroyed. The Japanese had erected temporary workshops hidden and widely scattered in a rubber estate seven miles away. Machinery, plant and stores had been widely dispersed. Allied bombers had also destroyed a large part of the locomotive running shed at Kuala Lumpur and wrecked most of the carriage shed which had stabling capacity for 100 coaches.

At Port Swettenham sixty-five of the Railway lighter fleet of seventy-two vessels of 60/80 tons capacity had been sunk and the pontoon wharf severely damaged. Wharves Nos. 2 and 3 were blocked by sunken vessels lying alongside".

4.08. It was anticipated that the task of re-establishing a sound Railway administration, and restoring the disrupted organisation and making good the physical loss and damage at the end of the War would be a difficult one. A Malayan Planning Unit, which was formed in London in the year 1943, had ordered 40 main line steam locomotives, 20 diesel electrical shunting locomotives and 1,000 wagons. These and other urgently needed equipment began to arrive in the year 1946. A million sleepers were introduced to restore the track to a reasonably good condition. The re-building of Sentul Workshops was begun, as also the restoration of the 200 miles of Railway on the East Coast Line.

4.09. The Railway was under the control of the Transportation Directorate, Allied Land Forces, South East Asia, from September, 1945 until the end of the year. From January 1, 1946, until the end of March, the Railway was administered as a branch of the British Military Administration. Then, on account of the post-War political developments, the British Government announced the idea of uniting all the nine Malay States and both the Settlements of Penang and Malacca into a single unitary State to be called the Malayan Union. It was in pursuance of this plan that the Railway Ordinance of 1948 came into effect from the 1st January of that year. The Union plan, however, gave place to that of the Federation of Malaya, which was established in February, 1948. The setting up of a new Federal Government did not affect the Railway administration which had been established under the Ordinance.

4.10. On 31st August, 1957, the Federation of Malaya, including the former nine States and the two Settlements of Penang and Malacca, became an independent State under a Constitution which was agreed to by the British Government, the Rulers of the Malay States and the Federal Legislative Council. The Railway Ordinance, 1948, continued to govern the Railway Administration with suitable adaptations, giving to the Minister of Transport the final and over-riding voice in matters of policy.

4.11. Unfortunately, no sooner had the efforts towards restoration of normal conditions begun to show results than the Railway was called upon to face a campaign of persistent attacks on trains, stations and telecommunications by the Communist terrorists from the middle of 1948. A state of Emergency was declared on 12th July, 1948 and this continued for over twelve years and formally ended on 31st July, 1960.

4.12. The attacks caused not only serious physical damage but also compelled the Railway Administration to take many pre-cautions against derailment, etc., which reduced the operating efficiency of the line and increased the working expenses. Although the Communist attacks became infrequent from the year 1952, the capacity of the line continued to be affected since the precautionary measures had to remain in operation.

4.13. The restoration of War damage continued up to 1954, the most notable event being the re-opening of the East Coast Line in 1953, after a delay of 18 months caused by terrorist activities. The efficiency with which the task of restoration was undertaken elicited the following commendation from the Mission of the Inter-national Bank for Reconstruction and Development which reported on the economic development of Malaya in September, 1955:

> "The Railway has reached a high standard in. Administration, operation and maintenance and serves Malaya's needs well".

4.14. The attainment of Independence in 1957 was followed almost immediately by a setback in the rubber trade and this continued for the next two years. In the latter half of 1959, things looked up in general and the end of the Emergency in 1960 brought hopes of better times.

4.15. We may now summarise the provisions of the Railway Ordinance as it is functioning at present. The Railway is a Public Statutory Corporation sole and the equity in the Railway is vested solely in the Federal Government. The General Manager, Malayan Railway, as provided in the Ordinance, has the "power and authority generally to execute and do all such acts, deeds and things as may be necessary or proper to the control and working of the Railway and other services ancillary to the Railway."

4.16. The Malayan Railway Administration has a perpetual succession and a corporate seal and may enter into contracts and sue and be sued in its name. All railway servants are deemed to be employed by the Administration and all the movable property of the Railway is vested in the Administration.

4.17. The Railway is also in the portfolio of the Minister of Transport, who has the power to direct the General Manager on any matter. Ministerial responsibility and administrative autonomy have been sought to be reconciled in this manner so that, though, legally, it is an autonomous corporation, actually, it is controlled like other Government Departments.

4.18. The Railway Services are recruited by a separate Railway Service Commission, prescribed by Constitution. The Commission has the duty of appointing, promoting and exercising disciplinary control over Railway Services. Certain functions of the Commission are delegated to the General Manager and the Heads of Departments.

4.19. The question whether railway servants are legally Government Servants or are servants of the Railway Corporation, has not yet been finally determined. It is, however, interesting to note that by the Railway (Amendment) Ordinance, 1951, it has been declared—

> "To remove any doubt, this Ordinance seeks to make all written laws applicable to the Railway Administration (except where otherwise provided) in the same manner as they apply to the Government of the Federation and to declare that persons in the service of such Administration have the status of Government servants".

This, however, does not seem to have fully clarified the position as the Solicitor-General advised in 1958 that Railway servants are not subject to the General Orders of Government. The Railway Administration is, however, conforming broadly to the pattern of staff co-ordination obtaining in other Government Departments.

4.20. On the financial side, Government control is exercised by the submission of the Railway Estimates to the Minister of Transport for approval. The annual accounts must be laid before the Parliament and this gives an opportunity to the members to discuss Railway policies. The Auditor-General of the Federation is also the Auditor of Railway Accounts. The following directive regulates the financial power of the General Manager in regard to loans:

> "The General Manager may, from time to time, apply to the Government of the Federation of Malaya, but, without the approval of the Government,

to no other source, to borrow by way of loan, overdraft or otherwise such sums as he may require for meeting the obligations and discharging the functions laid upon him by the Ordinance and for capital and development expenditure. Nothing in this paragraph shall preclude the General Manager from receiving payments in advance or incurring liabilities during the norma] course of business".

4.21. The day-to-day management of the railway devolves upon the General Manager who is appointed by His Majesty the Yang di-Pertuan Agong on the recommendation of the Railway Service Commission. The General Manager is advised by a Railway Board and (since the Railway at present also operates the Port) the Port Swettenham Board, on which there is both official and unofficial representation.

4.22. The Railway Board is established under Section 7 of the Railway Ordinance to advise the General Manager on railway tariffs, estimates of revenue and expenditure, extraordinary expenditure on special or emergency works, substantial changes in the organisation of the railway, expansion and development schemes and new works, and on major questions of policy in connection with the working or management of the Railway. In addition, the General Manager may consult the Board upon any matter concerning the administration and the working of the Railway. In all matters on which he consults the Board, the General Manager "shall not act in opposition to the opinion of the Board without the authority of the Minister of Transport."

SECTION V

REVIEW OF OPERATION OF THE MALAYAN RAILWAY

We now proceed to make a brief review of the operation of the Malayan Railway. The figures used in this review have been taken from the tables given in the published Annual Reports of the Malayan Railway, supplemented by other statistics maintained by the Railway or contained in official documents. No records for the period 1940-46, are now available.

5.02. The Appendices, placed at the end of the Report, contain comparative figures for the pre-war period 1937-39, the post-war Emergency period 1948-50 and the period 1954-60, when the Railway had been restored to practically its pre-war size. They also give comparative statistics relating to various aspects of the working of the Malayan Railway in 1959 and the corresponding 1959-60 figures for certain metre gauge portions of Indian Railways. From these Appendices are extracted the following indices of operating efficiency showing how the Malayan Railway compares with its Indian Railway counterparts.

TABLE NO. 2

INDICES OF OPERATING EFFICIENCY OF MALAYAN RAILWAY COMPARED WITH ITS INDIAN RAILWAY COUNTERPARTS

		1959-1960	Indian Railways
	Malayan Railway 1959 1,028 Route miles 1,305 Track miles	C. Rly. (M.G.) 887R/mls. 1,012 T/mls.	S. Rly. (M.G.) 4,208 R/mls. 5,056 T/mls.
LOCOMOTIVES			
Total number	187	116	978
Number per Route mile	0.18	0.13	0.23
Net Ton miles per Goods Engine hour	1,009	971	1,022
Gross Ton miles per Goods Engine hours (including wt. of engine and departmental)	2,655	2,481	2,426
Engine miles per Engine day in traffic	104	128	115
Percentage Engines under repair	7.78	8.87	11.83
Train miles per Route mile	4,667	3,057	5,486
Goods Trains			
Wagon miles per Wagon day	31	43.4	33.5
Wagon miles per Engine hour	158	151	137
Train miles per Train Engine hou	16.77	10.3	10.3
Net Ton miles per Wagon day	139	281	256
Average Wagon Load (Tons)	6.47	9.20	9.95
Net Tons / Gross Tons per Goods Train	38%	43%	44%
Net Ton miles / Gross Ton miles	39%	39%	42%
Percentage Empty Wagon miles / Total Wagon miles	30.4	30.1	28
Percentage Wagons under repair	7.46	2.39	4.40
PASSENGER COACHES			
Percentage Passenger Coaches under repair	7.24	6.82	6.81
Average Mileage per day per vehicle	155	172	126
OPERATION			
Percentage Sh. Eng. miles (Passr.) / Total Engine miles	4.43	4.9	5.0
Sh. miles per 100 Train miles (P)	4.81	5.32	5.43
Sh. miles per 100 Train miles (Goods)	25.6%	25%	22.5%
Sh. miles per 100 Train miles (G)	35.5	36.5	33.1
Departmental Engine miles / Total Engine miles	3.5%	9.9%	7.2%

5.03. Though the figures given above for the Malayan Railway are not strictly comparable with the Indian Railway figures, they show that the Malayan Railway performance today can be said to be of a high standard of efficiency, operation and maintenance. Figures for average wagon-load and net ton miles per wagon day may be low compared with corresponding Indian figures; but the other figures indicate that these may be attributable to the local conditions and nature of goods traffic dealt with on the Malayan Railway. The figures for goods wagon and passenger coaches under repairs which went up due to the cut in revenue expenditure in the years 1957-59 are capable of being reduced to the 1955 figures shown in Appendix 8.

An idea of number of passengers carried, the average distance carried and the revenue obtained from different classes over the period 1937-1959 may be gained from the following figures:

TABLE NO. 3

PASSENGER TRAFFIC.

	Fare increase in 1946-1947							Fare increase in 1956				
	1937 Pre-war 1,068 miles				1949 Post-war/Emergency 870 miles				1959 Post-Independence 1,028 miles			
Route Miles	I	II	III	Total	I	II	III	Total	I	II	III	Total
No. of passengers carried (millions)	0.06	0.60	8.82	9.48	0.04	0.36	4.04	4.44	0.06	0.52	6.74	7.32
% of 3rd Class		93%				91%				92%		
Average distance carried (miles)	163	57	23	26	170	100	36	N.A.	224	165	40	51
Revenue (million $)	0.52	0.88	3.42	4.82	0.85	2.18	5.74	8.77	1.93	5.84	11.78	19.55
No. of seats	1,637	4,424	13,775	19,836	699	2,921	11,926	15,546	780	3,833	11,439	16,052
Average passengers/day	154	1,658	24,152	25,964	110	990	11,100	12,200	164	1,415	18,466	20,045

Figures of seat miles and vehicle miles per vehicle by classes are not maintained and it is, therefore, not possible to assess the occupancy ratios in different classes but some idea of the overall occupancy ratio is afforded by the comparison between (Coaching Vehicle miles per Vehicle per day X Seating capacity available) and the Passenger miles per day for 1959.

$$\text{Passenger miles per day} = \frac{370\text{ m}}{365} = 1.01\text{ m.}$$

$$\text{Seats available per day} = \text{in Traffic per day} \times \frac{\text{Av. No. of Coaches}}{\text{Total No. of Coaches}} \times 16052$$

$$= \frac{352}{373} \times 16052 = 15148$$

Seat miles per day .. = Coaching vehicle miles per vehicle per day x Seats available

$$= \frac{19.97\text{ m}}{352} \times \frac{1}{365} \times 15148 = 2.36\text{ m.}$$

Occupancy ratio .. = 1.01/2.36=43%

An analysis of ten-day figures for Express Trains from Singapore showed that the average occupancy ratios for the day and night expresses were roughly as follows:

Train	Occupancy Ratio I	II	III
Day Express (I, II and III)	40%	50%	85%
Night Express (II and III)	—	100%	60%
Night Express (I and II)	88%	100%	—

5.04. Comparative figures of parcels and other coaching traffic for the years 1937, 1949 and 1959 are given below:

TABLE NO. 4

PARCELS AND OTHER COACHING TRAFFIC.

	1937 Pre-war	1949 Post-war Emergency	1959 Post/ Indepen-dence
No. of Packages.....	624,604	616,046	N.A.
Parcels and Luggage, Revenue	$662,657	$1,875,102	$2,814,220
Mail, Revenue	126,254	330,000	1,046,893
TOTAL REVENUE ..	$788,911	$2,205,102	$3,861,113

5.05. In regard to Goods Traffic the following table gives comparative figures for the years 1937, 1949 and 1959.