THE ROLE OF RAILWAY TRANSPORT IN CEYLON: PRESENT PROBLEMS AND FUTURE PROSPECTS.

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ABSTRACT OF THESIS

This Thesis is a study of the role of railway transport in Ceylon. It is divided into three parts. Part One is devoted to the discussion of the Ceylon (Government) Railway's early role in the absence of competition, and to the present problems facing it as a consequence to the development of road transport on the one hand,and to an unrealistic transport policy, on the other.

Part Two of the Thesis examines the proper role of the railways.A discussion of the country's financial difficulties,undertaken in chapter 5,reveals the extent to which the national interest clashes with orthodox economics; its importance cannot be overlooked in any solution to the transport problem. Chapter 6 deals with transport costs,whilst the pricing and investment policies for the railways are discussed at length in chapters 7 and 8. Chapter 9 examines the transport problem and the solutions. The study of public control of transport is restricted to chapter 10.

The results of the analysis in Part Two provides the basis for stating the case of the Railway in Part Three. It is apparent that the future prospects for the Railway depend on the availability of traffic, and Government policy on transport in general,and the Railway in particular,

Chapter 11 is devoted to an examination of the opportunities that are for it to secure additional traffic; the common arguments in support of the wider use of the Railway are dealt with. Chapter 12 examines a more realistic transport policy. The proposals for the Railway and the road industry, while accommodating the national interest,are deemed to assure both the economic objective of a transport policy and the proper role of the Railway.

PREFACE

It goes without saying that an efficient transport system is of great importance for Ceylon,especially at a time when numerous programmes of economic development are on hand. The limitations on resources,particularly foreign exchange,to expend on transport,attaches greater importance to efficiency.

The study of transport economics is in the process of evolution in Ceylon, and therefore,in its infant stage it does not provide a field of fruitful study. Perhaps,it may be the reason for none to have entered this field so far. But this is only a conjecture.

This Thesis is a study of railway transport in the island. It is an attempt to evaluate the real position the Railway holds. The major part of the research in respect of this study was carried out in Ceylon when I was attached to the Railway. I was fortunate to be provided with the opportunity to study closely its problems over a period of eighteen years while I was working in the different branches of the undertaking. I have also studied the development of road transport over the years,since the Second World War. In my opinion,the present difficulties of the Railway are to a great extent self-imposed,while the policy of the Government has,in no less terms, affected its position.

Much of the information pertaining to the Railway has been acquired from the Administration Reports of the General Manager and Heads of other Departments associated with the undertaking. Although information in respect of road transport,more particularly that of road haulage,is not wide,yet every endeavour has been made to secure details adequate enough for this study.

I have been doing my research as part time external student. Consequently, I have not been fortunate enough to work under a supervisor to benefit by his guidance and advice in my research. But the University External Department was good enough to arrange for Mr.J.M.Thomson of the London School of Economics to advise me. I had the opportunity to seek his advice on more than one occasion,and his advice has been invaluable in setting the plan for my Thesis. I also received much advice from Mr.G.J.Ponsonby,formerly of the London School of Economics.

This study is important in that it leads to the proper appreciation of the extent to which the Railway is burdened with social and legal obligations,and to assess the conditions in which road operators function. It is also important in that it leads to determine to what extent a change in Government policy on transport in general,and on rail transport in particular,would permit the Railway to secure its rightful place in inland transport.

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PART ONE: THE PAST AND PRESENT ROLE OF THE CEYLON RAILWAY

CHAPTER I. THE DEVELOPMENT OF RAILWAY TRANSPORT IN CEYLON

1.1 The Ceylon Government Railway

The idea of a railway for Ceylon was mooted as far back as 1840 amidst the flurry of the 'Railway Mania' in England. In 1845 a group of London investors formed the Ceylon Railway Company, for the purpose of building a railway between Colombo and the coffee producing district of Kandy, but the proposals failed to earn the approval of the Colonial Office in London on the grounds that the capital was excessive and that the dividends were not adequately guaranteed. In 1855 a fresh Company was formed, with the same name and title, but with a smaller capital. The difficulty in respect of the dividends was smoothed out with the Ceylon Government taking the unusual step of guaranteeing them. In 1858 the Company, on an authorisation from the Ceylon Government, commenced work on the Railway.

The dealings with the Company were, however, terminated in 1859 when its revised estimate of costs for the project was found excessive. It was decided that the Ceylon Government should complete the Railway on its own, and ever since it has been a public concern.

The Ceylon Railway Department was set up in 1864. The railway to Kandy was completed in August, 1867. The branch line to Nawalapitiya was completed in 1874, and extended to Nanuoya in 1885. The extension from Kandy to the prosperous coffee district of Matale was completed in 1888.

With the completion of the railway between Colombo and Kalutara in 1887, the Government was convinced that considerable financial benefits would accrue if future constructions were undertaken by the Railway Department rather than be let on contract as had hitherto been done. The

acceptance of a proposal to that effect by the Colonial Office opened a new era in railway construction in the island. The Railway Construction Department, formed soon afterwards, was responsible for all subsequent railway building.

Today the railway system consists of 835 miles of broad gauge and 87 miles of narrow gauge track. Lines radiate from Colombo - the political, commercial and administrative centre - to Kandy in the hill country, Matale and Badulla, to constitute the Main Line; to Jaffna and Kankesanthurai, in the north, the Northern Line; to Galle and Matara, along the southern coast, the Coast Line; to Trincomalee and Batticaloa, in the east, the Batticaloa - Trincomalee Line; to Talaimannar, in the north west, the Talaimannar Line; to Bangadeniya, along the north western coast, the Chilaw Line; and to Ratnapura and Opanayake, the narrow gauge, Kelani Valley Line.

The capital expenditure on the Railway up to 1887 amounted to Rs. 36,559,671, increasing to Rs. 57,958,225 in 1900 for 297 miles; Rs. 125,690,676 in 1915 for 692½ miles; Rs. 189,852,013 in 1925, for 791 miles; and finally in 1928, when railway construction was terminated, to Rs. 211,049,795, for a route mileage of 951. Over time, investments rose, and in 1965 totalled Rs. 566,347,576.

1.2 <u>The Need for the Railway</u>

The Railway owes its origin to the coffee planters of the mid-nineteenth century. The rich soil abounding the central districts of Dambulla, Dickoya, Dumbara, and Uda-Pussellawa was admirably suited for the coffee plant. By 1870 the acreage under that crop was 200,000, but the leaf disease that ravaged the plant in the late seventies crippled

the industry, and by the nineties, the plant was systematically given up for a more profitable one, the tea shrub, that was destined to change the face of the country and its economy in the next few decades.

The expansion of the coffee industry demanded a form of transport that was swift, reliable, and cheap. The innumerable difficulties encountered by the planters to guarantee the outward movement of the produce to Colombo, for export, on the one hand, and the inward flow of foodstuffs for the expanding population in the plantations, and manure for the crops, on the other, were closely associated with the absence of an efficient form of transport. The bullock-cart, the backbone of the commercial freight haulage industry, was indubitably outmoded in every way.

The road to Kandy completed in 1832, more for administrative purposes than commercial, was the only source of communication between Colombo and Kandy and suited to vehicular traffic, but interruptions in the regularity of bullock-cart movements, often accentuated by extraneous forces, necessitated the regular deployment of 'coolies' to transport goods between Colombo and Kandy.(1)

The increased demand for coffee in the markets overseas called for uninterrupted supplies. The distance between Colombo and Kandy, the export point, was only 74 miles, yet consignments of coffee took days,

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(1) "The carriage by these carts is tedious and uncertain and the expenses greatly increased by reason of the extensive mortality among the cattle employed, so much so that, occasionally natives each bearing a load of merchandise are despatched from Colombo to Kandy in preference to that mode of conveyance" - Extract from the Prospectus of the Ceylon Railway Company.

and sometimes weeks, to reach the go-downs in Colombo.(1) On an average, the bullock-cart covered twenty miles a day, changing animals at points along the route. Disease among animals was not infrequent, causing disruption in their supply, which factor further militated against the regularity in vehicle movement. The situation, with prospects of further expansion in coffee production, naturally evoked apprehension among the planting community over the capacity of the prevailing road transport resources.

Damage to goods was considerable. Rough handling, vagaries of weather and other hazards to transport called for greater attention to packing, that was costly. Neither was the cost of transport low. Under such unfavourable circumstances it is not surprising that a railway was the possible answer.

It is apparent that the constructionsof the Railway was initiated as a matter of great urgency to the coffee industry. It is also obvious that, apart from the prospects of coffee and traffic complementary to it, there was hardly other traffic of any magnitude requiring rail facilities immediately, although mention was made of other traffics by the promoters of the Company.

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(1) "During the great pressure in 1854, £4.10.0. was paid for a bullock-cart taking to Kandy half a load of rice and returning to Colombo with 15 cwts. of parchment or 10 cwts. of dried coffee and the time employed upon the road, which under ordinary circumstances does not exceed from six to eight days, took a month or even six weeks before the goods were delivered." - "No increase in the means of conveyance now in use would keep up with increase of productive power and no ordinary road afford accommodation to the number of additional carts and bullocks that would be required were it possible to procure them." - Sir Henry Ward in the Legislative Council, July 4, 1855.

1.3 The success of the Railway

The initial success of the Railway is convincing. In 1866, with a mileage of 45 and terminating at Polgahawela, half-way to the coffee producing districts, it carried only 2,789 tons of freight. Only a very small portion of the coffee traffic then moving towards Colombo was rail-borne. But with the completion of the rail-link to Kandy in 1867 the increase in traffic was conspicuous. Within a year the tonnage rose to 54,850, and in 1873, with the extension to Gampola, it was 171,193.

Much of this success is attributable to the coffee planters, who were careful to see that the project did not meet with failure for lack of custom, since further extensions to the rail system which they earnestly desired, depended on the profits it made. But, it would amount to an understatement to say that its success was not due to its performance, efficient in the immediate sphere of its activities. The growth in its freight custom is illustrated by the following figures:-

Year	Tonnage	Revenue
1866	12,789	Rs. 66,943
1867	54,850	547,009
1868	116,176	1,251,779
1869	134,369	1,414,814
1870	156,205	1,626,193
1871	149,033	1,556,599
1872	138,429	1,435,086
1873	171,193	1,779,476
1874	167,975	1,754,205
1875	212,329	2,107,071
1876	258,984	2,140,293
1877	298,856	2,598,453
1878	282,930	2,424,379
1879	253,427	2,291,450
1880	264,463	1,940,390
1881	317,490	1,885,798
1882	292,599	1,610,023
1883	237,652	1,568,692
1884	187,360	1,592,496
1885	160,316	1,695,646
1886	156,544	1,790,121
1887	162,205	1,955,311
1888	193,182	2,302,970
1889	210,248	2,402,744
1890	288,998	2,569,851

(Source:- Administration Reports - General Manager, Railway).

The rapidity with which rail passenger transport was accepted by the public is similarly noteworthy. Prior to the advent of the steam locomotive, passenger movements were confined to horse and bullock drawn coaches, but with the introduction of passenger services on the rail system a revolutionary change in passenger travel occurred. The demand for rail services witnessed an astonishingly rapid expansion with a concommittant fall in the demand for coach services.

The following figures are indicative of the degree of attractiveness of the rail services in the few years immediately after the opening of the Colombo-Kandy railway, and with the completion of the branch line to Nawalapitya.

Year	Number of passengers	Revenue
1865	19,253	Rs. 25,632
1866	132,431	165,240
1867	167,360	257,256
1868	196,722	371,694
1869	201,258	367,575
1870	223,121	413,765
1871	234,978	414,041
1872	358,671	405,735
1873	644,374	574,288
1874	708,476	633,491
1875	858,094	739,545
1876	879,308	807,714
1877	1,562,244	972,628
1878	2,053,816	980,288
1879	2,230,522	1,026,895
1880	2,231,226	985,287

(Source: Administration Reports - General Manager, Railway)

Movement by horse drawn coaches were faster, but proportionately costlier, and those not permitted that 'luxury' have had to be contented with the slow moving bullock cart, or in the worst, to cover the distances on foot. The time involved with bullock cart movements was considerable, and the discomforts associated with such 'adventures' were unbearable. Passenger travel by sea between Jaffna, Trincomalee, Batticaloa, Negombo, Colombo and Galle continued until the 1920s, but the attractions of that form of transport were not spectacular.

The Railway changed the climate drastically. Distances between places were narrowed. Journey times were reduced, and the cost of journeys substantially minimised and regulated so that personal travel came within

everyone's reach. The Railway's introductory fares on the Colombo - Kandy section were convincingly favourable in the face of contemporary charges for transport by road.

With the further expansion in the rail system, and the provision of additional services, earnings from passenger traffic increased. There was, however, a fall in earnings, both from freight and passenger, during the mid-eighties, resulting from the failure of the coffee crop.

Year	Number of passengers	Revenue
1881	2,166,930	Rs. 956,589
1882	2,129,621	925,157
1883	2,091,484	879,456
1884	2,111,534	916,878
1885	1,846,427	873,025
1886	1,818,509	869,473
1887	1,966,280	962,751
1888	2,182,298	1,037,982
1889	2,708,719	1,225,369
1890	2,285,208	1,087,648
1892	3,484,894	1,536,556
1895	4,821,867	2,174,256
1898	5,141,355	2,798,851
1900	5,783,607	3,225,976

(Source: Administration Reports - General Manager, Railway.)

The rail administration, cognisant of the increased patronage its services were being afforded, granted more concessions. Fares were reduced for third class travel in 1871 and again in 1886. Cheap season tickets were introduced in 1898. Concessionary travel, enjoyed by the plantation labour, was extended to other sectors of agriculture, and a system of free conveyance of passengers' personal luggage was instituted.

Conditions for the expansion of trade and commerce were fostered. Traders whose activities were once limited to the distances covered by bullock carts made maximum use of the new dawned opportunity of rapid, cheap,

and comfortable rail transport. The Railway, by catering for the appropriate needs of the various sections of the community, attracted much more traffic than it was initially anticipated.

1.4 Effects on Road and Water Transport

1.4.1. Road Transport

The advent of the Railway undoubtedly made its impact on the island's road transport. But, though freight transport by road was necessarily affected by railroad construction and rail traffic development, yet initially it was not to such an extent as to cause abrupt disorganisation in the industry, nor to throw out of employment the thousands who depended on it. Railroad construction, on the contrary, facilitated the opening of additional lands for coffee, and thereby enabled the channelling of the redundant road resources to newer routes, equally remunerative, while furthering the prospects of additional traffic for the Railway. However, with its rapid development, and the increased satisfaction it assured in the movement of freight, the tendency for the Railway to expand at the expense of the road operators was inevitable. By 1870 the number of bullock carts deployed for the movement of plantation produce fell from 75,000 to 30,000.

1.4.2. Coastal Shipping

The impact of the Railway on coastal shipping and inland water transport was equally severe. As a means of transport coastwise shipping had occupied pride of place in the economy of the island for a long time. Sailing craft have maintained services for such commodities as grain, tobacco, hardware, timber and piece goods, between Batticaloa, Trincomalee and Kalkudah, ports on the eastern coast; Jaffna, Kankesanthurai, Pt. Pedro, Mandateevu, Kayts and Pooneryn, on the northern coast; Hambantota on the

southern coast; and Negombo, Colombo, Puttalam and Galle, on the western coast.

Although subject to interruptions from adverse weather conditions, this means of transport was of immense benefit to the people, but the unprofitable nature of the industry in later years due to competition, the disadvantages of irregularity, and the difficulties in respect of transport between the coastal points and the hinterland, were factors favourable to the Railway. With the construction of the Coast Line, the Northern Line, the Chilaw Line, the Talaimannar Line and the Batticaloa/Trincomalee Line, the scope for coastal shipping was considerably narrowed. With further developments in the rail services, sea transport was completely superceded by rail transport.

1.4.3. Inland Water Transport

A series of canals constructed by the Dutch during their occupation of the maritime provinces of the island have served a very useful purpose in the movement of heavy traffic with greater speed and at lower cost than contemporary road transport has afforded;(1) but with the far more efficient rail freight services, their importance also declined. The evidence before the Stratchan Commission, as late as 1926, yet pointed to the desirability of

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(1) Canals:-

1.	Toppu - Puttalam	- 52 miles	- Chilaw District
2.	Negombo	- 5 "	- Negombo "
3.	Colombo - Pamunugamuwa	- 9 "	- Colombo "
4.	Jaela	- 3 "	- " "
5.	Old Hendela	- 7 "	- " "
6.	San Sebastian	- 2 "	- " "
7.	Colombo - Bolgoda	- 16 "	- " "
8.	Bolgoda - Galpotha	- 7 "	- Kalutara "

expanding this system of communications. The heavy cost of new construction and maintenance, and the gradual loss of traffic on the different systems, were, however, factors against that proposition. Canal traffic fell drastically between the years 1890 and 1920, traffic wherever permissible, seeking the Railway, and until such time the effects of the motor vehicle were felt in later years.(1) A major portion of the canal system was sustained by the coconut industry; but traffic ranging from timber, salt, rubber, rice, tiles and bricks, was also being carried in conjunction with river transport.

The construction of the railroad to Chilaw and Puttalam was undertaken on a guarantee from the coconut producers that traffic originating from that industry would be assured to the Railway if one were built. Hence, it is not conceivable that the fate of that portion of the canal system that served that industry could have been otherwise.

The lesser canal and river charges, and the varied facilities obtaining in that mode of transport, have not been adequately tempting to forestall that flow of traffic to the Railway, which provided far more economic services. The main disadvantage with canal and river transport lay in the delay caused to urgent outward traffic that consisted of export produce - coconut, tea and rubber, - and of the much demanded return traffic - manure, and food destined for the plantations.

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(1) A rough survey of canal traffic in 1949 showed that 600 padda boats transported about 9,000 tons of goods on the canal system. Traffic density was negligible while rates averaged between 10 and 20 cents per ton mile. Some 4,000 persons were said to be engaged in canal transport. The annual revenue from this source was about Rs. 10,000 whilst the maintenance costs were in the region of Rs. 252,000. (Report of the International Bank Committee - The Economic Development of Ceylon, 1952).

1.5. Branch Lines

1.5.1. Main Line

It is succinct to maintain that railway construction was neatly intertwined with the development of the plantation industries, initially with coffee, followed by tea, rubber and the coconut. The construction of the Colombo - Kandy railway is a remarkable demonstration of the presence of coordination between transport and industry. The extension to Badulla was similarly influenced by the chaotic road transport conditions, and the limitations imposed on the development of the coffee trade, in consequence. Yet the authorities were not always prepared to concede that the urgency of a railroad revolved around the benefits to the plantation industries, and over-looking the general economic development of the country, and the Badulla district, in particular.

The delay occasioned with the construction of the Nanuoya - Bandarawela extension accentuated demands for a better system of cart roads. The Ratnapura Road, reputed to be the best at that time, and affording outlet for traffic originating from Hawaeliya, Madhulshima, Badulla proper, Haputale and Kandapola, to Colombo was, however, unfit for heavy traffic during rainy weather. Freight merchandise between Colombo and Badulla had often been on

the road for fifty to eighty days, and frequently more, before reaching destinations, although the distance between the two points was 150 miles.(1)

1.5.2. Northern Line

The inadequacy of transport facilities, especially for freight, was conspicuous with the communication systems between the Jaffna Peninsula and the rest of the country. Light traffic was accommodated with horse carriage, services being provided between Jaffna and Kandy, via Matale, and thence to Colombo. A proportion of the heavy traffic was moved by bullock cart; but the limitation imposed by the distance over which it could be used efficiently, syphonned the greater portion of that traffic to sea.

Transport by sea was irregular and available only for nine months of the year. The delay occasioned and the high costs of that mode of transport posed severe drawbacks to the development of the area. Attempts to stimulate a greater degree of stability with the inauguration of weekly/fortnightly steam-ship services at the turn of the century were of no avail. The low patronage bestowed on these services is again attributed to the high charges,

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(1) Extract from Memorandum submitted by the Ceylon Chamber of Commerce to the Governor in Council - 23rd October, 1878, indicating the delay to traffic between Colombo and Badulla.

	Estate	Consignment	Date despatched from Colombo	Arrivals in Badulla	Time Taken
1.	Dambatenna	Poonac	17.10.1877	17. 5.1878	7 months
2.	- do -	"	27.10.1877	21. 3.1878	5¾ "
3.	Monakanda	"	27.10.1877	20. 3.1878	5¾ "
4.	- do -	Rice	24.11.1877	16. 3.1878	4 "
5.	- do -	"	28. 5.1878	Not arrived	5 "
6.	Diaculla	"	9. 7.1878	" "	3½ "

(Sessional Papers of 1879)

and long journey times. Over a period of time, the services turned out to be uneconomic and had to be sustained by a substantial Government subsidy.(1)

Transport by road, on the other hand, showed no significant improvement. The Central Road that connected the Jaffna District with the Wanni and Anuradhapura was not worthy of its name. The conditions of the roads that connected Anuradhapura with Trincomalee and Mullaiteevu were neither adequate to justify the efficient movement of heavy and frequent traffic.

1.5.3. Coast Line

It is pertinent that the motivation for the construction of the Moratuwa railway in 1877, and its extension to Matara in 1897, was not coloured by prospects similar to those associated with the coffee, tea and rubber industries, although cinnamon and cinchona have been profitable sources of traffic. The necessity to connect the rapidly developing areas of the south, particularly the residential Moratuwa, and the industrial Kalutara, with Colombo, was an inevitable decision of the authorities who were least doubtful of the economic viability of the project.

1.5.4. Batticaloa-Trincomalee Line

The construction of a railway to the eastern part of the island rested partly on the urgency of a sound system of communication between Colombo and the naval base at Trincomalee, and partly on the expectation

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(1) The Ceylon Steamship Company Ltd. provided fortnightly services between the ports of Colombo, Galle, Hambantota, Batticaloa, Trincomalee, Pt. Pedro and Kankesanthurai. The subsidy was £6,000 a year, plus Rs. 6,000 to meet harbour and port dues.

that with rail construction the prospects of developing the areas through which the railway were to run, and those lying in and around Trincomalee and Batticaloa would be enhanced. Fertile lands, suited to rice, have remained unproductive for want of transport.

In respect of Batticaloa, there were extensive coconut plantations and their development was much anticipated. The major portion of the coconut and rice produced in that area was transported by sea, while making use of road transport for limited short distance carriage.

1.5.5. Talaimannar Line

The shortage of labour posed a grave problem to the tea and rubber industries. The reluctance on the part of the indigenous population to wage earning employment in the plantations made it imperative that the alternative lay in the introduction of immigrant labour from India. With the further expansion in the industries the position worsened, and the urgent need of immigrant labour was more pronounded.(1)

Immigrants entering the country either used the Great North Road from Mannar, or the Kandy Road, if through Colombo. The alarming problems associated with transport on the Great North Road made it inevitable for the greater use of Colombo, and the Kandy Road, which route was subsequently affected by the development of the railway to Kandy, and beyond. The following figures show the pattern of movement on the two routes.

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(1) In 1870 90% of the labour force on the estates was of Indian origin. Even as late as 1931 the plantations depended on Indian labour for 85% of their work force.
1871 - 123,654; 1881 - 206,495; 1891 - 262,262; 1901 - 341,601; 1911 - 513,467; 1921 - 568,850; 1931 - 780,376.
(Source - Registrar General - Vital Statistics (Series)).

Immigration of labour

Year	- Tuticorin/Colombo/Kandy Route	- Dhanuskodi/Mannar Great North Road	- Thondi/Pampan Colombo/Kandy Road
1888	29,902	51,838	-
1889	26,957	34,131	-
1891	54,849	47,254	-
1893	56,509	34,564	-
1894	55,745	29,062	-
1895	71,790	31,472	-
1896	99,701	28,231	-
1897	195,314	27,431	-
1899	67,980	143	9,537
1900	207,299	433	37,200
1901	120,333	29	15,614
1902	87,546	-	9,586
1903	63,135	-	10,485
1904	76,968	-	13,466
1905	160,080	-	25,269

(Source:- Planters Association of Ceylon - Proceedings 1906).

The influx of immigrants, which in recent years has precipitated very many socio-economic problems, was systematically aided by the planters. The economics of the Talaimannar railway, more or less, revolved around the question of Indian labour, and its construction was deemed to fulfil the prime essence of labour mobility. It was stressed that the growing needs of the tea and rubber plantations would remain unsatisfied in the absence of a direct link with the Indian mainland from where a steady stream of labour was assured.(1)

(1) "I have already alluded to the commercial and strategical reasons which render connection with India of such great importance. From the local point of view I may repeat that it is the only satisfactory solution of the labour question wherein lurks, in my opinion, the chief danger to the tea industry" -
Sir West Ridgway, Governor, to the Colonial Office, 1905.
"The urgency with regard to the Madawachiya/Mannar extension grows daily because of the prospective requirements of labour in connection with the extending cultivation. In three or four years time we shall certainly require not less than 120,000, or 33% more largely for our rubber plantations and what we must do is to make
(Contd.)

Although the economic viability of the rail link remained interwoven with the development of the plantation industries, the expansion of trade with India, the island depending heavily on Indian foodstuffs, ensured far quicker returns than many other projects already undertaken. Figures pretaining to imports of foodstuffs prior to the opening of the railway are illustrative of the pressing need that there was for its construction, whilst those of passenger movements, between Talaimannar and the plantation districts, after its construction, fully justified the demands for it.

Imports of Rice (in bushels) from India

1870	-	4,735,832	1896	-	7,315,785
1875	-	5,276,192	1898	-	7,382,120
1880	-	5,513,532	1900	-	7,875,820
1885	-	5,704,129	1903	-	8,110,755
1890	-	6,744,145	1908	-	9,224,000
1892	-	6,975,200	1910	-	9,655,250
1894	-	7,201,000	1913	-	9,763,000

Passenger Movements on the Talaimannar Railway

Year	Arrivals		Departure	Total
	Labourers	Miscellaneous		
1913	120,354	68,074	148,978	337,406
1914	78,662	95,370	160,161	334,193
1915	94,828	81,409	160,028	336,265
1916	115,713	84,433	172,902	373,048
1917	47,296	58,620	130,117	236,033
1918	43,184	60,744	116,227	220,155
1919	112,391	78,737	147,465	338,593
1920	45,946	90,753	146,247	282,946
1921	25,496	81,102	127,107	233,705
1922	77,414	97,155	145,737	320,306
1923	89,607	100,905	147,860	338,372
1924	153,989	104,954	156,523	415,466
1925	125,378	126,505	179,796	431,679
1926	101,746	132,792	201,053	435,591
1927	159,399	143,768	231,828	534,995
1928	271,869	Not available	216,061	-

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access to Ceylon much easier for Indian labour." -
Chairman, Ceylon Chamber of Commerce, 26.2.1907.

Passenger Movements on the Talaimannar Railway (contd)

Year	Arrivals		Departure	Total
	Labourers	Miscellaneous		
1929	238,141	Not available	241,972	-
1930	206,091	" "	241,216	-
1931	169,191	" "	195,505	-

Source:- Ceylon Hand Book (Series)
Registrar General, on Vital Statistics (Series)
Ceylon Customs Returns
Ceylon Government Railway Returns.

1.5.6. Chilaw Line

The districts of Negombo, Chilaw and Puttalam have been comparatively well served by the Toppu - Puttalam and Negombo canals, in addition to the cart roads, but it was felt that the coconut industry should not be deprived of the benefits of cheaper rates and faster services that rail transport would afford.

The railway to Chilaw, and thence to Puttalam, was, as such, a project undertaken purely to satisfy that industry. The progress made by this system was satisfactory until rudely disturbed by the advent of the motor vehicle.

1.5.7. Matale Line

The extension of coffee cultivation to the Matale district could not have been possible in the absence of an efficient system of transport. Road transport was inadequate to meet the requirements of the district, and, as such, an extension of the Kandy railway was eagerly desired.

The 17 mile extension was an immediate success, but with the destruction of the coffee crop in the late eighties its earnings dwindled considerably. Although the subsequent use of the lands for the cultivation of tea ensured traffic to the section, yet later, with the development of road motor transport, its importance has lessened.

1.5.8. Kelani Valley Line

Whilst the construction of the Main Line was influenced by the coffee industry, the successful cultivation of tea and rubber in the fertile valleys of the Kelani Ganga and Kalu Ganga, dictated the need for the Kelani Valley railway. Although the inadequacy of the prevalent means of transport in these regions, both road and river, was greatly felt, yet the delay in establishing the rail link between Colombo and Yatiyantota, Ratnapura, and Opanayake, was unduly long. By the time it was initiated and completed a pretty long time had elapsed, and much of the initial transport requirements of the nascent industries were left unsatisfied.

It is not inapposite to maintain that the construction of the Kelani Valley and the other sections was delayed by more than twenty years, in each case, due to the vacillatory attitude of the authorities, both in Ceylon and in London. The insistence of the Colonial Office on the provision of a rail link between Colombo and the northern part of the island, as a precondition for the approval of the Kelani Valley section, was viewed as a novel policy, commercially unaccommodative, and incompatible with the economics of both the plantation industry and the operation of the Railway. The considered view of the planting community was that railroad construction and its development were entwined with the plantation industries, and that the scope for sumptuous dividends on investments lay more in that direction rather than from the construction of railroads in the non-planting districts.(1)

(1) In 1905 the profits from 250 miles of railway in the planting districts were £262,000 while amounting to £43,000 for 310 miles in the non-planting districts.
(Quoted by the European Member in the Legislative Council - 1905).

On the other hand, the wisdom of deviating from a policy of broad gauge, and the construction of this section on a narrow gauge is to be gravely doubted. It is the contention that had it been laid on a broad gauge a major portion of its present financial difficulties would not have arisen; but even as late as 1907 a section of public opinion was insisting that the construction of the Main Line section beyond Nawalapitiya on a broad gauge had been a serious mistake.

1.6 Early Role of the Railway

The construction of the Railway was motivated by many factors, of which the excessive cost of transport was one. Hence, the immediate objective of the promoters was to afford relief to the coffee industry in that direction. Although initially, with the construction of the Colombo-Kandy railway, the coffee planter shouldered part of the capital expended on it through a levy on the coffee exports, he derived compensatory benefits by way of large reductions in transport costs. In 1867 the cost of haulage per ton by rail was about Rs. 10 as against Rs. 45 for road transport.

The second factor was related to transit time. It is noticeable that a considerable reduction in the time taken for the movement of freight traffic was achieved with the Railway. In 1867 trains ran twice daily between Colombo and Kandy, increasing in frequency with the expansion in traffic. The time taken was five hours as against the average of thirty hours by horse carriage, for light traffic, and more than a hundred hours by bullock cart, for heavy traffic.

The third was regularity, a feature conspicuously lacking in transport at that time, but assured with rail transport. The factors determinant in respect of this quality with road transport were the weather, the availability of draught cattle, and the degree of persuasion necessary to make the carters give their best.

The last factor was: rail transport assured freedom from damage, theft and pilferage, which were risks common with road transport.

With the eclipse of the coffee plant and the development of tea the viability of the Railway was far more assured. It achieved a position of importance with its capacity well acknowledged and its services sought after. It profited from the monopoly position it was afforded with the rejection of its only competitor, the bullock cart, as archaic and unfit to meet the ever increasing needs of the plantation industries, and those of the economically changing society. It aroused high hopes among investors and commercial men alike over its future potentialities. Its development was closely followed by an expansion in the island's economic activities; yet at times, the authorities were wary of further rail extensions.

The absence of detailed figures precluded an assessment of the success of the Railway, and to the determination of the part played by it in the economic development of the country. However, it is not to be gainsaid that it was the instrument of initiation and subsequent development of activities in all walks of life.

The economy of the country was based on agriculture. Each economic unit was, in a way, self-sufficient. The demand for transport was low, but the gradual transformation of the purely agricultural

economy to that based on commerce and industry, and the expansion of social activities enhanced the need for more and efficient transport facilities. The expansion and concentration of population at centres located far apart demanded more flexibility in the movement of labour and materials, food and clothing, and other goods that a developing society needed.

The contribution of the Railway towards agricultural development stands to be acknowledged. Large tracts of land suited to agriculture have remained unproductive for want of an efficient form of transport. The increased demand for foodstuffs was being met not by an expansion in indigenous production, but by imports from India and Burma. The Railway changed this picture. More lands were brought under cultivation, facilitated by the concessions granted by the rail administration. Agricultural labour was carried at very low fares; paddy and rice, locally grown, were transported free of charge for a considerable period.[1] Cheap rates were offered to other traffic of agricultural nature. But its role in the development of the island was significantly displayed with its tremendous achievements in the sphere of plantation agriculture. The varied demands of the coffee, tea, rubber, cocoa and coconut industries were well accommodated. Whether it was the movement of produce from the plantations to the points of export; the transport of manure for the crops or foodstuffs for the rapidly growing plantation population; the carriage of equipment and machinery pertinent to the respective industries; or the transference of labour from one distant point to another, the Railway afforded relentless service and earned island-wide approval of its efficiency.

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(1) It was only in 1926 that a charge of 4 cents per ton mile was made on paddy and rice, locally grown.

The Railway was, in no less way, a contributory factor to the rapid development of the country's road system. Road building, with its demand for the carriage of heavy materials for bridges and other subsidiary items, such as tar, and gravel was suitably accommodated by the Railway, unaware of the potent difficulties road transport held in store for it.

1.7 First World War and Expansion of Road Transport

The progress made by the Railway at the turn of the century was interrupted by the First World War. The administration's inability to secure essential materials, especially coal, and the reduced demand for its services, arising from the lack of overseas demand for the plantation produces lowered the volume of rail operations thereby affecting the undertaking's earnings.

Year	Number of passengers carried	Tonnage carried	Receipts	
			Coaching	Goods
1913	11,281,810	984,823	Rs. 6,848,451	Rs. 8,602,599
1914	12,335,941	999,822	7,490,404	8,747,589
1915	11,004,434	1,043,543	7,064,650	9,073,111
1916	12,730,497	1,210,635	8,349,613	10,206,843
1917	12,935,742	1,250,482	8,540,243	10,638,976
1918	9,002,729	1,111,349	7,634,790	10,153,377
1919	8,766,459	995,907	8,577,182	9,173,611
1920	10,396,004	1,050,801	10,041,893	9,702,882
1921	11,262,657	863,120	10,342,088	9,500,145
1922	12,189,263	991,447	10,751,935	10,549,822

(Source: Administration Reports - General Manager, Railway).

With the War over conditions were not entirely satisfactory. Ominous changes in the structure of inland transport were visible, especially during the third decade of the century. The introduction of the internal combustion engine in 1902, and its gradual adoption for purposes of traction, were to affect the Railway. However, though there was no immediate danger of loss in its earnings, it felt the pinch in later

years with the increase in the number of vehicles and with an expansion in their activities. The growth in the motor vehicle population is illustrated by the following figures.

Year	Number of vehicles
1902-09	4,159
1912	4,762
1915	5,924
1916	6,514
1917	6,640
1919	6,875
1921	8,390
1922	8,921
1924	11,064
1926	17,340
1927	20,978
1928	24,859
1929	29,226
1930	31,140
1931	31,877
1932	32,857
1933	34,031
1934	36,935
1935	40,305

(Source: Administration Reports of the Commissioner of Motor Traffic).

1.8 The 'Depression' and Road Competition

The Railway in Ceylon, in common with railways all over the world, occupied an undisputed position in the field of inland transport for nearly six decades. During the 1930s the effects of the 'depression' severely retarded its progress, and although with conditions returning to normal its recovery was anticipated, it did not, however, materialise on account of the heavy inroads made by the motor vehicle. The dominant role of the Railway seemed to diminish, accentuated by the further expansion in the road transport industry. Competition developed to high proportions, resulting in the abstraction of great portions of its profitable traffic.

Competition from road transport was more pronounced after 1920 and the serious nature of the situation necessitated the appointment in 1925 of the Stratchan Commission, which observed "that while every encouragement was afforded for the development of road traffic yet traffic that would be costly by road should necessarily be diverted to rail".[1] It is evident that the pattern of development of road transport was not in the interests of the Railway, and that the nature of competition between it and the road operators possessed deleterious consequences. Nevertheless, the authorities anticipated that the road operators would, without directly competing for traffic which the Railway had already secured, concentrate on the untapped resources by operating services to centres of activity where railroads did not run, and thereby not only secure adequate traffic for themselves, but also provide additional traffic for the Railway. But instead of the anticipated cooperation, the Railway sustained severe competition although in the intervening years regulatory measures were adopted, which, however, proved to be inadequate. The effects of road competition on the earnings of the Railway are visible from the following figures:

Year	Receipts	
	Passengers	Freight
1920	10,342,088	9,500,145
1921	10,751,935	10,549,822
1922	11,243,597	12,775,588
1923	12,203,422	14,591,689
1924	11,736,503	15,630,320
1925	12,575,701	16,282,038
1926	13,172,787	16,414,096
1927	13,929,799	16,796,693
1928	14,504,473	17,051,056
1929	13,709,205	15,308,678

(1) Sessional Paper XXXV of 1926 - Para. 60.

Year	Receipts	
	Passengers	Freight
1930	11,284,880	13,462,428
1931	9,731,824	11,414,841
1932	8,734,604	9,950,226
1933	9,169,246	10,721,003
1934	7,756,237	9,962,611
1935	6,995,060	9,189,755
1936	7,030,767	8,624,370
1937	7,140,466	8,266,012
1938	6,840,292	7,979,273

(Source: Administration Reports - General Manager, Railway).

After 1933 the situation deteriorated and the Railway was perforce driven to prune its uneconomic services. It was felt that with an adjusted pattern of operations it could meet the threat of road competitors. The Hammond Commission was of the same view while recommending the closure of the following uneconomic sections:(1)

1. Negombo - Puttalam - 59 miles
2. Kandy - Matale - 18 miles
3. Batticaloa - Trincomalee - 175 miles
4. Nanuoya - Rægalla - 19 miles

1.9 Second World War and after

The situation would have worsened far more if not for the dramatic entry of Japan into the Second World War. With the escalation of the war, the demand for rail services expanded, affording the Railway an opportunity to demonstrate its capacity and regain its lost dominance.

The total embargo on imports of motor vehicles and spare parts severely curtailed expansion in the number of vehicles on the one hand, while restrictions on the supplies of petroleum curbed their activities, on the other. These were favourable conditions for the Railway, and with

(1) Sessional Paper XII of 1937 - Report on the Transport System of Ceylon.

the increased demand from the armed services it was comfortably placed to regain its lost position, but only to lose with the termination of hostilities.

The performance of the Railway during the period of the war is praiseworthy. In face of a drastic cut in supplies of fuels and the inability to procure materials, for both its permanent way and mechanical divisions, it demonstrated with distinction its capacity to accommodate unexpected demands under taxing conditions. The war over it emerged emaciated and unfit to combat the competition from road transport. The road industry was, however, strengthened by a substantial increase in the number of vehicles.

During the war the following sections were abandoned:-

1.	Avissawella - Yatiyantota	- 12 miles
2.	Nanuoya - Ragalla	- 19 "
3.	Bangadeniya - Puttalam	- 32 "

The seven mile stretch between Polgahawela to Rambukkana was converted from double to single track.

The Kelani Valley Line has been a source of continuous drain on the resources of the administration on account of its uneconomic working. Of the other two sections declared uneconomic by the Hammond Commission, the Batticaloa - Trincomalee showed signs of resuscitation, initially during the war years, and later with the inauguration of agricultural and colonisation projects in the Polonnaruwa, Hinguraksoda and Kantalai districts, and with the development of the Galoya Valley, in the Batticaloa district. The earnings from this section have shown marked improvement during the course of recent years. Its future is more encouraging in view of further development of areas served by both the sections.

The other section, Kandy - Matale, of course, continues to be a source of concern, but a decision over its future is being continuously postponed.

A closer examination of the performance of the Railway since its inception confirms that it has successfully maintained a stable financial position until 1933. From 1934 to 1939 it experienced difficulties, initially due to the 'depression', and later to competition from the road operators. Its recovery during the war years was short-lived, when again difficulties set in and continued to the present day. The difficulties during the decade following the war cannot be wholly attributed to competition from road transport. There have been other factors as well, an examination of which show that the entire question of rail operation needs a new approach of thought and action.

In 1946 the Administration acceded to Trade Union demands for an increase in wages and salaries, and better conditions of service, which included a curtailment in the hours of work from 72 to 48 per week.(1) These concessions, in addition to the enhanced payments for the purchase of stores, permanent way materials, fuels,etc. directly increased its operating costs. While the working expenditure in 1945 has increased three-fold over that of 1938, prices for its services have remained static, bearing no proper relation to the costs of providing them.(2) Subsequent wage and salary increases in 1955 and 1956 further increased its working expenditure. These were handicaps, in addition to others, militating against the Railway's unequal struggle with the road operators.

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(1) Sessional Papers 20 of 1945 and 8 of 1946.

(2)

1938	1945	% Increase
Rs. 19,237,147	Rs. 64,096,361	325

On the other hand, the road operators were freed of many of these handicaps. They too shouldered increased expenditure in respect of wages, salaries, fuel and accessories, but the increase has not been disproportionate to their earnings, as with the Railway. Although regulations governing conditions of employment, and the operation of vehicles have existed, opportunities to evade them have also not been wanting. It is thus apparent that conditions were not favourable to the Railway in many ways and there has existed no satisfactory basis of comparison between the two forms of transport and to judge the Railway's failure nor the success of the road operators.

In addition to competition from the road hauliers and regular stage carriers, the Railway lost traffic to another category of road operators, private in name, but who maintained services for hire, with station wagons and vans. Their prosperity was more due to the absence of a rigid enforcement of the laws regulating their activities rather to any particular efficiency in providing the services. They affected not only the earnings of the Railway by providing services in direct competition with it, but also jeopardised the prospects of the regular road operators with their illegitimate and ill-disciplined operations.

1.10 Investigations into Road/Rail Transport

The serious problems arising from the development of road transport have been investigated at various stages.

1.10.1. The Stratchan Commission, 1926[1]

The impending effects of road competition were visualised by the Stratchan Commission, which emphasised the 'urgency to turn uneconomic road traffic into remunerative rail traffic'. The Commission was of the opinion

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(1) Sessional Paper XXXV of 1926 - Transport in Ceylon.

that the Railway, being a public concern, should be afforded the opportunity to earn a reasonable return on its investments, though, however, by such a policy no other form of transport was penalised.

1.10.2. The Hammond Commission, 1937[1]

The Hammond Commission which dealt at length with the problems of both road and rail transport was not agreeable to protection for the Railway. Nevertheless, it emphasised that a proper system of operation of the two forms of transport was essential in the interests of both the operators and the users. The Commission's revelation of the chaotic conditions prevalent in the road industry, consequent upon unrestricted competition, resulted in the Motor Ordinance, No. 45 of 1938.

1.10.3. The Nelson Memorandum, 1942[2]

The Nelson Memorandum was more critical of the trend of later developments in road transport. It expressed the urgency to remedy a deteriorating situation. The Ordinance, No. 47 of 1942, which followed this Memorandum set forth certain regulatory measures which, however, were more pertinent to passenger transport rather than to freight haulage. Yet, many of the observations made on road haulage were given consideration and embodied in subsequent legislation.

1.10.4. The Donald Rutnam Commission, 1948[3]

The Donald Rutnam Commission was satisfied that unbridled competition, both among the road operators, and between the road and rail industries, was

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(1) Sessional Paper XII of 1937 - Report of the Special Commission on the Transport System of Ceylon.
(2) This Memorandum to the Minister of Transport originated from Mr. Nelson, Director of Motor Transport.
(3) Transport in Ceylon - 1948.

the primary cause of the unsettled state of affairs. While dealing with the problems in detail, Mr. Rutnam was cautious in his expressions on the difficulties of the Railway. He was not hasty to conclude that the recurrent losses were entirely due to its inefficiency, but reminded that they were due partly to the absence of an effective system of road/rail coordination, and to the inadequacy of charges for the rail services. The outcome of his recommendations was the Transport Act, No. 14 of 1951.

1.10.5. The Jayaratne Report, 1956(1)

The continued unsatisfactory conditions in road passenger transport called for a thorough investigation into that branch of industry. The culmination of the investigations was the Motor Transport Act, No. 48 of 1956, by which all bus undertakings were nationalized. The formation of the Ceylon Transport Board is a landmark of progress in the field of road passenger transport in the island. The Act laid much emphasis on road/rail coordination.

1.10.6. The Committee on the Road Haulage Industry - 1957/58(2)

The Report of the Committee, appointed to look into the position of the road haulage industry and its coordination with rail transport, in the light of the Traffic Act, No. 14 of 1951, possessed some far reaching recommendations favourable to the Railway. But those, in addition to the main provisions of the Act, were set aside in 1959.

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(1) Sessional Paper XIII of 1956 - (Scheme for the Nationalisation of Omnibus Transport in Ceylon).

(2) Sessional Paper XII of 1958 - (Report on the Road Haulage Industry and its Coordination with Rail Transport).

1.10.7. The Amerasinghe Commission, 1967[1]

Unlike other investigating bodies, this Commission has laid emphasis on the question of economic coordination in transport. It is specific not to suggest restrictions on road transport as a measure of coordination. However, it would seem that no concrete proposals are offered to achieve that objective. The suggestion that the Railway should enhance its efficiency both by investing on new equipment and by evolving better techniques to ascertain the costs of its services appears to be nothing but an attempt to reduce the undertaking's working deficits.

An analysis of the economic use of the scarce resources has not been attempted nor have suggestions been made to remedy the present inequalities in road/rail operations. Nevertheless, valuable suggestions have been offered towards coordinating policy at a higher administrative level/feature, which however, cannot be relied upon to achieve the economic objective of a transport policy, or to determine the role of the Railway.

(1) Sessional Paper XXII - 1967 - Report of the Transport Commission.

CHAPTER 2. DEVELOPMENT OF ROAD TRANSPORT AND ITS EFFECTS ON THE RAILWAY

2.1 Freight Traffic during the Inter-war years

Freight traffic constitutes an important factor in the success of the Railway, and it is worthwhile to discuss the circumstances which have led to its present difficulties in securing traffic. The predominant feature is competition from the road operators.

In 1925 the number of haulage vehicles was 1,001, the majority of which operated in and around Colombo. In that year the tonnage carried by the Railway was 1,207,580. The absence of statistics entails difficulties in measuring, in any precise way, the probable tonnage carried by road vehicles, but there is no reason to suspect that the traffic they carried was of great dimension, and in consequence, the effects on the Railway injurious, for, side by side, with the development in road freight haulage, there was a fair increase in the rail tonnage. However, that feature is not a manifestation of the lesser inactivity among the road operators. Their activities, with those of the Railway, have been closely associated with the general economic expansion in the island, and a closer examination of the situation prompts one to accept the view that the road operators were much ahead of the Railway in securing fresh traffic generated with economic expansion, and at a later stage, in attracting traffic normally carried by the Railway. This is conspicuous, when in 1930, the rail tonnage declined to a figure of 1,256,519, about 126,000 tons less than for the year 1927. In comparison the number of road haulage vehicles was 3,001, an increase of 200% over the figure for 1925.

The following figures delineate the trend in rail freight since 1925 -

Year	Tonnage
1925	1,207,580
1928	1,361,816
1930	1,256,519
1932	971,641
1935	988,484
1936	895,238
1937	896,098
1938	907,116
1939	894,519

A scrutiny of the figures in respect of rail tonnage on the one hand, and the expansion in the number of haulage vehicles, on the other, shows that the fluctuations in rail traffic and the variations in the number of haulage vehicles have been to a great extent correlated. In 1935 the tonnage carried by the Railway dropped to 988,484, nearly 268,035 tons lower than that for 1930. This fall, however, is attributable partly to the effects of the depression, and partly to those of competition from road operators, but the fact that the wider activities of the operators coincided with the depression poses obstacles in isolating the effects of road haulage activities from those of the depression.

With conditions returning to normal an improvement is discernible, but the increase in custom was yet below that of the pre-depression days. It is hence obvious that the Railway had not only failed to secure its due share of the increased traffic, but equally lacked the capacity to recover that portion of traffic lost consequent upon the effects of both the depression and the activities of the road operators.

Competition for traffic was severe during the intransigent days of economic instability, assuming deplorable proportions, even permeating

among the road operators themselves. With a shrinkage in the volume of traffic offered the tendency was characteristically to appropriate as much as was possible. Rate cutting was rampant, and soliciting for traffic possessed diversified forms. Rates have at times been much lower than the actual costs of operation, yet were adhered to sustain the short term benefits - to acquire goodwill and possibly to secure and retain traffic until opportune days came around. The form of counter attack the Railway evolved was an increase in freight rates, the withdrawal of the concessions long granted for agricultural produce, and the adoption of such measures deemed necessary to arrest the downward trend in freight earnings, but which unfortunately contributed towards a greater diversion of traffic to road, attracted by the less-than-cost-of-operation rates offered by the road hauliers.

2.2 Freight Traffic after 1945

In 1939, on the eve of the Second World War, the haulage vehicles numbered 4,408 whilst the rail tonnage declined to 894,519, a figure obtained half a century earlier. With the war, the tonnage increased, and in 1940 reached a figure of 1,018,030, a mere increase of 30,000 tons over that of 1925. The swing towards freight expansion continued until 1945, when in that year the tonnage was 1,699,055. However, with the cessation of hostilities and the availability of road vehicles, not only those that were freed from war-time immobility, but also of those surplus service vehicles disposed of to civilians at fabulously low prices, competition took great strides. The following figures disclose the growth in the number of road haulage vehicles since 1939.

Year	Number of haulage vehicles
1934	3,218
1939	4,408
1945	5,200
1949	10,286
1950	11,160

In 1945 the haulage vehicles numbered 5,200, but four years later the number rose to 10,286. On the other hand, in 1946 one year after the termination of hostilities, rail tonnage fell by more than 330,000. This fall is not wholly attributable to the road hauliers, for a fair proportion of the traffic carried during the period of the war consisted of military traffic and was bound to disappear after 1945. Notwithstanding, the activities of the hauliers were considerable. In 1947 the rail tonnage was 1,110,343 which figure, although greater than for 1940 was yet lower than that which was carried in 1925. The tonnages carried annually since 1940 are as follows:-

Year	Tonnage
1940	1,018,030
1941	1,137,594
1942	1,172,904
1943	1,312,704
1944	1,552,584
1945	1,691,055
1946	1,369,211
1947	1,110,342
1948	1,199,523
1949	1,267,936

The shortcomings of the Railway are due to its susceptibility to unfavourable competition from road transport, caused on the one hand by the absence of big bulk traffic such as coal,iron ore, heavy industrial goods, etc., that demand low rates which the Railway could offer, and on the other, by the prevalence of proportionately shorter route distances by road, resulting from the small size of the country. The main commodities that require transport are those of high value but small in bulk - tea,

rubber, coconut products, fertiliser, cement, etc. and those of a perishable nature, such as, fish, fruits, vegetables, milk, etc. Colombo, the focal point and chief centre of commercial and economic activities, is situated at a point, the distance between it and many of the important provincial towns being on average, less than 200 miles.

The circumstances were most favourable to road hauliers. Although the number of vehicles was doubled during the short span it cannot be taken for granted that the loss of traffic to the Railway was just twice that which was lost earlier. It was more than that, for the hauliers, both new entrants and the existing ones, endeavoured to maximise earnings by operating services over and above the normal estimates dictated by economic principles. Such a deduction holds good on the face of the fact that the majority of the road operators were owner drivers, freed from the fetters of employment restrictions, and that a fair proportion of the vehicles were obtained under a system of hire purchase. The former feature enabled maximum utilisation of vehicles and the latter compelled owners to seek maximum earnings to effect a quicker settlement of hire purchase dues. It is safe to assume that the loss of traffic to rail was greater than it would have been had the road vehicles been merely doubled in number.

2.3 Traffic Act, No. 14 of 1951 and after

A significant improvement ensued with the passage of the Traffic Act No. 14 of 1951. The increase of 224,577 tons over the previous year although of long distance nature was, nevertheless, not the total volume available for diversion from roads. Haulage by road of long distance traffic still continued. Permits were being issued to hauliers who had

held licences before December 1949, and for haulage vehicles owned by Government institutions and other prescribed public bodies.

The Act was designed to divert to rail substantial traffic then carried by road. The route permit system was to afford the Railway the opportunity to put its capacity to maximum use, but developments were contrary to expectations resulting in demands for a review of the whole issue.

Shippers and traders alike alleged that the rail facilities were inadequate and insisted that, in order to avoid the strangulation of commerce and industry, it was of urgent necessity that the then existing dependence on rail transport was removed.

Whilst the monopolistic position accorded to the Railway by the Act was being decried by the road hauliers, in particular, the Railway lamented over the inadequacy of the law. It contended that the full weight of the Act was not exerted and that the road hauliers were able to erode a good portion of its legitimate traffic by subtle means.(1)

The Railway's most promising year was 1956/57; the tonnage carried was 1,812,238. The favourable situation was due to the Suez Canal crisis. The curtailment of supplies of motor fuel during that period reduced road operations to a very large extent, forcing shippers and traders who had hitherto patronised the road to turn to the Railway, but the restoration of normal supplies of fuel caused a fall in traffic by 287,535 tons whilst the increase, due to the disruption in supplies, was only 187,008 tons over that of the previous accounting period.

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(1) This cannot be wholly denied. It should be recognised that in the face of the restrictions on long-distance haulage imports of haulage vehicles have averaged 1,300 a year.

The spectacular expansion in rail tonnage immediately following the implementation of the Act is a reflection of the effectiveness of its enforcement, but in and after 1953, although increases in traffic were not absent, they were inadequate in the face of the wider economic activities. The Railway insisted that with the passage of time enforcement of the law was weakened, which view is strengthened by the fact that in 1952, two years after the implementation of the Act, the increase in rail traffic (and the consequent loss to road) was in the region of 334,000 tons, whilst in 1960, immediately after the withdrawal of the provisions of the Act, the loss to rail (and the consequent gain to road) was only 30,000 tons. Regardless of other considerations it is obvious that in the face of the restrictions road hauliers had deprived the Railway of 304,000 tons of its 'legally' accruable traffic. The extent of the success of the Act is illustrated by the following figures for freight traffic since 1951.

Year	Tonnage
1950	1,280,891
1951	1,505,468
1952	1,614,054
1953	1,581,590
1954	1,592,545
1955	1,604,373
1956	1,624,730
1957	1,812,238
1958	1,524,703
1959	1,564,178
1960	1,534,313
1961	1,543,270
1962	1,501,132
1963	1,525,502
1964	1,585,504
1965	1,442,381

(Source: Administration Reports - General Manager, Railway).

2.4. Present conditions

Having discussed the circumstances that led to the difficulties of the Railway, a look at its present position is not out of place. In 1965 the freight carried by the Railway amounted to 1,442,381 tons. The composition of the traffic was as follows:-

Commodity	Tonnage	% of total tonnage
Tea	56,063	3.86
Rubber	2,493	.17
Coconut & coconut produce	25,506	1.76
Rice (locally grown)	122,010	8.40
Rice (Imported)	404,874	27.87
Flour (Imported)	136,463	9.39
Sugar	16,240	1.12
Cement	52,112	3.59
Petroleum products	245,707	16.98
Fertiliser	94,476	6.55
Salt	7,585	.56
Manufactured goods	36,175	2.50
Agricultural goods (local)	46,208	3.30
Foodstuffs (Imported)	22,028	1.52
Timber and firewood	24,367	1.68
Bricks, Tiles etc.	11,016	.86
Livestock	10,523	.82
All other traffic	128,585	8.97
	1,442,381	100.0

From the following figures it is possible to gauge the extent to which the Railway has lost custom from the different categories of traffic. The set back, however, is not altogether attributable to the unsuitability of rail transport, as has been commonly adduced, but partly to many other shortcomings. These are examined in subsequent chapters.

	1953	1955	1957	1958	1960	1962
Tea	94,048	92,190	96,048	88,898	80,824	76,682
Rubber	20,022	16,633	19,979	9,994	3,434	2,838
Coconut & coconut products	25,209	24,485	27,937	22,579	24,669	34,227
Paddy (Rice) local	157,841	129,185	147,450	152,651	135,221	162,715
" (Imports)	527,522)	427,121	500,225	430,738	446,795	429,259
Wheat flour	-)	136,421	167,000	165,115	163,330	170,885
Sugar	18,229	19,852	25,062	21,163	15,101	22,243
Cement	61,130	66,512	90,273	44,264	43,979	39,523
Petroleum	175,363	190,736	197,058	185,097	199,346	188,075
Fertilisers	104,175	101,110	108,985	113,980	88,571	72,875
Salt	36,145	32,727	23,347	25,135	38,705	21,768

(Source: Administration Reports - General Manager, Railway).

2.5 Passenger Traffic

The fall in custom for rail passenger services also stemmed from the same causes associated with the fall in demand for freight services. In 1965 the earnings from passenger traffic amounted to Rs. 51,802,267, representing 53.6% of the total takings for that year. This figure, although substantially high and seemingly in favourable relationship with that of freight earnings is, however, not a pointer to the economic nature of the services.

The Railway has been able to attract substantial passenger traffic even after the turn of the century. The number of passengers carried in 1912 was 200% more than that carried in 1900. Revenue earned from passenger traffic was doubled during the same period. The increased use of the motor vehicle did not affect the Railway's finances for another two decades.

The third decade, however, witnessed a rapid expansion in road passenger transport. The private ownership of motor cars was extended,

while the use of omnibuses for short distance travel was greatly desired. With the gradual competition for traffic from road operators rail earnings began to be affected. Conditions were so bad as to demand some regulatory measures. Though the Ordinance, No. 20 of 1927 offered some solace, further deterioration in the situation demanded stronger measures. The Hammond Commission endeavoured to consolidate the position, and the Motor Ordinance No. 45 of 1938, although it substantially enlarged regulations over road transport, was yet found to be inadequate. As with freight haulage, road passenger operations were a mixture of the evils of rate cutting, the non-observance of safety regulations, abuse of legislation in respect of employment, etc.

Figures in respect of the years 1901-1932 are indicative of the change in the pattern of traffic development. The expansion in the plantation industries; the effects of the First World War, especially in 1918 and 1919; the development of road transport; and the prelude to the depression, have been well illustrated.

The Second World War demanded yet stronger measures, particularly to achieve a rationalised pattern of transport system in the face of the limitations imposed by the shortage of fuel and spares for both road and rail operations. The Ordinance of 1942 was thus aimed at creating limited omnibus companies with a view to combating the evils of unbridled competition among the hundreds of one-man-one-vehicle operators.

During the war the Railway lost substantial earnings from civilian travel; the road operators were equally affected. But, the Railway augumented its revenue by the carriage of personnel of the armed forces.

On the eve of the war the rail revenue from passenger traffic was very low - Rs. 6,840,292, the lowest since 1912, but with the war the figure reached new heights, when at the peak of the war in the Eastern Theatre (1944-45), it was Rs. 30,517,053, an increase of 400% over the figure for 1939.

It is noticeable that unlike in the field of freight transport the earnings of the Railway in the passenger side, immediately after the war, were satisfactory. The decade following the war coincided with political independence for the country, which factor was instrumental for a stream of activities, both social and economic, and to the accompanied expansion in the volume of passenger traffic. Nevertheless, the Railway had failed to attract fresh traffic, as is evident from the figures for the year 1953-1962. In 1952 the number of passengers carried was 28,579,787, which figure dropped to 21,499,322 in 1960. The fall in traffic during 1957 and 1958 was due to political and communal disturbances.

Year	Number of Passengers	Season Ticket holders	Revenue	% of total Revenue
1900	5,783,607	26,237	3,225,976	39.0
1902	5,549,338	29,848	3,097,206	38.8
1903	5,591,127	33,483	3,306,088	39.6
1904	6,027,760	35,632	3,489,604	39.2
1905	6,281,537	38,525	3,925,477	40.5
1907	6,996,597	45,003	4,327,525	40.1
1908	7,230,864	48,541	4,465,092	40.9
1909	7,584,928	53,079	4,709,535	40.1
1911	9,483,262	76,337	6,094,237	41.0
1912	10,122,309	75,993	6,094,237	43.2
1914	12,355,941	94,875	7,490,404	45.3
1915	11,004,434	88,673	7,044,650	42.9
1916	12,730,497	94,159	8,349,613	44.0
1917	12,935,742	97,114	8,540,243	43.6
1918	9,002,729	87,862	7,634,790	42.0
1919	8,766,459	91,151	8,577,182	46.9

Year	Number of Passengers	Season Ticket holders	Revenue	% of total Revenue
1920	10,396,004	115,065	10,041,893	49.4
1921	11,262,657	130,821	10,342,088	49.0
1922	12,189,263	139,382	10,751,945	49.0
1923	11,109,251	156,969	11,243,597	45.7
1924	11,321,777	170,211	12,203,422	44.8
1925	10,201,173	180,245	11,736,503	42.3
1926	12,552,234	194,071	12,575,701	43.0
1927	16,948,655	208,223	13,172,781	43.7
1928	19,106,637	213,878	13,929,799	44.5
1929	19,412,122	215,540	14,504,473	44.6
1930	18,008,877	216,567	13,709,205	46.2
1931	14,919,282	200,389	11,284,880	44.6
1932	12,353,554	180,051	9,731,824	44.2
1933	10,854,306	172,262	8,734,604	44.3
1934	11,476,539	172,101	9,169,246	43.7
1935	10,217,300	167,361	7,756,237	42.4
1936	9,406,977	160,649	6,995,060	41.8
1937	9,505,658	195,624	7,030,767	43.1
1938	10,859,072	194,717	7,140,466	44.3
1939	10,705,516	187,056	6,840,292	44.3
1940	10,405,985	197,137	7,327,442	42.8
1941	11,088,385	212,001	7,670,980	41.3
1942	14,646,041	254,952	18,046,522	46.1
1943	18,872,120	342,148	19,383,269	48.8
1944	20,933,180	412,777	26,252,471	50.5
1945	24,920,215	463,145	30,517,053	51.2
1946	25,930,817	472,189	30,418,767	54.0
1947	25,975,196	471,032	27,308,145	56.4
1948	26,404,581	453,649	28,154,554	53.6
1949	26,232,329	445,602	28,447,780	51.7
1950	24,316,510	476,033	29,756,989	51.6
1951	27,581,603	517,702	33,315,898	50.4
1952	27,944,972	534,825	35,507,683	50.1
1953	26,041,946	516,180	34,924,407	49.8
1954	18,478,608	467,874	33,956,736	46.3
1955	18,763,408	451,626	33,728,746	45.0
1956	19,717,004	466,044	35,609,103	45.7
1957	20,114,451	479,940	36,480,737	44.9
1958	18,916,141	460,601	32,318,482	44.6
1959	20,524,653	459,051	37,626,257	54.4
1960	21,018,259	481,003	39,321,057	53.4
1961	21,736,275	483,576	40,374,064	53.7
1962	23,671,318	498,715	43,768,548	54.1
1963	27,333,549	520,770	47,687,565	57.2
1964	29,265,194	557,044	51,606,906	51.4
1965	28,879,840	564,350	51,802,267	53.2

(Source: Administration Reports - General Manager, Railway).

2.6 Nationalisation of the Road Passenger Industry

It was hoped that the era of competition, corruption and economic wastage would be ended with the nationalisation of the omnibus undertakings, of which there were more than 300 in 1956. It was also the hope that with public ownership of both the road passenger and rail industries a revolutionary change in passenger transport would develop to the benefit of the community; but it has to be admitted that that hope has not materialised, and coordination between road and rail transport continues to be the pressing problem of the day.

Frequent references in the Administration Reports of the General Manager of the Railway pinpoint the laxity prevailing in this direction in face of the Transport Act of 1956, which laid much emphasis on coordination as a measure of economy. The Transport Commission (1967) is also critical of the duplication of the long distance services by the Ceylon Transport Board. Parallel road services often affected the Railway, especially when the road rates had no bearing on the costs of operation, and the conditions of operation between road and rail were not on equal terms. The Rail/Road Coordination Committee has so far failed to achieve a satisfactory system of coordination between the two forms of transport.

It is not to be doubted that rail passenger services are being provided at uneconomic prices on certain routes while the advantages of price reductions on routes where road competition is evident are lost. A comparison of the road and rail rates on sample competitive routes discloses the peculiar situation which the rail administration has to contend with.

	Bus Fare Rs. Cts.	Rail Fare Rs. Cts.	Distance Rail	Road		% increase of rail fare over road fare
Colombo - Galle	2 - 15	2 - 85	72.0	70.4	miles	23
Colombo - Matara	3 - 05	3 - 90	99.5	97.9	"	28
Colombo - Kandy	2 - 25	3 - 05	71.5	75.1	"	36
Colombo - Kurunegala	1 - 80	2 - 40	58.0	59.3	"	33
Colombo - Anuradhapura	3 - 80	5 - 10	132.4	127.3	"	34
Jaffna - Anuradhapura	3 - 35	4 - 80	123.9	119.3	"	43
Matale - Gampola	0 - 95	1 - 15	29.2	28.7	"	21

It will be seen that in spite of the shorter rail distances the rail rates are higher than bus rates, and to expect an increased patronage for the rail services under such disadvantageous circumstances is illusory. The question is: to what extent are the Ceylon Transport Board's attractive services on competitive routes being subsidised?

CHAPTER 3. THE PRESENT PROBLEMS OF THE RAILWAY

3.1 Competition from Road

The financial position of the Railway was satisfactory until 1934 when difficulties set in and continue to the present day. In 1946 the deficit in its operations was Rs. 14,497,982, which figure rose to Rs. 31,134,046 in 1961. The latter figure was nearly 1,400% over the figure for 1935 when for the first time the Railway was faced with the problems of a financial deficit. However, unlike that of 1935 the position in 1961 was different in that not only the figure was colossally high and the deficit the highest for any year of its operations, but it was an illustration of the Railway's inability to attract custom even at a time when the traffic offered had expanded substantially consequent to economic expansion.

During the long intervening period between 1935 and 1961 the Railway has been subject to varied degrees of vicissitude. It was unfortunate that the 'depression' and the Second World War followed each other in quick succession, creating difficulties for it in their own ways. The war, though its effects were in direct opposition to those of the 'depression' in respect of traffic, nevertheless, possessed the same restrictive tendencies as those of it in respect of capital investments, with the result that not only was the Railway starved of capital expenditure for a long time but also it was subject to exacting demands on its physical capacity during the period of the war. As a result it could not face the rigours of competition from road operators when normal conditions were restored. With the gradual expansion in the number of road vehicles the gap between road and rail capacity widened resulting in the continuous adverse working results for the Railway.

Perhaps, competition from road is the determining feature, yet other factors of no less importance have existed along with it in creating difficulties for the Railway, and a detailed examination of the situation is essential to assess the magnitude of the problem on the one hand, and to arrive at a basis for remedial action on the other.

Road competition is a perennial problem to the Railway. This feature is not peculiar to Ceylon. Railways all over the world are subject to varied degrees of competition, depending on factors common to road transport and to those pertinent to local conditions. Competition in Ceylon possesses its own features and an analysis will show the extent to which the activities of the Railway are hampered in consequence to the advantages possessed by the road operators.

3.2. Advantages associated with the way of passage

3.2.1. Physical Characteristics

It is unfortunate that the Railway is endowed with features which, under the present conditions, undermine its efficiency, while affording considerable advantages to the road operators.

The observance of physical considerations is an essential prerequisite to railroad construction. The avoidance of obstacles, such as steep gradients, marshy terrain, etc. entails circuitous track layouts with the consequential increase in distances and the inescapable avoidance of locations of social and economic significance; it causes a lesser attraction of custom.

These unfavourable features are predominant on the Main and Kelani Valley Lines. On the former, the railroad running into the hilly country is subject to gradients varying from 1:45 to 1:450, and curves often of 10 to 20 chain radius all along the route from Rambukkana to Bandarawela, a distance of 108 miles. The conditions prevalent on the Kelani Valley Line are in many ways similar.

On the other hand, the absence of much of the intricacies pertinent to railroad construction had enabled roads to be laid along routes of importance, and under less unfavourable circumstances. They traversed the country, avoiding possible circuitous layouts, yet not falling out of alignment with the railroads. They joined centres of activity, running into the hearts of towns and villages, and stimulating traffic for the road operators.

Public averseness to railroads running in close proximity to residential areas had caused rail stations to be situated away from traffic originating points. This feature, although less significant in times of rail monopoly is, under the changed conditions of today, a grave disadvantage to the Railway. There are instances where, due to the activities of the Railway, particular localities have developed - Nanuoya, Maho, Polgahawela, Nawalapitiya, etc. While the stations serving such places are suitably located, those serving important districts, such as Jaffna, Kurunegala, Trincomalee, Batticaloa, Galle, and Vavuniya are placed at unfavourable positions.

3.2.2. Parallel and Diagonal Road Systems

Another factor determining the advantages to road operators is the extent to which railroads are parallelled by trunk roads or, in the alternative, to the availability of a system of diagonal roads, short-circuiting between important points on the Railway. Competition cannot be sustained when roads ran at right angles to rail systems. Roughly 89% of the rail system in Ceylon is parallelled by trunk roads.(1) In addition, the Railway is handicapped by the existence of a system of diagonal roads, criss-crossing the country.

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(1) See Appendix A

3.2.3. Quality of the Roads

Another important contributory factor towards the efficiency of the road operators is the quality of the roads. Roads of high quality influence certain cost items, e.g. tyre wastage, fuel consumption and repairs. They also govern the speeds of vehicles. The satisfactory standard of roads in Ceylon is thus a source of disadvantage to the Railway.

The absence of congestion on roads connecting traffic originating centres also favours faster movement of road vehicles.

3.3. Regulation of Road Transport

The Railway has continuously nursed the grievance that the degree of control exercised over road transport is inadequate when compared to the restrictions imposed on its own activities. A discussion of the claims of inadequacy of control goes back to the early years of the century. The process of introduction and adoption of the motor vehicle as a form of transport was smooth, but its potentialities or the complexities connected with its development were not given adequate consideration. Hence, the absence of initial regulatory measures.

(i) The first indication of any form of regulation was the Vehicle Ordinance, No. 14 of 1916, which was confined to the modest aspects of registration and licensing of vehicles. The absence of any untoward expansion in road activities has obviated the necessity for any harsher restrictive measures. The Glover Commission (1920) possessed the same view while confining its investigations to a report on the Railway although its terms of reference included an investigation of the road industry.

(ii) The Ordinance, No. 20 of 1927 envisaged stricter controls on the construction of vehicles, their registration, licensing, speed and roadworthiness. Emphasis was laid on the safety of the users of the vehicles,

those using the highway, and of those employed in the industry; but the success of this piece of legislation was gravely limited, necessitating subsequent legislation - Ordinances No. 22 (1929), Nos. 41 and 56 (1935), Nos. 17 and 23 (1936), which also failed to effect a noteworthy alteration to the fluid state of regulation of the industry.

(iii) The Motor Ordinance No. 45 of 1938 that remained in force until 1951 was patterned to provide for the deficiencies discerned in the earlier enactments, but its effectiveness also fell short of expectations, presumably due to the changed pattern of the industry on the one hand, and to the lackadaisical administrative atmosphere permeating the whole question of transport during the period, on the other.

In the opinion of the Donald Rutnam Commission the statute was 'outmoded and totally inadequate when judged by considerations requisite for a proper control and rationalisation of the road haulage industry'. A critical examination of its provisions relating to the issue of licences for haulage operations, in particular, and other relevant matters with which the Railway was confronted, indicates that they were not free from weaknesses.

Licences were granted to applicants who satisfied the Licensing Authority that there was a substantial volume of private work for the exclusive use of the vehicle, provided the area of operations did not include long distance routes running parallel to the railroads. Paradoxically, applications for long distance carrier licences were accommodated when being satisfied that the volume of traffic available to applicants on such routes was substantial and that the existing facilities were either inadequate or unsuitable. It seems incredible that the volume of traffic considered adequate for the grant of a licence for short

distance haulage was a mere 100 to 150 tons a year. On the other hand, applications were disallowed only when the routes for which the licences were sought were congested, and the vehicles were unroadworthy. But it is acceptable that only an infinitisimal proportion of the applications were rejected on such grounds, and that the procedure of obtaining licences was much eased by the absence of a clear definition of inadequacy or unsuitability of rail transport, and to the prevalence of corrupt practices in the administrative field.

(iv) Mr. Nelson, although devoting much of his energy on the reorganisation of the passenger services, did not overlook the urgency of regulations in respect of road haulage. He was emphatic that more stringent measures were needed to curb the untoward tendency of cut-throat competition, and to safeguard the interests of the public, employees and the operators alike. He was in general agreement with the Hammond Commission's view that the practice of granting special privileges to the private owner or the ancillary user was not satisfactory, contending further that such concessions enhanced opportunities for the perpetration of abuses to the detriment of the professional haulier and the Railway, and that the inadequacy of the administrative machinery would impair the proper enforcement of the law. It was his view that carrier licences, although classified under the three categories of A, B and C, as in the United Kingdom, should yet be covered by a single set of standard conditions. Those conditions were to be designed so that unfair advantage was not bestowed either on the road hauliers or the Railway by the disregard of the proper safeguards and conditions of operation.

The standard conditions of the licences were to require -

(a) the maintenance of vehicles at all times in a fit condition;

(b) the observance of legal speed limits;

(c) the observance of proper conditions of labour;

(d) the payment of statutory wages; and

(e) the observance of requirements in relation to the maintenance of records of haulage.

In addition to these conditions, it was the desire to empower the Licensing Authority to attach to the licences all or any of the following conditions it deemed fit to attach. The condition -

(f) to restrict the maximum laden weight of vehicles;

(g) to restrict the class or description of goods and the person(s) to whom they were carried;

(h) to restrict the operation of vehicles to particular areas;

(i) to specify the minimum or maximum charges; and

(j) to safeguard the interests of the public and/or with a view to avoiding uneconomic competition.

(v) The Donald Rutnam Commission found no noteworthy changes since the Nelson Memorandum and was satisfied that the continuance of the ills for which it had suggested remedies was genuine. The Commissioner, although fully in agreement with the observations of Mr. Nelson, yet felt that the time was not opportune for the enforcement of the condition pertaining to charges. However, he was particular on legislation towards the compulsory diversion of long distance traffic from road to rail, perhaps influenced by developments in the United Kingdom.

The Traffic Act, No. 14 of 1951 initiated substantial control over road haulage. However, the provisions of the Act in respect of the compulsory diversion of traffic to rail and other restrictive features on

road operations but beneficial to the Railway were withdrawn in 1959. An analysis of the provisions with the awareness that much laxity has prevailed in their enforcement, tends to agree with the Railway view that the scope of measures purported to effect control over the road hauliers has been equally limited.

The objects of the Act, unlike those of any previous legislations, were to effect -

(i) a proper control over road transport, and

(ii) its coordination with rail transport.

The distinction between private and public hauliers, a feature of the Act, was important in that the procedure involved in obtaining a private haulier's licence was less onerous than that related to the public haulier's licence, that a lesser degree of control was exerted over the private haulier, and that the rates of taxation were lower for the private than for the public haulier.

The authorities were not totally indifferent to the view that the road haulage industry should not be stifled to a degree that affected trade and industry even though more restrictions benefited the Railway. This attitude necessitated a relaxation in the requirements pertaining to applications for private haulier licences which were more or less granted as a matter of right.

Applicants for such licences were merely required to satisfy the Licensing Authority of the exceptional circumstances necessitating the services of a haulage vehicle of their own. They were not even to meet objections from the Railway nor other road hauliers. They were, however, deterred from operating services beyond a 60 mile limit, except when permitted by the possession of special licences.

The ease with which private haulier licences were obtainable; the knowledge from past experience that controls over vehicles covered by such licences were easily evaded or avoided; and that the benefits of public haulier licences were available without being in possession of them; caused an unprecedented growth in the number of haulage vehicles covered by private haulier licences. The number of haulage vehicles registered in 1951 was 9,280, when there existed no legal distinction between private and public haulage vehicles; but in 1957 the number rose to 17,486, of which 13,796 were authorised on private haulier licences.

It is noticeable that the Act, while prohibiting long distance carriage by road, for the purpose of compulsorily diverting to rail as much traffic as was possible, also provided for certain concessions. The carriage of perishables, fragile articles, and certain other special categories of goods, falling within grounds of 'strong economic justification' was exempt from restrictions. The ancillary user was also suitably accommodated.

Provisions also existed for the issue of licences to hauliers of long standing, and to meet seasonal demands for the carriage of fruits, fish and vegetables. It was this feature of concession and exception to the main provisions of the Act that contributed to the lesser effectiveness of the law, in addition to the absence of efficient and broader administrative machinery for a proper enforcement of the provisions. The manner in which the Police authorities, entrusted with the task of enforcing the law, discharged their responsibilities was also not free from suspicion.

The experience of the Motor Traffic Authorities was that there prevailed a substantial measure of evasion of the law. This was unequivocally endorsed by the Committee on the Road Haulage Industry.(1) The evasion took many forms.

(a) A majority of the hauliers operating services under the auspices of a private haulier licence resorted to the carriage of goods for hire and/or reward.

(b) Hauliers debarred from long distance haulage resorted to the carriage of goods of long distance nature, and in order to evade detection, transhipped traffic at points within 60 mile distances, although the practice was debarred.

(c) Hauliers enjoyed substantial freedom in touting for back loads, the traffic often comprising those categories prohibited by the stipulations on the licences.

Furthermore, under Section 91 (ii) the Commissioner of Motor Traffic was empowered to attach to any licence such conditions he thought fit to impose in the public interest, and with the view to avoiding uneconomic competition. It is of interest to consider a few of them, and assess the success of their application in the light of the activities of the operators.

(d) Conditions in respect of routes or areas of operation were indiscriminately flouted. The Committee on the Road Haulage Industry was satisfied with the evidence tendered before it that hauliers in search of remunerative traffic often operated services in prohibited areas and on routes.

(e) Hauliers granted licences for the carriage of long distance traffic of a perishable and fragile nature resorted to the carriage of goods not falling within these categories.

(f) Hauliers who were fortunate to be granted licences for the carriage of goods on long distance routes resorted to overloading of their vehicles with a view to maximising their earnings.

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(1) Report on the Road Haulage Industry and its Coordination with Rail Transport, 1958.

(g) Hauliers were required to maintain records of trips performed, the type and weight of traffic carried, and particulars of duties of drivers and their assistants. The contravention of this requirement was far more common than the adherence to it.

(h) Payment of fair wages and the grant of other satisfactory conditions of employment were part of the requirements of the law. Except for a few organised haulage companies, others blatantly disregarded these requirements.

A greater degree of control over road passenger transport was achieved with the nationalisation of the omnibus undertakings in 1958. But the control exercised over the hiring car, van and station wagon operators has throughout been ineffective. The need for more control over their activities was emphasised by the Donald Rutnam Commission (1948) and by other investigating bodies. The use of private vehicles for purposes of hire is a day to day occurrence. The inability of the police to weed out this malpractice has been due to the absence of public cooperation, and also to the alleged corrupt practices among members of the police force. Besides the loss in revenue to the Government (higher licence fees are recoverable from hiring vehicles), the serious effects of touting and under-cutting of fares of both the Railway and the Ceylon Transport Board are possibly the main reasons for the greater need of regulation over these operators.

3.4 Nature of present control of Road Haulage

The relaxation of restrictions on the road hauliers in January 1959 simultaneously removed the distinction between private and public hauliers, affording them freedom of operation in any part of the country. This aggravated the situation to justify the grievance of the rail administration. It should be emphasised that the annulment of the provisions of the Act was motivated by interests desirous of a free hand in

the conduct of the industry. Political factors leaned heavily towards that decision, although the reasons advanced were partly mixed up with the alleged inability of the Railway to meet its obligations to the users.

Much emphasis was laid on the hardships endured by the market-gardener and the small shopkeeper in the remoter areas of the country. The cause of the small scale road operator who eked a living out of haulage was equally expounded. It was also asserted that relaxation in the restrictions would set apace a fall in the cost of living, the conditions being that transport costs were artificially kept high by hauliers privileged to maintain long distance services. But the withdrawal of the restrictive provisions directly entailed in the restoration of the pre-1951 pattern of long distance haulage with all its misgivings. These were accentuated with the expansion in the volume of operations.

The relaxation of restrictions; the expansion in the number of hauliers and vehicles (the increase in the number of vehicles was 11,000 over a period of 8 years); and the deep seated consciousness among hauliers that long distance haulage afforded opportunities for enhanced earnings, created an inevitable and unprecedented ugly situation. Whatever the circumstances were however under which the available long distance traffic was shared by contending hauliers after 1959, it is imperative that an influx of hauliers and vehicles, and the prevalent unregulated pattern of operations necessarily reduced the potential volume of such category of traffic accruing to each haulier. This factor of limitation on the availability of traffic enhanced competition.

Competition among hauliers resulted in a race for rate reductions on the one hand, and to a competitive expansion in the range of facilities and concessions afforded to users, on the other. Both these factors are compatible only with an increase in efficiency of operations. An increased efficiency is identified with owner driver hauliers; yet it is irrefutable that the tendency among road hauliers in general to appropriate to themselves maximum traffic possible accelerated the pace of fall in road freight rates. Since a reduction of rates is not feasible beyond a limit dictated by economic norms, it is logical to conclude that the drastic reductions encountered were made possible only by contravening many of the regulatory measures concerned with road operations.

The other aspect of 'creaming of traffic' over which the Railway is justifiably aggrieved, is a process by which it is burdened with that portion of traffic considered uneconomic by the road hauliers and deprived of that portion that could greatly alleviate its financial difficulties. This burden too has been perpetuated by the laxity in enforcing the regulations.

3.5 Nature of Restrictions on the Railway

Whilst the road operators are given the advantage of fixing separate rates for different traffics and permitted to attract traffic by subtle adjustments of charges, the Railway laboured under disabilities imposed on it by social and legal requirements, the necessity of which seemed non-existent under the present changed conditions in the economy and in transport.

The common carrier obligations and the rigid freight rate structure, the old fashioned shackles that have remained to this date, precluded the Railway from adopting selective methods to discourage

uneconomic traffic, and to vary its freight rates to be assured of earnings commensurate with the cost of providing the services. It is forced rigourously to adhere to a statutory goods classification and rates schedule.(1)

It is, however, subject to speculation whether the removal of these twin disabilities will enable the Railway to quote rates in competition with those offered by the road hauliers since the latter are not hesitant to overlook (momentarily) the principles of sound road operation, provided such action assures them of revenue anything above the direct costs in providing the services than be without. Perhaps the Railway will adopt such competitive rates only as a short-term measure with the view to eliminating its diehard competitors, and provided success is assured, even though such a measure will not fail to evoke criticism for its anti-social character, and at the same time, if continued for a longer period, will not fail to be uneconomic to itself.

The Railway is critical of many other restrictions to which it is subject. Many of the regulatory measures in the field of rail transport in the United Kingdom and other countries arose from the fear that private rail companies with their monopolistic position would exploit users by charging higher prices. There was also the fear of the user that his competitors would have the benefits of more favourable rates and facilities. Hence the provision regarding non-discrimination and the publication of rates, and also the compulsory fixing of rates thus precluding the companies from varying them to suit to their requirements.

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(1) See Chapter 12:3.

But circumstances in Ceylon were entirely different. The Railway was, from its inception, a State-owned undertaking, and whilst its position in the field of inland transport during the period free from road competition was monopolistic, yet its activities have been subject to constant State control.

In the United Kingdom, the purpose of initial control over the railways was to prevent monopoly and to ensure that the development of the railways was in the interests of the public; but with the development of road competition, and its forceful effect on the monopolistic position held by the railways, resulting in their financial difficulties, the idea and purpose of control was changed from that of control of monopoly to that of control of competition. With further development in the road industry, especially in the branch of freight haulage, the problem revolved around the questions of wastage from competition and a possible solution by means of coordination between the two forms of transport. The view was that a licensing system for road vehicles was an essential preliminary to coordination, and hence a complicated system of licensing was evolved. Again, it is admitted that the 'pious hopes' held over the success of that system foundered, perhaps in trying to control the number of vehicles and not endeavouring to control the services and rates. While restrictions were envisaged over the public hauliers, licences were granted to applicants desirous of carrying their own goods, and the consequent predominance of 'C' licence holders was more responsible for the difficulties of the railways.

In Ceylon the situation was in no way better. There existed no distinction between private and public hauliers until 1951, or restrictions in the carriage of freight, either. Neither were conspicuous

hardships experienced in procuring licences. Even in 1951 with the distinction between private and public hauliers, the situation did not improve. In 1959 when the provisions of the Traffic Act No. 14 were withdrawn the situation culminated in a pattern of operations alien to many countries. Road operators have been granted the complete freedom of entry and of operations. They have been allowed to carry traffic to any point, or to any consignee; to impose their own charges; and operate free from other restrictions, provided they observed the conditions related to safety and employment, but which they conveniently overlooked.

3.6 Inherent weaknesses of the Railway

The difficulties besetting the Railway from the direction where it exerts less positive control have been examined; apparently there are difficulties arising from that direction where it can exert sufficient control. These are in no way less important, since their continuance is a contributory factor in undermining its competitive efficiency.

The quality of a transport undertaking is judged by its capacity to meet the requirements of its users. The term 'quality of service' is not a mere comparative indication between services provided by the different transport agencies, but it is significant in that it is an equal ingredient in the composition of the 'real' transport costs.

The low quality of the rail services is attributable to many factors. The lack of suitable accessibility is a common shortcoming with rail undertakings, which is, nevertheless, circumvented to a large extent by a proper system of physical coordination. The Railway depends on the

Ceylon Transport Board and the private hauliers for this need, but over whom it has no control. An effective coordination can be achieved only if the Railway operated its own fleet of vehicles.

Delay to traffic is another deficiency of rail operation. The management endeavours to run passenger trains to schedule, but frequent delays occur through engine failures. Delays to freight traffic of ten days and more are common. The inadequacy of locomotive and carriage capacity is the main cause, while inefficient marshalling yards and an outmoded signalling system are factors that affect the turn round of wagons and the expeditious movement of trains.

Damage to traffic is yet another element of rail inefficiency. It is attributable to the inadequacy of efficient handling facilities and to the lack of interest shown by employees to their duties. Pilferage and theft are a serious problem. Besides, the failure of the administration to meet claims arising from these causes, judiciously and expeditiously, encourages traffic to seek road transport.

There is no doubt that the Railway could attract more traffic if its inefficiency in these fields is eliminated. However, the institutional factors and the financial difficulties are against the administration. It is necessary that the Government evolves a new policy towards the Railway.

PART TWO: THE ROLE OF RAILWAY TRANSPORT

CHAPTER 4. THE ROLE OF THE RAILWAYS

4.1 Characteristics of Rail and Road Transport

Much discussion has revolved around the complexities arising from road competition. The difficulties faced by the Railway are not peculiar to Ceylon. In industrially advanced countries the issue is more complicated and more thought is directed towards achieving a solution.

Transport could be regarded as constituted of three elements,(a) some form of way or passage - a road, railway or water-way over which movement could be affected, (b) some means of locomotion and carriage usually provided jointly in single units in the case of road, sea and air transport and separately in rail transport, and (c) terminal facilities for loading, unloading and for the distribution of traffic, both passenger and freight. The particular nature of these elements and the significance attached to them when providing the services have varied from one form to another with the result that services of differing character have been produced.

The provision of specialised track for rail transport stems from the technical and operational requirements of that form of transport. Locomotives and rolling stock are heavy and demand a strong track for easy movement. Besides, the non-feasibility of trains overtaking or crossing each other with ease as in the case of road vehicles, calls for a complex system of signalling and time-tabling. These features undoubtedly pose a serious disadvantage especially when the costs of construction and maintenance have to be shouldered by the railways themselves and are reflected in their overall operational costs.

Notwithstanding, the advantages are considerable. Firstly, they facilitate the running of high capacity trains characterised by very low

movement costs per unit of traffic carried. The lumpy nature of factor inputs of rail resources makes possible the accommodation of a substantial volume of traffic before a fresh set of resources is introduced. A rail track once laid can normally be used for running more than one train and, with an efficient system of signalling, numerous schedules can be arranged without impairing operational efficiency. Marshalling yards, freight depots or passenger stations can usually cope with much more traffic than the minimum for which they were constructed. The technical capacity of a locomotive is such that without immediate additional expenditure it can haul a load much bigger than that for which it was initially introduced.

Secondly, the specific use of the rail track for the movement of trains makes possible a dense flow of traffic uninterrupted by the movements of other forms of transport; and thirdly, it assures the provision of regular, safe and scheduled movements of trains at high speeds.

However, in addition to the main/advantages arising from heavy capital outlay on track (including signalling) the railways are handicapped in two other directions. The process of transferring passengers and freight entails the provision of costly terminal facilities at stations and freight-depots. Again, the largeness in size and probably the greater haulage capacity of trains often acts against the interests of frequency in service unless sunstantial traffic is forthcoming. The greater the volume of traffic the higher is the frequency of train movements. In addition, the specialised nature of rail equipment implies a lower degree of flexibility. Freight wagons designed for the carriage of say, coal cannot be readily used to carry fruits nor can passenger coaches be adapted to carry livestock.

On the contrary, road transport stands to benefit from many directions. Roads are constructed and maintained by the State. The initial capital outlay required to commence a road transport business is relatively low. The cost of purchase of vehicles, insurance, and licensing are settled over long periods of time. Costly terminal facilities are not required. The facilities needed are as simple as a bus stop or some parking space near a shop, factory or market place; and wherever special facilities are deemed necessary, especially for passenger movements, local authorities (in Ceylon) invariably step in to provide them for the convenience of the ratepayers. Vehicles can reach places where traffic is anticipated so long as there exists some sort of passage, not necessarily a well laid highway, thus offering better accessibility to traffic. The flexibility of operations helps vehicles to be switched from one job to another and the smallness of their size facilitates a greater frequency in service.

Against these benefits, nonetheless, is the restriction imposed on pay-load capacity and, unlike the railways, road services directly entail additional expenditure with increases in the volume of traffic handled. This is imposed through road congestion, arising, on the one hand, from the absence of entry restrictions on vehicles seeking access to roads with limited space, and on the other, from the absence of some form of regulated utilisation of vehicles.

Although there prevail differences in the nature of services provided by road and rail yet, invariably, the relative advantages of one form over the other depend more on the importance attached to each by their respective users.

4.2 Suitability of Rail and Road Transport

(a) The special characteristics of the track affords the railway a great advantage over road by way of non-stop speed. This implies that the railway is admirably adapted for providing fast services, both passenger and freight; but the benefits of non-stop speed can be advantageously exploited only if the specialist terminals are positioned at considerable distances apart with their number kept low in relation to the distances covered. Terminals, to be frequently served and located at close intervals, are an impediment to speed.

The restraint imposed on vehicle movement in urban areas due to road congestion is bound to have its effects on road journey times. Yet, the suitability of road vehicles for door-to-door collection and delivery services, and the lower significance attached to terminal facilities, make it imperative that they can be deployed with efficiency to move traffic over short distances - from the manufacturer to the whole-saler, the whole-saler to the retailer, the retailer to the consumer, etc.

Intercity road operations during periods free from road congestion are an attempt to overcome the shortcomings of normal working day operations, and with the present trend of constructing vehicles capable of achieving greater speeds, and carrying heavier loads, a great challenge to rail transport is obvious.

(b) The technical characteristics of the track and operating units again influence the nature of traffic that can go by road and rail. The rail track is built to sustain heavy transport units, which in turn, are designed to carry heavy loads. The railway power unit is the locomotive capable of hauling numerous detachable wagons and passenger coaches, the capacity of each varying considerably, and often greater

than that of road carriage units.

The road units are typically a combination of both carriage and power, with the result that their pay-load is very low. Roads of modern designs and better construction have facilitated movement of heavy loads at comparatively faster speeds, yet the inability to provide such high quality roads in all areas is a restraint on heavy vehicles.

These differences imply that road transport is suited for traffic of small size in relation to weight, for that not requiring costly handling facilities, and that moving over short distances. A high proportion of merchandise traffic falls within this category, and competition between road and rail is, for the most part, a competition for the transport of this category of traffic.

The use of road transport for short-distance carriage assures, in addition to savings in time, a reduction in expenses connected with collection, delivery, transhipment and switching, which account for a fair proportion of rail transport costs.

The railway, on the other hand, is suited for bulky traffic, large in volume, homogenous in character, and moving over long distances, so that the capacities of the motive power and carriage units are fully utilised. Nevertheless, the concept that rail transport is more suitable for long distance traffic and road transport is ideal for short distance is not valid under all circumstances. In considering the suitability of the different forms of transport proper weight should be given to the traffic density and the nature of traffic, rather than to distance. For instance, the movement of coal from a minehead to the point of export (or consumption), fifteen miles away, is more suited to rail than road if the density of traffic is great. The movement of traffic by road over

long distances, say 200-300 miles, is economically justified if the density is negligible for rail movement.

Nor does there exist a clear definition of short and long distance movements. Decisions in respect of distances are invariably arbitrary, and influenced by administrative and political expediencies rather than by sound economic criteria. To cite examples, in the United Kingdom, the Transport Act of 1947 decreed that road haulage beyond a 25 mile radius limit from the point where vehicles were normally based was long distance. In Ceylon, the Transport Act 14 of 1951 maintained that services beyond 60 mile limits (return trips) were long distance. Quite different interpretations of the terms 'long' and 'short' distances are proferred in other countries where road transport comes under varying degrees of State regulation. Nevertheless, the demarcation of limits depends equally on the physical size of the country, and on the availability of road transport capacity.

What is short distance carriage in big countries, like India, Canada, U.S.A. and the U.S.S.R. can be passed as long distances in diminutive countries like Ceylon. On the other hand, it is relatively impossible to declare a long stretch, say 200 miles of route, as short distance without being provided with sufficient road transport facilities. Movements over long distances imply longer transit times and, in consequence, the disposition of more vehicles than when the routes are of short distance, say 50 miles. It is, as such, more desirable to confine the available road transport resources to short-distance movements thus assuring better frequency and greater efficiency, and to allow the railway (if available), to handle traffic over long distances.

4.3 Suitability of Railways for Passenger Traffic

The railway is equally suited for the movement of dense passenger traffic. This quality is again characteristic of the capacity of the carriage and power units, and unlike that of the combined small road units, ideally meets the needs of mass transport.

4.3.1. Surburban Passenger Transport

Surburban passenger transport implies the movement of heavy flows of traffic to and from centres of commercial, industrial and social activities. The bigger the centres are in size the greater is the volume of traffic created. Although the traffic is of short distance nature, and suited for road transport, yet its density, and the restraints imposed on road passenger transport, consequent upon the non-availability of road space, accord the railway a favourable position. The ownership of private means of transport, although to a great extent it satisfies individual needs, is undoubtedly a source of impediment to the freer movement of vehicles. It will lead to an increase in congestion and to an extensive system of traffic regulation, accompanied by the disadvantages of extended journey times, higher costs of operation, and increased social discomfort.

Railway trains consisting of ten to twelve cars can move passengers who, if carried by road, will demand the use of more than 20 buses or hundreds of cars. Again, rail movements are much faster than road. Both these qualities are due to the greater carrying capacity of trains and the specialist track and regulating facilities.

4.3.2. Medium and Long Distance Passenger Transport

The suitability of rail for the movement of inter-city passenger traffic is conditioned by the density of traffic and the distance

involved, so that the advantages of non-stop speed and greater carriage capacity are exploited. But rail transport faces competition from air transport on long distance, and road (motor coach) transport on medium distance routes. The greater degree of risks associated with air transport, however, the higher charges, and the increased accessibility times, are factors that weigh much in favour of rail. The coach operators, on the other hand, with the advantages of greater frequency, competitive fares, and accessibility (door-to-door services) are bound to hold a threat to rail. This can be offset, provided rail undertakings afford better conditions of travel - air conditioned cars, sleeper and restaurant facilities, besides punctuality, regularity and speed.

In the case of long distance carriage of passengers, as with freight, the benefits of non-stop speed of the railway are qualified by the number of stops in relation to the distance covered. Frequent stops mean slow, stopping services, costly to maintain. Non-stop, fast services, and a high density of traffic, spread the high over-head costs over a greater number of traffic units, with a proportionate reduction in the unit costs of transport.

4.4 Burden of Public Service Obligations

Rail administrations have been greatly constrained in their activities by the prevalence of the deep rooted conviction that transport is a public service. This conception of 'public service' giving way to the common carrier obligations, has burdened the rail administrations with financial hardships.

The Ceylon Railway is obliged by statute to provide reasonably adequate facilities for receiving and forwarding traffic offered to it

while not discriminating against the customers by charging different prices for identical traffic nor affording undue priveleges to one customer as against another.

In passenger transport the requirements are more stringent in that they involve the provision of services at stated times with due consideration given to safety and the observance of the quality of frequency, although not all passenger transport undertakings accept the obligation to carry at all or not to attach their own conditions of acceptance and transport.

These requirements are not, however, burdens over which transport undertakings in general show their anxiety. They would be happy to adhere to set time-tables for providing services, both freight and passenger. They would not hesitate to provide services for special traffic, awkward loads at awkward times and would even be glad to provide special transport facilities for morning and evening peak traffics, but only on one condition - that the costs of providing these services were paid for by those demanding and using them. The provision of regular services in circumstances where the traffic is irregular and unpredictable is costly because capacity must be maintained which, on an average, is bound to be under-utilised. But operators of regular services would not be perturbed if they were given the freedom to charge higher prices for services on sections where traffic is irregular and unpredictable. Yet the significance of the 'public service' is the constriction imposed on this freedom.

The obligation to behave as a 'public service' does not rest with the requirement that certain services will be guaranteed by the providers, but it goes further to imply that the services are charged a reasonable

price. By 'reasonable' it is meant or is made to mean that the prices should be equal not only for identical traffic under similar circumstances but also under different circumstances. Thus the obligation to function as a 'public service' is in fact an obligation to support some unremunerative services.

4.5 Sectional Interests

The financial difficulty of the Railway has been aggravated by the burden of meeting claims for preferential treatment from certain minority interests. Perhaps some justification for some sort of preferential treatment existed in the past, because of its monopolistic position, but conditions have since changed.

The plantation industries have been throughout well accommodated. Other branches of agriculture have equally been favourably treated. Notwithstanding, the administration has continued to provide general services and facilities at rates below cost.

The maintenance of services at unremunerative levels for purposes of operational requirements is one thing but maintaining them purely for consumer interests is another. A good portion of the rail system runs through underdeveloped and sparsely populated parts of the country and the administration is compelled by age-old obligations to provide reasonable services for those living in such areas although they are its most infrequent users and costly customers. A substantial portion of its losses on the passenger side stemmed from the necessity to run unprofitable services which went a great way in supplementing the inadequate services provided by other agencies.

Unfortunately, the fact that the Railway is State-run seems to have created more difficulties than if under some independent control.

Direct government control is often interlaced with political interference and it is not uncommon for Members of Parliament and other political interests to demand favours of the administration with the least regard to the economic consequences.

Claims from industries and individuals are also not absent. Long-term commitments, say, the location of industries, are made under the explicit understanding that transport facilities should not override such obligations when evolving ways to ameliorate their financial difficulties. In Ceylon, for instance, the Cement Corporation at Kankesanthurai and the Chemicals Corporation at Paranthan depend on the rail facilities for their success and expect that their efficiency would not be unimpaired by any economy seeking measures of the undertaking.

In the same vein public opinion called for the retention of existing concessions on the passenger side and even envisaged more, irrespective of the administration's ability to accommodate them. The usual view is that the existence of the Railway is for the common good and, as such, it is immaterial what its losses are.

In the United Kingdom, the Transport Users Consultative Committees watch over the interests of the public. All proposals for the withdrawal of existing facilities for reasons of economy are scrutinised in great detail, the final decision resting with the Minister of Transport who, however, is invariably prompted, when arriving at the decision, not to overlook the traditional benefits to the public. When particular rail services are withdrawn, the provision of alternative road facilities rests

with the railways.[1] In consequence, the railways have granted direct subsidies for road operators to fulfill their obligations.

4.6 Protection of Employee and Operator Interests

In Ceylon employment under the Government carries with it a greater degree of guarantee of permanency of employment, pension rights, better wages and other conditions of service than are available in the private sector. The State is the largest model employer, and the rail undertaking with over 25,000 employees on its payrolls is the largest single State agency of employment.

Any decisions to withdraw unprofitable services entailing the reduction of staff or lowering expenditure through some sort of economic reorganisation seems impeded by the requirements that the Railway "should be more accommodating". To be more precise, it is expected that the rail administration should afford 'good livelihood and worthwhile jobs to those who work it' irrespective of its financial capacity.

Railways are deeply affected by the protection afforded to road transport undertakings. It is necessary at times for governments to step in to safeguard the interests of transport operators as during the thirties when the depressed state of the economy and the resultant competition in the road industry compelled the introduction of the licensing system with the view to restricting entry to the trade. In Ceylon, the decision in 1959 to withdraw the provisions of the Traffic Act 14 of 1951 that safeguarded the interests of the Railway, and that of the few privileged road hauliers, was intended to protect the small-scale operators who were placed at a disadvantage by the operation of the Act.

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(1) This does not, however, mean that the British Railways are bound to provide road transport eternally.

4.7 Protection of Manufacturing Interests

In manufacturing countries, motor vehicle manufacturers possess a vested interest in a solution to the transport problem. Motor vehicle exports constitute for such countries a great source of foreign exchange earnings and, in order to establish an internationally competitive scale, it is argued (with or without qualification) that a buoyant home demand for road vehicles is necessary and any restriction on road transport is a serious threat to the export trade.

In Ceylon, an analogy could be drawn in respect of the interests of the motor vehicle importers, the hundreds of garage owners and the thousands employed in the repair and maintenance sectors of the industry. It was feared that drastic cuts on imports of motor vehicles would affect their interests. This point of view invoked a slight relaxation in the import restrictions, but unlike the dominant role of the (manufacturing) interests in the manufacturing countries the influence exerted by this small section on the policy of the administration is quite negligible.

4.8 Indirect Subsidies

In certain circumstances encouragement to industries to be located at economically unsuitable places has led to subsidised transport facilities in order to enhance their competitiveness, when it was not desirable to offer direct financial subsidies. Cheaper transport facilities by rail for tea, coconut and other export produce have been prevalent for a long time in the island. At the moment, the policy of the Government to develop the harbour at Trincomalee has necessitated it to offer subsidised transport facilities for export traffic.

The extensive agricultural schemes and colonisation programmes undertaken in the Galoya Valley; Hinguraksoda; Polonnaruwa and Kantalai areas; and the programmes to be undertaken in the Walawe and Mahaweli River Basins need substantial subsidised transport facilities. The small-scale industries scattered around the island also need some cheap form of transport which seems to be well assured through a State transport undertaking - the Railway - rather than through private road undertakings.

4.9 Unremunerative Branch Lines

It was observed that the Kelani Valley and Matale sections have remained a source of drain on the resources of the Railway. The continued maintenance of these sections has not been dictated by economic criteria. It is often contended that transport under-takings, more especially those publicly owned, should not fail to look to the wider social needs of the community regardless of the unprofitability of the services they provide; but common sense would call for a disassociation from this ideology. A more sensible argument is that undertakings providing such unprofitable services specially to meet the needs of a section of the public, industry, etc. should not be expected to bear the losses but that the authority requesting such services should reimburse them.(1)

Branch lines often tend to be unprofitable and it is obviously essential to review their performance from time to time in proper relation to the development of transport and to assess the extent to which they serve the needs of the areas through which they run. At the same time/

(1) (i) "If the Parliament is to specify that certain services should be undertaken despite the fact that the Commission (British Transport (Contd.)

suitable tests should be taken to decide the extent of their non-profitability and the costs that may be incurred in providing alternative means of transport if the services on these sections are withdrawn, but the extent of their unremunerativeness should be examined in proper relationship to the direct and indirect benefits that accrue to each as an entity in itself and as part of the main rail network.

The Matale Section feeds the main line between Kandy and Colombo which is quite remunerative, and it cannot be denied that a good portion of the through traffic to Colombo from the Matale District is piped through this Branch line. On the contrary, a major portion of the traffic on the Kelani Valley section, serving the Sabaragamuwa and Kelani Valley districts, originates from and terminates at Colombo and, as such, its retention is of no significant value to the rest of the rail system.

Commission) cannot profitably undertake them, then the additional cost of them should be provided in advance, out of public funds."
- Report from the Select Committee on Nationalised Industries - (British Railways) July 1960.

(ii) "We are therefore led to the conclusion that adequate rural bus services cannot be provided except as a result of some measure of financial assistance from outside the industry." - Para. 145. Report of the Committee on Rural Bus Services (Jack Committee) 1961.

CHAPTER 5 THE QUESTION OF NATIONAL INTEREST

5.1 Introduction

The consideration of the national interest is no less important in determining the structure of a country's transport industry. Its importance is much more conspicuous with developing countries.

The economy of developing countries is based predominantly on agriculture. Industrialisation is often hampered by the inadequacy of both capital and technical 'know how'. The limited financial resources at the disposal of these countries are often directed towards the purchase of capital and consumer goods not obtainable domestically, and in many instances, a fair portion of the resources is expended on agricultural products which, although they could be produced locally, are yet imported.

These countries depend on imports for all or a major part of the requirements of the transport industry. Imports of road vehicles, railway locomotives, rolling stock and the accessories pertinent to the different forms of transport account for a big slice of their resources. Countries able to acquire substantial resources through export, probably agricultural and mineral products, obtain their imports with lesser hardships. But, unfortunately, many countries are not so favourably placed, and Ceylon is one of these.

5.2 Factors Influencing the Pattern of Transport

The availability of power - coal, oil and hydro-electricity - has influenced the preference shown to particular forms of transport. In India, the current expansion in rail transport could be attributed partly to the availability of large reserves of coal suitable for both the direct

and indirect use by the railways.[1] Similarly, the availability of hydro-electric resources in countries like Switzerland would encourage the promotion of those forms of transport that could profitably exploit that cheap source of power rather than of other forms that use imported fuels, such as petrol and coal. Countries that possess sources of oil would very well concentrate on those forms of transport that could economically use that fuel. Countries with a wide network of inland waterways would consider taking advantage of these natural highways in preference to the construction of costly roads and rail tracks, the costs heightened by the import of construction materials if they are unavailable locally.

Besides these, however, the powerful factor determining the forms(s) of transport appropriate to a country is its geography. The pattern of transport suitable for a small country is different from that of big countries like America, Canada, Russia and India. The smaller size and the absence of international frontiers over which traffic needs be moved mean that road transport could meet the needs of Ceylon satisfactorily without resort to rail and/or air transport. In America, Canada and Russia the distances over which traffic moves are long, and the volumes carried are very great, both of which factors are conducive to air and rail transport.

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(1) In India, during the period 1951-66, investments on road transport totalled Rs. 1396 crores as against Rs. 3104 crores on rail transport - Automobile Facts & Figures (Hindustan Motors - 1967)

Although it may be agreed that the presence or absence of these factors goes a long way in moulding a country's pattern of transport, it is always in the interests of the economies to promote such form(s) that ensure maximum efficiency, in the sense, that they use the least amount of scarce resources. Notwithstanding, the consideration of the balance of payments may be of overriding importance.

Ceylon depends on imports of coal and oil to run her road and rail services. Her capacity to exploit the available hydro-electric resources is limited at the moment. The country's geography and the pattern of traffic are not unsuited for road transport. Naturally, these factors should influence the pattern of her transport industry, but the balance of payments seems to dominate the whole issue rather than anything else at the moment.

5.3 The Question of Self-sufficiency

Some developing countries are able to meet in part the requirements of the transport industry indigenously. For instance, the local manufacture of motor vehicles, rail locomotives and rolling stock, and even aircraft, is expanding in India and Pakistan, and in a few decades both countries could probably attain self-sufficiency in their requirements[1] but conditions are different in Ceylon. The country's capacity to produce indigenously her requirements of both the road and

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(1) The number of vehicles produced in India rose from 3,912 in 1947 to 70,968 in 1966.
- Automobile Facts & Figures Edition, 1967.

rail industries is extremely limited. The most that could be expected of her industrial capacity in the foreseeable future is the assembly of road vehicles and perhaps of rail locomotives. Plans are afoot to build an automobile assembly plant with foreign assistance, in order to assemble motor cars initially, and small trucks at a later stage. Equally, steps are being taken to assemble locomotives and to build rolling stock from semi-manufactured imports in the Railway Workshops at Ratmalana, but the question is: how far could the needs of the road and rail industries be met through local resources?

The proposed automobile assembly plant - Hino Motors (Ceylon) Ltd. - is to start production of the first batch of cars in 1968. The production target is 2,400 vehicles per year of which only 600 will be made available for home consumption. The balance is to be exported to earn the foreign exchange necessary to offset the expenditure incurred in producing the vehicles. The assembly of locomotives or building of rolling stock, since dependent on foreign semi-manufactures, would not exert any significant influence in the direction of self-sufficiency other than to enhance the opportunity of using a small portion of the vast labour force presently unemployed and effect a small saving in external resources.(1) As the picture would appear there is no denying that for years to come the economy should withstand calls on its external resources to sustain adequate means of transport - road, rail or air.

Ceylon depends on the export earnings from tea, rubber, coconut and cocoa to sustain her imports. Invisible earnings from tourism,

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(1) It is hoped to effect an annual saving of Rs. 6 million in foreign exchange.

overseas remittances, etc. play little part in stimulating her foreign exchange earnings. In recent years imports have often exceeded exports with the resultant balance-of-payments difficulties. In the face of these difficulties the increase in population and in the standard of living have intensified the demand for more and better consumer goods. The situation is exacerbated by the task of industrialising the economy.

Industrialisation means heavy calls on Ceylon's already depleted external resources. The imports of machinery for the industries under projection, and the raw materials to supplement the local supplies, demand a sizeable share of her foreign earnings.(1) The burden is made more severe by the necessity to provide for the import of a fair proportion of the nation's food. On an average, 35% of the nation's foreign earnings are spent on food imports.(2)

This situation is not peculiar to developing countries but it is here that the divergence between theoretical economies and their practical adaptability is conspicuous. The practical application of orthodox economics would be simpler if a country possessed substantial external resources (foreign exchange) with which to obtain all its imports. Under such circumstances the country's administration need not be at pain to decide as to which form(s) of imports should be given preference, what quantities should be imported or what proportions of its external resources should be apportioned among the various categories of imports, transport equipment, included.

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(1) The allocation for 1968 is Rs. 410 million - (18.5%)

(2) Certain developing countries are self sufficient in food requirements. The demand for imported consumer goods, like refrigerators, electric fans, etc. is confined to a small affluent section with the result that enough foreign exchange is available for imports of transport equipment, especially, road vehicles.

What should be the policy of a community whose external resources are greatly limited, that is, whose capacity to import all its requirements is limited? Imports have to be paid for not in the country's own currency but in hard currency, or by way of exports of goods and services which other countries need. Non-payment constitutes an external debt, and international debts are not rare. But, ordinarily no country can continue to incur debts; to be sound economically it must balance its external budget as efficiently as it does its internal.

The limitations on the availability of external resources imply the introduction of a system of selective imports. Normally, the preference shown to food and other consumer goods basic to the life of the community would be greater than that shown to motor cars and aeroplanes. However, there may exist a tendency among a minority section to put forth lavish demands for goods, other than food and basic consumer goods.

5.4 Value of Transport to Society

Transport is an essential ingredient in the economic development of a modern society and to brand as 'non-essential' an efficient form of transport and to rest contented with an inefficient form is economically a dangerous policy. Yet at times it has to be conceded that the retention of the inefficient form is justified under special circumstances, more particularly, if the more efficient form involves more sacrifices than the community can afford.

In common with the desire to possess everything, and that too in plenty, it is not unnatural for everyone to desire to possess his own means of transport so as to be assured of comfortable, expeditious service at times most convenient to himself. Those who are not able to

do so - the economically weak, old, sick and young - want high quality public transport facilities instead. The attainment of this Utopian pattern of transport is, however, conditioned by society's capacity to provide for it.

Not all communities are economically able to enjoy such a high standard of transport and no overnight miracle could secure it. The shortage of external resources is a constriction in the import of transport equipment. Obviously such countries could seek foreign capital, but the flow of it depends on the economic and political stability of the countries concerned. In recent years the flow of foreign capital into under-developed countries has been drastically reduced as a result of political instability; but foreign investment entails the meeting of regular interest charges and the redemption of capital at a future date. Both are a drain on the resources of the economies. What alternative policies exist for a community that can neither afford investment on modern forms of transport out of its own resources nor obtain outside financial assistance? It could expand local means of transport even though they may be less efficient - bullock or horse carts or even manual labour. These will not make calls on external resources which could be used for more essential purposes.

However, under existing world conditions such retrogressive measures are not necessary, for invariably under-developed communities are fortunate to be provided with some progressive form of transport, notably rail, which although failing to measure up to the requirements of advanced communities in every way, does, nevertheless, guarantee reasonable means of transport for poorer users.

Ceylon possesses a comparatively adequate system of railways, but, in common with developments in transport all over the world, rail transport has

been superceded by road in certain spheres of its activities. It is estimated that 40% of the passenger and 80% of the country's freight traffic are carried by road, and the Railway is under-utilised to an extent of 50% of its capacity.(1) If it were considered that rail transport in Ceylon is less efficient, and that road transport should expand in consequence, it would mean imports of a greater number of road vehicles, more accessories and increased quantities of motor fuel. It would also mean an increased expenditure on road construction and maintenance, both involving imports of materials.

Yet to what extent should the expansions be undertaken? How could the needs of the community be assessed and what should be a satisfactory level of vehicle ownership?

In 1965 the vehicle population stood at 138,813, representing one vehicle for every 80 inhabitants.(2) The composition was as follows:-

(3) Cars and cabs	82,532	1 for every	133 people
(3) Private coaches & Buses	7,976	1 " "	1,531 "
(3) Lorries, including tractors	30,776	1 " "	364 "
(3) Motor Cycles	17,529	1 " "	647 "

In U.S.A. and the United Kingdom the ratios of vehicles to population were 1:2.5 and 1:5 respectively. Could the expansion in road transport in those countries be a valid approximation of the projected expansion in Ceylon - certainly not. Both U.S.A. and the United Kingdom are industrially advanced countries, economically prosperous and enjoying

(1) Traffic Survey 1961 - The short-term Implementation Programme, 1962.
(2) In India the proportion is 1:607; in Japan it is 1:19.
(3) These figures include vehicles which are not actually in use. Precise figures are not available.

high standards of living; to draw a parallel between those countries and the developing communities of Asia and Africa is inconclusive.

Could then the market forces of demand and supply bring about the solution? The futility of the expectation is again obvious from the experience in U. S. A., where with the vast expansion of road transport unfulfilled demands of certain categories of users still exist. This is partly because road congestion, one of the fundamental evils of free expansion, has acted against expansion itself. American experience is that the opening of new roads produces such an increase in vehicles that road congestion soon re-ensues.

The transport needs of the community cannot be arbitrarily fixed by administrative decrees. No measures at the disposal of any administration are complete in form and function to assess accurately the anticipated volume of transport facilities required in consequence; and administrative measures often run counter to the individual's freedom of choice.

5.5 Freedom of Choice and the National Interest

Some people assert that if users of transport were given freedom of choice, subject to the payment of the true costs of production, they would, by their individual preferences for a particular quality or quantity, decide on the form(s) of transport and their total size that the community would ultimately require. A more sophisticated argument is that freedom of choice will enable the end of increased economic welfare to be achieved more efficiently than by any other means. Yet at the same time there is the implicit assertion that the freedom of choice should be limited so that a range of standard goods be produced at a lower cost than the same goods produced to individual preferences and

specifications. The argument goes further to assert that by this latter means the total economic welfare could be increased to a greater extent than under a condition of free choice. Thus, if there were a choice between complete freedom and limited freedom the latter would be obviously preferred.

Complete freedom of choice cannot be practised along with limited freedom and, as such, it is not possible to test which is more productive of welfare. Complete freedom is more appropriate to an affluent society where demands from individuals for alternative goods can be well accommodated. In a community with limited resources the decision to produce one thing is incompatible with producing an alternative good and the free choice of individuals under such conditions could often pose a challenge to the wider interests of the community.

The demand for goods and services from individuals is determined partly by the level of their incomes. Those with higher incomes - the economically 'better off' - demand more than those with lower incomes - the economically 'worse off'. At the same time the nature of goods and services demanded varies with different levels of incomes. Whilst the concern of the 'worse off' members of society is to acquire the basic necessities of life, the demands of the 'better off' would include, in addition, what may be termed 'luxuries'.

In less developed communities the income of the 'worse off' is not only very low but the inequity in distribution of income between them and the 'better off' individuals is often wide. The unrestrained exercise of the freedom of choice would, under such circumstances, cause an inequitable distribution of goods and services, the seriousness of the

situation depending on the extent to which the 'worse off' majority are unable to obtain the basic essentials of life.

In the transport field, whilst the 'economically weak' would be contented with modest facilities, the small 'stronger' section would seek to obtain possession of their own means of transport, a motor car or even an aeroplane, not specifically to satisfy the economic needs of their vocations but more to satisfy social desires. This feature, especially under conditions of scarcity of external resources would interfere with the flow of goods and services basic to the life of the greater section of the community. It is evident that, in the wider interests of the community, control of the use of external resources may be required, possibly by the curtailment of the freedom of the minority.

In Ceylon the majority are not privileged to possess their own means of transport due to their lower incomes, but the minority with substantial resources at their command, if allowed the freedom, would demand their own, both in respect of goods and passenger transport. The possession of a car, in addition to the benefits it affords in respect of comfort and convenience, bestows on the owners a degree of social status. Very many demands for private ownership of cars are in consequence motivated by this factor.

The import of motor-vehicles (accessories and motor fuel), for which the use of external resources is required, purely to meet the needs of the small proportion of individual demands, would affect the larger section with the loss of or reduction in the supply of a greater part of their essentials which are also met from imports. The effect, however, depends on the size of the affluent section, the extent of their demands

for the ownership of private vehicles and the proportion of the external resources that need be expended in that direction. It goes without saying that the wider interests of the community would be less affected if the imports of vehicles were restricted for common use, that is, if the road transport requirements of the community were met through public services alone. The number of vehicles required for public use would be much fewer than if individuals were allowed the freedom of possessing their own means of road transport.

Although interference in the free choice of individuals may be regarded as unethical and restriction of private ownership of transport involves inefficiency, since public road services may not be economical to all users at all times, yet the national interest may require that the expansion of private road transport should not be permitted.

5.6 <u>The Question of expanding Public Road Transport</u>

Yet again the conditions are such that an attempt to replace 'inefficient' rail services with 'efficient' road services in the near future would paradoxically create more difficulties to the community than relief. Undeniably, it is in the national interest that such uneconomic services are withdrawn. Their retention could perhaps be condoned on some other national grounds, for instance, when the Railway uses indigenous resources of fuel - coal - the alternative economic use of which is not present.(1)

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(1) This, however, is not an economic proposition. If it is worth abandoning both the Railway and the coal pits, it should be done.

In Ceylon, however, the Railway's requirements of fuel and a major portion of its equipment are met from imports, as with road transport, and apparently no valid arguments can be offered for the preference shown to it. Presumably, there exists the argument that a fair portion of the Railway's losses are attributable to the social and legal burdens imposed on it, and that if road transport were to supercede rail and the road undertakings were required to observe the obligations as exactly as the Railway is being required to, their success may be equally low. Nonetheless, there are certain fields in which road transport is more efficient than rail and the substitution of road services in such instances ensures savings in resources; but conditions do not permit such a substitution either. The society's inability is evident from the non-implementation of the recommendation of the World Bank (Railway Investigating) Committee which, as early as 1952, while examining the uneconomic nature of the Kelani Valley system, in particular, made it clear that a major portion of it should be closed, and the track converted into a major road. Such a conversion, inter-alia, implies the expansion of road transport.

So far no comprehensive assessment has been made of the additional requirements of road transport when once the rail services on that section are withdrawn; nor has there been an attempt to estimate the uneconomic services on the whole rail system. But a look at the country's expenditure on imports would reveal how far further commitments on road transport could have been possible.

	1959	1960	1961	1962	1963	1964	1965
				(Million Rupees)			
I. Consumer goods							
1. Food & Food products	786	739	662	625	678	689	698
2. Textiles	189	207	183	161	153	149	166
3. Motor cars	50	53	8	2	8	2	2
4. Rubber Tyres, etc.	25	20	31	24	27	26	27
5. Drinks & Tobacco	14	14	9	5	5	5	5
II. Intermediate goods							
1. Fertilisers	61	58	57	60	68	72	76
2. Petroleum products	132	118	126	125	119	122	118
3. Coal	11	17	9	9	8	9	8
III. Investment goods							
1. Building materials	72	80	71	78	82	84	86
2. Transport equipment	36	25	23	16	17	16	15
3. Machinery & equipment	30	25	21	17	19	21	22
IV. Other Imports	599	604	513	538	567	582	587
Total Imports	2,005	1,960	1,703	1,660	1745	1777	1810
Total Exports	1,754	1,832	1,733	1,808	1,837	1,817	1,899
Balance of payments	-251	-128	+ 30	+148	+92	+40	+ 89

(Source:- Annual Reports of the Central Bank of Ceylon).

The urgency to avoid a serious disequilibrium in the balance of payments brought forth import restrictions in 1961. A drastic fall in imports ensued. The effect on the import of motor vehicles is discernible from the following figures:-

	1958	1959	1960	1961	1962	1963	1964	1965
Cars & Cabs	5,538	7,577	8,943	3,210	2 463	395	359	493
Lorries & Vans	1,386	2,353	2,766	2,104	1,200	360	237	468
Motor Bicycles	1,235	1,313	1,722	1,502	390	102	120	34
Omnibuses	706	660	352	519	442	43	529	636
Total	8,865	11,903	13,783	7,335	2,495	900	1,245	1,631

Wilbur Smith and Associates who conducted a traffic survey in the Island in 1961 estimated that by 1971 the total number of vehicles would have risen to 318,900, an overall increase of 147% over the 1961 figure.(1) On an average, 17,000 vehicles would have been imported annually over the 10 year period had conditions been favourable. The average expenditure of foreign exchange in importing and maintaining the vehicles would have been Rs. 300 million a year, based on the figures for 1959.

However, the argument is centred on the question of replacing 'inefficient' rail services and accordingly an expansion of the above nature will not be required. The country could instead import that number of vehicles that will meet the requirements of replacing the rail services. But the question is whether the economy could have afforded the expenditure in 1961 or thereafter.

On the other hand, the cost of rail transport, from the angle of expanding foreign exchange is low - 1% of the total expenditure of the

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(1) The increase per different categories, as estimated, is as follows-

		Increase in per cent. over 1961 figures
Cars -	211,400	- 156
Lorries -	56,450	131
Buses -	12,990	200
M. cycles -	38,090	131

country as against 10.2% for roads.[1] Under the circumstances, it is wrong to contend that optimum social benefits are being obtained from expenditure on road transport.

The maintenance of inefficient rail services implies a certain loss to society. This is eliminated by substituting road transport. But under the special circumstances it is contended that it is in the interests of the whole community to devote that portion of resources that goes towards expanding road transport to some other activity, where the resultant economic welfare will be greater than that which is gained from an increased efficiency in transport.

The inability to obtain capital goods, through imports, has been the primary source of restriction in the economic development of the country. The construction of irrigation projects, fertiliser plants, and the purchase of agricultural machinery, will subscribe towards greater self sufficiency in food, and release a large portion of the island's external resources, presently expended on imports of food, for other activities. Such a development will also afford opportunities to solve the unemployment problem that plagues the community at all levels. Although such grandiose schemes are not practicable under the present stringent financial conditions, minor schemes could be undertaken, provided demands are not made on the external resources to expand road

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(1)

	1959	1960	1961	1962	Total
Road	10.3	10.7	10.1	9.5	10.2
Rail	1.0	1.4	.8	.9	1.0

Note:- This excludes expenditure on roads, etc. which, if taken into account will raise the figures to 1:13 or so.

transport with the ultimate object of displacing inefficient rail services. The problem, however, is to measure the economic welfare accruing from increased efficiency in transport as against that from some other activity which uses that portion of resources that goes towards expanding road transport.

5.7 The Question of External and Internal Resources

Throughout this chapter the emphasis has been on external resources, that is, foreign exchange resources. External resources are distinct from internal in that they command goods and services that are unavailable locally - these which have to be imported.

The internal resource capacity of a community is determined by the availability of factors of production - land, which includes mineral and agricultural resources; labour; and capital, including 'technical know-how'. The greater the availability of these factors the wider is the community's resource capacity. Internal resources ofter determine a community's external resource capacity.

Ceylon is well suited for tea. If, with the availability of land, other factors of production are made available in substantial amounts, production of tea could be considerably expanded. Anything above the local requirements constitutes the country's export surplus. This surplus commands a price, or, in the alternative, foreign goods and services in exchange. The availability of internal resources decidedly fixes the size of the surplus of tea, and thereby the country's external resources.

A country urgently in need of foreign goods and services but with limited external resources resulting from its low ability to export products and services that other countries need should endeavour to obtain

maximum benefits from the available resources. How does Ceylon hope to achieve maximum benefits from her meagre foreign resources?

The scarcity of foreign exchange to pay for the import of consumer goods is the pressing problem of the country. Besides, the need to import capital goods and raw materials for the developing industries accentuates it.

The Government has chosen to accommodate the industrial sector by curtailing imports of consumer goods, including transport equipment. It is felt that this measure is the most appropriate under the circumstances.

It is true that additional foreign exchange can be obtained by expanding exports and that opportunities to expand production of tea, rubber and coconut products are also not absent. Yet it is not a practical proposition.

None of these three export items are the monopoly of the island. Tea is grown in many countries in Asia, and certain African countries have in recent years devoted their energies in the production of tea for export. Besides, many tea-drinking countries are switching to the cheaper coffee. With supply exceeding demand the present high prices for tea cannot be maintained for long.

Likewise, the wider use of synthetic rubber in industry has affected the demand for natural rubber. Already a fall in prices has set in.

The prospects for the coconut industry are slightly more hopeful; but looking at developments in other producing countries, there is no denying that exports from Ceylon have to face severe competition. A fall in price cannot be ruled out.

Expanding production in the face of a possible glut in the market is not prudent. With the prospect that in a decade or two the earnings from exports will be insufficient to meet the cost of half the present imports.the Government's decision to achieve, as early as possible, a greater degree of self-sufficiency in industrial and agricultural products seems desirable.

5.7.1. Devaluation

If, however, instead of a direct curtailment of imports the Government could achieve the same objective through devaluation, it would permit of the import of a small quantity of transport equipment; this is not an agreeable measure.

Devaluation certainly causes a reduction in imports and effects savings in external resources when higher prices deter many would-be purchasers from bidding for imported goods, but this measure will spell disaster to the majority of the population.(1)

The average income of more than 80% of the population is very low. The demand from this section is for goods basic to life - food, clothing, medical supplies, etc. A large proportion of these are imported. On the other hand, the demand from the section with higher incomes, includes many other items, costly to import - electrical goods, cars, etc. While devaluation puts up prices of the basic essentials and reduces the purchasing capacity of the low income group, the purchasing ability of the rich section is less affected. They will continue to demand anything that they need.(2)

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(1) Devaluation will help exports as well. However, in a recent confidential report the International Bank for Reconstruction and Development has forecast a bleak future for Ceylon's traditional exports commodities even in the face of the devaluation of the rupee in October, 1967.

The outcome of devaluation, in the absence of some other form of restraint on the higher income group, will be that the available external resources are expended on imports desired by that group rather than on those essential to the poorer section or on those that are needed to expand agriculture and industry.(1)

5.7.2. Higher Tariffs

The other measure to curtail imports (and save foreign exchange) is to impose higher tariffs. This will not be effective either. Normally, high tariffs increase prices; the demand for imported goods is reduced. Nominal tariffs will not exert the desired effect; tariffs should then be excessively high. Luxuries - motor cars, electrical goods - should bear high tariffs while essential goods - food, textiles, etc. should be exempt. The experience in Ceylon, however, is that even with tariffs of 500% demands from the richer section for 'luxuries' will not be entirely absent.(2)

5.7.3. Quantitative Controls

The next best alternative is quantitative restrictions on imports, but it may be asked as to why, while curtailing imports of luxuries, essential transport equipment is not imported. Additional number of road haulage vehicles and omnibuses will ensure efficiency in transport and effect savings in scarce resources. The pathetic situation is however that an attempt to provide essential (road) transport equipment will

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(1) Even if the currency is devalued by 100% there will yet be demands from the higher income group for goods that are costly to import - 'luxuries'.

(2) To quote examples - A car costing £600 (Rs.8,600) in the United Kingdom fetches Rs. 60,000 in Ceylon; a refrigerator costing £30 (Rs.550), Rs. 2,000. (Ceylonese resident overseas are allowed to take home such goods provided their cost is met from funds earned or held abroad. These find immediate buyers).

enforce a reduction in the import of either far more essential items - food, clothing, etc. - or of capital goods and raw materials for the industrial sector, which are in no way less essential to the community.

The Government has to decide between expending the available foreign exchange on imports of less essential consumer goods, (road equipment cannot be excluded), or on capital goods, and raw materials. The necessity to expand agriculture and industry is self evident in the face of a possible decline in export earnings in a decade or two.

5.8 Objectives of the Government

The scarcity of foreign exchange is the immediate cause for curtailing imports. Nonetheless, the availability of railway transport is also partly responsible for the Government's decision. In the absence of the rail system, the necessity for an efficient form of transport would certainly force the hand of the Government to obtain road equipment even at the cost of reducing a portion of the consumer goods presently imported.

The objectives of the Government could be summed up:-

(i) a pattern of expenditure that makes available more of the limited external resources for imports of capital and intermediate goods. This implies that wherever practicable imports of consumer goods (transport equipment included)[1] should be curtailed.

(ii) The capital and intermediate goods (and raw materials) will be used to expand production of foodstuffs, and other consumer goods, such as, cement, textiles and fertilisers;

(1) It is apparent that road transport equipment is far below in the list of essential items in view of the availability of rail transport.

savings in foreign exchange will accrue with the curtailment of imports of these items.

(iii) By successful repetitions of this process it is hoped to embark on extensive programmes of industrial and agricultural expansion held up due to shortage of foreign exchange. (Example:- An initial saving of Rs. 30 million in external resources through the curtailment of imports of consumer goods (including transport equipment) will facilitate the setting up of a textile factory with imported machinery. This yields savings of, say Rs. 20 million,,presently spent on the import of textiles. This saving can be used to set up some other industry, and so on).

(iv) The Government seems convinced that the overall economic welfare is greater when that portion of external resources directed towards the expansion of road transport is used for investment of a capital nature, e.g. to import capital machinery for a fertiliser factory.

(v) The argument to reduce road transport equipment is strengthened by the view that the use of the existing rail/equipment will release large sums of foreign exchange for the development of the economy.

Evidently, the value attached to internal resources as distinct from external is low. The country requires capital equipment to expand industry and agriculture which is obtained only by way of relegating transport efficiency to second place. The transport economist cannot altogether disagree with this approach, since it has been considered the

most suitable measure to maximise economic welfare from the use of the limited external resources.

It strikes home the fact that the retention of the inefficient rail services in spite of the suitability of road transport is to save foreign exchange. Expansion of road transport, that is, increasing efficiency in transport, costs the community much in foreign exchange; but this view does not, however, imply that in an attempt to save foreign exchange resources society should be made to incur losses much more than if the rail equipment is abandoned, the investments made on the Railway are forgotten, and fresh outlays are made on road transport. The decision to make wider use of the Railway or abandon portions of it has to be determined by the possible savings in both internal and external resources.

The retention of the rail services will certainly impose more demands on the internal resources than road transport; but against those are the savings in external resources arising from the absence of replacement of equipment (assuming that the present uneconomic services will be abandoned when once the equipment becomes unserviceable), and reduced expenditure on fuel.

But, how far is the argument of saving external resources valid in the eyes of the transport economist? The transport economist is concerned with the proper allocation of scarce resources in order that the most efficient forms of transport are developed and thereby society should derive the maximum economic benefits.

Economic resources possess alternative uses and if they are not used in one economic activity efficiently the opportunity of using them in another always remains. The inference is that all forms of transport currently providing services are using the scarce resources

efficiently, or to put it in another way, they are efficient.

The view that the Railway makes fewer demands on the scarce external resources is plausible so as long the demands on the internal resources are equally low; but if these are more than what they would be if road transport were substituted instead, then the transport economist finds adequate justification to disassociate himself from the policy of retaining the Railway. It is for the policy maker to decide on that form of transport which would ensure maximum economic welfare. The issue then hinges on the question of the relative economic welfare obtained from the use of the two types of resources.(1)

It seems desirable to examine a probable situation. Assume that it has been decided to withdraw the uneconomic rail services. A saving of Rs. 30 million worth of internal resources is achieved. An expansion of road transport involves Rs. 20 million in external resources. This expenditure in foreign exchange necessarily entails a proportionate reduction in expenditure on imports, say food.(2) The use of the Rs. 20 million is justified only if the total economic welfare accruing therefrom is greater than what is achieved through the saving of Rs. 30 million of internal resources.

Taking the discussion a little further, Ceylon imports Rs. 600 million worth of foodstuffs every year. There are opportunities to expand agriculture at home. The Rs. 30 million worth of internal resources saved through the substitution of road transport can be

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(1) The term 'economic' welfare includes 'social' welfare, as well.

(2) This is so because of inelasticity in the supply of foreign exchange; earnings of foreign exchange are limited.

profitably used to expand agriculture, and a saving in external resources to that amount or more could be achieved.(1) The external resources thus saved could be used to offset the expenditure of Rs. 20 million on the expansion of road transport, making available a further sum (of foreign exchange) for imports of capital equipment. In this example there is evidence that the economic welfare obtained from the substitution of road transport is more than that when rail transport is retained.

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(1) This is on condition that the resources are efficiently utilised. It does not mean that if Rs. 30 million worth of internal resources are devoted to agriculture the output of agricultural products will be worth more than that amount. It may be sometimes less, or the total investment lost through crop failure.

CHAPTER 6 TRANSPORT COSTS

6.1 Identification of Costs

The prime requisite of coordination in transport is the identification of the costs particular to the services of the various agencies. Charges based on unascertained costs are unrelated to the costs of providing the services and contribute to the wrong choice of services by users and to the misdirection of scarce resources thereby; but the task of ascertaining the costs of any particular service, whether road or rail, poses grave difficulties. The costs are influenced by many factors.

6.1.1. Nature of the Traffic carried

This factor does not affect the costs of providing passenger services as much as it does the costs of the carriage of goods. The use of a railway wagon or a road vehicle is influenced by the nature of traffic carried. Loadability, the concept adopted by railways, in recent years, determines the extent to which a consignment occupies the capacity of a wagon in relation to its weight. Wool loads less than coal; bulky materials, like stone boulders, load less than tightly packed machinery.

If one ton of wool occupies the full capacity of a wagon as against ten tons of coal, the carriage of that ton of wool costs more than the carriage of a ton of coal. If instead of ten tons only one ton of coal is carried the costs of carriage of both coal and wool are identical; but invariably, railways attempt to make use of the unoccupied wagon space for other consignments of coal or traffic that go with it. In such a case, the carriage of one ton of coal costs less than the carriage of the ton of wool. However, the cost of organising the 'smalls' may offset the advantage of space saving. Other properties of goods also exert their effects on the

costs of handling, storage, risks of damage etc. Both road and rail costs are influenced by these factors.

6.1.2. Density of Traffic

Costs are greater when the traffic density is irregular over time, causing peaks. The peculiar feature of 'peakiness' is that capacity has to be expanded to accommodate the peak traffic and left underutilised during slack hours, thus increasing costs to the undertakings.

Density of traffic affects costs in another way. It is often considered that high density affords rail undertakings opportunities to lower their unit costs. This argument is based on the notion that rail undertakings possess excess capacity, the maximum use of which reduces the unit costs of transport. A railway locomotive with a haulage capacity of 200 tons incurs a particular cost of operation, regardless of whether it is given a full load or not. The unit costs of hauling 100 tons with that locomotive will be twice that when it is given its full complement of load,[1] but rail costs increase disproportionately when the density of traffic exceeds the undertaking's capacity, and the use of additional wagons and locomotives ensues. Again, high density is associated with peaks which, as pointed out above, cause the disproportionate expansion in capacity. High costs are also evident with the handling of heavy traffic at stations and depots.

6.1.3. Nature of the Country and Track

Costs vary with the nature of the country over which traffic is carried. The costs of construction and the maintenance of roads and railways in hilly country, and operating services upon them, are greater than in flat country.

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(1) Fuel consumption is liable to vary with loads, and a small increase or decrease in costs is possible.

6.1.4. Distance

Finally, there is the influence of distance. The long considered view is that the cost of carrying a passenger or one ton of freight by rail per mile diminished with the increase in distance, but recent traffic costing studies negative that view. It is found that longer transits mean longer delays at marshalling yards, and even if the costs of marshalling are excluded, there is no evidence that costs diminish with the increase in distance. This is also true with road transport although terminal costs are of less significance to road than rail.

The costs of rail transport are liable to diminish in relation to road costs and vice versa according to the following circumstances:-

Rail	Road
Direct route	Cross country route
Heavy flows	Light flows
Long distances	Short distances
Direct rail access (siding etc)	No easy access to rail
Mechanised handling	Personal handling
Heavy bulk (train loads)	Small bulk (lorry loads)
Robust commodities	Fragile commodities.

6.2 Economic and Accounting Costs

The conditions enumerated above determine the relative costs of transport by road and rail, but these do not much concern the transport economist whose interest is centred on the scarce resources and the economic costs arising from their use. The economic cost of a product represents the value of the scarce resources used to produce it. Invariably all productive resources possess alternative uses. The use of them in one product involves the sacrifice of what they could produce in another use. That is, the cost of the product consists of the sacrificed opportunity of producing something else, whence it is called an 'opportunity' cost.

Productive resources enter into the economic cost of transport only if they have alternative uses. Those that do not have are specific and do not incur an opportunity cost since their use does not involve the sacrifice of the opportunity of producing something else.

Some resources are specific for short periods while others are for longer periods, nay indefinitely. The use of a steam locomotive is specific for 25-35 years, whilst the use of a rail road (its embankment and cuttings) is specific for more than 100 years. No opportunity cost is incurred in the use of the locomotive for 25-35 years, and the period extends considerably for the track and the rest.

The question of opportunity costs sets in only when the use of the locomotive is envisaged to extend into a longer period, when it needs replacement, and non-specific capital resources are committed to the manufacture of a new locomotive, and the opportunity of using those in some other way is lost.

The accounting costs of providing a transport service differ considerably from its economic costs. The accountant treats interest and amortisation charges as costs while the economist does not.

Another basis of divergence between him and the economist relates to the treatment of private and social costs. The calculation of the costs of a road service in terms of the resources used - petrol, wages, depreciation, and so on - is not a convincing way of ascertaining the actual economic costs, since many external diseconomies are overlooked. The individual operator never associates himself with the extra costs to society as when he maintains services on congested roads and increases other road user's costs.

Nor does he account to himself a portion of the social costs engendered by road accidents; nor the costs arising from inconveniences caused by noise, gas fumes, and other discomforts to other road users, and residents living adjacent to congested roads. The economic costs of moving traffic along less congested roads with fewer accidents and other shortcomings are much lower than when under opposite circumstances.

The accountant is also apt to overlook the 'users' costs. The costs of transporting a commodity are not only those incurred by the transporter in carrying it between two terminals but also those related to the movement between terminals and the points of origin and destination. The problem is then to identify the costs of a service with due consideration of the differences between economic and accounting costs.

6.3 Direct and Indirect Costs

Generally the costs of transport are grouped into two categories - direct and indirect. Direct costs vary more or less with the volume of traffic and the distances over which it is carried. An additional bus journey entails additional expenditure in respect of fuel, operating staff, and maintenance; a curtailment of a journey avoids it. Direct costs are identifiable with the performance of particular service(s).

Indirect costs, on the other, are unaffected by small variations in the volume of traffic. The running of an additional train a day does not cause additional expenditure in respect of track use; the running of fifty additional trains may demand an additional track if the one in use is being utilised to full capacity. Indirect costs are affected by large variations in the volume of traffic and, as such, identified with a group of services.

The economist determines the costs of a service by the savings in resources when it is not provided. The withdrawal of a train service between A and B effects an immediate saving on fuel at the end of the day, and wages at the end of the week (or month). No immediate savings accrue from capital equipment - locomotives rolling stock, track,etc - except those connected with their maintenance when all the services between A and B are withdrawn.

Savings from capital equipment occur only when the time for replacement comes. Assume that a train set, comprising a locomotive and ten coaches, provides ten (passenger) services a day between A and B. The withdrawal of these ten services effects a saving in resources if the replacement of the set has been planned for immediately. On the contrary, the withdrawal of all the services, say a hundred, run daily between the two points would not cause a saving in resources in respect of the other nine sets since their replacement has not been planned for immediately, but for some future date. If each of these were to be replaced annually, the savings in resources will accrue annually; those in respect of the tenth set falling in the tenth year. The savings in resources are determined by the length of time, and invariably, the view taken is the long term view.

There are assets that need not be replaced altogether, in which case the withdrawal of the train services, whether ten or the whole, does not yield any savings in resources. The railbed, tunnels and embankments are examples. Their use does not incur any costs, although current costs will have to be met to maintain them to a satisfactory standard of efficiency. The costs of transport should include the current costs and not the original costs incurred in providing those assets.

There are small elements of costs which are indivisible, some factors of production, the quantity of which cannot be reduced in proportion to the volume of the reduction in the services. The use of a locomotive is implied whether one or ten services are run a day, or whether ten or twenty wagons are hauled at a time. The laying of a track is necessary whether one or fifty services are run a day.

In certain instances such indivisible costs are overcome when a service is reduced by a moderate amount; but others are more fundamental and yield only with the suppression of the whole services. The reduction of two services probably releases a locomotive if it were purely maintained for those services.

The intricacy of the second example is exemplified in the treatment of rail track costs. The curtailment of the services between A and B permits the removal of one of the two tracks used (the traffic making use of the second), whilst the removal of the second track is possible only when the whole services between those points are withdrawn; but if the tracks are used for frequent services between C and D that pass through A and B their removal is not conceivable. Perhaps, a saving in resources occurs with lesser maintenance costs consequent upon the reduction in services between A and B. Thus when considering the costs it is important to distinguish between the factors of production utilised in providing the service and those saved by not providing it. To the economist the direct costs are then identical with the resources saved when a transport service is withdrawn, and the indirect costs with those that cannot be saved.

6.4. The Problem of Indirect Costs

If prices were to reflect the costs of providing the services there should be no uncertainty in the interpretation of costs. Direct costs are easily identifiable, and less divergence exists in the interpretation of the term 'direct costs' by the different operators, whether rail or road; public or private. However, there are certain costs to road operators which, although they appear in the form of direct costs, are reckoned as indirect. These are the 'track costs' - the costs of using the road - which fall upon them through the medium of the fuel tax and the Road Fund Licences.

Difficulties nevertheless arise in respect of indirect costs, particularly significant in their treatment by road and rail undertakings. Rail freight rates are based on the feature of 'discrimination'. It means that rail charges for particular services are at times in excess of the direct costs whilst equal to at other times. The ability of rail undertakings to charge in excess of direct costs is qualified by the extent of road competition. The lesser the competition the greater are their opportunities.

The case of the road operators is different. The major portion of their indirect costs (the costs of the use of road) is met through road taxation. The main component of road taxation is the fuel tax which falls perforce on every mile covered. For any particular service they offer the operators have to meet the direct costs (through the use of the fuel) and part of the road tax. In all probability their charges will be in close relationship with the actual costs, partly because they cannot avoid covering their costs and partly because competition from other road operators and rail undertakings will not permit them to charge monopoly prices.

The result is that on competitive routes rail undertakings undercut road rates even if the direct costs of both forms of transport are identical, and recoup their indirect costs (not covered from those services) from other services which have no alternative but to bear them. Rail undertakings thus secure a share of the traffic that they are not entitled to.

At times, road operators can adopt the same policy of setting rates on competitive routes at direct costs and recover their indirect costs from other services where they possess a monopoly. This happens when they are given the monopoly of a route or a class of traffic. However, it is not to lighten their burden. They will incur a running loss since they have to meet not only the direct costs of operating the competitive services but also have to bear the taxes payable on fuel and on the vehicles used to operate them. It would be better that they concentrated on those services where the advantages are greater than attempt to secure a share of the competitive traffic and dissipate their resources.

The problem is to ensure that both forms of transport adopted a uniform method of treating 'indirect' costs. Rail undertakings at present help to distribute the burden of indirect costs over traffics that will bear them. It means that the burden is put where it will not cause a real change in the user's choice of the means of transport he employs. Economically, this basis of changing is not wrong provided the process of not relating prices to costs does not cause a significant change in the use of the different forms of transport; but if it does, road operators should also be afforded the opportunity to discriminate with prices. Unfortunately it is not practicable, since discrimination is a feature associated with monopoly, and road transport is not the monopoly of one individual.

It is clear that road and rail undertakings cannot practise discrimination together; to allow the latter to enjoy the privilege is wrong. The alternative is for them to abandon that practice. Both forms of transport undertakings can be made to charge, in addition to their direct costs, a fixed amount per ton or passenger mile to cover their indirect costs. The road and rail costs will then reflect exactly the relation between road and rail direct costs, but this is not a simple task. A tax falling uniformly on every ton and every passenger mile by road is difficult to ascertain, while time must elapse before the rail direct costs for the different traffic, including the smalls, are identified. Rail costing has advanced considerably, but many more hurdles remain to be cleared.

6.5 Formal solutions

Various formulae have been offered for a solution to the problem of indirect costs. Brig. General Mance[1] suggested that the direct costs of both road and rail transport should be met as a whole and not charged to the two forms individually, but the drawback of this procedure is that one form or the other stands to be subsidised. This could yet be tolerated provided the economic division of traffic between road and rail is not impaired by the subsidy.

This could hardly be the case. This procedure overlooks the probable changes in circumstances when the indirect costs of one form or the other are reduced. If the indirect costs of the railway are reduced through some technical improvements, logically, the tax on every rail ton or passenger mile should be reduced so that the community benefits from the improvements.

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(1) Brig. General O. Mance - The Road and Rail Transport Problem.

Part of the traffic will be transferred to rail for carriage at cheaper rates and at lesser cost in resource to the economy.

Under the Mance procedure, however, it is the indirect costs as a whole, (for both road and rail) that are considered, and a reduction of them causes a reduction in both the road tax and rail surcharge. Since the reduction will have to be identical in amount for both road and rail it means that the rail charges on all services are not reduced relative to road charges. As a result of the transport costs as a whole being reduced, an increased demand for services possibly occurs (when that traffic that did not seek either road or rail transport now seeks them), but the economic distribution of traffic is not achieved.

Furthermore, the adoption of the procedure implies and increase in the road tax generally which affects the relative charges between road and rail to the detriment of the road operators. The result is a shift of traffic to rail which is again unacceptable.

Mr. Sargent[1] suggested that since road transport cannot emulate rail and adopt discriminatory pricing, the alternative is to devise some form of road taxation with which the road costs are covered, and which pattern the railways will be required to follow.

He contemplated a uniform tax levied on every ton mile and a uniform tax on every passenger mile run by the road operators. Rail undertakings would also defray their track costs by a similar uniform tax on both ton and passenger miles run. The mainstay for the assessment of the road tax is the record kept by the road operators, but it is common knowledge that the 'C' licence holders and the private motorists do not keep records; nor that it is

(1) J. R. Sargent - British Transport Policy.

possible to trace their movements. Rail undertakings keep adequate records from which the rail surcharge can be fixed. The practical difficulties in determining the road tax forced him to adopt the existing petrol tax for purposes of fixing it.(1)

The formulae suggested by both Brig. General Mance and Mr. Sargent are to ensure equality in the treatment of indirect costs by both road and rail, and to remove the advantage rail undertakings possess over road operators in recovering their track costs through discriminatory pricing.

Mr. Carr argued that the Sargent proposals are not free from shortcomings.(2)

(i) Since rail undertakings have to find annually a fixed amount to cover their track costs a fall in traffic implies that every unit of traffic has to contribute a larger amount towards the costs. A general surcharge as suggested by Mr. Sargent will increase the rates, and a shift in traffic from rail probably occurs; but if they were allowed to discriminate in their prices they can impose higher charges on inelastic traffic, and thus minimise the secondary loss of traffic.

This secondary loss of traffic is not due to a reduction in the relative costs of road transport, but to a rise in the average incidence of rail indirect costs, which have to be borne by the undertakings if they are to provide efficient services. Thus the road operators are afforded an advantage over rail undertakings and an undue share of traffic goes to them.

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(1) D.C. Munby in his essay on Road and Rail Track Costs (Manchester Statistical Society) lists difficulties the petrol tax has to face (Page 34)

(2) J.L. Carr - Journal of the Institute of Transport, March 1960.

A fall in demand for road transport curtails services and effects savings in fuel tax. Although in order to cover the road costs an increase in the fuel tax is inevitable, yet under the existing circumstances of increased private motoring such an increase is not anticipated. The trend will be for traffic to shift from rail to private road transport. The fall in traffic will necessarily be on competitive routes and not on unremunerative routes, in which case, the rail undertakings cannot attempt to reduce their track costs by curtailing their route mileage.

(ii) The proposals do not favour discrimination. It means no subsidisation of the unremunerative by the remunerative services, but the uniform surcharge on all rail services implies cross-subsidisation unless indirect costs are proportional to traffic density everywhere which, however, does not exist in rail transport. The general surcharge on all rail services will yield surpluses on high traffic density routes and deficits on low traffic density routes, but road operators with their ability to price their services at costs, plus the fuel tax, are in a better position to attract traffic since there is no need for them to cross-subsidise their services to a higher extent as with railways.

(iii) It is evident that the incidence of the fuel tax on passenger and goods is relatively reduced with the high load factor. Road operators are thus able to quote competitive rates for traffic flows offering good load factors, raising them for services where capacity is less fully employed. They are in an advantageous position if they are in competition with rail undertakings which have to maintain the uniform surcharge on both goods and passenger traffics irrespective of the load factor.

(iv) The burden of the surcharge on rail freight is much greater than the burden of the fuel tax on road operators. "The cost structures of road and rail transport are so different, and to expect to achieve equal competitive conditions through relating their charges to a common formula, especially, one that arbitrarily equates road fuel tax to indirect rail costs seems illusory".

It is clear, nonetheless, that the difference in treatment of the track costs is a possible source of inequality for effective competition between road and rail transport and as Mr. Foster points out it is necessary that rail undertakings are required to treat their track costs as 'direct' or 'allocable' in the same manner as road undertakings treat their track costs.(1)

6.6 Rail Costs and Costing Procedure

Rail administrators all over the world are forced under the strain of road competition to seek better methods of salesmanship. Until very recently it has been felt that the costs of transport by rail are not easily identifiable for particular traffics, but studies have revealed that a large portion of costs is apportionable, and that by a proper system of analysis and accounting, rail undertakings are in a position to assess the costs of movement of each unit of traffic to a satisfactory degree. The financial difficulties of the rail undertakings are due to the variations in the costs of moving different categories of traffic and because the charges made are not in close relationship with the costs incurred. In consequence, they are carrying some categories of traffic at comparatively unremunerative rates. This internal subsidisation has been possible whilst rail undertakings enjoyed a

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(1) C.D. Foster - The Transport Problem.

monopolistic position, but competition from road transport has significantly altered the situation; the high rated traffic seeks road transport for cheaper charges.

The traditional rail charges scheme is influenced by the distance over which traffic is moved; by its weight; and in addition; by its value. The resultant structure is totally uncomprising with the present pattern of charging according to the actual costs of carriage. However, it is apparent that in the actual sphere of transport there are other factors influencing costs of individual traffics or hauls.

Railway costing is a recent innovation. Its uses are two-fold - (1) as a guide to price fixing, and (2) as a measure of the comparative efficiency of operations between different forms of transport and different agencies. In the past, cost consciousness among rail administrations has been markedly absent, but railway costing involves many problems, both theoretical and practical; and the experience gained so far in this field has been inadequate to meet the requirements of the industry. Railways are multi-product firms selling a varied range of services and facilities, and the complex nature of their operations makes it more difficult to adopt the costing methods used by ordinary firms.

In Ceylon, the rail administration has throughout exhibited utter disinterest on this issue. In 1963 the possibility of setting up a Railway Costing Unit was explored; and the lag in progress can be ascribed to the absence of 'know how', as equally, to the absence of some form of compulsion on the administration for a better system of identifying its costs. The lack of enthusiasm can be possibly attributed to the generous loans

(subsidies) the administration is granted towards its deficits, but that should not be a reason for the slackness if it were known that costing would pay.

Although in many instances rail administration have not been slow to realise that costing pays, yet they have been constrained to adopt costing methods for fear that the increased benefits will be lost by a probable reduction of charges at the insistence of their Governments. In Ceylon such a fear ought not have been the basis for the non-adoption of costing methods, unless of course the Government has been resigned to the conclusion that they will not pay.(1)

In the United Kingdom costing was introduced on a limited scale in the 1950s with the setting up of the Traffic Costing Service. The present pattern as evolved by the British Railways falls under two categories - 'particular' and 'generalised'.

The 'particular' type of costing is applied to regular consignments offered by the 'train loads'. The costs are estimated under the following heads:-

(a) Shunting at terminal stations.

(b) Provision of terminal facilities and accommodation at stations of origin and destination.

(c) Terminal haulage - haulage between station of origin and first marshalling yard, and last marshalling yard and station of destination.

(d) Provision and maintenance of wagons.

(e) Provision of sheets and ropes.

(1) Report of the Committee on Traffic Costing in the Railway Department- Sessional Paper 7 of 1963.

(f) Documentation.

(g) Marshalling.

(h) Trunk haulage - haulage between first and last marshalling yard.

The procedure adopted is as follows. The costs of the first six items are taken as a standing charge for wagon loads since it is assumed that they vary little with distance. Items (g) and (h) are costed per wagon mile since they vary with the distance covered. To both the standing costs and the costs per wagon mile is added a percentage to cover the risks of damage or loss in transit. Anything that the traffic earns above this amount is set against the costs of track, signalling and general administration.

For 'generalised costing' cost scales differ according to the categories of traffic - machinery, merchandise, coal, etc. These scales again vary according to their loadability. A full wagon load consignment costs less than a partially loaded consignment, and a light consignment (wool) costs more than a heavy consignment (machinery), and so on.

The breakdown of costs is again under the eight heads, except that the first three items are united in a single cost for the beginning, and another for the end of the journey. The rail stations in the country are divided into 25 groups according to costs, and the costs particular to each destination (station) are thus identified. The costs of the first three items are individually calculated, but a degree of averaging is involved both in respect of these and other items.

Both trunk haulage and marshalling are important elements for generalised costing. Marshalling is worked out as a cost per wagon mile.

It is assumed that a wagon is marshalled, on an average, every thirty miles; but in fact, the number of marshallings varies. Similarly, the costs of trunk haulage also vary. Averaging of the costs is common here too. The first six items produce a standing cost but a small proportion of the costs in respect of the provision and maintenance of wagons is charged as a cost per wagon mile. To each is added a fixed percentage in respect of risk of damage and loss in transit. This calculation sets a minimum for charging. Any charge above the minimum is a contribution towards the costs of track, signalling and general administration, which are not separately costed.

The 'generalised' costing, as it appears, is dominated by a pattern of averaging, particularly in respect of marshalling, and traffics that should bear different costs are thus costed at the same rate.

The main criticism levelled against this system of costing, however, centres around the definition of direct and indirect costs. Mr. Foster believes that, wrong principles are also involved.

Rail costs are constituted preponderently of joint costs and a discussion of these is not out of place. Firstly, there are the unavoidable or true joint costs. The classic example is wool and mutton. "The characteristic of joint costs is that the 'jointness' is a fact of nature or technology and exists at all points in time before and after the relevant investment is made.[1] They occur with the provision of a service or facility and necessarily entail the output of some other service or facility. A person who invests on wool knows well that it is a fact of nature that he will produce mutton as well.

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(1) C.D. Foster - The Transport Problem, page 83.

There are a number of examples of true joint costs in the railway. The rail track serves both passenger and freight trains; the station and buildings, both peak and off-peak passenger traffic; the marshalling yards handle both passenger and freight stock; and locomotives haul both passenger and freight stock at the same time.

Another example is labour. Labour cannot be hired except for definite periods of time, the minimum being a day. Rail operations entail the use of labour over long periods to include both peak and off peak hours. Labour meant for peak hours is available for slack hours as well.

The joint use of the track for both passenger and freight services has been the cause for a wrong assumption that if a rail undertaking operating both freight and passenger services recovers most of its costs pertaining to track and signalling through freight earnings and the passenger traffic just makes a small contribution, the freight traffic subsidises the passenger services. The assumption is that passenger traffic cannot afford a higher proportion of the costs, but in reality it is not subsidisation of one by the other. If the freight traffic does not contribute as much as it does now the total costs are not covered and the undertaking is worse off.

Another kind of joint costs common to all forms of transport is associated with round trips. The provision of services between two points A and B necessarily entails the provision of the return trips between B and A, to complete the journeys.

There is yet another kind of joint costs that exists only in the short run: To illustrate an example, if a rail administration decides to build a marshalling yard to handle a definite number of units of merchandise X and Y, and if subsequently it were decided to alter its capacity to handle a lesser

number of units of X then, in a context of investment, it may be asked what proportion of the costs is avoided by the subsequent decision. So long as the marshalling yard is not built opportunities to vary its size exist, and under such circumstances, it is possible to talk of separate marshalling yard capital cost; but when once the yard is completed a subsequent decision to vary its size does not cause a reduction in the capital costs. Nor is there the opportunity to question as to what is the separate marshalling yard capital cost. It is fixed. In the same token, and under the circumstances, there arises no question of average marshalling yard capital costs, whether for X or Y. If the traffic were to use the marshalling yard in the proportions predicted at the outset, other things being equal, the two categories of traffic would contribute towards the total costs of the yard. But, by chance if the contribution of one were reduced, consequent upon a change in the pattern of demand, it is not to be concluded that the one subsidises the other, the contribution of which falls below the predicted level. The reduced contribution of one category of traffic affects the costs of the yard in general and whatever the circumstances under which the cost of the yard shall be covered the cost is the one cost, the joint cost.

All capital installations of the railways come under this category, and invariably this category of joint costs exists in all forms of businesses. But the peculiarity with the railways is that the proportion of indirect to direct costs is high.

Mr. Foster is of the opinion that the estimates arrived at by the British Railways are more or less a 'subtle allocation' of costs without a clearcut demarcation between direct and indirect costs. He estimates that

more than 80% of the costs are joint costs as against the common view that the proportion is low.(1)

6.7 Road Costs

The many difficulties encountered in railway costing are absent in road costing. The simple nature of road costing is ascribed to -

6.7.1. The size of the undertakings

The typical operating unit, the bus or the lorry, is smaller than the railway train. This unit combines both traction and carriage. Hence, the problem of costs common to a large range of output is substantially reduced. The lorry/bus represents the costing unit which closely corresponds with the charging unit, the load (freight/passengers). The operator is thus in an easy position to identify his costs per load or trip.

6.7.2. Administration

The administration of road undertakings is much simpler than rail undertakings, particularly in view of their size. Furthermore, the records are also simple to maintain; they consist of the Driver's log sheets, fuel and repair bills.

6.7.3. Track costs

The problem of track costs is also not complex as with rail transport. The costs of the use of the road are met through the road licence, and the fuel tax, both of which can be costed to individual vehicle trips and even to specific traffic. Hence, the element of joint costs is reduced.

The costs of road haulage undertakings are divided into the following headings:-

(a) Wages for drivers and assistants

(b) Fuel

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(1) C.D. Foster - The Transport Problem.

(c) Tyres

(d) Repairs to vehicles

(e) Depreciation of vehicles

(f) Licences and Insurance

(g) Administration and Depot Costs.

The first five items are variable (direct) costs and the other two are fixed (indirect) costs. Wages and expenses of drivers and their assistants vary according to the volume of traffic dealt with. It is possible to use one vehicle for 16 to 20 hours a day, with the crews working in shifts, but the crew strength is reinforced with expansion of the undertaking. The costs are escapable in the short run if the crews are employed on a short-term basis, or alternative employment is found for them.

Fuel costs vary with distance, load, and the nature of the roads the vehicles use. The costs of tyres also vary accordingly. Repairs are closely related to the use of vehicles. Depreciation of commercial road vehicles is fairly related to use and not simply to the passage of time and is avoided if the vehicles are kept idle. However, it is not to be assumed that total non-use avoids total depreciation on the vehicles.

Nearly 75% of road transport costs are direct (variable) and these can be directly costed to particular vehicle loads. Since only 25% are indirect (fixed), the problem for the road operator is small when compared to the difficulties of rail undertakings in distributing their indirect costs.

CHAPTER 7. PRICING OF TRANSPORT

7.1 Public Transport and Public Service

It is often contended that public transport is a branch of the public service. The term 'public service' as it is commonly interpreted, is something that provides services or products at less than cost, or sometimes free. Examples are the Health Services and Education (in Ceylon). Should then a public transport enterprise provide free or less than cost services? There is no valid argument in support of it. There is no reason to encourage people to use more transport than they can afford nor for a certain section of the people to meet the costs of services maintained for those unable to pay for them, but encouraged to use.

If a transport undertaking were to provide a portion of its services at less than cost prices it has to be subsidised either internally or externally. If it is internal subsidisation the users of its other services make good the loss; if it is external, often the public bears it.

There are objections to internal subsidisation. Why should certain users pay more than what the services they use are worth? Is it not discrimination in favour of the users of the less than cost services? On the other hand, the State can make good the loss through a subsidy. This measure, whatever the implications are on other economic activities or whatever is the extent of discrimination between citizens, yet accords with the condition that the costs of providing services are covered with receipts from charges made against the users of the services. The State just foots the difference in costs of the services provided for those unable to pay their full costs.

7.2 Profit Maximisation: Nationalised and Private Enterprises

Nationalised undertakings, though not specifically debarred from

making profits, are made to feel that they should not. They are expected to break even - the losses of one year or over a period of years to be covered by profits from another year or a period of years. Presumably, if surpluses are a regular feature, it is the assumption that the consumers shall benefit through lower prices and/or better services and facilities.

Opponents to nationalised undertakings making profits argue that since public ownership is sought as a panacea to the ills of exploitation of the consumers by private enterprises, it is unbecoming of them (the nationalised undertakings) to practise exploitation; but there is the argument that the monopoly position of a public enterprise and its possible exploitation of the consumers are of a different nature from those of a private enterprise. While the benefits of monopoly power and exploitation in a private enterprise accrue to the shareholders they accrue to the State in a public enterprise. The State utilises the profits for the common good - on social relief, reduction of taxes, etc.(1)

Yet, nationalised undertakings cannot hope to provide less-than-cost services eternally unless the tax payer enters the scene. If it were assumed that they should return their profits to the consumers by way of lower prices, the logical implication is that their losses should be recouped through higher prices. Apparently, the policy of public enterprises should not be confined to the promotion of the interests of their users, regardless of the harm to the general public by such a policy.

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(1) C.D. Foster. The Transport Problem.

The policy of a transport undertaking run as a Government Department, as with the Ceylon Railway, need not differ from that of nationalised enterprises. Its profits too accrue to the State. It can be made to provide less than cost services the costs being met by the State itself.

The services maintained by the Ceylon Railway have throughout been on a profit-making basis, but attempts to maximise profits, as private enterprises do, have not been pursued. While on the one side profits were sought, on the other, unremunerative social services were retained.

Opponents of the policy of private enterprises insist that their profits are unduly excessive; but looking at the list of their commitments it has to be conceded that the high rates of returns they seek are not excessive.

Profits are needed to maintain reserves against unforeseen contingencies. The alternative is to borrow at high rates of interest or to increase prices of services, with the risk of losing custom and revenue.

Profits are indispensable for self-finance; they are required to pay interest on borrowed loans and also to pay taxes.

Although there is no doubt that public enterprises have to make profits, the possible criticisms against maximising profits are that at times they may charge exhorbitant prices for their services. But there is the satisfaction that even if they did the profits accrue to the State. However today, with strong competition in transport, opportunities for monopoly prices are rare.

Secondly, the policy of profit maximisation tends to leave out many categories of social obligations. Public undertakings, it is contended, shall not fail to observe the social needs of the community, which private

undertakings, for commercial reasons overlook. However, there is no reason why they should not be directed to observe the social obligations provided the State or some other party foots the bill.

7.3 Marginal Cost Pricing

Marginal cost pricing is advocated for public undertakings in a mixed economy. The marginal cost of a product (service) is the total addition to the expenses of an enterprise resulting from the production of the last (marginal) unit of output of goods (services).

This principle, if applied throughout the economy, would ensure the optimum allocation of scarce resources. When price equals marginal cost in every branch of economic activity - whether in transport, agriculture, or industry, national real income is at its maximum. Yet it is not adopted for fear of repercussions on taxation and income distribution. Besides there are administrative difficulties.

(a) The principle of marginal cost pricing tends to overlook social costs. It is felt that decision makers will just equate marginal private cost with prices; but Foster points out that it is nothing to do with the principle but is a faulty application of it.(1)

(b) The use of the principle is ambiguous. Those charged with the task of fixing the marginal cost prices do not, on the one hand, possess a complete knowledge of the future, and on the other, know the effects of their decisions. Again, they may not agree among themselves as to what form of prediction is the best. The inevitable consequence is that whatever their endeavours may be

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(1) C.D. Foster - The Transport Problem. page 311.

certain costs and benefits tend to be overlooked and the national income will not be maximised. There, again, the shortcomings are not due to the impropriety of the principle, but over its administration. The remedy is to select those who can make the best predictions.(1)

(c) It is not clear whether the short run or long run marginal cost should be charged. Since it is a matter of choice the principle is ambiguous.(2)

Foster insists that there is no ambiguity and that the view is inadmissible. Short-run marginal cost is what is relevant. It is that concerned with the production of the extra unit of output. In the traditional example of the train, the short run marginal cost of carrying an additional passenger when the train is not full is virtually zero. When it is full, it is the cost of running another train, which falls to zero when once the train is provided.
For a machine that wears out, the short run marginal cost of its output rises until it is replaced and falls again when it is replaced. When the old machine is used, the long run marginal cost is that of replacing it with a new one, but when it is replaced, the relevant marginal cost is the short-run cost of the unit of output of the new machine.

(d) The application of this rule affects income distribution. It is implied with marginal cost pricing that certain industries with heavy overheads if they fail to cover their costs have to be subsidised; but it is not known how these losses are made good, whether from an

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(1) Op.Cit page 312.

(2) Op.Cit. page 313 - Quoting Wiseman: The Theory of public utility price - An Empty Box.

excess of price over marginal cost or from taxation. If the losses are made good from taxation there is reason to believe that the distribution of income will be affected.

(e) There is the criticism that if the principle is not adopted universally in an economy, the overall efficient allocation of resources cannot be achieved. But there is the view that if it were applied to the transport sector, if not to the whole economy, it may at least ensure the proper allocation of resources among the different forms of transport.(1)

(f) This rule does not afford proper guidance for investment. Instead, it kills the guide of profitability, commonly used.(2)

7.4 Profit Maximisation by Railways

It appears that marginal cost pricing is not favoured for the railways, not because the principle does not hold validity, but for the practical difficulties arising from its application. If, however, the railways were to adopt it, the procedure is as follows.

The marginal costs incurred by the different components of the rail system in carrying the various classes of traffic are ascertained. The transport of a consignment of coal causes certain costs to be incurred by the Permanent Way Engineer, for the use of the track; by the Locomotive Engineer, for the use of the locomotive; by the Yard Master, for the use of the marshalling yard; and so forth. Each endeavours to maximise profits for that branch of the railway for which he is responsible.

Example: The Yard Master sees that the short-run marginal cost of the yard is covered by the short-run marginal revenue. With that view he

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(1) E.J. Mishen - Quoted by K.M. Gwilliam - Transport and Public policy, p.4.

(2) K.M. Gwilliam - Transport and Public Policy.

quotes prices for the services of his yard. If the marginal cost of marshalling a wagon is 5 shillings whilst the marginal revenue is 3 shillings he reduces the number of wagons entering his yard by raising the marginal cost figure until sufficient number of wagons have been dissuaded, thereby achieving equality of marginal cost and marginal revenue. Profits of the yard are maximised. Similarly, if the others maximise profits for the components over which they are responsible, the profits of the railway are maximised.

Despite the theoretical simplicity this procedure is not without practical difficulties. Fixing the marginal costs for the different components of the rail system for the carriage of different categories of traffic involves an elaborate costing procedure. The success of this scheme equally rests on the shoulders of those charged with the task of maximising profits. Not all staff possess the knack to bargain with traders and passengers. After all, the profits accrue to the railways and not to themselves. Perhaps, some form of inducement may be adopted - monetary rewards - to ensure that Station Masters, Goods Agents, and others responsible, all maximise profits. It is often that the attitude of employees, especially in public enterprises, is something like 'it does not matter much if the railways are running at a profit or not'. The tendency to accept willingly or unwillingly lower fares and freight charges cannot be ruled out.

Mr. Foster goes on to suggest that if Station Masters, Depot Managers, and the rest, who are responsible for defined segments, are granted a measure of independence, they can bargain for traffic and maximise profits. The possible demerit of this suggestion is that people may tend to judge the efficiency of the different segments from the profits they made. However,

such an assessment is wrong since each segment may possess different degrees of monopoly, and monopoly profits are not an indication of efficiency.

7.5 Consumers' Surplus Maximisation by Railways

The alternative to profit maximisation is consumers' surplus maximisation. The aim of this policy is to maximise the consumers' surplus on any expenditure made on the railways. However, this policy does not institute the condition that the railways should be run in the interests of the consumers. Running enterprises in the interests of the consumers may sometimes mean that they are charged a lower price or provided with free services.

Nor does this policy reject the view that the costs of the enterprise that adopts this criterion are covered by the consumers themselves, as with profit maximising enterprises. This accords with the principle that 'he who benefits shall pay'. The enterprise is then not run as a public service. The need does not arise for all or part of the costs to be borne by the tax-payers who do not benefit as direct consumers. It is the assumption that a consumers' surplus maximising concern does not hope for State assistance. Nor does it envisage making profits. Profits are passed on to consumers in the form of lower prices and better services.

Although there is a clear distinction between profit maximising and consumers' surplus maximising enterprises in respect of distributing the benefits (returns), there need be no distinction in respect of covering costs or other allied matters.

(1) The consumers' surplus concern has to take account of depreciation in the same way that a profit maximising concern does.

(2) The concern has to retain a portion of its profits as reserves

against unforeseen contingencies. Failure would, in times of financial hardship, force it to borrow at high rates of interest, and/or increase its prices.

(3) It cannot overlook the question of high risk premium when working out the rate of return on its investments. In circumstances where this requirement is overlooked and when faced with a loss the concern will be forced to draw on its reserves (if they have been provided); increase its prices; or seek assistance from the Treasury.

(4) It has to provide for profits tax.

(5) It has to pay interest on its capital.

(6) Finally, it has to give consideration to the question of self-finance.

7.6 Financial needs of a Departmental Enterprise

Should Departmental enterprises follow the financial pattern advocated for nationalised industries?

(a) The State possesses unlimited financial resources, in the sense, that it can raise any amount of money through taxes and loans. It seems unnecessary for Departmental enterprises, appendices of the State, to maintain separate depreciation accounts. Since all the profits are handed over to the State they could rightfully expect monies to meet their replacement costs at any time they require; but conditions do arise when demands cannot be accommodated.

The State has to meet the needs of more than one enterprise, ranging from those that are purely commercial to those that are purely social. Contingencies cannot be ruled out for the

State itself. An unprecedented flood may cause severe damage to houses, and the ensueing demands for rehabilitation cannot be postponed or rejected. In circumstances when the demands are beyond the capacity of the State, the chances of these enterprises to obtain monies for replacements are positively remote.

(b) The same argument applies to the question of maintaining reserves against contingencies. On occasions when the State finds itself unable to accommodate the enterprises out of its own resources, it will have to seek loans from within or without the country, if higher taxation or an increase in the prices for the services of the enterprise are politically undesirable. Loans will be forthcoming only if the rates are attractive, and hence the tendency will be to postpone raising loans until a better climate sets in. It means that the enterprises can be accommodated only when conditions are propitious for the State to raise loans and/or to impose taxes.

(c) It may be asked whether 'departmental' enterprises shall fix a high premium on their investments. The capital originates from the public and the losses are public losses. The State can impose taxes and/or obtain loans to meet the losses; but a general increase in taxes is intolerable politically since those who do not benefit from these losses will not wish to be saddled with additional taxes. The repayment of loans, obtained at high rates of interest, means additional taxes or curtailment of some expenditure already planned for. Although the logical implication of not making profits is not making losses either, yet an increase in price for the services will not be always possible. (If the majority of the users happed to be of low income groups and the Government in office is one with

leftist leanings price increases will not be permitted).

(d) The payment of a profit tax and meeting interest on loans secured from the State seem less meaningful. It is something similar to a shopkeeper paying rent for the shop premises, and interest on his borrowings to someone to whom accrues the proceeds from the business he runs; but this procedure ensures efficiency in the conduct of the business of both the men, as shopkeeper, and financier/landlord. Likewise, the payment of profit taxes and interest to the State, out of the proceeds of the enterprise, although it does not involve the transference of hard cash, yet ensures efficiency in the conduct of the affairs of the State and the enterprise. In addition, it affords an opportunity to judge the efficiency of the enterprise in relation to other transport undertakings, both in the private and public sectors.

(e) For the same reasons at (a) and (b) it is important that the 'departmental' enterprises have access to financial resources of their own and devise their own investment programmes.

7.7 Charging policy of a consumers' surplus maximising Railway

Average cost pricing is the charging policy for a consumers' surplus maximising rail undertaking. If not, it either incurs a loss or profit. If the average price is below the average cost it makes a loss; if it is above average cost, it makes a profit; but average cost charging is synonymous with subsidisation. If the total costs of the undertaking are divided among the passenger and freight units carried, it would be tantamount to the imposition of a flat-fare and freight rate structure. The

fare or freight rate charged is the same for every passenger or freight unit irrespective of the conditions under which he or it is carried. Passengers or freight moving over short distances and/or under favourable conditions subsidise those carried under opposite conditions.

Nevertheless, average charging does not preclude another interpretation. Every passenger or freight consignment pays, as far as possible, a price equal to the average cost of carrying him or it. If this interpretation were adopted by a consumers' surplus maximising concern it would seem that its charges do not vary much from those of a profit maximising concern.

It is easy to determine the price and output pattern of a road passenger undertaking providing a single service since it is not troubled with the question of allocating joint costs. Its profits - excess of average revenue over average costs - are passed on to consumers pro-rata. For instance, if its profits are Rs. 10,000,000 and the provisional journeys for the next accounting period are 10,000,000, the fare for each journey is reduced by a rupee.

On the contrary, for a rail undertaking providing multiple services, a solution is not quite at hand. A convenient method of using the surplus of profit of a rail station that handles both passenger and freight traffic may be to reinvest on the station itself. Better facilities may be provided so that all the users benefit from them. Investments are made until the joint costs equalled the revenue, but this solution may not be acceptable to all.

An alternative is to pool the surplus of that station (along with the other stations) to effect a general reduction on both freight and passenger charges. This too is not acceptable since it amounts to cross-subsidisation.

It is possible that the contributions of certain stations are more than others or that the freight traffic contributed more than passenger traffic, or vice versa.

Consumers' surplus maximisation does not imply cross-subsidisation; the alternative is to return the surplus to those who contributed to it. Suppose the surplus is Rs. 1 million contributed by 500,000 passenger units and 500,000 freight units, then each unit of traffic is entitled to a reduction of a rupee in price. This method is similar to the one adopted by a concern without joint costs. This solution benefits those who contributed least towards the joint costs.

Another method is to fix a ceiling on fares and freight charges. The probable surplus is determined on the basis of demand predictions. Fares and freight charges do not exceed x and y rupees. The solution is beneficial to those whose possible payments exceeded the ceiling prices.

The most acceptable solution is to pass back the surplus to the users in the same proportion in which they contributed towards the joint costs. Say, the profits of a railway are Rs. 10,000. The contributions from its two stations, A and B, towards the surplus are in the proportion of 75:25. The number of units, both passenger and freight, dealt with at A is 10,000, whilst at B is 15,000. A mere averaging for both stations ensures for each unit a reduction of 40 cents, but a proportional distribution results in a reduction of 75 cents per unit dealt with at A and 16.6 cents per unit dealt with at B. If freight traffic accounted for 60% of the surplus at A and the number of units is 7,500 as against 2,500 passenger units, the reduction in price is 60 cents for each freight unit and Rs. 1.20 for each passenger unit.

Although the practical difficulties in ascertaining the proportions

of contributions towards the joint costs are very many, this solution ensures equal treatment to the consumers.

7.8 Discriminatory Pricing

Discriminatory pricing is implied when a transport undertaking charges different prices for the same commodity or service if carried or provided under identically the same conditions; but in very many instances although commodities are identical in physical appearance they yet provide a basis for differential pricing. A good example is found in the treatment of fast and express trains. Both the seats and cars are identical and both trains move over the same track; but the different costs sustained are reflected in the different charges recovered for journeys by the two types of trains to the same destination.

On the other hand, take the case of two factories sited at the same place, manufacturing identical commodities, and using rail transport to move their produce to the same market. One has access to road transport whilst the other has not. The railway charges a higher rate for the one without road transport facilities. The lower charges for the other one are prompted by the possible measure it would adopt when faced with increased charges; it may resort to road carriage. This is a clear case of discrimination. Here, the railway undertaking is maximising its profits by maximising the consumers' surplus of the second factory. Price discrimination, as it is, is part and parcel of profit maximisation.

Public transport undertakings can practise price discrimination provided their policy is profit maximisation. It does not go well with consumers' surplus maximisation. However, discriminatory pricing for railways merely for the reason that they sustain losses in its absence is wrong.

The question is whether they are worth retention if they fail to cover their costs in the normal way. If they cannot cover their costs, and discriminatory pricing is not approved, the State (or any other interested party) should subsidise them if they were to be called upon to provide less-than-cost services.

CHAPTER 8. INVESTMENT IN TRANSPORT

8.1 Investment and Rate of Return

Investment is spending for the future. The decision is made today and the results are obtained tomorrow. The decision to invest is made on certain predictions, which are qualified by past achievements or experience. At times, these predictions go wrong when unforeseen circumstances arise, or when certain factors are overlooked. They also go wrong when weight is given to factors that should not have been considered. Besides, the same factors may not prevail day after day, or year after year. The future is uncertain.

Investments are made in anticipation of certain returns, either monetary or in kind. These may accrue immediately, as with the purchase and use of a new car, or after a lapse of a period of time, as with the building of a railway. In investments of the second nature, account should be taken of the non-earning feature of the capital sums invested over the years. The eventual returns should be discounted over the period of original expenditure and not from the time of first returns.

The rate of return on the capital represents the extent to which an investor prefers current income to postponed income, given the degree of uncertainty attached to the investment. The degree of uncertainty extends with the increase in duration of the period over which the investment is extended. If the period of investment is short, the duration of uncertainty is short.

The rate of return or expectation of profits in the private sector is always much higher than that fixed by enterprises in the public sector. The reasons for the wide margins are;-

(a) To provide an allowance for the cost of replacement over and above the original cost, especially as a safe-guard against inflation. It is the nature of the world we live in that Rs.10 today is not worth the same ten years hence. Its purchasing value declines over time.

(b) To cover taxes on profits. Here too, an element of uncertainty prevails. Taxation is the prerogative of the Government. Variations in the rates of tax are influenced by economic, social and political factors. No one can predict with certainty the rate of profit tax five years hence, but all can decidedly say that under the existing conditions profits tax will not be abolished. Transport undertakings which fear possible restraints on their ability to vary prices in relation to increases in the costs of operation should not overlook this aspect when fixing the rate of return on their investments.

(c) To provide a premium against risks. The future is packed with uncertainty. Profits may expand or dwindle through factors beyond the control of the investors (operators). There is always the risk of losing in the venture.

8.2 <u>The Element of Risk</u>

There is no doubt that with the development of road and air transport investments on rail undertakings bear greater risks. Although it is probable that private rail administrations fix high premiums on their investments, it is seldom that nationalised and 'departmentally run' undertakings do so.

The risk is linked to factors beyond the control of the rail

administrations -

(a) Interest rates may not remain constant. Rates may rise through normal capital scarcity or due to Governmental intervention.

(b) The anticipated economic growth does not prevail; traffic and revenue fall below estimated levels.

(c) Wages may not be stable; they rise rather than fall.

(d) Governmental intervention affects the flexibility of the fare and freight-rate structures; a deficit may set in.

(e) The cost of materials may rise - the prices of imported coal and oil are determined by the producing countries.

(f) Inflation may have exceeded the anticipated limit; the capacity of the administrations to replace equipment may be affected.

(g) Competition from rivals may affect earnings. (Increased ownership of motor cars consequent upon a fall in production costs and prices will affect the demand for rail passenger services).

Public undertakings are equally affected by these factors as are private undertakings and hence the necessity to fix a high risk premium is obvious. At present the rate of returns which these enterprises seek is hardly above the cost of their finance.

8.3 New Investments and Replacements

In principle there is no distinction between new investment and replacement. New investment, or net investment, is that portion of investment that constitutes an addition to the capital stock. Replacement, on the other, is that portion of gross investment that is essential

to maintain intact the existing capital stock.

An accountant is quick to distinguish between replacement and new investment. To him replacement has no bearing since it has been provided for in the depreciation account. On the contrary, a new investment means a fresh charge on its receipts. But to an economist, both replacement and investment bear the same meaning - the demand for scarce resources, and the opportunity of using them in alternative projects.

Replacement does not, however, imply that the new equipment must be similar to that replaced. The equipment in use today may be replaced ten years later by equipment that is technically superior and cheaper in price. In the current era of technical progress it may not be advisable to seek identical replacement for worn out equipment.

The replacement of an equipment need not be delayed until it disintegrates. It can be replaced much earlier (even if the residual life of it is considerable), provided the replacement is dictated by economic criteria. For instance, a rail undertaking possesses five steam locomotives as against a hundred diesels. Although the residual life of the stem locomotives extends to ten years, it is yet economic to withdraw them to be replaced by diesels. Their use at different points of the rail system will call for separate maintenance facilities, staff, and the import of coal. Under similar economic reasonings it may, at times, be advantageous to scrap newly built assets.

Seldom do assets provide a constant stream of output at constant costs until/they suddenly disintegrate. With the passing of time, either the costs increase if the output is maintained constant or the output decreases with costs remaining constant.

8.4 Depreciation and Replacement Costs

Depreciation charges differ from other costs in that they are not relevant to the current charges. What is relevant currently in respect of an asset is the cost of using it - the users' cost. This cost is measured in terms of the opportunities lost by the use of that asset. Its use today involves wear and tear which raises costs tomorrow. One of these possible costs is expressed by the scrap value of the asset. Another is expressed by the profits that could be earned in alternative uses.

When looking to the future, an investment is made in the belief that the earnings from the asset will be substantial enough to cover the costs of replacing it, to cover the interest charges on the capital invested, and also to ensure the profits obtainable from alternative uses of the capital invested in this asset. These are the long-run costs and have to be recovered if the asset were to be used in the long-run. If these costs are not recovered from an asset it is redundant. These charges are not relevant to short-run charging nor to assets that need not be replaced. In assets of this latter nature, the aim will be to secure as much as possible from their use, since the question of depreciation (replacement) does not arise. Again, for short-run charging there is no need to take long-run into account unless the effects of short-run affect the effects of long-run.

The depreciation account need not, in any way, influence the replacement of an asset. The availability of funds if merely facilities the meeting of the cost of replacement, if undertaken. Non-availability of funds need not deter an investor from abandoning an asset if it were profitable to do so; nor should

availability influence him in abandoning one if it were profitable to retain it. The decision to abandon an asset depends on the profitability of another, and could be made only after comparing the future gross receipts and expenditure related to the two assets. One method of comparison is by the cash flow method which compares the gross cash receipts with all cash outlays, including all investment outlays, but excluding depreciation allowances and interest charges. (Interest charges are taken account of by the rate of discount used to calculate the present value of the various streams of cash).(1)

A second method is to compare the gross revenue from the old asset (receipts less working costs with no account taken of depreciation and interest charges) with the net revenue for the new asset (after deducting depreciation charges). In neither case does there arise the question of interest on past investments, nor the position of the depreciation account, whether there are funds or not.

The emphasis is that the availability or non-availability of funds in the depreciation account/are not the criteria for investment, but the possible earnings from the new project. It goes without saying that depreciation funds shall not be squandered on replacements if the returns from an alternative employment of those funds are greater.

8.5 Investment on Rail Transport

From these general considerations emerge some specific points for investment on rail transport. The programme of investment on the Railway involving Rs. 338 million, over a period of ten years, can be classified as a modernisation programme designed to increase the capacity of

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(1) D.L. Munby - Investment in Road and Rail Transport - Journal of the Institute of Transport - March, 1962

the existing facilities and reduce the undertaking's cost of operations. There is no denying that the investments already undertaken and that contemplated in the immediate future will enhance the Railways's competitive capacity and grant it the opportunity to carry a larger portion of the traffic offered. However, the serious question is whether these investments are genuinely influenced by economic criteria. It should be suspected that a portion of these, as for example, that made on the Puttalam extension, have been politically inspired.

8.5.1. Returns

It is fundamental to determine the returns on any investment. The rate of return is influenced by the extent of monopoly of the Railway, the policy it adopts, and the degree of risk associated with its operation,

In the past the Railway occupied a monopolistic position, but now, except for the carriage of few classes of traffic, e.g. elephants, such a position cannot be ensured other than through restrictions on road transport.

Although the present rail policy is not clear cut, competition from road transport (presently reduced on account of the fewer imports of vehicles), demands that the Railway should seek much higher returns on its investments.

8.5.2. Surveys, Cost studies, etc.

Before investments are made either to retain the existing rail services or to expand them comprehensive demand surveys and cost studies should be undertaken; incomplete surveys and cost analyses result in under or over estimation of receipts, affecting the returns.

The serious drawback experienced by investigating bodies is the absence of separate revenue and expenditure figures for the different sections of the rail system. The figures available fail to pinpoint the services that are uneconomic. The other shortcoming is the inability of the administration to divorce the costs of the less than cost services from the rest, and to determine to what extent its revenue is affected on that score. If sound decisions are to be reached on the viability of the different sections there is the urgent need for up to date financial accounting.

It is not difficult to identify the costs of operation of the Kelani Valley section. Being different in gauge, separate equipment - locomotives, rolling stock, etc - are provided. Separate marshalling yards, sheds and other facilities are also maintained. Expenditure and revenue figures in respect of this section can be kept separate from the rest of the rail system. Almost all the traffic carried on this section originates and terminates within it. The major portion of the 'down' traffic consists of tea and rubber destined for Colombo, for export. The 'up' traffic also predominantly originates in Colombo. The small portion carried to and from other sections, if identified, will help to determine the profitability of this section.

Conditions are different with the Matale and Chilaw sections. Sizeable volumes of traffic move to and from other sections, and a large portion of the operational costs are common. The determination of the profitability of these sections, along with the rest of the rail system, involves considerable money and time, and both are beyond the immediate means of the administration.

In respect of the Chilaw section on which investments amounting to Rs. 14.5 million are made it is apparent that adequate traffic surveys, cost studies, etc. have not been undertaken. The rail administration seems to have taken for granted that the traffic from the Cement factory at Arakula will be substantial. It also seems to be the assumption that the Railway could attract custom from the salt and coconut industries. However, from the pattern of movements of the cement traffic from the factory at Kankesanthurai and the coconut produce from the Chilaw district, it should not be denied that the dependence on these traffics for the viability of this section is unduly risky. At present, in the face of railway transport, large portions of these categories of traffic go by road. It is not known as to how railway transport could be attractive in the future.

8.5.3. Policy decisions

Before investments are undertaken on the Railway decisions must be made as to what portions of it are to be retained, what to be closed immediately, and what allowed to decay. Invariably, railways all over the world are faced with these hard facts today.

Should the Kelani Valley and Matale sections be retained? As a matter of fact, is the viability of the Talaimannar section ensured? The fall in revenue consequent to the current limitations in the movement of freight and passenger traffic to and from India leaves much to be desired of this section.

The fate of the Kelani Valley Section should have been decided as far back as 1935. The Hammond Commission has suggested that the 15 mile stretch

between Colombo and Homagama should be converted to broad gauge so as to serve the needs of the surburban passenger traffic while the rest of the system was abandoned. It was prompted by the view that the narrow gauge track with its excess of curvature was unsuited for faster train movements.

The World Bank Investigating Committee in 1952 went much further in recommending that the whole system should be abandoned and that the track be converted into a motor road. Its recommendation too has remained unadopted, perhaps due to limitations on the capacity of the road industry to accommodate that traffic that would be released with the withdrawal of the rail services. In 1956, the United Kingdom Railway Commission, while endorsing the view of the World Bank Committee was careful to draw attention to the need for expanding road transport.

In 1966 a traffic survey indicated that the large volume of passenger traffic originates between Homagama and Colombo and, as such, that section could be retained for passenger traffic and made a part of the rapid transit system of the Colombo surburban area.(1)

The opinion of the Transport Commission, 1967,(2) is that since the freight traffic carried presently on this system is relatively small and the likelihood of improvement in the future is little (even if account is taken of the development of the Walawe Basin), consequent to a road running parallel to it, its value as a carrier of goods is negligible and

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(1) Ceylon Traffic and Planning Study - 1966 - Wilbur Smith & Associates.
(2) Transport Commission 1967 - Report. Page 28.

that it should be abandoned. Nevertheless, with the construction of a steel factory at Oruwala, 7 miles from Homagama, the need to carry more than 260,000 tons of freight over a distance of 50 miles prompts the Commission to suggest the desirability of converting this section into a broad gauge.

The probable cost of conversion is about Rs. 35.25 million while the expansion of road transport for passenger traffic is estimated at Rs. 9 million. The Commission is of the opinion that Rs. 12.75 million of the rail estimate is in respect of rolling stock, and since the existing broad gauge rolling stock is underutilised the need for additional stock does not arise; a broad gauge railway over that section would be viable. Here again, it is open to speculation whether the recommendation is based on proper studies of traffic demand and costs.

In respect of the Matale section, no attention seems to have been paid by the Commission. This section will continue to be part of the railway transport system regardless of its suitability to be part of a viable Railway.

8.5.4. Profitability of sections

The profitability of each section should be examined. Rs. 45 million has been earmarked for relaying the Batticaloa/Trincomalee section with heavy rails; similarly, a sum of Rs. 42.5 million has been set apart for developing the Colombo Area suburban service. Are the expected returns from these investments adequate?

Furthermore, investments of a general nature, amounting to Rs. 205 million, have been envisaged for the Railway as a whole - Rs. 8 million for realignment of tracks; Rs. 96 million for improvements of locomotive

and rolling stock; Rs. 25 million for a staff housing scheme; and Rs. 50 million for general development. Here too, the question is whether steps were taken to determine the profitability of these investments individually as falling under the different sections.

Notwithstanding, the profitability of each section has to be examined. Rs. 8.5 million has already been spent on Colour Light Signalling in the Colombo area. True, the expeditious movement of trains has been achieved, signal boxes have been abolished and financial savings secured, but were the returns on the investment determined independent of the returns on the overall investments of Rs. 42.75 million on this section?

8.5.5. Saving Past Capital

It is wrong to effect fresh investments on the Railway on the plea of saving the capital already sunk on it. But investments should not be withheld if satisfied that the returns are not less than what would be forthcoming from an alternative employment of the capital, while ensuring an additional revenue to service the old capital.

It is decided to allow the Kelani Valley section to decay. It will be five years before the equipment becomes completely ineffective. It means that opportunities to earn something out of the old assets exist; but no revenue can be earned unless a bridge is replaced. It is a question of whether the returns from an alternative employment of the capital needed to replace the bridge (Rs. 50,000) are more than if that section were abandoned. If the revenue from that section over the five years is Rs.120,000 as against Rs. 80,000 (the cost of the new bridge), the interest at 8%, and profits of Rs. 2,000 a year accruing from the use of this capital), it is desirable that the bridge be replaced.

8.5.6. Replacement costs

The deciding factor in respect of replacement should be the savings in costs. Investments made on replacements must be the minimum required to keep the services going. A marshalling yard is due for renewal. Its capacity when built 20 years back, was to handle 500 wagons a day. With the number fallen to 100, the new yard (a like-with-like replacement) has to be proportionately smaller in size. The replacement costs are proportionally smaller.

Is the investment made on the 87 new diesel locomotives (Rs. 53 million) the minimum that has to be expended in order to secure the volume of services provided by the 203 steam locomotives that are being replaced? At times, however, the minimum replacement costs exceed the costs of the obsolete equipment. Example: Five steam shunters need replacement. For many reasons - to obviate the need to maintain separate stocks of fuel (for diesel and steam), stores and shed facilities at different points in the system - diesel shunters are preferred. They cost much more than steam locomotives and although their efficiency is high, their number cannot be reduced, since five different yards require their services. In this case, the minimum investment costs are more than what was invested on the obsolete equipment. (Savings in other directions - fuel, stores, shed facilities - are, however, achieved).

Whenever replacements of 'like-with-like' are compared it is essential that the investments on replacements are the minimum, bearing

in mind that the term 'like-with-like' does not convey the interpretation that both the 'replacement' and the 'replaced' shall be identical in cos costs, etc. The consideration is that if a particular rail service were to continue to be provided, as in the past, the return on the capital employed in the 'replacement' must be examined.

8.5.7. Consider another case - Replacing equipment in order to enhance efficiency and to increase earnings. An undertaking is either making profits or losses. If it is making profits, there is no reason to disturb the situation. The existing equipment can be retained, but it is possible that with additional investments higher returns accrue.

The earnings from the Main Line section after modernising the signalling system at a cost of Rs. 500,000 are increased by Rs. 100,000. These additional earnings are attributable to the new investments and can be accepted only if the earnings from an alternative employment of the capital are less than those obtained from this project. Here, the consideration is to compare the revenue from the fresh investment with that of the old.

If the undertaking is sustaining losses, it is meaningless to invest on replacements. A rail section presently under steam loses Rs. 50,000 a year. An investment of Rs. 500,000 towards its electrification, on the contention that its losses are reduced to Rs. 15,000, is meaningless. The fact that fresh investments have contributed to the reduction of the losses has no significance. So long as the section is not making profits it should be abandoned. Such a measure will lead to a saving of Rs. 50,000, presumably lost on it, and yield an additional sum through the alternative employment of the capital say, at 10% -

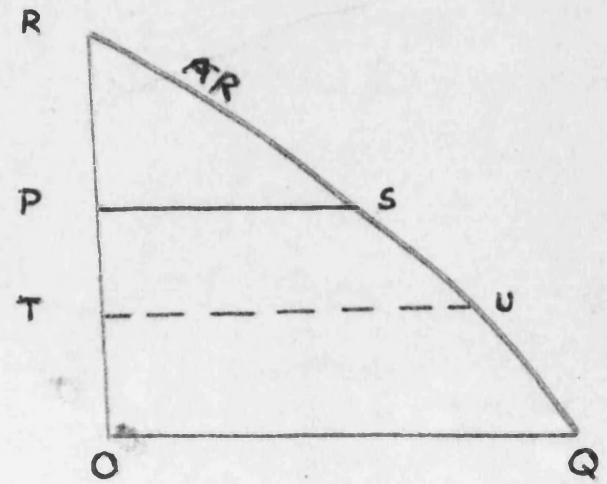
Rs.

Rs. 50,000. The total amount saved is Rs. 85,000.

What if it were decided to retain that section in the face of its losses? Equipment has to be replaced. Instead of reequipping it for steam at a cost of Rs. 250,000 and incurring a loss of Rs. 20,000 a year, it is reequipped for electric traction at a cost of Rs. 500,000; profits are Rs. 10,000. Could it be argued that since the section has to be reequipped anyway (with steam locomotives), the returns attributable to the difference in investment outlay (Rs. 250,000) is Rs. 10,000 (profits) + Rs. 20,000 (savings in losses if replaced with steam) = Rs. 30,000? Certainly not. The returns on the Rs. 500,000 outlay are Rs. 10,000 that is, the profits from that section. For replacements of a loss making undertaking, the overall profit from the total outlay should be taken into account.

These considerations influence the profitability of investments in monetary terms and are a useful guide for enterprises adopting the policy of profit maximisation. Public enterprises are, however, expected to adopt the consumer surplus criterion, and obviously the determinants are different.

8.6 Investment on Consumers' Surplus Concerns



OP is the price a person pays for a service and OR is what he is prepared to pay. The curve RSUQ is the normal AR curve relating to revenue and output. RPS is the consumers' surplus. If the price is reduced to OT the surplus increases to RTV, and when it is fixed at O the consumers' surplus is ORQ. O is the position at which the service is provided at no cost-free. It is evident that if no price is charged by an enterprise the consumer surplus is at its maximum; but the question is whether all investments on public enterprises (that adopt the policy of consumers' surplus maximisation) ensure the maximisation of the surplus. How could it be ascertained?

A rail section under steam is converted to electric traction. The immediate effect is an expansion in traffic. The increased earnings represent the rate of return on the investments. If the difference in earnings is Rs. 50,000 and the capital invested is Rs. 500,000 the rate of return is 10%. This is the immediate monetary benefit accruing to the undertaking. There are other benefits ancillary to this investment which do not accrue to the undertaking and hence they are not taken into account.

While the direct monetary benefits can be ascertained, it is extremely difficult to estimate the total consumers' surplus derived from that investment. With electrification faster services are assured. Passengers save considerable travelling time. More car owners travel by trains, and road congestion is reduced in consequence. Vehicles on the roads move about faster. Accidents are minimised, wear and tear of roads

and vehicles is reduced; and so forth. The consumers' surplus can be determined only when the whole complement of benefits are ascertained.

The difficulties do not rest at that. Investments should earn maximum returns. The profitability of an investment can be determined only when the yield from an alternative employment of the capital is known. It is easy to compare the profitability of profit maximising undertakings but not those maximising consumers' surplus.

Besides, not all benefits possess a market value. Hence it is difficult to arrive at the total value of the benefits from the services provided by a consumer's surplus maximising undertaking and then to compare with one maximising profits. The savings from the reduced wear and tear of roads and vehicles resulting from the lesser use of motor cars can be financially measured; the savings from the freer movements of other vehicles can also be measured; but it is not possible to impute a monetary value to the savings in journey times resulting from faster speeds of electric trains, nor is it possible to fix a monetary value for the relief afforded to road users and residents with the reduction of noise and gas fumes, the result of fewer movements of vehicles. These are features that impose difficulties in deciding whether a concern is maximising the consumers' surplus from its investments.

It is clear that investment decisions in the private sector do not pose difficulties; decisions in the public sector are not clear cut. Each investment has its own characteristics and is influenced by many considerations. Investments on railways have their own, but decisions on them are greatly influenced by the philosophy of public service.

Error in numbering pages.

CHAPTER 9. THE TRANSPORT PROBLEM

9.1 The Problem of Charges

The rail-road problem is sometimes discussed almost exclusively in terms of a clash between rail and road freight charges.[1] Road freight charges are based on costs incurred in transporting the traffic, whilst the rail charges are based on the principle of 'what the traffic will bear', or on differential monopoly prices; they do not reflect the actual costs of carriage. The results are - (i) the rail charges for the low-valued traffic are low with high charges for the high valued; and (ii) the high valued traffic invariably subsidised the low-valued traffic. This pattern of charging, although economically unsound, was satisfactory under conditions of monopoly, but the Railways no longer enjoys this privilege. It faces competition from road transport.

The road haulier's success is due to his knowledge of the costs of his services. They are simple, calculated on weight, and distance. (The physical nature of the road and other operational factors are not overlooked). Except under conditions of monopoly, his charges reflect actual costs. Invariably, they are much lower than the value-based charges of the Railway for the high valued traffic. The natural effect is that such traffic sought road transport and led to the accusation that rail prices are undercut by road hauliers.

Although the lower charges attract the high valued, high charged, traffic to road, in reality, the ability of the haulier to adopt an essentially selective approach in securing traffic is partly responsible

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(1) M.R. Benavia - Memorandum to the Committee on Transport Policy and Coordination (India, 1966).

for the high proportion of his custom being constituted of such traffic.

He is careful to pick and choose that traffic that assures him all round economies. He is particular of return loads and of the full use of his vehicle's capacity. The traffics he rejects are the low-valued for which he is not willing to grant lower rates; irregular traffics; and traffics on routes with no assurance of return load. In addition to his cosy position to select his traffics, he is relieved of the common carrier obligations, which are a severe burden to the Railway.

It is unfortunate that the Railway cannot reject any traffic offered to it, and invariably the traffics seeking it are those possibly rejected by the hauliers. It attributes its problem to the necessity to subsidise the low-valued traffics. The abstraction of the high valued traffics by the road hauliers means constant losses to it. Though it has been often assumed that cross-subsidisation of the low-valued by the high valued traffics is high, recent costing studies in other countries reveal that it is not so.

Rail costs depend largely upon the degree of utilisation of assets, especially rolling stock. A wagon loading ten tons of machinery (high-valued traffic) incurs a lower haulage cost per ton mile than wool (low-valued traffic) loading one ton only. The degree of cross-subsidisation depends on the proportion of the low valued traffic to total traffic carried by the Railway.

Standard rates are a cause for cross-subsidisation. Operating costs on sections with gradients and other unfavourable features, as with the Kelani Valley and Main Line sections, are higher than on sections free of them. Unit costs are also unduly high on little used sections. Traffic carried at standard rates on these sections is

subsidised by that on sections with normal operating costs.

Costs of transport are not the sole factor for the success of the road haulier. Quality of service is more important in the choice of service. The road haulier provides door-to-door services without intermediate handling; he assures quicker transit times; punctual delivery; personal attention to individual traffic; and greater safety. These qualities, absent in rail transport, tend even the low valued traffic to seek road transport and to invalidate, to a great extent, the theory that road competition is sustained by the benefits arising from the principles of pricing.(1)

The clash in principles of charging exists solely in the freight field. 'Discrimination', the main basis of the freight rate structure, is not prevalent on the passenger side. Passenger fares are based on standard tariffs fixed on a standard basis per mile for both road and rail; but it is possible that local cost variations are overlooked, and therefore, there are elements of cross-subsidisation, as for instance, between peak and off-peak travel.

Notwithstanding, a part of the rail problem lies mixed up with the passenger fare structure. The Railway maintains both passenger and freight services. Its costs are not easily identifiable as with road transport. But from rough estimates it is evident that rail passenger services seldom cover their costs, and under such circumstances, freight services subsidises passenger. However, cross-subsidisation within

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(1) In Ceylon large proportions of the low valued traffics - vegetables, fruit, fish, etc go by road.

passenger services prevails when one section of the Railway makes good the losses of another. The harmful effects of cross-subsidisation are well known. The obvious remedy is to recover the costs relevant to the services provided.

9.2 Freer Competition

One of the possible solutions to the transport problem is freer competition. Under freer competition the price mechanism will perform its classical function of regulating supply in relation to demand. This will ensure that the charges are linked more closely to costs. In short, freer competition will achieve an economic division of function through allowing the price of transport to reflect the true costs incurred, whether by road or rail.

What is freer competition? It is not just removing the few restrictions imposed on one or the other form of transport, or undertaking. It is more than that. The basic essentials of free competition are:-

(i) The adoption of identical criterion.

(ii) The operation of the different forms of transport or undertakings under identical conditions.

9.2.1. The Same Criterion

Public transport undertakings can adopt either the consumers' surplus or profit maximisation criterion, and in order to make a comparison of the efficiency of two transport undertakings, it is necessary that the same criterion is adopted by both. The efficiency of an undertaking determines the scope of investment on it, and with individual assessments of efficiency, it is possible to determine investment priorities in the transport sector as a whole.

The Railway has to observe certain obligations peculiar to certain sections of the public, whilst road operators, especially the hauliers, have not. Publicly owned undertakings invariably adopt the consumers' surplus maximisation as their policy as against the profit maximisation policy of the road operators. Straight comparisons of efficiency between them are not sensible since the dividends and rates of return on investments made on them relate to different criteria.

9.2.2. The same conditions

(a) One of the prerequisites of competition is freedom of entry to the trade. A system of road vehicle licensing enforces control both in respect of the number of vehicles and operators.

(b) Competition means that all forms of transport are brought under the same regulations. Regulations in respect of employment, public safety, and operation of vehicles are particularly important.

The Railway, it should be accepted, adheres to the regulations in respect of employment, and goes further to offer many other conditions of service that are unavailable in the private sector - permanency of employment, pension, sickness benefits, subsidised housing, etc.

Regulations covering the safety of operations are meticulously observed by the Railway and the Ceylon Transport Board. Their vehicles are maintained at comparable standards of efficiency, but in the private sector of the road industry, safety regulations are frequently disregarded.

(c) There should be equal treatment on taxation. The Railway is free from profit taxation; road undertakings should also enjoy such a concession. In Ceylon, rail fuel and equipment do not bear import duties whilst motor fuel and equipment are subject to high duties.

(d) Competition also means equal opportunities to secure capital. Private undertakings secure capital from the open market. Their ability depends on their efficiency, reflected through the dividends to the shareholders. State owned undertakings depend on public funds; nationalised undertakings, seeking capital from the open market, have the guarantee of the Government. Although their ability to procure capital is not doubted, yet at times, the freedom enjoyed by private undertakings is lost to both kinds of public undertakings. Politics play an important role in Government decisions; and very often they are deprived of the capital they are entitled to. The Railway's capacity to secure capital has throughout been gravely limited.

(e) Competition also implies a fair subsidy policy. If one form of transport or undertaking is afforded a direct or indirect subsidy other competing undertakings should have equitable facilities. Indirect subsidies are common in air and sea transport. Airlines profit substantially from the research and airport facilities maintained by Governments for purposes of strategy, prestige, the promotion of exports, etc.

However, the concern over subsidies is over the probable distortion of the true economic position of the undertaking receiving the subsidy, and the resultant losses to other undertakings such a situation may engender. In Ceylon, road transport is State subsidised to a great extent.

(f) Another source of inequality is when transport undertakings enjoy an artificial or natural monopoly. An artificial monopoly accrues when through some sort of legislation or regulation an undertaking is granted

a privilege which others are denied; e.g. a road operator is assigned a particular route. A natural monopoly sets in from an advantage inherent in the nature or technology of the form of transport. The specialised track affords the Railway a natural monopoly.

The elimination of the advantages arising from past legislation and regulations is the prime reason behind seeking equality in treatment in respect of regulations, taxation, subsidy, and so forth; but the presence of an artificial advantage, that cannot be dealt with as simply as others are, is recognised.

The problem of track costs provides a fine example. It has been noted that rail undertakings possess a competitive advantage through their ability to treat their track costs as indirect costs. It enables them to undercut road rates on competitive routes and recoup the losses from routes over which they possess a monopoly. This disadvantage to road transport can be eliminated by requiring rail undertakings to treat their track costs as 'direct' or allocable.(1)

9.3 Integration

Full integration of road and rail transport is the next possible solution. Integration involves organising public transport in the form of a nationally owned monopoly. The features of single control and State ownership are essential to achieve both effective coordination of services and charges, on the one hand, and to obviate the potential dangers private monopoly may engender, on the other.

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(1) Discussed in detail in Chapter 6.

Integration offers substantial opportunities for the extension of road and rail facilities. On the passenger side, bus and rail stations can be sited close to each other; better time-table connections ensured; a common charges scheme evolved; and administrative economies achieved. On the freight side, much wider collaboration between road and rail undertakings in the sphere of 'through transport' can be achieved than when they are separately owned. For example, the use of the 'road-haulier' and 'piggy-back' transport can be initiated.

To under-developed countries, particularly Ceylon, faced with a grave shortage of equipment, both for rail and road transport, the necessity to put the available transport resources to effective use is of paramount importance. In Ceylon, a network of road services radiating from rail heads, spaced evenly, will offer opportunities for an ideal partnership between road and rail, and ensure great savings in scarce 'external' resources. This is possible through integration.

But this solution is neither free from practical difficulties. Full integration means the extension of nationalisation of road transport to the extent that rail transport is faced with competition. This will be all long distance transport, and not politically acceptable.

In Ceylon the Railway and the road passenger undertaking are public enterprises. It is possible to bring the small private haulage sector under one administrative umbrella. The smaller physical size of the country and the small size of the road and rail industries pose no administrative problems as would the running of monolothic organisations such as the British or Indian Railways, or the London Transport Board. Yet it is doubted whether success will be unqualified.

Integration achieved limited success in the United Kingdom (Transport Act of 1947), where the climate for its success was more propitious than in developing countries. A somewhat similar experiment was tried in Ceylon from 1951 to 1959. Whilst in the United Kingdom, both road and rail undertakings were under public control, the road haulage undertakings in Ceylon were left in private hands. Perhaps, the lesser success achieved was due to the absence of the fundamental facet of integration - single ownership of both the road and rail undertakings.

The causative factors for the failure in the United Kingdom were many. There were the managerial inadequacy; the tendency among traders and businessmen to avoid the nationalised industries; the swift expansion of road transport for both freight and passenger; and the Trade Union opposition to the idea of coordination that involved the diversion of traffic from road to rail and vice versa.

The conditions in Ceylon were different. Unrestricted expansion of road transport was not possible due to scarcity of capital; neither were the employees (under haulage operators) concerned with the success or failure of the experiment; in fact, they would have preferred being State employees. Although the inadequacy in managerial capacity could not have been doubted (this was conspicuous with the nationalisation of the bus industry in 1957), the main difficulty was political. No Government could have indulged in nationalising the road haulage industry, a small man's business sector, for fear of losing votes.

9.4 Co-ordination

Co-ordination is the third solution, very much publicised in the study of transport economics. What is co-ordination? In simple terms,

it is an attempt to achieve efficiency and economy in the use of the different forms of transport with the ultimate aim of carrying all traffic at the least cost to society, but with due weight attached to the element of quality of service.

Co-ordination of road - rail transport can be applied (1) to the charging system; (ii) to the administrative and licensing system; or (iii) to investments.

9.4.1. Co-ordination through control of charges

(a) The first possibility is to bring road charges in line with rail tariff. Difficulties arise with the introduction of the element of discrimination, the basis of rail rate structure, into the road-rate structure. Supervision cannot be exercised over the vast number of independent operators as effectively as with the Railway, which is centrally regulated. Since the rate on low-valued traffics have to be kept low road operators will avoid such traffics and concentrate on the high valued. Moreover, they are not tied up with the common-carrier obligations. Although their charges may closely approximate to rail charges yet the high valued traffics would be attracted away from the Railway on account of the advantages road transport holds for particular traffics and for particular users.

(b) The next possibility is to make rail rates fall in line with road rates. This is liable to meet with failure on two counts. The rail rates for the low valued traffic will have to be raised to a level closer to the road rates, but will yet not approximate to the actual rail costs. Rail costs vary considerably with the traffic carried. The perpetuation of the standard rates leaves the Railway in no way better than it was before.

Secondly, the increase in charges will not meet with public approval. Raw materials will have to bear higher charges than manufactured goods. Agricultural produce has always been subsidised through low transport costs.

(c) The last approach to co-ordination through charges is to grant the Railway the freedom to adjust its charges on the basis of the costs of operation. The determination of costs demands both time and the use of resources, besides the administrative 'know how'; but the important factor is that the costs should be ascertained under fair conditions of operation. It is inevitable that the rail costs under unfair circumstances will increase to the advantage of road transport, and traffic will continue to be attracted by the road hauliers.

It is acceptable that not all the present rail rates are alarmingly disproportionate to the actual costs of carrying the traffics to which they relate. The low rates per ton-mile for rice result from the low costs of carrying large consignments. But the rates for the high-valued traffics are often disproportionate to their relative costs. Reduced rates for such traffics, on the basis of ascertained costs, will encourage a great portion of them, presently carried by road, to seek rail whilst the increased rates for the low-valued traffics drive them away. However, if road rates closely approximate the rail rates, with quality of service taken into account, such traffics too can be retained by the Railway.

9.4.2. By Administrative Re-organisation and Changes in the Licensing System.

For co-ordination to be effective the control of the two forms of transport must be vested in a single centralised body. The policy of

control over road and rail (other forms of transport not excluded) should be much closer; but this method of centralised control is absent in Ceylon.

The set up is peculiar in that while the Railway is a Government Department, the Ceylon Transport Board is a nationalised enterprise. The Minister of Communications is responsible for the Railway and the road industry in general, excepting the Ceylon Transport Board, which comes under the Minister of Nationalised Services. The Ministry of Public Works is responsible for the roads.

Theoretically, co-ordination of policy, prevails at the Cabinet level, but the co-operation between the three ministries is less effective than when all the sectors of the transport industry are under one Ministry. However, direct Ministerial control over transport undertakings means political domination over commercial ventures. It is, as such, necessary that the Railway is made a public corporation with wider opportunities to operate strictly on a commercial basis.

The function of licensing of road vehicles, because of its direct relationship with the collection of taxes and their disbursement, should be controlled from the centre. If this function is delegated to regional authorities, as in India, the desire to increase earnings encourages the adoption of independent road transport policies and patterns of licensing, with the inevitable conflict of interests of other forms of transport, both within and without their jurisdiction.

'Road motor transport is predominantly an uncommercial activity'. The ownership of private means of transport, that is, motor cars, is a characteristic of an increase in the standard of living. In industrially advanced communities, where this phenomenon is stupendous, the

acquisition of a car is not decided on purely economic grounds, but based on other factors - personal comfort, prestige, etc. This aspect logically provides for a 'sumptuary' tax in addition to the taxes for the use of roads. In developing communities where the inequality in income distribution is wide, the need for a much higher 'sumptuary' tax is recognisable. The possession of a motor car among such communities is a reflection of the owner's affluence.

Taxation of commercial vehicles, however, should be determined on the facilities afforded to operators to conduct their business, that is, the cost of providing the roads. While the 'sumptuary' tax on private cars should be based on the ability of the owners to bear it, for road haulage operators, it should be confined to their profits and not form part of the costs of operation. But profits taxation has its shortcomings. Seldom do hauliers, other than big organised undertakings, maintain records for determining the taxes, nor is the machinery available to verify the records if provided.

9.4.3. Co-ordination applied to Investment

The aim of co-ordinating investments is to achieve the efficient use of resources. Efficiency could be ensured through some sort of planning. The common view is that effective planning is possible only in a pattern of centralised control rather than in independent set-ups, either public or private.

Governments are equipped with more facts, and are in a position to use more socially desirable criteria for investment based on a better definition of social costs and benefits than are independent undertakings. Furthermore, they can command the resources that planning demands; but

looking at the heavy administrative burden at the centre; the excessive costs; and the fact that the various Ministries are not well equipped with details of individual investment programmes of the different industries in the private sector, contrary to what has been often assumed, prompts the assumption that there is nothing inertly wanting if planning and investment are left in the hands of independent undertakings.

However, the need for some form of centralised planning and control over investments is recognised in developing communities, especially if they are small, as with Ceylon, where individual planning by the many small-scale industries cannot be envisaged on account of their limited resources. Furthermore, the scarcity of foreign exchange to import equipment for transport, or capital equipment for other industries, calls for decisions on priorities of investment. Since this issue is interrelated with the national interest, centralised control is of paramount importance.

On the other hand, the necessity for national co-ordination is apparent when, due to the absence of colloboration between independent industries, difficulties set in for the economy as a whole. Attempts to implement independent programmes without reference to each other create unregulated demands for scarce resources, and the inevitable increase in the costs of investment (that are not provided for), and a fall in profits.

Assume that the available resources of labour are adequate to meet in full the needs of a house building programme of a private enterprise, or that of a road construction programme of a local authority. Whilst the parallel implementation of the two programmes in an uncoordinated

fashion causes hardships to both parties by way of increased costs and reduced profits on the one hand, and the non-completion of the programmes on the other (because the available resources are not adequate to meet in full the needs of both parties at the same time), a pre-agreed basis of implementation between them, either to go half way with their respective programmes, or one to follow the other on its completion, gives both many more (financial) benefits. However, in any economy there are more than two parties clamouring for the same resources at the same time and their scarcity inevitably accentuates their difficulties. This is an example where a particular form of transport - road - is faced with difficulties on account of another industry.

Co-ordination of investment in the other sense is evident from difficulties facing undertakings of a particular form of transport. In this case, say, if a road undertaking envisages investments, it has to take into account the costs and benefits of other road enterprises. Its decision shall not run contrary to their interests.

The construction of a road between A and B increases the benefits to another already running between B and C, but it affects the earnings of the railroad that already exists between B and C. Yet, when deciding on the construction of the road, the interests of the rail undertaking are overlooked in favour of the new road.

The alternative to this sense of co-ordination is to take into consideration the costs and benefits of all forms of transport. That is, co-ordination of investment in the transport sector as a whole. Now, when a road undertaking envisages expanding its activities (by acquiring additional vehicles), it takes into consideration the

effects not only on other road undertakings but on all other transport enterprises - rail, canal or air. The construction of the road between A and B will then be decided on the basis of not only the benefits to the existing road between B and C, but also on the probable losses to the railroad running between those points. Fine examples of co-ordination in the latter sense are the construction of the new Victoria Line - an addition to the Underground Railway in London,[1] and the motor way from London to Birmingham. The need for coordination in investment cannot be underestimated in Ceylon, especially at a time when foreign exchange is scarce.

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(1) Estimating the social benefit of constructing an Underground Railway in London - C. D. Foster and M. E. Beesley, (Royal Statistical Society, 1963).

CHAPTER 10 PUBLIC CONTROL OF TRANSPORT

10.1 The need for control

The need to safeguard the public against the dangers of monopoly prices, inequality in treatment, and lack of safety arose with the setting up of transport undertakings on a commercial footing. The development of the railways during the last century accentuated the demand for it.

Rail transport was initially a private enterprise. That feature naturally raised fears that the interests of the public would be subordinated to those of the shareholders. The fears were centred around the possible monopoly prices the railway companies would charge for their services. Rail charges, although much cheaper than contemporary road charges, were relatively excessive when compared with the costs of providing the services. Furthermore, the traveller and the trader have been profoundly stirred by inequality. Whatever the rates may have been for him it offended the trader that another in the same line of business was afforded cheaper rates or far more concessions. On the other hand, the possibility that operators could hold the public to ransom by withholding services at their free will was not overlooked. In many instances the fears were justified; regulations to ensure the principles of uniformity, stability and equity could not have been postponed.

The expansion of motor transport in the early twenties changed the picture. The monopolistic tendencies of the railways disappeared. Competition for traffic between road and rail undertakings assumed serious proportions. The sins of the road carrier were many during the two decades between the wars, whence arose the necessity to consider not only the question of the interest of the users but also of the operators, both road and rail.

Notwithstanding, the wider interests of the economy were at stake. The idea gained ground that the greater commercial freedom the road operators enjoyed led to uneconomic distribution of traffic between road and rail, and that some control over them was necessary to achieve co-ordination. It was these circumstances that led to the Licensing System in the thirties, which has been ever since the mainstay of control over road transport.

Unlike in other countries, (notably in the United Kingdom), the conditions in Ceylon were different in that the Railway has been a State run undertaking from the beginning, but the authorities have seen fit to introduce those controls adopted in other countries.

There were the requirements of non-discrimination in charges between users; the common-carrier obligations; the requirement that rates shall be stable and published, and that the Railway shall assure regular services.

Control over road transport has also been similar to that in the United Kingdom. The same laissez-faire attitude towards road transport flourished in Ceylon, and the same anarchistic tendencies that demanded control in that country were let loose in Ceylon, before effective action, at least in theory, was contemplated.

Development of road-rail competition took the same shape, except for the degree in magnitude of the complexities that followed it. The significant feature is that whilst the private railway companies in the United Kingdom have repeatedly demanded governmental intervention to alleviate their financial hardships, the rail administration in Ceylon, not without reason, has shown little interest.

10.2 Objectives of control

The objectives of control are:-

(i) To provide the safety of the public,

(ii) To promote efficiency in transport,

(iii) To promote the greater use of any form of transport, (for the purpose of this study, the greater use of the Ceylon Railway).

(iv) To reduce any harmful effects of transport on amenity and environment,

(v) To reduce or control congestion of roads (or railways).

Control is exercised through a system of licensing and statutory legislations.

Licensing is pertinent to road transport rather than to rail. Road operators are numerous in number, and often, the character of road operations varies with the individual requirements of the user and the operator. On the passenger side, there is the private motorist maintaining vehicles for his own use; the taxi-operator who provides services of a public nature with small vehicles; the coach and the omnibus operators who provide services of the same character with larger vehicles.

On the freight side, a similar classification of private and public operators exists; and in addition, there is another category which maintains vehicles for both its use and that of others at the same time.

Licences, issued by the Licensing Authority vary in character, and with the nature of operations. Certain conditions govern their issue, and it is deemed that the non-observance of one or all of them makes the

licensee liable to certain penalties.

Alongside the control exercised through the licensing system, road transport comes for control through legislative enactments - rules and regulations laid down by Acts of Parliament. They prescribe the general conditions of road operations, infringements of which are dealt with by the Courts of Law.

The control of rail transport has, however, been through statutory legislation from the beginning. Unlike road transport, the larger size of the rail undertakings and their centrally constituted administrative structure have facilitated effective control from the centre.

10.3 Promotion of Safety

The Motor Traffic Act 14 of 1951 (augmented by subsequent legislations),[1] forms the basis of regulation of road transport in Ceylon. It provides for the holder of a licence to observe the conditions related to the proper maintenance of the vehicle; its pay load (or seating capacity); speed; duty hours of vehicle crews; and to records of their duty hours and journeys performed.

Though apparently the above conditions are substantial to ensure safety in road operations, yet it is beyond doubt that their observance has been inadequate. An examination of the prevailing conditions in the island strikes home the fact that road transport is afflicted with many regulatory ills.

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(1) Motor Traffic Acts Nos. 1 (1952); 29 (1953); 22 (1955); and 1 (1956).

(a) The stringent restriction on imports of spares essential for the maintenance of vehicles (very much needed with the complete ban on imports of new vehicles since 1961), enhanced the tendency to postpone maintenance, accentuated by the high prices. This naturally endangered the safety of the public. Statistics are unavailable to gauge the extent to which regulations pertaining to the safety of vehicles are disregarded (through accident records, etc.); but it is acceptable that if the situation is bad in the United Kingdom, where the climate for the observance of safety regulations is more propitious, it cannot be better in Ceylon where the financial and social problems are very acute![1]

(b) Overloading is a deleterious and despicable feature common to road transport in the island, facilitated by inadequate supervision. Operators overload their vehicles in order to seek compensation for the lower rates they offer for competitive traffic, particularly back loads. Besides the burden of road maintenance costs through overloading, the greater risk to public safety and the undesirable effects on the earnings of the Railway make this

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(1) Of the 15,000 road haulage vehicles examined during a check in 1964, in Britain, 10% were served with immediate prohibitory notices and 45% with delayed notices. It was expressed that the proportions would have been much higher but for the advance warning of the check.
The number of prosecutions for safety offences:-

	1949/50	1952/53	1959/60	1962/63
Overloading	3,891	4,826	6,568	9,663
Records	12,523	9,429	15,257	12,211
Drivers hours	2,087	1,917	4,083	4,559

Report of the Committee on Carriers Licensing, 1965, page 47.

feature more problematic. An assessment of the extent of this irregularity from available figures is incomplete since a considerable number of infringements go undetected, and of those detected a fair proportion fails to go on record for obvious reasons.(1) Overloading of buses is not a serious problem since the nationalisation of the passenger industry, but it is common for cars and vans to carry in excess of the number authorised.

(c) Another hazard to safety arises from the non-observance of speed limits. Operators with an eye on competitive traffic are tempted to drive at excessive speeds. This is more common on the passenger side, particularly among hiring car and van operators, although road hauliers are not exempt. Highly competitive services are maintained between provincial towns, vehicles being driven at unsafe speeds; and this has been the common problem for the Police, the transport authorities and the public.

(d) The other bad feature is related to the working hours of drivers and their assistants. The maximum permissible hours of duty, particularly for drivers, are laid down by regulation, explicitly for reasons of public safety.(2) Records of hours of duty performed are to be

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(1) (a) In 1965 the police detected 2,500 cases of overloading. A rough guess of the extent of overloading is possible from a news item appearing in the "Times of Ceylon" of May 5, 1967. A driver was fined Rs. 200 in default six weeks imprisonment on a charge of overloading. He admitted 55 previous convictions.

(b) The Traffic Study in 1961 revealed that about 75% of the heavy lorries were overloaded by 80% - Wilbur Smith & Associates - Ceylon Transport Study.

(2) Para. 169. Cap 203 - Motor Transport Act. (Part 8).

produced for inspection by officers of the Police and Motor Traffic Departments, but the enforcement of the regulations through the examination of records has never been adequate. Nothing prevents owner drivers from being at the wheels of their vehicles for over long hours, nor employee drivers from being coerced to fall in line with unscrupulous employers.

10.3.1. Licensing and Safety

Since these conditions of safety are purported to be enforced through the system of licensing, and their non-observance is a matter of general acceptance, it raises doubt whether lincensing is an efficient regulatory measure. 'The role of licensing is indirect; the effects of legislative measures are direct'. Licensing undoubtedly provides an incentive to good behaviour of the operator through the penalty the Licensing Authority inflicts, either by the revocation or suspension of the lincence when the conditions are infringed. On the other, it affords protection from extremes of competition so as to facilitate those within the industry to maintain their vehicles in a fit condition and ensure adequate rest to the crews.

The withdrawal of the licence hits the carrier the hardest way, but with the large scale infringements of regulations that step was not resorted to in Ceylon even during the period when route licensing was in force. Unfortunately, it is often the case that the driver faced the charges and the punishment inflicted on him seldom bores any effect on the carrier's licence. Nor has the payment of fines through Court action been an effective deterrent.(1) Usually, the fines are paid by the carrier himself, which encourages the driver

(1) The fine for the contravention of regulations is Rs. 250 for the first, and Rs. 500 for subsequent offences.

to err repeatedly on behalf of the employer. The use of immediate or delayed notices, common in Britain, (but their effectiveness is suspect) is unheard of in Ceylon, although regulations provide for the frequent examination of vehicles. The safety of vehicle equipment is a precondition for the issue of the annual road licence, but oddly enough, many operators comfortably postpone obtaining road licences until such time as their vehicles are stopped by a duty conscious police officer. It is then agreeable that licensing does not provide any appreciable disciplinary effect on the behaviour of the operators in the attitude of safety matters.(1)

10.3.2. Safety through Curtailing Competition

There is also disagreement over the argument that licensing is a protection against disregard of safety through excessive competition.(2) The case for the control of quantity, to ensure safety, is based on the philosophy that unrestricted entry to the trade brought about competition, which tended to the be fierce with the reduction in the volume of traffic, as it happened in the 1930s. Operators in order to attract traffic to themselves are tempted to reduce rates and to offer increased facilities to users. The ability to lower the rates is possible only through a cut-down in operating expenditure. In all probability, it is in the direction of maintenance of vehicles, and wages to crews. The alternative to a direct reduction of wages is the increase in working hours. These admittedly affect the standards of safety in operation.

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(1) Report of the Committee on Carriers Licensing - 1965, page 47.
(2) Op:cit. page 49.

The Geddes Committee is also of the view that the assumption that the Road and Rail Traffic Act of 1933 (in Britain) did away with many evils of competition and ensured a greater degree of safety is not justifiable. While agreeing that unrestricted entry to the trade was partly responsible for the sad state of affairs during that period, it asserts that it was not the sole factor for the transport muddle. The road industry was in its infancy, and, as with any other developing industry, initial difficulties were inevitable, but they have been exaggerated.

Conditions in Ceylon were chaotic during the years of the depression which coincided with the expansion in road transport. The Ordinance No. 45 of 1938 exerted some control in the direction of safety by introducing for the first time a system of licensing; but later developments calling for yet stronger measures to compel operators to ensure safety signified the lesser effectiveness of the licensing system. It would appear then that the role of licensing is just a simple disciplinary measure to see that 'the vehicles are mechanically sound when on the road and are driven by qualified men.'

10.3.3. Safety through Quantity Control

Licensing in Britain,(and other countries where it is practised), is more relevant to a pattern of quantity control over goods transport, rather than a measure to enhance safety. The Geddes Committee prefers a permit system and suggests that carriers contravening the conditions of safety should be penalised by the withdrawal of their permits. It is also particular to stress the importance of annual inspections of vehicles; on increased road-side checks for overloading and for excessive duty hours, etc. Stringent punishments at the hands of the Courts are also considered essential.

The practice of imposing some measure of control over the transport of goods is widely accepted, but in Ceylon there is practically no control. Entry to the trade is unrestricted. Operators can operate in any part of the island; they can carry any type of traffic to any customer without distinction, and for reward or otherwise. However, though quantity control is absent, restrictions on the imports of vehicles have enacted a pattern of restriction on capacity. This limitation on capacity, instead of enhancing safety, has paradoxically caused the extension of risks consequent upon the unavailability of new vehicles, of which the equipment safety would not be suspect.

Is control of rail transport in the sphere of safety adequate? It should be admitted that it is impressive. The railway management is alive to its responsibilities to the public, and regulations enacted of its own accord are observed by the staff meticulously. But occasions do arise when individual members of the staff fail in their duties.

10.4 Promotion of Efficiency

The second policy objective is the promotion of efficiency. Efficiency is not the mere demonstration of the competitive capacities of the different transport undertakings. It means the effective use of that portion of national resources deployed on transport, and the meeting of the diverse demands of the users satisfactorily, 'while maintaining the standards of safety and appropriate working conditions for those employed in the industry.'(1)

The casual observer would contend that the road industry in the island is efficient. He would point as proof to the cheaper rates and the varied

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(1) Op:cit. - page 57.

facilities road operators offer, and would assert that control over road transport is undesirable as it impedes competition. It is true that competition ensures efficiency by eliminating the inefficient undertakings, in his sense, those which do not offer cheaper rates and better facilities; but it never strikes him that these benefits are forthcoming under conditions wholly incompatible with the requisites of competition. The efficiency of the road operators should be determined only under fair and equitable conditions of operation.

10.4.1. Efficiency and Restrictions

If equality in the conditions of operation does not prevail between competing forms of transport it has to be introduced, if necessary, by intervention. Intervention, however, is at times so severe that it imposes unwanted restrictions, and causes unwittingly the waste in resources that it tries to save.

For instance, the Traffic Act 14 of 1951 which aimed to enhance the efficient use of resources through the greater utilisation of the Railway possessed inimical effects on the road transport industry. It was specific to lay conditions on the road hauliers restricting them:- (a) to particular areas; (b) to particular categories of traffic; and (c) to particular customers.

(a) Restricting hauliers to a particular area is in a way restricting entry to the trade in that area. It is a measure of quantity control. It also amounts to safeguarding the hauliers already in business in that area. Whilst the efficient hauliers are kept out, the inefficient,(if they are), are allowed to continue under Governmental protection. Efficiency is thus impaired. Besides, confining efficient hauliers to particular areas deprives

them of the opportunities to expand their business. It deters them from adopting their services to their users' requirements.

(b) Restrictions on the use of a vehicle reduce its operational efficiency. It is not always that the hauliers find enough traffic to which they are confined (by the conditions of the licences) to obtain an economic load for their vehicles. The necessity to keep vehicles waiting for traffic at different points on their journeys entails a wastage in resources.

(c) The third consequence of restrictions is again the reduced utilisation of vehicle capacity. It is seldom possible to expect in a small economy full loads for vehicles at all times from single customers. (The economy is composed of small industries, small commercial enterprises, etc.) Circumstances then arise when two or more vehicles serve the individual needs of different customers when the whole traffic could be accommodated with one vehicle.

The outcome of restrictions of the above nature is loss in efficiency. Hauliers are forced to set their prices high as a result of the increase in costs through unused capacity, waiting time, etc. These affect the economy through the wrong use of scarce resources.

10.4.2. Efficiency through control over entry and capacity

There is the argument that some form of control over capacity and entry is, nevertheless, necessary. The view is that in the absence of such control competition sets in with consequential harmful effects. Rates will be reduced to uneconomic levels. The industry will be swamped by small undertakings inexperienced in the trade, and in the struggle for traffic, the efficient ones are forced to withdraw. The industry

becomes unstable in its composition, and finally chronic excess capacity ensues. The Geddes Committee is not agreeable to this contention; but looking at conditions in Ceylon it is agreeable that some control over entry and over capacity is desirable.

The fear of instability in the composition of the road industry and chronic excess capacity cannot be dispelled so long as uncertainty in business prevails and the entry to, and the withdrawal from the business are independent decisions made by different parties at different times. It is possible that in an industry with about 80% of the operators (owner driver hauliers) adopting the competitive policy of fixing lower wages for themselves, the rest, unable to stand the competition are forced to withdraw. While some of them are in the process of withdrawing there are others entering the trade not knowing that conditions are unfavourable, and in consequence, a redundancy in vehicle capacity sets in.

With the carriage capacity outpacing demand (it is so in a slow moving economy) hauliers soon find that even with the lower rate (achieved through subsistence wages), their ability to attract traffic is reduced. Then arises the pressing need to reduce rates further by postponing maintenance and even to forget about depreciation rather than to lose the only means of regular income, at least for some time, until the final collapse sets in. By withdrawing from business at this stage they are pretty well aware that the prospects of realising even a small portion of the capital assets are absent, since there will be no alternative use for the vehicles.

Besides the instability in charges and services, the direct consequences of redundancy is a waste in economic resources. This waste has a special meaning to a less affluent society than to an affluent one. There is no denying that even in affluent societies the resources expended on the vehicles made redundant can be used with advantage in some activity; but if wastage did occur the effect on the economy is not as disastrous as it is for a poor society. This, nevertheless, depends on the proportion of waste in relation to the resource capacity of the community. A waste in resources, particularly external, through redundancy, would certainly hit the Ceylon economy hard, since its resources are meagre when compared with affluent grants like U.S.A. or other industrial countries. It is like saying that a poor man feels the pinch of the loss of a pound much harsher than a rich man feels the loss of a thousand pounds.

10.4.3. Efficiency and conditions of Employment

The observance of appropriate working conditions is part of efficiency in transport. In the field of road transport the law provides that 'the wages paid or payable by the owner of any hiring car, motor-coach, or lorry, to any person employed by him as the driver or conductor (cleaner) thereof shall not be less than the minimum rate of wages prescribed in that behalf'.[1] This condition is honoured in the breach.

The conditions of service offered, and the wages paid by the Ceylon Transport Board and the large haulage undertakings are comparable to

(1) Motor Traffic Act 14 of 1951 - Section 169(3).

those obtaining in Government Departments, the Railway included. The concern is over employment with the small scale hauliers, the hiring car and coach operators.

The non-observance of the conditions is influenced to a substantial degree by the prevalence of a high rate of unemployment in the country. In 1965 the number of qualified conductors (for omnibuses and coaches) out-proportioned the number of vehicles by 9:1, whilst the position of drivers was 4:1. The logical outcome of this excess supply of labour in relation to demand is lower wages and unfavourable conditions of employment. Hence it should not be surprising that conditions in the private sector are appalling.

On the haulage side 80% of the vehicles are owner driven, and the observance of regulations pertinent to the hours of duty and fair wages is naturally non-existent. The majority of those employed with the coach and hiring car operators work under similar conditions. The factors attributable to this situation are -

(i) The undertakings are small in size, predominantly on the basis of one vehicle - one owner, and the dealings are strictly between the owners and the drivers, (conductors and cleaners), free from outside dictation.(1)

(ii) The undertakings are not concentrated as in industrialised countries. This feature deprives employees of the opportunity for concerted action through Trade Unions. There is hardly a semblance of trade union movement in the haulage

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(1) Only 5,268 lorries are owned in fleets of ten and above by 87 operators. - Report of the Transport Commission, 1967 - page 35.

and road passenger (private sector) industries in the island. In the United Kingdom, and other European countries, Trade Unions play a decisive role in shaping Government policy, and in enforcing regulations when promulgated.

(iii) The lack of opportunities of alternative employment, as in industrialised countries, implies that employers can dictate their own terms. It should naturally appeal to any prospective employee to bear in mind the grave consequences of rejecting employment even though the terms are well below the accepted standard in the public sector.

(iv) The awareness among employers that enforcement of the law can be thwarted, on the one hand, and the reluctance of the employees, on the other, to seek the protection of the law for fear of losing their livelihood when employers dispense with their services under flimsy excuses they can easily conceive. Moreover, legal action is costly and beyond the means of the employees.

(v) In most cases, drivers (conductors and cleaners) are recruited among near relatives or from close family acquaintances, who by mutual agreement do not embarass employers with demands for improved conditions of service.

The remedy lies in the stricter enforcement of the regulations. The overriding question is how? No overnight solution can be conceived. The problem is one deeply involved with the whole question of expanding the economy, and increasing the standard of living; the realisation by individuals of their responsibility to society, and the evolution of a

pattern of better distribution of income. Any solution demands the whole energy of the Government; yet, success cannot be spectacular.

Besides the general difficulties in compelling employers to observe the regulations, doubts linger over their successful enforcement on owner driver operators. How could they be made to pay to themselves an adequate wage; to avail themselves of a holiday, or to adhere to prescribed hours of duty? (1)

The wisdom of mixing ethics with economics has to be questioned. Intervention for the sake of merely perpetuating moral and social principles is incompatible with economics. The hardships to road transport employees through lower wages and other bad conditions of employment are no concern of the employer. He is entitled to seek the cheapest source of labour and to provide cheap transport services, the benefits of which accrue to trade and industry in particular, and the community in general. The owner-driver operator has his own views on his welfare. He could contend that the State need not be over anxious for his welfare since it does not look after him or his family when he is unemployed by reason of sickness or through redundancy. Nonetheless, there is the moral need for State intervention in order to safeguard the interests of the employees from the exploiting tendencies of the employer hauliers. However, if intervention is condoned, it should not rest at safeguarding the interests of the employees, but should embrace the efficient

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(1) The discussion, although pointedly refers to hauliers, nevertheless, includes passenger operators, as well.

undertakings - that offer adequate wages and appropriate working conditions - in order that they are competitively outdone.

The Railway contends that the laxity in the enforcement of regulations has enabled road operators, especially the owner drivers, to quote lower rates and attract much of the traffic that would seek rail under competitive conditions.

State intervention to ensure adequate wages and fair working conditions in the transport industry need not arise in an industrial economy, enjoying full employment. Since the conditions of service are determined by the market factors of supply and demand, and invariably with demand for labour exceeding supply, the conditions of employment are substantially attractive. The influence exerted by Trade Unions is also considerable.

In such an environment costs are identical to all road operators under identical operating conditions. Rates below normal are possible only if hauliers deliberately overlook maintenance, depreciation, or at the worst, pay lower wages to employees. (A self driver haulier may fix a lower wage for himself or work excessive hours).

However, no driver or conductor (cleaner) need agree to a lower wage, nor for excessive hours, since he can obtain higher wages and secure better conditions of service in some other occupation. (The self-driver haulier too will be foolish not to avail himself of better alternative employment). Hence, the extent to which a haulier can lower rates (to uneconomic levels) is decided purely by the limits to which he is able to postpone maintenance, etc. How far can he postpone it? If he were wise he would withdraw his the moment his business fails to yield normal profits.

In Ceylon a conspicuously divergent situation would prevail. A haulier convinced that no alternative employment awaits him if he were to give up haulage as unprofitable will unhesitatingly decide to remain in business to be assured of a regular income. (Unemployment assistance of any form is not available in Ceylon). Being well aware that postponement of maintenance of vehicles, and the non-provision for depreciation will spell certain ruin at no distant future, he will adopt the alternative of fixing a subsistence wage for himself (or for his driver, who has no alternative other than to be permanently unemployed if he does not agree) and remain in business. By offering lower rates, he would attract much traffic away from the undertakings which provide for fair wages and satisfactory conditions of service, and whose costs in consequence, are much higher. The latter undertakings cannot lower their rates unless they themselves adopt the pernicious remedy of postponing maintenance, etc. or resort to a scaling down of wages and/or to imposing inappropriate working conditions.

This implies that some control is necessary to guarantee the organised undertakings operating under accepted standards against rates becoming too low to be economic.(1) Long standing customers not tempted by the attractive services and facilities offered by the newcomers would continue to patronise the established undertakings. Yet it is illusory to expect those undertakings to hold against the newcomers for long

(1) It is suggested that larger operators offering a more comprehensive service are comparatively little affected by competition from the small men, but since such operators are a mere handful, conclusions arrived at in other countries may not be relevant to Ceylon.

without varying their charges and/or lowering the quality of their services. Herein too, the effective remedy is to reimburse those undertakings for the loss in adhering to the conditions.

10.4.4. Control of Rates as an Aid to Efficiency

There is the suggestion that control of rates offers a solution to the problem of inequality in operating conditions between road and rail, and to the enhancement of efficiency in road transport. The Rail rates are subject to regulatory control,(1) and there is the just argument that road haulage rates should not be exempt, especially because, certain irresponsible hauliers undercut rail rates and those of the established hauliers. But a practicable system of minimum rates for road services is cumbersome to adopt and costly to enforce, with the undertakings dispersed far and wide, and the industry constituted of very small units.

Side by side is the argument that undercutting of rates does not possess adverse effects on users nor on the economy. Undercutting can be practised only within reasonable limits and those exceeding them do harm to themselves while users stand to benefit. The economy stands to benefit through the loss of 'inefficient' undertakings - that fail to offer competitive services with the undercutting firms. They will withdraw from 'unprofitable' transport business and switch to some other activity where there is demand for their capital and labour.

This argument, endorsed by the Geddes Committee, does not sound wrong in a country like Britain. There, undercutting need not be

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(1) Rates of the Ceylon Transport Board also come under statutory control.

practised as vigourously as in Ceylon where the economic and social conditions are basically different. The disastrous effects of undercutting need not be re-emphasised, especially when it entails lower safety standards and waste in capital equipment, which at the moment, Ceylon can ill-afford.

10.5 Greater Use of the Railway

10.5.1. The Aims

The essence of co-ordination is the avoidance of waste in scarce resources. With competition from road transport, rail excess capacity is inevitable. The advantageous use of this excess capacity effects savings in resources. The control of road transport in the thirties through the licensing system was an attempt in that direction. No savings in resources occur if, however, control is imposed over one form of transport in the interests of another, and in that process the total costs of transport are increased.

The aim of using the Railways to the best advantage of society is still among the objectives of Government policy. It is influenced by:-

(a) The fewer adverse social repercussions rail operation entails. Accidents, and loss of life and limb, are lower than on roads. Public health is not seriously affected by smoke and noise;

(b) The considerable economic benefits through the reduction of congestion on the roads when the present and future traffic by road is transferred to rail.

The ill effects of road congestion are a factor of considerable significance in countries where road transport has expanded out of proportion to the facilities provided.

The consequence is the urgent necessity to construct new roads, widen existing ones, and to provide flyovers, etc. These demand a great share of the national resources. If communities can afford it, road transport can be expanded to any proportions, but unfortunately no community can afford it.

(c) The probable strain on the public purse when the losses of the rail undertakings, through under-utilisation, are covered from public funds. (The average losses of the Ceylon Railway are about Rs. 30 million a year which are written off).

A developing country suffers from a drain on its scarce external resources, particularly when the requirements of the railways are unaltered regardless of the extent of their utilisation.

(d) The necessity to provide subsidised transport facilities for certain sections of the community.

The advantages of road transport are in terms of speed, price, flexibility and service. The benefits of these advantages accrue to the economy at large and to the public generally as consumers and participants of the economic life of the community. On the other hand, the control of road transport brings about conflicts between the advantages to society as a whole and individuals as users. The denial of road facilities which suit an individual best certainly affects his commercial, industrial or personal travel interests. A larger freedom to him and others of his like - allowing the possession of their own means of

transport harms the interests of society. It is from these angles that the greater use of the existing spare capacity of the Ceylon Railway will have to be examined.

10.5.3. Retention of the present Rail system

The retention of the present rail system seems obvious for the following reasons:-

(a) Road transport for own account operations and for hire or reward, both in the freight and passenger fields, cannot expand to that extent as to make the rail system redundant. The average income of nearly 80% of the population is so low that it precludes foreseeable large scale expansion in the private ownership of motor cars.(1) It is also not anticipated that industries will expand to any sizeable extent as to demand large fleets of haulage vehicles.

(b) Foreign exchange is limited, and even if the average incomes were larger, the imports of road vehicles cannot be anticipated.

(c) The community cannot afford to set apart scarce resources for the construction of roads.

(d) Rail transport is ideal for suburban and long distance passenger transport. As such, the major portion of the rail system will have to be retained. With the anticipated development of long distance freight traffic the need for rail facilities will be increased.

(e) The demand for subsidised transport facilties has serious economic consequences. This needs elaboration. The demand that the

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(1) Average income per head is expected to rise to Rs. 661 in 1968 - (The Ten Year Plan).

Railway shall retain its 'public service' character still ranks high among politicians. It means that unremunerative services shall continue to be provided. Unremunerative services are nothing bad in themselves, but the Railway should be relieved of its financial burden with a direct contribution from the Government. If, instead, the Railway is made to cover its losses through higher charges on its other services, it implies that it shall be protected from its competitors, the road operators

The present tariff is based on the principle of charging high rates for the high valued traffic and low rates for the low valued. The high rated traffic is the target for road competition. It seems logical for the Government to retain the low rates by subvention and to reimburse the rail losses through a direct subsidy, rather than impose restrictions on road transport just to protect the higher rates charged for rail traffic. After all, at present, the losses of the Railway are met in full by the Government.

The argument against a general subsidy is that it may grow larger with the passing of time. The other argument is that it detracts from the business like operations of the Railway, which is true in a big sense. The administration well aware that its losses will be made good in their entirety has shown little interest in increasing efficiency.

The Railway can possibly maintain the lower rates and cover the losses therefrom through moderately higher rates without outside contribution provided the proportion of low rated traffic is small in relation to the high rated, but it is beyond conception that the proportion of low rated traffic will be small in volume since road operators will not offer rates lower than their costs for that traffic unless compelled by regulations or otherwise.

Hence all the (uneconomic) low valued traffic will be its responsibility, especially with the common-carrier obligations on its shoulders. The high rated traffic will obviously seek road transport, attracted by their cost-based lower rates, unless restrained by administrative intervention. The difficulties of the Railway are largely due to the high proportion of low-valued traffic carried by it. In 1965 it was 85%;(1) and of the high rated traffic, a preponderant portion came from Government Departments.

The subsidy can be realised through a tax on selected traffics seeking road transport in preference to rail. The rates on other high rated traffics can be scaled down to levels reflecting their costs of transport. The fall in charges will certainly induce a portion of such traffic to seek rail. On the other, the complete diversion of the taxed high traffic will not be guaranteed unless the tax is relatively high. But a high tax induces its avoidance and evasion; the prevention of both needs an elaborate supervisory machinery. Past experience in Ceylon with restrictions of this nature is convincing that this system is bound to meet with failure. The alternative is for a system of capacity control.

10.5.3. Desirability of Low Rates in Ceylon

The agricultural and commercial interests in the Island will not agree to the withdrawal of the existing freight rate structure. Nonetheless, the low rates do not guarantee the Railway all the low valued traffic. For

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(1) Class 1. 9.0%
2. 18.5%
3. 47.7%
4. 10.4%

85.6% - Low Valued Traffic.

Class 5-8. 14.4% - High Valued Traffic.

instance, the rate for rubber - Class I is the lowest in the freight schedule. In 1965 the rail tonnage of that commodity was a mere 2.4% of the total produced. The proportion of tea, which is charged at Class II, was only 20%. The custom from the other low valued traffic was of similar pattern. The condition is that whilst the higher rates discouraged the high valued traffic the lower rates did not encourage the low valued, either. In the circumstances, the wisdom of retaining the low rates has to be questioned. The withdrawal of the low rates, however, enhances the risk of losing the existing custom from the low valued traffic while the scaling down of rates on the high valued traffic will not necessarily induce additional amounts of that traffic. Yet there is nothing wrong in trying that measure. The portion of traffic that is forced to sustain a rail rate higher than that which it previously bore can be directly subsidised if the Government wants to although the procedure is charged with grave practical difficulties and will cost more when the administrative expenses are taken into account.

10.5.4. Preferential Treatment for Rail Transport

Sometimes it is said that the Railway being a public concern is entitled to a major share of the traffic offered in order that adequate returns are ensured on the investments. This view was strongly held by the Stratchan Commission.(1) It is fallacious. As a business concern the Railway is entitled to protection from unfair road competition; but protection need not be bestowed on an inefficient concern (if the undertaking were to be) merely for the reason that public money is sunk in it.

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(1) Report of the Strachan Commission, 1926 - SP. 35. Para. 60, page 15.

The social interests demand that the transport of passengers and goods should be by that method that imposes the least demand on the scarce resources. If the protection of the Railway entails a greater loss in scarce resources the social interests require that it is abandoned in favour of road transport although no direct returns from the investments are forthcoming. But since interest payments cannot be overlooked, it seems more sensible to impose a tax on road transport to realise them rather than retain the Railway and incur additional losses.

10.5.5. Diversion of Traffic to Rail

In Ceylon licences are freely granted to those desirous of maintaining haulage operations on their own account, and also to those operating services for fee or reward. (C and A Licences in Britain). The successful diversion of traffic to rail can be achieved only if restrictions are imposed on both types of operation. Restrictions on one type will not necessarily improve rail custom since the preference of the road user will be for the other form of operations when either of the two is denied him. However, if both forms of operations are restricted, the risk of sustaining a net loss of traffic cannot be excluded.

Restriction in the use of road transport imposes serious problems. The choice of a transport service is determined by a host of factors - speed, reliability, price, flexibility and service. No two individuals require identical services. One would prefer speed and reliability as against the preference for price and flexibility of another, and so on. Restrictions can be envisaged only after being satisfied that the alternative rail services meet the needs of individual users. The control of road transport in their absence, just to put to use the excess rail capacity, is uneconomic.

The use of the motor car brings certain benefits to the user in terms of comfort, convenience, speed, reliability, and sometimes, cost. The harm done by the use of one car may not be significant, but the use of 10,000 cars would certainly result in disadvantages to society. If, instead, 2,000 buses were used it might be economic, but only at the expense of not meeting the individual requirements of those deprived of the use of their cars. There is then the need to weigh the benefits to the individuals from the use of their cars as against the drawbacks to society as a whole, and if the latter are greater than the former, control over private transport is justified. By the same token, if the benefits to society are more with the use of the excess rail capacity than the disadvantages through restrictions on road transport the diversion of traffic to rail is justified.

The increased use of road transport has its bearing on the use of the community's scarce external resources. As long as the present rail system is retained, by deliberate design, to meet social, political, and strategic needs, the argument for a parallel expansion in road capacity and the use of foreign exchange resources is dangerous at a time when the country needs these to secure its requirements of capital and intermediate goods.

The control of road transport is identified more in the branch of freight haulage rather than in the carriage of passengers. Passenger carriage is vested in the Ceylon Transport Board, a public undertaking, and it seems best to invoke voluntary cooperation rather than to impose any form of direct control in order to achieve the greater use of the Railway. But control over the other section of the passenger industry - the van, hiring car and station-wagon operators - has been ineffective.

10.6 Forms of Control

10.6.1. Complete Prohibition of Road Transport

The diversion of traffic to rail can be achieved through the simpler process of prohibiting road operators from competing with the Railway. In Belgium until 1960 the practice has been to grant road licences only when the railways did not want traffic, that is, when their capacity was fully utilised, or when the services were uneconomic to them. The Traffic Act 14 of 1951 was an attempt in Ceylon in that direction; but the success achieved was low.

10.6.2. Control of quantity through Quotas

For control through a pattern of quotas, the number of road vehicles for which licences are granted will be determined from time to time by means of a formula linked to some economic index, say national production or growth of population. For eight years since 1951 a quota system was administered in the island for freight traffic. Licences for long distance transport were granted to a limited number of hauliers. Others were restricted to operations within a radius of 30 miles from their base. The main disadvantage of this type of restriction is the loss of efficiency. This was evident from the decision to grant the long distance licences only to those hauliers who had been in the business in 1949, regardless of their efficiency, and debarring more efficient hauliers who had entered the industry at a later stage. Furthermore, the recipients of the licences were the beneficiaries of additional profits secured by the restrictionist policy.

A practical solution suggested is to fix the number of vehicles for long distance haulage and put up the licences for sale on the market.(1) They will

(1) D. L. Munby - The Economics of Road Haulage Licensing - Oxford Economic Papers - March 1965.

(See over)

be bought and sold as any other commodity. The advantages of this scheme are that, on the one hand, the number of vehicles is limited and, on the other, the freedom of choice is ensured. Price is the mechanism for sharing the limited services, and those who want road transport will be made to pay more. The higher cost is the main demerit of this scheme; but it is justified since the high charges represent the extra advantages road transport offers.

10.6.3. Limitations by Taxation

Road transport capacity can be limited and controlled through additional taxes on lorries (cars, vans and station wagons), on their fuel, and other requirements. The increase in costs certainly causes a reduction in demand for road services.

Although the effectiveness of the higher charges - purchase tax on vehicles, and the road tax - is absolute, it is doubtful whether an increased levy on the fuels or accessories used by vehicles for particular purposes, say lorries for the carriage of freight, will be effective since other vehicles also use the same fuel and accessories. To achieve a greater degree of effectiveness it may be necessary to compel the use of vehicles using a particular fuel, petrol or diesel - for particular purposes. Petrol driven vehicles will be used for passenger traffic, whilst diesel driven will be used for the carriage of freight. These are not practical possibilities.

A nominal levy on fuel and a rate of road tax slightly above the level charged for other operators will not invoke the required degree of diversion. Road tax is paid for a year. Its incidence on an operator who uses his vehicle for 18 hours (or even more) of the day and 365 days of the year will

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M.R. Bonavia - Memorandum to the Indian Committee on Transport Policy and Coordination, 1966.

be lower than on one who sticks to 8 hours a day and 5 days a week. A tax on fuel is more desirable since fuel use is directly related to the journeys made; but the demerit is that traffic suited to rail (short distance and of small volume) will be made to bear higher transport cost although it is not the intention to divert such traffic to rail. The high fuel cost will increase the costs of private and public passenger road transport as well.

The quantitative effects of taxation depend on the level and form, and in principle, any degree of diversion can be achieved through it, but the tax must be devised so that it falls only on that class of traffic that needs to be diverted.

It is not difficult to know which class of traffic should be diverted to rail, but it is difficult to ensure that evasion does not take place unless that traffic uses a particular type of vehicle when the tax can be imposed on the vehicle. For instance, if petrol traffic is to be diverted to rail, the tax has to be imposed on road tanker vehicles, which cannot be used for purposes other than the carriage of petrol; but an evasion can yet occur, if instead of tanker vehicles, petrol is transported in barrels by ordinary vehicles.(1)

On the other hand, the tax on a class of traffic presupposes that it is known what amount of it is to be diverted to rail, and if this information were available, an effective method is to proscribe that class of traffic

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(1) Since tanker vehicles are used for transporting furnace oil, diesel and coconut oil, it is necessary to distinguish them from those used for transporting petrol. In order to ensure success it may be necessary to divert other petroleum products to the Railway; or to impose taxes on all tanker vehicles, which is not correct.

from going by road. Here too, evasion is not wholly excluded, but effective supervision could ensure comparative success.

10.6.4. Control through a system of Rates

Traffic can be diverted to rail possibly through the control of road charges. A Transport Authority fixes the rates which are observed by all operators. This instrument of control is in wide practice in Europe, but its success in a country where the economic and social conditions are basically different is to be gravely doubted.

The diversion of traffic can be achieved only by keeping the road rates above the economic level. These high rates will attract more operators, and with the ensuing competition for traffic, disguised price cuttings will set in to create more complications. The control of rates has then to be enforced side by side with control on capacity.

The success of this measure depends on effective supervision. Records maintained by operators have to be checked; concealed rebates to consignees and consignors have to be avoided. Concessions, such as, free storage, free handling and delivery, are features of undercutting rates in a disguised form, and will have to be examined. The cost of supervision will be stupendous.

No form of rate control can be exercised over the 'own account' operator. The freedom to operate on 'own account' undermines the control of road transport through rates. If the rates are high, the tendency to operate on own account is also high. Unless supervision is effective 'own account' operators may be tempted to operate services for fee or reward. The experience with the Traffic Act 14 of 1951 acknowledges that this remedy is fraught with failure.

10.7 Promotion of Amenity

In addition to the danger and anxiety, the motor vehicle is responsible for the deterioration of environment. The noise, particularly from heavy vehicles, is the predominant source of annoyance. It is 'seriously prejudical to the general enjoyment of towns, destructive of the amenities of the dwelling on a wide scale and is interfering in no small degree with efficiency in offices and other premises'(1). The discharge of large volumes of exhaust fumes poisons the atmosphere and poses a grave danger to health.

The swift remedy is to exercise a strict control of their number and to divert traffic to rail or other forms of transport less harmful to amenity. Licensing as it stands today is not an effective cure. It may reduce the number of public vehicles, but the freedom to maintain services for own account nullifies its effectiveness.

Higher costs of operation may lower their use. Increased taxes on vehicles, accessories and fuel are appropriate, in addition to enhanced road rates.

The conditions are not satisfactory in Ceylon, as evident from statistics of accidents. Notwithstanding, the problem is not as acute as in industrialised countries. But if the freedom to import vehicles, which unfortunately is curtailed by the unavailability of foreign exchange, is vigourously exercised, the country will have to face it with greater apprehension.

10.8 Control or Reduction of Congestion

The ill effects of road congestion are well known and the remedies suggested to alleviate them possess economic implications. With the growth

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(1) Traffic in Towns - Buchanan Report.

in the number of vehicles efficiency in road transport is lowered, unless the provision of new roads and parking spaces keeps pace with their expansion. This seldom happens. The financial resources to meet the requirements of road transport are not always available, although it is contended that motorists pay more than what is spent on roads. The lag on investments on roads can be attributed to the deployment of a portion of road revenue for other Government programmes. It is clear that even in affluent societies road congestion cannot be wholly eliminated.

If the conditions are bad for affluent communities, it is of no surprise that investment on road in Ceylon has been very low.(1) The possible demands for better and more roads have been reduced on account of the curbs on imports of vehicles. When once the restrictions are withdrawn it can be confidently predicted that a solution to the problem will be more difficult, especially in view of the community's other commitments.

Presently, nearly 35% of the country's vehicles are concentrated in Colombo, the capital, and with the normal attractions of a city the number will increase over a period. Provincial towns will witness the same process of road transport development. The growth in the number of private cars depends primarily upon the growth of incomes. The expansion in the number of goods and commercial vehicles depends upon the usefulness of this form of transport to the commercial interests, and on the creation of new firms and industries. The increase in the number of public service vehicles depends upon the extent to which private cars expand in number and the success of the Railway to provide the services the public needs. Irrespective of the social

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(1) A cut down in expenditure on roads has been decided in Britain currently following the devaluation of the pound, as a measure to curtail public expenditure.

effects road congestion imposes on the community, restrictions on road transport are favoured more as a solution to the economic ill effects. The avoidance of congestion means the abandonment of many other communal development programmes. There are demands for investment on agriculture, industries, health and education. True enough, transport is an adjunct of economic development, but the communal interest demands that expenditure on it is kept to a minimum. Control of road transport obviates congestion and its ills effects, while putting to use the excess rail capacity.

The Railway cannot, however, solve the problem of congestion which is invariably in the heart of towns and cities. At any rate, collection and delivery of freight between rail heads and shops, factories, and passenger movements to and from Government and mercantile establishments, involve road transport. But looking at the situation in the island, it is convincing that congestion in Colombo, in particular, and other commercial centres, is attributable to long distance vehicles. A ban on their movements will ensure relief.

On the passenger side, the underutilised capacity of the Railway can be better used by controlling private road transport. The Railway was forced to withdraw higher class accommodation on its suburban services for want of custom, all those who travelled by rail taking to private car transport. Roads leading into the city of Colombo, in particular, are traffic clogged. A diversion of traffic to rail will evidently ease congestion and lower expenditure on roads.

The discussion on the control of transport has been pointedly devoted to the shortcomings in the control of road transport. It is apparent that rail transport has been subject to excessive regulation and the need is to reconsider the issue in the face of current developments in road-rail operations.

PART THREE: IMPLICATIONS FOR THE CEYLON RAILWAY

CHAPTER 11 PROSPECTS FOR THE CEYLON RAILWAY

11.1 The Demand for Rail Transport

In the preceding chapters a wide range of problems relating to transport has been considered. The problems facing the Railway have also been critically examined. In this and the following chapter the discussion is concerned with the prospects for the Railway, and its future role.

Ceylon has no coal or other minerals that can be a source of high density and regular freight traffic. The output of plumbago and ilmenite, the island's only minerals, is very small. The industries are light in nature, small in scale and number. Hence, substantial quantities of raw materials, semi finished and finished products cannot be anticipated. Nor is the volume of agricultural produce large.

The requirements of transport are mainly confined to the movement of -

(1) Freight Traffic

(a) Exports - tea, rubber and coconut produce from the plantations to the points of export - Galle, Colombo and Trincomalee.

(b) Imports - foofstuffs, manufactured goods, petrol, fuel oils, etc. - from the above points (which are also the import points) to the consuming centres.

(c) Local agricultural produce and manufactured goods - rice, paddy, cement, etc. - from the producing to the consuming centres.

(2) Passenger Traffic

(a) Between the provincial towns (the capital city of Colombo included) and the neighbouring towns and villages.

(b) Between the provincial cities and towns.

The average distance over which the main categories of freight traffic are carried vary from 204.0 for salt to 85.9 miles for coconut produce. The longest passenger journey is about 300 miles.

From an examination of the freight-traffic offered it would seem that, both in character and in volume, a fair portion of it is not ideal for railway transport by standards in industrialised or raw material and food producing countries. However, it is the opinion that with economic development a large volume of traffic that would be ideal for rail transport will be available and, in addition, portions of the present traffic could be 'economically' carried by the Railway.

In respect of passenger traffic, although it is again less similar to that in densely populated or physically large countries, yet a large portion of it is suited for railway transport on account of the especial economic circumstances prevailing in the country.

It has often been contended that the technical and administrative inefficiency of the Railway, and the inequality in operating conditions between it and the road undertakings have been responsible for substantial loss of traffic.

At present the Railway carries 60% of the passenger traffic and 20% of freight offered. It is the view that it could attract additional traffic provided its inefficiency is eliminated and its charges are adjusted to reflect the costs of carriage. A good portion of the high valued traffic is presently lost to road on account of the value based, high rail rates. In the face of these shortcomings neither a successful appreciation of the undertaking's viability nor a decision over its future can be entertained.

The success of the road hauliers in securing the greater portion of

freight traffic tends many to conclude that rail transport can be largely dispensed with for freight. On the basis that 80% of freight traffic is carried by road, it is worth expanding road transport to meet the balance of freight carriage requirements of the community. This is possible only if the cost of expanding road transport with the acquisition of 7,000 more vehicles (the present strength is 28,000)[1] and their operation is less than that of maintaining the rail freight services. However, the view that 80% of the freight offered is carried by road need not necessarily convey the impression that 80% of the rail system should be abandoned for freight. Nor is it conclusive that individually the different sections are carrying only 20% of traffic originating in the areas they serve. It is hence necessary to examine which sections of the Railway are viable; those viable shall be retained, the rest abandoned. When determining the viability of the individual sections it is necessary to ascertain the extent to which each is inter-dependent. It is possible that although no direct traffic originates on a section, traffic originating from other sections and carried over it may be of substantial size.

The results of the Freight Traffic Survey of 1961 cannot be final to insist that the role of the Railway is negligible. The feature that a large portion of traffic goes by road is not incompatible since the Railway does not cover large parts of the country. Areas such as Bibile, Buttala, Monaragala, Pottuvil and Nintavur are wholly dependent on road transport. Traffic by road is carried over 10,000 miles; rail mileage is only 900.

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(1) This figure includes lorries which are not actually in use. The Commissioner of Motor Traffic is unable to give precise figures.

The rail ton mileage in 1961 was 185.7 million. This was assumed to represent 20% of the total ton mileage for both road and rail transport. Nevertheless, neither then nor at any later stage have comprehensive estimates been made of the proportions of freight traffic that went by road along routes served by rail.(1) A high proportion of the road custom consists of traffic moving over very short distances - 5 to 30 miles. The immediate need is to determine the portion of traffic and the ton mileage attributable to the two forms of transport. These measurements are equally necessary to assess the degree of attraction rail transport holds for freight traffic.

On the other hand, road transport does not afford suitable facilities for passenger traffic, particularly of long distance nature. The inadequacy of public transport on the one hand, and the inability of users to acquire their own means of transport - the motor car - on the other, enhanced the scope of wider use of the Railway for short and medium distance travel as well.

Sixty per cent of passenger traffic depends on rail. While there is the tempting possibility of abandoning the carriage of freight by rail on the assumption that only an additional 20% of road transport capacity has to be met, society cannot consider substituting road transport for that volume of passenger traffic presently carried by rail. Ordinarily, there is no need to substitute road transport for this traffic unless, of course, it is

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(1) "It is unfortunate that the Department of Motor Traffic does not have any information relating to the volume of goods carried by road hauliers ..." Report of the Transport Commission, 1967 - S.P. 23.

felt necessary to introduce the element of uniformity in the form of transport, or (at some future stage) road transport is found to be more efficient than rail. Expansion of road transport, however, is often costlier, especially if it involves large scale acquisition of lands in residential and commercial areas, the demolition of buildings for road building, and the procurement of a large number of vehicles. These have to be ruled out in Ceylon in view of the financial difficulties, both internal and external.

While the Railway has retained its pre-eminence in the movement of suburban passenger traffic, long distance traffic, unlike in other countries of the west, will also continue to be the prerogative of the Railway for many more years to come. Air transport has not developed to pose a threat to it on long distance routes.(1) The high fares and the greater risk associated with air travel have been factors limiting the wider use of the available air transport capacity.

Furthermore, constraints on the expansion of road transport for long-distance traffic are many. The immediate requirements are not only better and more roads, but more road vehicles, both of which will not be forthcoming at the present juncture. Hence it is conceivable that for journeys of 200-300 miles, as between Colombo and Kankesanthurai, Trincomalee, Batticaloa and Talaimannar, the demand for rail transport will not be drastically reduced.

11.2 The Communal Interest

While the general picture is not encouraging certain other factors

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(1) Passengers carried by air

1960	24,411	1963	17,460
1961	18,343	1964	14,446
1962	18,311	1965	37,699

(Source: International Civil Aviation Organisation 1960-65)

favour the Railway. One is the conviction that rail transport is indispensable to the life of the community. Its retention is advocated for the benefits it may bestow through meeting the community's social, industrial and strategic needs.

"We appreciate that however much the road services may be preferred by goods hauliers, and although rail transport cannot survive except on a basis of such protection by restriction of road transport, the Railway in Ceylon is a form of transport that must continue to stay. Our experience of the role played by the Railway during the war years alone, if nothing else, is a sufficient justification for the continuance of the Railway despite the annual losses".(1)

"Furthermore, the Railway provides employment for nearly 25,000 persons. Its economic and social value cannot be underestimated".(2)

The desire to retain the Railway to meet the country's strategic and social needs will result in a certain amount of surplus capacity. The advantageous use of this surplus capacity, possibly through a diversion of traffic from road is suggested.(3) It is nevertheless essential to ascertain whether the costs to society resultant from the diversion of traffic are greater than the probable costs of retaining the system for purposes other than to meet its economic needs.

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(1) Report of Committees and Technical Working Groups - National Planning Council, Planning Secretariat, 1959 - p.22.
(2) Report of the Transport Commission, 1967 - p.11.
(3) Op. cit. p.18.

The necessity to assess not only the current surplus but also that which will be created by the changes in the levels of traffic, and changes in operating conditions over the future years cannot be overlooked. The elimination of surplus capacity is an important element in the shaping of the future rail system.

11.3 The Argument of Lower Rail Costs

Secondly, there is the argument that since the average rail costs are lower than the average road costs it is in the social interest to divert traffic presently carried by road to the Railway, so that transport is provided by the least cost method. On the basis of this contention there is scope for the Railway to carry more traffic than it would under normal circumstances. This contention cannot go uncontested.

In 1958 the Technical Working Group on Transport furnished figures, which although unrelated to the present costs of carriage of freight, both by the Railway and road undertakings, do nevertheless, reflect the pattern of costs between the two forms of transport.(1)

Rail costs per ton mile - 10 cents
Road costs per ton mile - 18.73 cents (for petrol driven lorries)
21.14 cents (for diesel lorries).

The lower rail costs per ton mile, according to the rail administration have been arrived at on the basis that the undertaking's capacity was fully utilised. (The actual cost per ton mile in 1957 with a high proportion of under-utilisation of equipment was 19 cents). The assumption was that with

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(1) Report of Committees and Technical Working Groups 1959 - Page 32. Current estimates of costs per ton mile for road vehicles as provided by the Commissioner of Motor Traffic to the Transport Commission are as follows:-

(See over)

the 1.9 m. freight miles run in 1957 the ton-mileage could have been 570 m. as against the 181 m. obtained, provided that every train run hauled a maximum load of 300 tons. Although additional costs would have been incurred the assumption was that the cost per ton mile would drop to 10 cents. This method of calculation of the costs, however, overlooked certain important factors.

Perhaps it has to be assumed that the rail administration in estimating the costs has taken into consideration the obligations devolving on it. It has to operate uneconomical branch lines, provide individual uneconomic services, regardless of the types and volumes of traffic offered and the great deal of empty haulage of stock involved.

In respect of road costs the assumption seems to be that road vehicles are put to maximum use on both up and down trips, which is not possible at all times. The situation is that the conditions of road operation are 'ideal' and that of rail 'actual' and it has to be wondered whether the comparison of costs under differing conditions will bear fruitful results.

Furthermore, it cannot be accepted that every train run hauled a maximum of 300 tons. On the Kelani Valley and Matale sections (and parts of other sections), due to operating difficulties, train loads are often lower, in which case, some averaging of train loads over the different sections is implied.

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	5 ton lorry	4 ton lorry	3 ton lorry
Petrol driven lorry	24 cents	28 cents	33.3 cents
Diesel lorry	19.5 "	21.25 "	25 "

However, the Commission is of the view that the costs per ton mile varied between 30-40 cents (Report of the Transport Commission, 1967 - page 35).

The question at issue is whether or not the average rail costs are lower than the average road costs on particular routes. No valid conclusion can be drawn by comparing the overall average costs by road and rail. The cost of transport is not the same per ton mile for all commodities and for all distances. If in the face of these variations in cost a tariff based on the average costs per ton mile is made for all traffics it will lead to some traffics being charged more or less than the resources they use. This approach is not acceptable.

Secondly, the relationship between road costs and rail costs is different for the different commodities and distances, and it may be that for some traffics road transport may cost more than rail costs while being less for some other traffics. If under these circumstances a rail tariff based on average costs attracted traffic to the Railway, such a charge will bring about a wrong use of scarce resources since some traffic carried by rail could be carried at a cheaper cost by road.

Thirdly, the failure of the Railway to attract the balance traffic necessary to make up the maximum load of each train in 1957 was due to the inefficiency of rail transport, or in other words, to the efficiency of road transport. It is admissible that if the Railway secured the additional traffic to make up the 570 million ton miles the costs per ton mile will be reduced: But since it was not forthcoming through its own efficiency, some form of compulsory diversion has to be assumed. This diversion will certainly cause extra costs to rail users by way of delay to traffic, packing, double handling, etc. It was assumed that the costs of the additional 289 million ton miles would be Rs. 22.6 m.; but it is obvious that it did not include the 'users' costs, which if taken into account, will increase the

'real' costs per ton mile to a higher figure. Hence, it is doubtful whether this contention is economically valid.

11.4 Prospects arising from the country's financial difficulties

The prospects for the Railway in the immediate future are, however, more linked with the country's financial difficulties.(1) It has been already explained that the need to conserve foreign exchange to meet demands from the agricultural and industrial sectors in the face of the country's inability to expand export, has seriously retarded the expansion of road transport. With the threat of further balance of payment difficulties much sterner import control measures have had to be adopted. While in 1961 restrictions were confined to imports of new vehicles, in 1965, these were extended to cover spares. The capacity of the road industry has been seriously affected.

Notwithstanding, a further deterioration of conditions is foreseen. Recently, a Committee from the World Bank has found it necessary to recommend that, in view of the country's need of foreign exchange, expenditure on petroleum in 1968 should not exceed Rs. 89 million.(2) A change of circumstances in favour of road transport in the next few years is unlikely in consequence.

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(1) "From all that we had said earlier it will be apparent that the Railway does play an important role in the transport system. It is inconceivable that in the present state of the country's economy the road transport system can take over the volume of traffic now carried by the Railway" - Report of the Transport Commission, 1967 - Page 11.

(2) The amount expended on petroleum in 1965 was Rs. 118 million.

It was noted that the scope to expand private road passenger transport capacity through indigenous manufacture of motor cars and haulage vehicles is also limited.(1) Local production will hardly meet the needs of even replacements. The expansion of the omnibus fleet will also be hindered due to paucity of foreign exchange, although the Government is alive to the need to expand public road transport, and in recent years, has endeavoured to import additional vehicles.

These then are perhaps a reflection of a bright future awaiting the Railway. In responsible circles it is admitted that the present unfavourable financial conditions will continue into the foreseeable future in view of the possible fall in demand for tea and rubber, two of the three principal sources of foreign exchange. In the circumstances, the Government has no alternative but to impose further restrictions on the import of consumer goods, if the development programmes already initiated were to be completed. Road transport equipment, in the face of the availability of rail transport comes handy for further curtailments.

To recapitulate, the conditions are that the immediate prospects for the Railway are more linked with society's inability to expand road transport capacity, either through the acquisition of new vehicles or by increasing the scale of operations through the import of larger quantities of motor fuel and spares.(2)

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(1) See page 82. Recently another plant - United Motors Ltd. has been set up to assemble 240 jeeps a year. It is mentioned that this figure is not an indication of the Company's capacity but it is the limit dictated by availability of foreign exchange for obtaining the component parts.

(2) Opportunities to import, at no distant future, either additional quantities of motor fuel or a limited number of vehicles, are apparent

(See over)

11.5 Size of Traffic

Earlier, it was mentioned that while a fair portion of the traffic presently offered is not 'ideal' for rail transport there will, nevertheless, be traffic of that nature in the future, as well as traffic that could be carried 'economically' by rail. It is then necessary to estimate its size on the one hand, and determine whether the Railway as it is today, can accommodate it, on the other.

The prerequisite for any considered allocation of traffic between road and rail is the knowledge of the quantities of the various categories of traffics that are moved by the two forms of transport. Records maintained by the Railway are a source of precise statistical information of its share in the carriage of both freight and passenger traffic, but the absence of data for road operations precludes a proper estimation of the traffic carried by road hauliers.

When evolving methods to forecast future trends in traffic development various factors have to be taken into account - population growth, location of industries, agricultural projects, etc. Forecasts have relevance to the size of the working population and output per head. However, serious studies in these directions have not been carried out in recent years. Moreover, unlike forecasts in countries experiencing economic stability, where developments, practically in all sectors, can be predicted with the

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with the indigenous production of rubber tyres and tubes for motor vehicles. It is hoped that by 1970 the entire requirements of the community will be met. The annual savings will be around Rs. 30 million. However, it is a question whether these savings will be used on road transport equipment (or fuel) or devoted to other important purposes.

minimum of inaccuracy, conditions in Ceylon do not permit of such forecasts. Nevertheless, a rough assessment of the immediate traffic demands can be based on the projected increase in the Gross Domestic Product for the period 1968-1971.

Ceylon with an area of 25,332 sq. miles has a population of 11 millions. By 1975 the figure would reach 18 millions. The economy of the island is mainly based on the plantation industries - tea, rubber and the coconut. The production of rice and other subsidiary foodstuffs is the next major sector of the economy, followed by industries.

Since political independence, in 1948, an accelerated pace of development in the different sectors is identified in the island and there is reason to believe that the momentum gained will not be relaxed in the future. At present industry's contribution towards the country's national income is small - but, there is evidence of an extension of manufacturing activity in recent years, the stimulus imparted by the situation arising from import restrictions imposed for balance of payment purposes. The view is that the extension of manufacturing activities on a factory scale, already initiated, will impose a basic change in the economic structure of the island in the direction of greater industrialisation. The layout has been planned within the framework of the Ten Year Plan, and subsequent development programmes.(1)

The emphasis on agricultural expansion is similarly high. The chief developments are an increase in production of tea, rubber, bot notably coconut, for export; and rice, chillies, onions, potatoes, fruits and

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(1) The Ten Year Plan - 1959-1968.
The Short-Term Implementation Plan - 1962.
The Proposals for Agricultural Development - 1966-70.

vegetables, for local consumption. In the former case the increase is expected to be 3% annually over the 1965 figure and in the latter 6%.

On the industrial side, an increase of 9% is expected. The main contribution to this increase will be from the cement, paper, ceramics, tile, steel, salt and petroleum refining industries.

The rate of economic growth in the period 1965-1971 is estimated to be an annual average compound rate of 5.2%.(1) The volume of exports in 1965 was approximately one million tons. In the same year the total volume of the imports and local production of commodities, which are to be produced in larger quantities locally, was 3.6 million tons.

The Commission on Transport is of the view that by 1971, on the basis of the assumed increase in the Gross Domestic Product, about 5.75 million tons of freight will need transport facilities, of which about 800,000 tons 'is suitable for carriage by rail as it is in bulk requiring transport over relatively long distances'.(2) This estimate is the annual freight tonnage for a period of three years from 1968. In the decade to follow the traffic should be considerably larger, possibly around 12 million tons.

A forecast of trends in the demand for passenger transport cannot, however, be made with the same degree of satisfaction as with freight. Statistics of passenger movements, both on the Railway and the Ceylon Transport Board's bus services, are indicative of an upward trend.

The demand for passenger transport arises from decisions made by individuals, as consumers, influenced by the level of their incomes. In cases where personal travel is inevitable, as when going to work or to

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(1) The Development Programme 1966-67 dated July, 1966.
(2) Report of the Transport Commission, 1967 - page 47.

school, the decision pertains to the choice of the form of transport - road or rail, influenced by the quality of service.

However, demands for passenger transport cannot be divorced from other factors - size of the population, the location of industries, agriculture and colonisation schemes, and the progress made towards urbanisation. They also depend on the availability of transport facilities, both public and private, and the charges made by public transport.

Car ownership is linked directly with personal incomes, but unfortunately although a general rise in personal incomes is identified the foreign exchange difficulties have precluded an expansion in car ownership. Should the present financial difficulties persist over the next decade, it is a safe assumption that, instead of an expansion in the number of cars, a fall is likely in consequence of the inability of the Government to import new vehicles as replacements.

On the contrary, an extension of public road operations is acceptable. It is incumbent on the Ceylon Transport Board, as a publicly owned undertaking, to provide better services than provided before 1957. This implies expansion of the omnibus fleet. Whilst imports of haulage vehicles and cars have steadily declined, there has been a sizeable expansion of the omnibus fleet. Both a fall in the use of motor-cars, resulting from a fall in imports and increased demands in rural areas with the extension of social and economic activities, will necessitate the expansion of the omnibus fleet. But, since it cannot be possible, it is inevitable that the available road passenger transport capacity will have to accommodate the rural demands while the Railway takes over the services presently maintained by the Ceylon Transport Board on routes running parallel to the rail system.

Commuter travel by rail has expanded substantially in recent years, as represented by the trend in Season Tickets. This trend will continue with urbanisation. An increased use of rail transport is unavoidable in the face of a curtailment of private and public road transport.

While mercantile establishments, Government administrative offices and social institutions expand in size and in number, and employees prefer to live away from urban centres in order to profit from lower rents and cheaper prices in the country, there will be an incessant expansion in commuter traffic, which, in the absence of adequate road transport facilities, will have to be accommodated by the Railway. At present commuter traffic centred in Colombo is spread over a radius of 50 miles, extending to Galle, Negombo and Avissawella. With the passing of time a rapid extension of the commuting distance can be anticipated, provided better rail services are forthcoming. This pattern of extension of commuting distance is also evident in other parts of the island - Jaffna, Kandy and Galle.

Increased demand for long distance passenger traffic is also visualised with the successful implementation of the colonisation programmes such as those already bearing fruits in the Galoya Valley, Hingurakgoda, Polannaruwa and Kantalai districts. Besides, the programmes on hand for the development of the dry-zone lands in the North, North-central, and Eastern districts for agriculture will demand substantial long distance transport for both passenger and freight traffic.

The Ceylon Transport Board's projected figures for 1965 were 4,989 million passenger miles and for 1974, 9,423 million. The Transport Commission, however, shows its unwillingness to accept the estimate as based on all relevant factors. However, if the rail passenger mileage is taken

into account there can be no hesitation to accept that in a decade the demand for passenger transport facilities will increase by two or three fold.

11.6 Capacity of the Railway

It is estimated that about 12 million tons of freight will need some form of transport by 1981. Of this tonnage, on the basis of the Transport Commission's assumption, 2.5 million tons could be 'suitable' for rail transport. That portion of traffic that could be 'economically' carried by rail depends on the uneconomic nature of road transport with the passage of time and consequent upon the inability of the community to provide for more vehicles and roads.

It need not be repeated that the prevailing economic conditions will not permit an improvement in that direction. The following table of age distribution of haulage vehicles shown that only 48% of the number on the books of the Commissioner of Motor Traffic is 10 years old. (The number of vehicles, according to the Commission, at the end of 1966 was 27,280, but the Transport Commission estimates that only 22,000 vehicles are serviceable, and include hearses and ambulances as well).[1] At the present rate of expansion, ten years hence, only 4,000 vehicles will be under 10 years old, and hence efficient to operate.

Table of Age distribution of haulage vehicles - 1966

	1 year and under		468
1 -	2 years	and under	237
2 -	3 "	"	360
3 -	4 "	" "	1,200
4 -	5 "	" "	2,104

(1) Op. Cit. page 34.

Table of Age distribution of haulage vehicles - 1966 (Cont'd)

5 - 6 years	2,766	
6 - 7 "	2,353	
7 - 8 "	1,386	
8 - 9 "	1,498	
9 - 10 "	1,227	13,599
10 - 11 "	852	
11 - 12 "	376	
12 - 13 "	1,059	
13 - 14 "	1,504	
14 - 15 "	1,067	
over 15 years	8,823	13,681
		27,280

(Compiled from Returns of the Commissioner of Motor Traffic).

Information regarding the pay load of these vehicles is not comprehensive. The Transport Commission estimates that only 13,000 vehicles are with a pay load of 2½ tons and over, and that it is the number used for the public carriage of goods, the rest being used mainly on the business of the owner.(1)

On the basis of present average rail haul, the anticipated ton mileage can be estimated at 1,500 million; but it is possible that the average haul will increase when once the agricultural and industrial developments take place and traffics, consisting of consumption and export goods on the one hand, and raw materials for the industries on the other, are moved from the source of origin to distant centres of consumption. Possibly, the ton mileage may increase to 2,000-2,500 million.

With an efficient road vehicle covering 30,000 miles per year(2), on

(1) Op. cit. page 35.

(2) The Report of the Technical Working Group on Transport - page 32.

average, and half that mileage attributable to inefficient vehicles (over 10 years old) the total ton mileage that the current haulage fleet can accommodate is around 1,000 millions. The prospects for the Railway lie here, with the need to provide facilities for the balance 1,000-1,500 million ton miles.

However, in view of the smaller foreign exchange allocation in 1968 for motor fuel, and the prospects for further reductions in fuel supplies in the years ahead, the ability of the road haulage fleet to accommodate the 1,000 million ton miles cannot be certain unless some form of preference is shown to road hauliers to secure their fuel requirements in full. In the absence of such preferential treatment the Railway stands to carry additional traffic.

On the passenger side, the provision of 600 cars although totally inadequate to meet the annual requirements of the community, will nevertheless, help to invigorate a sector that would rapidly deteriorate otherwise. The table of age distribution of motor cars depicts the equally sad plight of private road passenger transport. Ten years hence 50% of the vehicles on roads today will have been discarded as obsolete, while the expansion in their number cannot be more than 10%, on the basis of both present imports and of indigenous production.

Age distribution of <u>motor cars</u>, <u>omnibuses</u> and <u>motor cycles</u> - 1966

1 year and under	493	636	34
1 year - 2 years	359	529	120
2 years - 3 years	395	43	102
3 " - 4 "	463	442	390
4 " - 5 "	3,210	519	1,502
5 " - 6 "	8,943	352	1,722
6 " - 7 "	7,577	660	1,313
7 " - 8 "	5,538	706	1,235
8 " - 9 "	6,925	670	1,600
9 " - 10 "	8,900	615	1,875
over 10 years	39,729	2,804	7,636

(Compiled from Returns of the Commissioner of Motor Traffic).

With the possible continuation of restrictions on the import of motor cars[1] the need to expand public transport is self-evident, but the paucity of foreign exchange, as has been pointed out, is a deterrent to indiscriminate expansion of the omnibus fleet.

It is the view that transport services should meet the particular requirements of users. 'They should be available not only in the right quantities and at the right prices but also at the right places'. The serious question is whether the Railway would offer services of this character. However, under the peculiar circumstances of today the transport requirements in Ceylon are related more to 'quantity' rather to 'quality.'[2] It is from this angle that the capacity of the Railway seems to have been examined.

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(1) The cost of cars imported in recent years is not met out of the country's foreign exchange resources. A good number is imported on behalf of foreign diplomats. Ceylonese, temporarily resident overseas, are allowed to import cars, for their own use, but the cost is to be met out of funds earned abroad. This restriction is to curb the tendency to 'sneak' in cars into the country by the 'privileged' section of the community.

(2) The 'quality of service' element on the total costs of transport possesses lesser significance relative to the money costs of transport in a poor country like Ceylon, than in a rich country like the United States. An average Ceylonese will think of saving money in preference to 'quality' of service. He would prefer a road bus to a taxi even if its use means a walk of half a mile to his home. Similarly, if the use of a motor lorry costs Rs. 2 more than the use of a bullock cart, he would be loath to use the former even though it might ensure the quality of 'speed'. Perhaps, with the passing of time and an increase in the standard of living, greater importance will be attached to the 'quality of service' element - speed, comfort, accessibility, etc.

Col. Badhwar examining the capacity of the Railway in 1955 had pointed that in that year it could have accommodated an additional two million tons and thirty million passengers. He was, however, not blind to the high degree of technical inefficiency of the system at that time.

Conditions have changed for the better, and today the Railway possesses a much greater capacity than that which it possessed in 1955. Freight stock has been enlarged by 38%; passenger stock by 58%; and locomotive stock by 50%.(1) Tracks have been strengthened, realigned, and heavy rails laid. Bottle necks have been eliminated, and the introduction of colour light signalling and centralised control in Colombo and its suburbs has permitted a greater use of track, rolling stock and tractive capacities. The General Manager of the Railway is of the opinion that the undertaking possesses the capacity to accommodate all the needs of future economic expansions, perhaps after providing for an increased technical efficiency.(2)

This view, nevertheless, seems to relegate to second order of importance economic considerations. It would appear that the undertaking possesses the capacity to carry a large portion of the traffic forthcoming not on a 'qualitative' basis but on a 'quantitative' basis. The element of 'quality' is more relevant to the economic carriage of traffic, and if it were overlooked in the discussion of the capacity of the Railway it cannot be acknowledged that rail transport will be efficient.

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(1) By 1970 the Railway would have replaced its steam locomotive stock with diesel-electric locomotives. Orders for 83 such locomotives have been placed already.

(2) This view is endorsed by the Transport Commission (1967) which considers that "the capacity of the Railway to carry almost twice as much as it now does is beyond doubt. With dieselisation capacity should increase even further".

CHAPTER 12 - THE FUTURE ROLE OF THE CEYLON RAILWAY

12.1. The Short and the Long Term Role

It is convincing that there are opportunties for the Railway to put its spare capacity to optimum use in the immediate future. The conditions are even such that with the administrative and technical inefficiency remaining uneradicated, and without relief from the social and legal burdens, it could attain a position of monopoly if, consequent upon the absence of replacements of road vehicles, road capacity is reduced.

The role of the Railway during the period of the country's financial difficulties is thus obvious. The use of its spare capacity effects considerable savings in foreign exchange. In the absence of this spare capacity the Government will be faced with serious policy decisions. It has to resolve on one of three alternatives:- (i) an expanded road transport system; (ii) an expansion in industry and agriculture; and/or (iii) an increase in welfare through non-curtailment of imports of consumer goods basic to the life of the community - food, textiles, etc. This role, however, is the short-term role. Circumstances are likely to change, and the long-term role will have to be examined in such a perspective.

The period of economic life of the existing rail equipment cannot be everlasting. If the Railway were to be retained after that period it would have to be reequipped. This depends on the demand for Rail transport. There can be no economic argument to restore the rail system to its present form or to expand it if it were known that road transport could perform its function far more efficiently. The future of the Railway then rests on its efficiency, which, however, has been affected

to a large extent, by Government policy and the unavailability of foreign exchange.

On the other hand, it is possible that the country could extricate itself from the present parlous economic state at some future time; the present financial difficulties will not disappear altogether, but there may be an improvement. Road transport could be expanded; the Railway may or may not be reequipped; but, even if it were reequipped, its prospects would not be encouraging if the conditions of road/rail operations of today were perpetuated. The picture is clear. The long term role of the Railway is directly linked with the availability of foreign exchange, the expansion of road transport, and finally, on the Government's transport policy.

The difficulties experienced by the Railway on account of the non-availability of foreign exchange are apparently clear; its technical efficiency has been severely affected by lack of replacement of inefficient equipment. Its operational and administrative inefficiency is however attributable to other factors which have been dealt with elsewhere.

12.2 Expansion of Road Transport

There is the likelihood that if the economic development of the country proceeds as planned substantial savings in foreign exchange could accrue after 15/20 years. Expansion in road transport will then be possible. A real challenge to the Railway will emerge.

The assumption that considerably large development in road transport will take place is based on the pre-1961 pattern of investment. There is no doubt that the then expansion in road transport was largely

influenced by the unfavourable rail operating conditions, exploited by the road operators to maximum advantage. However, it cannot be conceded that the communal resources will be so plentiful as to permit unlimited expansion in road transport. It will be not years but decades before the country could hope to attain a position common to industrialised countries whence the challenge to the Railway will be most severe.

Nonetheless, whatever the extent of road transport expansion be there is bound to be traffic seeking rail transport. This is apparent from the experience in industrialised countries where, with the large scale expansion in private ownership of cars and increase in the number of public road passenger and haulage vehicles, the demand for rail transport is considerable.

The situation is that if the Railway were to operate under the same unfavourable conditions of today its role will be negligible. The traffic it may carry will consist of small portions of suburban and long-distance passenger traffic and freight charged at less than cost prices. If the appropriate conditions of operation were made available, however, it is possible that it could play an effective role in meeting the community's transport needs.

12. 3. Government Policy and Aims

The aim of transport policy shall be to ensure that 'wherever a transport service is required it is provided by the method which causes the lowest cost in terms of the nation's real resources'.(1) What is the

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(1) J.R.Sargent - British Transport Policy - page 156.

policy of the Government in respect of rail transport?. To what extent is it in conflict with the economic objective of a transport policy?. Is the efficiency of the Railway, and in consequence, its role affected by it?.

12.3.1. Subsidised Transport for Industry, Agriculture, etc.

The first principal aim of the Government's policy is to provide cheap transport to assist agriculture and industry.(1) There is no adequate economic argument against assisting particular economic activities or sections of the community by providing transport services at less than cost, but it is highly desirable that such assistance is provided in a manner that would not stimulate a wasteful use of scarce resources.

The provision of less than cost services means direct financial losses to the Railway. Hence, the acceptability of this aim rests on the question: how are the losses made good?. If they are made good by the Government there is nothing wrong in providing the services, but since it is required to recoup them through cross-subsidisation the Railway is forced to resort to a 'differential tariff' by which certain traffics are charged rates higher than the actual costs of carrying them.

This 'differential tariff' possesses in it the serious disadvantage of being vulnerable in its higher rating levels to the cheaper fixed charges based on the direct costs of road transport service'. The extent to which the Railway can subsidise agriculture and industry depends on its hold on the more highly rated traffics.

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(1) A section of the public is also provided with less than cost passenger services.

It follows that if in the absence of a direct contribution from the Government the Railway were to avoid losses it should be assured of substantial quantities of the high valued traffics. This assurance can come only through the imposition of restrictions on road transport.

Restrictions on road transport are then a contrivance to sustain the 'differential tariff'. It is sometimes possible to contend that the financial difficulties of the Railway could be solved if it were allowed a free hand in its charging arrangements, but since no assessment has been made of the probable losses arising from the operation of the differential tariff, opinions however strongly held that the Railway is not unduly inefficient cannot go unchallenged. It is genuinely believed that a portion of the rail losses are attributable to causes other than to the more adherence to the 'differential tariff'.

The economic wastage of maintaining a 'differential tariff' is well known. Take the case of the Railway being required to charge prices less than costs on high cost services A whilst the road operators are not. The high cost services A will have to be subsidised by the low cost services B. That is, the prices charged for the low cost services B will have to be more than the actual costs incurred in providing them in order that the surplus so obtained may offset the losses incurred in providing the services A.

This opened up B as a profitable field to be competed for by the road operators. The Railway loses traffic to the road operators so long as the latter offer services at prices lower than those which it offers. The result is that the users taking the cue from the two sets of prices cause an expansion of road services at the expense of the Railway. It is clear that even though the road costs are high the artificially kept

high rail prices contribute to the expansion of road transport and to the wrong allocation of resources; a proportion of traffic has been carried by the costlier method.

Although it is difficult to assess the loss incurred by the Railway in adhering to the 'differential tariff' there is no doubt that this policy aim of subsidising industry and agriculture has aggravated its financial difficulties on the one hand, and lowered its role, on the other.

Furthermore, the view that restrictions must be imposed to protect the 'differential tariff' is almost a narrow view with its focus on finance. It overlooks the question of relative costs of road and rail transport. If industry and agriculture need be subsidised there is no reason to use the Railway as a means to promote that end. Why not a direct financial contribution?. This idea may be impolitic; nevertheless, cross-subsidisation negatives the economic aim of providing transport services at the least cost in resources.

Having considered it inappropriate to offer direct financial subsidies to industry and agriculture (and to that section of the public enjoying cheap passenger services) the Government has considered it fit to 'write-off' the losses of the Railway. This method of compensation is not in conflict with the principle that the cost of providing the less than cost services is not a charge on the rail administration but is met by the party requiring them. However, the conspicuous adverse feature of these 'write-offs' is that they are resorted to regardless of the economic consequences. No attempts have been made to ascertain the nature of the losses - whether they are in their entirety attributable to

the unremunerative services provided at the behest of the State, or mixed up with these arising from the inherent inefficiency of rail transport. So long as such an examination has not been undertaken and the losses identified this mode of general compensation stands condemned in the eyes of the transport economist. It need not be stressed that if freed from the task of providing unremunerative services the rail administration would not fail to abandon them.

The subsidies towards the working losses of the Railway average thirty million rupees a year.(1) The justification for these rests on the understanding that the losses are in their entirety incurred in the course of providing the less than cost services, and that they are the minimum that society has to part with in order to secure the services presently provided by the Railway through any other form of transport.

However, if part of the rail services are uneconomic in their own ways and the losses are not distinguished from those pertinent to the unremunerative services maintained for the specific needs of society, generous subsidies to cover the rail administration's overall losses certainly cause a misallocation of economic resources.

Assume that of the rail losses 50% are attributable to the requirements of the Government. Of the subsidies, Rs. 15 million is then a 'free gift' to the rail administration. It is a contribution for the administration to bid for factors of production worth that amount in competition with other users - agriculture, industry, road transport, etc. In the absence of this 'free gift', the administration, confronted with the problem of balancing its budget will adopt the inevitable step

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(1) These will be much larger in size if the concessions the Railway enjoys in respect of import duties on fuel, equipment, etc., and other taxes are withdrawn.

of pruning its (uneconomic) services to that level at which its receipts equalled expenditure. This curtailment in its activities release those resources it would have bid (with the backing of the Rs. 15 million) for use in other economic activities.

The main shortcoming, however, as pointed out earlier, is the administration's inability to divorce the losses attributable to the less than cost services from those related to its own inefficiency, or the losses attributable to the passenger section from those of the freight. On the other hand, the apparatus to determine the costs of individual unremunerative services, both by rail and road, will make costly demands on resources. Its use should be considered only if the advantages far outweighed the costs.

As it appears the Government seems satisfied that the high costs of the costing machinery, and the administrative difficulties are formidable obstacles, and it is hence desirable to leave matters as they are. That is, the rail losses will be met as usual regardless of their nature. This is not an economic approach to the problem.

12.3.2 Employment Policy

The second aim: the Railway shall be a tool of the Government to promote its employment policy. Today, the Railway employs over 25,000 men and women. The view is that the rail system in its present form and size will enable the retention of the present personnel although it cannot be refuted that a portion of it is in excess of the requirements of a commercial enterprise.

The policy is that the Railway, in common with other Government Departments, shall, in addition to providing employment, offer employees such other conditions unavailable in the private sector. This aim, gladly endorsed by a section of the public, unaware of the economic demerits, contributes to the lesser attractiveness of the rail services.

About 75% of the Railway's expenditure is in respect of labour costs - 60% in wages and salaries, 10% on pensions and gratuities, and 5% on social amenities. In the face of this large expenditure, in the private sector of the road industry, only 16% is attributable to labour costs. The excess costs incurred by the Railway in adhering to this policy requirement have to be recovered through its services, and in consequence, fares and freight rates have to be pegged at a level higher than they should be. Invariably, these are much higher than the road charges. The result is that traffic that would normally seek rail is diverted to road; a wasteful use of scarce resources sets in.

In 1965 the cost of staff amounted to Rs. 85,683,666; the net deficit was Rs. 27.6 million. In all probability, a freer hand to evolve its own employment policy would certainly enable the rail administration to avoid such deficits.

The importance of equality in the conditions of employment in the two industries need not be stressed. However, it is beyond the means of the Government to ensure that the road operators, in the private sector, adhered to a socially based employment policy; it is far easier to relieve the Railway from the burdens of it.

The adoption of an independent policy of recruitment of staff, and the payment of wages and salaries on the basis of the market factors of demand and supply, will reduce the Railway's operating costs. Besides, when freed from the obligation to provide unremunerative services, or alternatively, if a subsidy is granted, it will offer much lower rates and attract much of the traffic presently lost to road.

However, such a proposition will not appeal to politicians in view of the possible repercussions on income distribution in the public sector. This again is not an economic problem, but a social one. Economically, a reduction of labour costs is acceptable so long as efficiency in transport is not impaired; but it is well known that it cannot be assured.

Possibly, the way out of this impasse is to reimburse the Railway with the costs of adhering to the social scale of wages and conditions of employment. This would take the form of a subsidy realised through taxes on industries and trade that stand to benefit by the reduced rates offered by the road operators who do not adhere to them.

12.3.3 Strategy

Thirdly, the aim is to retain the Railways to meet the needs of strategy. The value of the Railway in times of war cannot be underestimated. The issue, however, is whether the losses from retaining the entire system, which may include uneconomic sections, are to be made good by the rail administration or by the Government. The arguments against cross-subsidisation need not be re-examined. It is clear that if the uneconomic sections were to be retained specifically for purposes of strategy the excess costs must be met from public funds.

Apparently, these aims while nothing wrong in themselves, fail to reconcile with the economic objective of a transport policy. They are a hindrance to the proper assessment of the Railway's efficiency and to the determination of its future role.

A change of policy will certainly offer the Railway a greater degree of equality in operations with the road operators. But it is open to question whether this measure is adequate enough to achieve the economic objective - transport services at the smallest cost to society.

12.4 The Choice of the Solution

In Chapter 9 the three possible solutions to the transport problem were examined. It cannot be agreed that a greater degree of freedom in operations for the Railway fulfills the essential attributes of a 'freer competitive' solution. From the earlier examination of the differences in the economic characteristics of road and rail transport, and the circumstances under which the Railway and the road operators may function, it has to be agreed that in the normal course of events the conditions necessary to sustain the 'competitive' solution will not be forthcoming in the island for considerably a long period.

(i) Investments on both road and rail transport on a competitive basis involve the large scale use of foreign exchange. It is beyond doubt that in the immediate future the community's means of expending foreign exchange on both forms of transport are seriously limited. Even if the financial conditions improved in 15-20 years time, there is the justified fear that investments of the nature demanded to sustain effective competition between road and rail will lead to redundancy in road/rail capacity at some stage or the other before the final

sizes of the Railway and the road undertakings have been determined. Since this sort of wastage will have to be avoided in view of the more urgent alternative uses to which foreign exchange could be put Governmental intervention is inevitable. The competitive solution cannot be put to a fair test.

(ii) The inability to bring the road industry, particularly the private sector, under effective regulation is another factor against the competitive solution. Road transport should not be subject to needless restrictions, but regulations to ensure efficiency cannot be overlooked. Detailed examination has been already made of the shortcomings in the sphere of wage payments, duty hours, vehicle maintenance, etc.(1) It has to be recognised that the economic and social conditions in the country are basically different from others; to hope for success in bringing equality in operating conditions between road and rail transport to the level that it is possible in other countries is certainly illusory.

(iii) Besides, the chances of political acceptability of this solution are remote. No politician will endorse the policy of a rail administration that may show little consideration to the needs of the poor majority. His concern is for the small scale farmer, the itenerant salesman, the market gardener, the less affluent commuter, and the school going child. These require some form of cheap transport.

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(1) See Chapter 10.

Unfortunately, he is neither interested in knowing the conditions under which the Railway and the road undertakings operate nor does he evaluate the misgivings of a rail tariff not based on costs. He would, however, revolt at the suggestion that rail charges should be raised, especially for the low valued traffic - paddy rice, vegetables, etc. although it is the consequence of granting equality of opportunity to the Railway, which it rightfully deserves.

12.5 Coordination through Restrictions

The competitive solution has limited scope under the circumstances. The second choice is integration, which is neither free from misgivings. The alternative is to fall back on coordination. Coordination between road and rail transport is the widely accepted measure for the economic use of scarce transport resources. It will have to be examined whether this measure will ensure the Railway its proper role while securing the efficient use of scarce resources.

Many countries have found it convenient to achieve coordination by imposing restrictions on road transport in the conviction that traffic would be directed to the lowest cost means of transport - the rail. But it is known that restrictions on road transport have also been imposed with the view to protecting the railways regardless of whether that measure hindered or helped the economic distribution of traffic between road and rail.

In Ceylon the policy of achieving coordination through restrictions on road transport has been abandoned. The decision, however, has been motivated by political and social considerations rather than economic ones. Nonetheless, it is worth examining whether restrictions on road transport in the forms they are suggested today will ensure the provision of transport services at the least cost to society.

12.5.1. Saving Scarce External Resources

The primary argument for restrictions is that the greater use of the Railway through administrative diversion of traffic from road will yield considerable savings in foreign exchange. Here, it is a question of whether the social benefits from such savings are more than the possible losses from restrictions on road transport; that is, whether the social costs are lower if rail transport were used.

It has been repeatedly stressed that there is an immediate need for foreign exchange to meet the cost of imports of foodstuffs and other consumer requirements, besides that of capital goods needed to expand industry and agriculture. If it were recognised that the net social benefits from the use of the foreign exchange saved through a non-expansion of road transport for the import of foodstuffs, etc. are more than those derived from an increased efficiency in road transport there is adequate ground for restrictions on road transport. It could be conveniently argued that transport by rail is cheaper in terms of scarce external resources.

12.5.2. Saving Scarce Internal Resources

The other argument is that scarce internal resources could be saved if the rail surplus capacity is put to effective use by diverting traffic presently carried by road (or that which will be carried in the future). Will not such a diversion of traffic result in additional burdens to society?.

Ordinarily, rail spare capacity would not exist had past investments been undertaken in proper relationship to demands for rail transport, but since investments have been undertaken - past decisions cannot be undone now - surplus capacity exists. The maximum use of this excess capacity cannot be disregarded.

It is possible that the social cost of the use of this surplus capacity is much less than when road transport were used to carry that volume of traffic that the Railway may accommodate. This is so because the use of rail transport in the short run does not involve opportunity costs. The case is different if new roads have to be built and new road vehicles have to be introduced. There is little doubt that if the demands for road transport were to be accommodated comfortably new roads have to be laid and existing ones widened, besides acquiring additional new vehicles.(1) This means that whilst the resource use of rail transport is small, and in consequence, it is cheaper than road transport, the expansion of road transport would be inimical to the interests of the community. Restrictive measures will ensure the use of the least cost form of transport - the Railway.

12.5.3. Eliminating Inequalities to Ensure Economic Distribution of Traffic

Restrictions are deemed necessary to bring about equality in rail/road operating conditions and to the eventual economic distribution of traffic between the two forms of transport. It is morally wrong for the road operators to enjoy certain advantages over the Railway; it is uneconomic if such advantages are a source of wrongful distribution of traffic.

The inequalities of rail/road operating conditions have been critically examined elsewhere.(2) Besides the treatment of indirect costs to

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(1) Wilbur Smith & Associates estimated that by 1975 Rs. 100 million should be spent on deficiency corrections and another Rs. 300 million on new constructions if the road system in the island was to develop in accordance with the programmes of development in other sectors. The cost of vehicles and their maintenance was estimated at Rs. 600 million. (However, no estimate is available of the probable expenditure in maintaining services in competition with the Railway).

(2) See Chapter 10.4.

its advantage the Railway's disadvantageous position through inequalities in the sphere of employment, social and legal obligations, etc. have been recognised.

Restrictions of any form invoked purely with a view to achieving equality in operating conditions cannot be disregarded. They could render the prices for road services to reflect actual costs; the proper distribution of traffic between road and rail will ensue.

12.5.4. Protection of Rail Tariff

Another argument is that restrictions on road transport, while protecting the rail tariff, will ensure that traffic is directed to the low cost form of transport. The Railway adheres to a 'differential tariff' not for its own sake. The requirements of a 'differential tariff' are that it has to subsidise some traffics and tax some others in order to recoup its losses. In principle, there is no need to subsidise any particular traffics. However, so long as the decision to offer subsidies is part of Government policy, the Railway, as a Government Department, cannot disregard it. Nonetheless, the requirement to adhere to a 'differential tariff' does not necessarily introduce the condition that certain traffics should bear the cost of subsidising other traffics.

It would not be wrong in principle if the Railway contends that in the absence of financial contributions towards the cost of the 'differential tariff' it should be afforded the opportunity to recoup its losses, probably through the collection of charges much in excess of costs from certain traffics that would be diverted to it by administrative measures. This implies that restrictions should be imposed on road transport so that certain traffics will have no alternative other than to choose the Railway. It would

then seem that restrictions on road transport are desired specifically to protect the 'differential tariff' and nothing more. Although the best solution is a subsidy to the Railway, however, the principle is not wrong that restrictions are inevitable if the 'differential tariff' were to be sustained in the absence of direct subsidies. But the condition should be that they are used distinctively to serve the needs of the 'differential tariff! To be precise, the traffic diverted to the Railway should not yield earnings in excess of what is needed to cover the costs of the cross-subsidy. For instance, if the costs of the cross-subsidy, are Rs. 5 million and every ton of freight diverted earned Rs. 5 in excess of normal costs, the traffic diverted should not exceed one million tons. Restrictions on road transport that would divert more than one million tons will be a source of general protection to the Railway leading to the perpetuation of an inefficient form of transport and to the misallocation of scarce resources. They are, as such, wrong.(1)

On the other hand, while the relative costs of rail transport are lower than that of road, the operation of a 'differential tariff' certainly diverts the high rated traffics to road with the resultant wastage in resources. Restrictions are then necessary to ensure that such traffics are carried by the low cost form of transport - the Railway. However, the earnings from this diversion may more than compensate the costs of cross-subsidy, in which case, it is essential that the additional earnings accrue to the Government rather than be a source of protection to the Railway.

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(1) The consideration here is the prevention of additional loss in resources which is probable when restrictions are imposed without effecting an estimate of the volume of traffic that is forced to seek the Railway.

The concern here is whether the Railway offers a less costlier form of transport, and unless it has been ascertained, it is wrong to divert traffic to it. In Ceylon, although restrictions on road transport have been nominally withdrawn, the directive that Government Departments should patronise the Railway amounts to a form of restriction. The situation is that the 'differential tariff' is maintained while large scale restrictions are not invoked to sustain it. The losses of the Railway are met by the Government, but not knowing to what extent they are the result of the 'differential tariff'. Under the circumstances there is more than adequate reason to abandon the 'differential tariff'.

12.5.5. Saving of Railway Capital

Restrictions are at times suggested to save the capital sunk on rail undertakings. The fact that millions of rupees have been invested on the Railway need not be an excuse for condoning the wrong use of scarce resources.

The question is whether the Railway uses less resources than road transport does. If it does not, it should be abandoned. By its retention society stands to lose more. There is, however, the necessity to meet interest charges on the capital borrowed, and it seems more desirable in such instances to impose a tax on road transport to recover them.

The Ceylon Railway has been financed out of general revenue and since there is no question of meeting interest charges to shareholders it is desirable that the capital investments are forgotten rather than attempt to retain it with a view to recovering part of them.

On the other hand, as pointed out, the use of the Railway's assets in the short run will incur no opportunity costs. If the short run resource use

of rail transport is less than the short run resource use of road transport it is in the social interest to use the Railway until such time as the assets are usable. If the long run resource use of road transport is less than that of rail transport restrictions on road transport and the diversion of traffic to the Railway will create a situation when it may appear that the demand for rail transport is substantial. Fresh investments may be undertaken leading to the violation of the condition that traffic should be carried by the least cost method. Restrictions leading to this situation are then wrong. They go against coordination.

12.5.6. The Argument of Lower Rail Costs

Finally, the argument in favour of restrictions is that the average costs of rail transport are lower than the average costs of road transport. The validity of this argument and its acceptability in relation to the Railway have already been examined.(1) It is clear that restrictions can be imposed on road transport when fully satisfied that the average rail costs are less than the average road costs. The determination of the costs has to be pursued with great care, taking into consideration the quality of the services and bearing in mind that the cost figures relate not to the overall averages but to the averages pertinent to the individual traffics, services or sections as the case may be. Much importance has to be attached to these requirements since costs of carriage and quality of service vary with different forms, different traffics, etc.

12.5.7. Enforcement of Restrictions

The conditions under which restrictions on road transport are permissible have been examined. It has to be seen whether the authority entrusted with

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(1) See Chapter 11.

the task of imposing restrictions will be able to decide what the least cost form of transport is on the one hand, and enforce the restrictions with success, on the other.

Restrictions have to be enforced through a pattern of licensing, buttressed by an effective system of policing, to prevent evasions. Both these devices incur the use of scarce resources. Besides, elaborate measures have to be taken to ensure such traffic that would seek road transport, even if the Railway operated a cost based tariff (but in the absence of licensing), is carried by road, and to prevent the carriage by road of that traffic that seeks road because of the existence of the differential tariff, but which would go by rail if the tariff were cost based.

Furthermore, there are the difficulties of assessing all the cost elements, and the licensing system, it should be feared, will inevitably fail to take them into account and thereby prevent some traffic from being carried by the lowest cost agency. Road transport may be subject to restrictions more than is necessary to achieve the social optimum.

The further administrative difficulties are that it will be beyond conception to specify in the form of general rules all the circumstances in which the social cost of road (rail) transport will be lower than the other. There will be instances when the social cost of carrying an identical item could differ under two different circumstances.

For instance, assume that the social cost of transporting a piece of machinery from an importer's warehouse to a factory is lowest by rail. But if the operation of the factory is held up for want of a spare part, the social cost of its carriage by a special road vehicle, even though higher than

with rail carriage, will be much lower than if rail transport were used and losses accrue through loss in output at the factory consequent upon delay in delivery.

Notwithstanding, restrictions cannot be imposed indiscriminately. The need to accommodate special requirements of traffics cannot be overlooked. For example, seasonal traffics have to be catered for. Similarly, restrictions cannot be imposed in circumstances where it is well known that the social cost of using road transport is lower than the use of rail transport, although under normal circumstances rail transport is cheaper. Consider the case in which the road operators are fully engaged during the harvest season in moving paddy to rail heads while at other times of the year they have little business. The social cost of using these vehicles in times of excess capacity is much lower than using rail transport, unless of course, parallel rail excess capacity prevails and the cost of using it is lower than the use of the spare road capacity.

Another instance is when vehicles run empty on their return trips. Since outward trips are undertaken either because the social cost is lower than that of rail, or under special circumstances, as in the case of accommodating seasonal traffic, or when a spare part is carried to the factory, which invariably will be one way traffic, the use of the vehicles on the return journeys is certainly less costly than if rail transport were used.

Normally back hauls are less costly than forward hauls. This condition will apply to rail as well as to road hauls. Under normal circumstances restrictions on back hauls by road transport are unfair; but freedom from restrictions might encourage road operators to make outward journeys for the

sole purpose of obtaining profitable back haul traffic. These mean that restrictions will have to be arbitrary, and at some time or other, they are harmful to society.

In conclusion it could be said that the scope for coordination through restrictions on road transport is limited in view of the uncertainty that the relative costs of rail transport are lower than road costs. Besides, there are the administrative difficulties of enforcing the restrictions, and also the risk that the coordinating authority may not always be right in the choice of transport services.

Nevertheless, the satisfaction that the social benefits from the savings of foreign exchange are more than the losses through non-expansion of road transport, and that the short run resource use of rail transport is lower than the short run resource use of road transport imply that the use of the Railway is less costly to society; that is restrictions on road transport are a means to coordination. However, this sort of coordination can be invoked only until such time there is spare rail capacity. When once the spare capacity is utilised neither the argument of saving foreign exchange nor that the short run resource use of the Railway is lower than road transport holds good. The necessity to expand rail capacity to accommodate additional traffic (or to reequip the Railway to accommodate the same amount of traffic when once the equipment ceases to be usable) imposes an altogether different situation.

There is no case for fresh investments on the Railway unless it were known that the long run resource use of rail transport is lower than the long run resource use of road transport. The fact that in the

immediate past the demand for rail transport has been substantial has no bearing on future capital commitments on the Railway, since it has been artificial.

From what has been discussed it is evident that the competitive solution cannot be normally sustained/and restrictions cannot serve other than a short term measure of coordination. What then is the long term measure?.

12.6 Planning Solution[1]

Admittedly, for some time in the future the aim of the Government will be to maximise the use of transport resources.in order to save foreign exchange.[2] Planned coordination will certainly enable to achieve that end.

A planning authority would not fail to take account of the available rail capacity when expending foreign exchange on road transport. Road transport will be provided only in areas where rail facilities are not available; substantial savings of foreign exchange are assured.[3]

Through planning there is also the opportunity to ensure modern road transport for the carriage of freight in the rural areas where presently the mainstay is the inefficient bullock cart. This is not possible under a competitive atmosphere because road operators with an eye on maximum earnings tend to operate in urban areas where traffic is more concentrated.

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(1) D. L. Munby suggests that a planning solution has advantage over others in certain circumstances - see 'The Road as Economic Assets' - Oxford Institute of Statistics Bulletin, Nov. 1960.

(2) 'Since foreign exchange is scarce, any measures which obviate the necessity for its expenditure and provide the desired service have a very high value' - Transport Commission, 1967, page 15.

(3) For instance, 88 buses are being presently used between long distance points well served by the Railway. The replacement costs amounting to Rs: 29

Similarly, it is possible for the rural areas to be provided with more and efficient passenger services with the withdrawal and deployment thereat of the buses presently used to operate services in competition with the Railway. It will also avoid excess capacity in both road and rail transport.(1)

An integrated pattern of transport, an adjunct to planned coordination will avoid redundancy in capacity in either form of transport that could possibly result if the Railway and the individual road undertakings were allowed to determine their own investment policies. In a sense, coordination in investment could be achieved through planning.

It could be considered that the planning solution is right for the primary reasons of saving foreign exchange on which much importance is attached, and to achieve optimum benefits from the available road/rail transport resources. It is also 'suited when matters that cannot be subjected to the price mechanism are involved, e.g. amenity, social costs of various kinds, etc.' The grave disadvantage, however, is that it is not possible in practice to achieve through this measure the theoretical ideal distribution of traffic between road and rail transport.

The choice of a service, and the form of transport, in consequence, depends on the user who is guided by the price charged for it; the price includes the cost of other elements of quality. The quality of service differs in terms of such characteristics as quicker transit times, punctuality, avoidance of damage, less handling, personal attention, door to door service, credit facilities, etc. Normally the

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to Rs. 25 million will be saved with the wider use of the Railway.

(1) The Transport Commission observes that the present average load factor on buses varied between 55 to 80. The Railway is underutilised by 50%.

user is not concerned with the use of a particular form of transport but only with a particular service - the best at the least cost.

For instance, a farmer not unduly concerned with the possible delay in delivery, prefers the Railway for its cheaper charges. To him the better quality of the road service - speed - is of little significance. If, however, his need is to transport fresh fruits, his choice will be road transport which ensures a quicker delivery and for which quality he is agreeable to a higher charge.

No transport authority can assess the preference of individual users. While one prefers speed, another will prefer lower charges, and so forth, depending on his requirements and his ability to meet the cost of the different types of services.

It would be superfluous to reiterate that only the user can judge which method of transport will satisfy his requirements and a transport authority being ignorant of his requirements and unaware of the other costs he will incur, besides the cost of transit, will be acting arbitrarily if it diverts traffic compulsorily to any particular form of transport.

The other drawback of the planning solution is more serious in that the authority will not be in a position to determine the costs of transport of the wide assortment of traffics, individually or collectively, under different circumstances. It has been noted that the cost of transport for even identical traffic varies under different circumstances.

While the economic distribution of traffic will be ensured only if all the traffic is directed to the least cost form of transport at all

times the authority cannot determine the least cost form unless on every occasion, with a change in the circumstances, another form of transport is used to carry the same traffic under identical conditions and the costs of both forms of transports are compared. It is clear that in Ceylon there is little opportunity for such comparisons. Besides, it is necessary that the authority takes into account the social costs of transport as well.

Take the case of a train (lorry) scheduled to make a journey. The cost of carrying a consignment in one of the wagons (lorry) with spare capacity is definitely much lower than when an additional wagon (trailer) is attached. Again, if the train (lorry) is not running the cost of its transport by a special train (lorry) will yet be different. These show that the cost of carrying an identical consignment varies under different circumstances. Similar cost variations are encountered in determining the social costs of transporting a particular traffic.

It cannot be then disputed that it is virtually impossible to arrive at the aggregate cost to the economy of meeting the demand for transport between different points, and even if by remote chance it is identified, there is no doubt that it will be extremely difficult to arrive at the aggregate cost to the individual users. In their own circumstances, some will find the aggregate cost is cheaper by rail, while others will find that the advantages of road in certain directions are such as to offset the cheapness of the rail services. The circumstances are, as such, that only in very exceptional instances one form of transport will be cheaper for all users. 'Consequently, we must abandon the idea that it is the task of the transport coordinator to seek, choose, and enforce

'the cheaper' method of transport between two points.'[1] However, it is pointed out with sufficient reason that the results sought through the planning solution could be obtained by means of a pricing solution.

To recapitulate, restrictions cannot be resorted to bring about the efficient use of scarce resources when once the rail spare capacity ceases to exist. The assumption is that even if fresh investments were made on the Railway undue excess capacity will not be created to reenact the current arguments for restrictions on road transport.

Secondly, the planning solution, although it possesses certain advantages under the existing circumstances, is again limited in scope. While conceding that the economic distribution of traffic cannot be ensured at all times under a system of administrative coordination it should not be overlooked that the results sought through planned coordination can be secured by means of the pricing mechanism.

Thirdly, although the competitive solution is hampered by the scarcity of foreign exchange to expend on road and rail transport with the view to providing equality in opportunities on the one hand, and due to the existence of many controls on road/rail operations, on the other, it is the assumption that administrative measures could be invoked to ensure, to a substantial degree, equality of opportunities for both forms of transport and to create an atmosphere for the choice of services on the basis of prices reflecting the costs.

12.7 Pricing Solution

The proposals for the long term solution to the problem of coordination in transport are then made in the conviction that the pricing mechanism is the most appropriate under the circumstances.

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(1) J. R. Sargent. British Transport Policy - page 9.

In terms of pure economics the pricing solution has a certain appeal in that the distribution of traffic between road and rail transport will be through the efforts of the users themselves, and in consequence, will be at its maximum economic efficiency. However, the qualification is that the users make their choice on the basis that the prices reflected their 'proper' costs.

What are 'proper' costs?. These are costs which each form of transport should properly bear when providing a service. There are occasions when operators are enabled to overlook certain costs by the action of other parties, as when they are not made to pay towards the cost of road (or rail track); there are occasions when they overlook certain costs for their own convenience, as when they fail to meet the wages of their employees; and finally, there are occasions when they overlook certain costs that others incur on account of their activities, as when they do not take account of the social costs arising from accidents. Proper costs are then constituted of private, economic and social costs. If all these costs related to a service are taken into account, the prices (reflecting these costs), will be at their 'proper' level.

Costs vary according to the circumstances, decreasing or increasing when the conditions of operation are favourable or unfavourable. Costs cannot be considered as 'proper' and the prices at their 'proper' level if the circumstances under which they are incurred are different from what they should properly be.

The issue is whether the road and rail charges are at their 'proper' level, or in other words, whether all the costs that are properly attributable to each form of transport are being accounted for. If they

are not, action should be taken to ensure that they are, whence the pricing mechanism will function satisfactorily.

12.7.1. Track Cost

The main bone of contention is in respect of track cost. The full cost of rail track is borne by the Railway while it is the view that road motor operators do not bear the cost attributable to their use of the road. In the circumstances road charges are not at their 'proper' level.

What is the cost of the road?. In lay terms it is the money spent on building and maintaining it. In economic terms it is the aggregate value of goods and services that could have been produced in an alternative employment - the opportunity cost.

Initially the State provides the road; the rail track is provided by the rail undertakings themselves. The cost of the road is recovered through taxes levied on the users, but it is not known whether the revenue from the taxes do or do not cover the cost. There is no doubt that users as a whole should cover the cost, but at the same time it is logical to expect that their contributions are in direct proportion to their use, failing which one category of users subsidise the others; a proper identification of the cost attributable to the road operators is not possible.

The cost of the road varies according to whether it is old or new. The cost of a new road consists of four components - (i) the cost of that part of the road that wears out with use and has to be regularly maintained; (ii) the cost of that part that wears out irrespective of use, through the action of natural elements, and which should be similarly

maintained; (iii) the cost of that part of the road that cannot be in existence indefinitely, e.g. bridges, and which will therefore need replacements from time to time; and (iv) the cost of that part of the road which need not be replaced, provided expenditure under the three heads above are met.

The cost of the existing road, on the other hand, consists of components (i) to (iii). Component (iv) is irrelevant since no capital expenditure has to be incurred again.

If the argument that the users as a whole should cover the cost of the road is upheld it would mean that the users of the existing roads should cover only the opportunity cost of maintenance - components (i) to (iii). The capital expenditure incurred in constructing the road, component (iv), is treated as 'an inheritance from the past which provides services for the present without the use of additional resources'.

This contention, however, is not altogether valid. The decision (made sometimes back) to build the existing road could not have been on any other basis but that the cost (components (i) to (iv)), would be covered by the users since the resources used would have had alternate uses. If for some reason or the other only components (i) to (iii) are presently covered, for reasons of equity rail users should also be allowed the concession of contributing towards only the maintenance cost of the rail track. Nonetheless, it should not be overlooked that interest charges are due on the capital used in the building of the road (rail track) and they are a charge that should properly be imposed on the users.

While there is no uncertainty that the users should cover the cost of the road (rail track) so long it is used regardless of whether it is new or old, it could possibly be contended that the share of those who use a road (rail track) that is to be abandoned need be smaller than that of those who use a road (rail track) that is to be replaced for the mere reason that the opportunity cost to be covered is confined to components (i) to (iii) only.

Furthermore, the capital cost on which the current cost of using a road (rail track) is calculated should be the replacement cost. Historic cost is irrelevant to the present use. If charges for the current use of assets are based on historic cost the users of old assets will be favoured relatively to the users of new assets, If, for instance, the cost of the use of rail track (an old asset) is based on historic cost the rail charges will be more favourable than road charges. Replacement cost varies over periods of time with changes in the circumstances. Under current conditions of constant rise in costs of land, labour and materials, it is safe to assume that the replacement cost will always increase.

Beside the necessity to ascertain the cost of road there is the need to determine the proportion of the cost attributable to each of the different category of users. While the rail track is used solely by railway trains the road is used by lorries, buses, vans, cars, bicycles, bullock carts, pedestrians, etc. In addition, private and public bodies make use of the road to convey gas, electricity, water, etc. While thee practicability of apportioning the cost among the wide assortment of

users is doubted, the difficulties in apportioning it among the individual users of each category are more severe.

On what basis should the cost of road be apportioned?. There is no doubt that the canon of equity should not be overlooked. It is not wrong to insist that those who use the road more frequently should contribute more than those who use less; those who cause more damage to road surface should bear a larger proportion of the cost of maintenance than who do not.

In the first case, an operator who uses a stretch of road 500 times a year should contribute five times the amount than one using 100 times does; in the second case, a lorry or bus operator causes more damage to road surface than a car user does, and apparently it is right to claim a larger portion of the cost from the former.

In the absence of data it is not known to what extent road operators contribute towards the cost, but looking at the expenditure figures of the Public Works Department, which is responsible for roads, and the revenue earned from road licences, duties on fuel, vehicles and spares, it is evident that the majority of the road operators are subsidised by the State; their charges are not at their proper level.(1) It is imperative that they do not escape the cost (of track) attributable to them.

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(1) A comparison of expenditure on roads with use (Wilbur Smith and Associates, 1961) revealed that of the 21 revenue districts in the island only in 5 did road use exceeded expenditure. In one, Kandy, expenditure and road use were equal. The proportion of excess expenditure to use in the rest of the districts varied from 5% in Galle to 300% in Moneragala. This is a clear indication that the majority of the operators are subsidised.

This study, however, is concerned with those operators (both haulage and passenger) providing services in competition with the Railway. In areas where rail transport is absent there is no need to determine the road cost other than to see that when calculating the cost attributable to these operators they do not bear part of the cost of the road system which they do not use (there are 10,000 miles of motorable roads against 900 miles of rail track), and part of the cost of the roads they use for competition with the Railway is not borne by others who do not use them.

If the argument that road users as a whole should cover the cost of the entire road system is upheld it will result in the operators who maintain competitive services with the Railway either being subsidised or that their costs are artificially increased as a result of their contributions towards the costs of other operators.

Furthermore, this pattern of recovering the cost will not ensure the economic distribution of traffic even if the cost of the rail track were recovered on the same basis for the fact that the costs of the two forms of track are neither identical in the same area nor are of constant ratio to each other throughout the entire rail and corresponding road systems.

The most sensible measure is to ascertain the cost of roads individually and require the users to contribute towards the cost of each of them in direct proportion to their use. The present method of recovering the cost by means of road licence fees, and duties on fuel, vehicles, and spares that are identical throughout the country leads to

averaging of cost. The cost of constructing and maintaining roads in the hilly part of the country is definitely much higher than that of roads in other parts. If the road operators competing with the Railway for tea, rubber, and other traffics in that area are exempted from the additional costs their charges are then not at their proper level.

How could the road operators be made to contribute towards the road cost in direct proportion to their use? The most effective way is the toll system. Every time a road is used the user pays for it. He who uses it more frequently pays more than the other who uses it less. Furthermore, set charges for particular categories of vehicles based on tare, load, etc. will ensure that each vehicle bears its proper share. This will avoid averaging. The practicability of this scheme, however, is limited. There is the heavy cost of setting up the toll barriers, the collection of taxes and their disbursement, and inconvenience to the users. Besides, there is the need to set up barriers, perhaps, within a mile of each other in order to avoid averaging since it is possible that different sections of the same road bear different costs. A section of a road running through difficult terrain bears a higher cost than one which does not; a section in which a costly bridge is built has a different cost to be covered; a section of the road running through residential area bears yet a different cost to that which runs through farm land.

The alternative is to use the fuel tax to recover the cost. Fuel consumption is related to the distance a vehicle covers, the nature of the road it uses, and the load it carriers. Larger vehicles consume more petrol than smaller ones do; loaded vehicles consume more than

empty vehicles; vehicles using a less favourable road and terrain consume more than those using a favourable road and terrain. However, the consumption of petrol is not always in direct proportion to the load and distance. For example, the fuel consumption of a lorry will not be increased by 50% if it carried six tons of freight instead of four; vehicles on a descending gradient consume very much lower than when ascending although the distances are identical. Broadly speaking if the cost of the road were to be covered through tax on fuel it will not, in certain instances be in proportion to the load carried and distances covered.(1) Heavily loaded vehicles that cause more damage to roads will not contribute towards the cost in direct proportion to their use. This is against the canon of equity. In Ceylon it is common for hauliers to overload their vehicles and, as such, they are in a position to distribute the cost of track over a larger number of traffic units than they should normally do. That is to say, they are in a position to escape part of the track cost.

The idea of recovering the cost of road through fuel tax faces more difficulties. The cost of roads varies considerably depending on the areas through which they run. The costs of land, labour, materials, and so forth are much higher in urban areas than in rural. If the tax on petrol throughout the country is the same an averaging of cost is implied. A possible solution is to impose different rates of tax for

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(1) This is much more clear with the use of motorways. The fuel consumption of vehicles using six lane motorways is very much lower than those using two lane roads that are subject to severe congestion. Whilst the cost of (building) motorways is much higher than that of ordinary roads, the contribution towards it (the cost) will be in inverse proportion to use if a common fuel tax were adopted.

different areas. This pattern of recovering cost could be practised in big countries like India, but conditions are different in Ceylon. With its smaller size the tax areas would be correspondingly smaller, and with varying degrees of land use, and in consequent, varying prices, it is possible that road cost varies over yet smaller areas, possibly within a few miles. In such circumstances it is tempting for road operators from high tax areas to cross into low tax areas for their fuel requirements. This cannot be prevented unless extra cost is incurred in policing, etc.

At present the licence fee is used to recover part of the cost of the road but it should be agreed that it does not properly reflect the relationship between road cost and use since the fee is again identical to all vehicles of particular categories all over the island. For example, the contribution of a haulier who operates 120 hours a week is much less than that of another who operates 40 hours. Furthermore, the fee is based on the tare and load (seating capacity) of each category of vehicles; but with the rampant overloading it is admissible that those operators who carry in excess of the authorised capacity contribute much lower than they should rightfully do. Their charges are then not at their proper level.

The need is to ensure that each user contributed towards the cost of the road in direct proportion to his use. Its importance is heightened with the requirement that the charges of the road operators

operators providing competitive services with the Railway are at their proper level. It has been noted that the toll and the common fuel tax systems (and the licensing system) are not adequate means to ensure that each operator bears the cost properly attributable to his use of the road. It is also evident that in the circumstances a pattern of averaging and a degree of arbitrariness are inevitable.

The whole discussion of the road cost boils down to one final result - the cost of the road should be individually determined to be covered by those who use them in proportion to their use. It is nevertheless doubtful whether even if the road operators in the island as a whole covered the cost of roads, those operating services in competition with the Railway covered the cost attributable to them. If the efficiency of the two forms of transport were to be compared it goes without saying that the road operators must be made to include in their total costs of service the cost properly attributable to track.

Notwithstanding, in order to achieve an economic distribution of traffic between road and rail it is imperative that the Railway also allocates its track cost in identical manner. It should determine the cost of each section individually, and every traffic unit, both freight and passenger, carried on it should bear a portion of the cost in direct proportion to its size, weight, distance carried and so forth. Here too a pattern of averaging and a degree of arbitrariness are inevitable; but in determining the cost every endeavour should be made to see that, within practical limits, each unit bears the cost attributable to it.

12.7.2. Other Costs

Road charges fail to be at their proper level when certain other costs are deliberately excluded from the overall costs of services. Although normally costs in respect of labour, fuel, maintenance, depreciation, interest payment on capital, etc. have to be taken into account by any efficient operator, past discussions have revealed that the peculiar social and economic conditions prevailing in the island afforded operators the opportunity to escape costs, particularly in respect of labour, and on the other hand, they have been prompted to exclude costs in respect of maintenance, depreciation and interest payments.(1) Their charges are then not at their proper level.

Furthermore, operators in order to attract traffic provide certain services which are either charged less than their cost, or provided free. The provision of door to door services incurs costs in respect of fuel, labour, and wear and tear; the provision of storage facilities incurs labour, floor space and time. The resources that go into these services have alternate uses. The fuel can be used in another vehicle; labour in agriculture; and floor space for a factory. When an operator fails to recover the costs of such services he causes for a wastage in scarce resources when he attracts traffic away from other operators whose charges include the costs properly attributable to the services, and in consequence, are higher than his.

12.7.3. Social Costs

Finally, road charges fail to be at their proper level when road operators do not take account of the costs incurred by others as a result

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(1) See Chapter 10.

of their activities. The costs often referred to are in respect of road congestion, accidents, and inconvenience to other road users and those living adjacent to roads, from noise, gas fumes; etc.

These are of fundamental importance in countries where road transport has developed to considerable proportions. In Ceylon, although the situation at the moment is not serious there is the fear that with economic development and expansion in road transport the same problem faced by industrialised countries will materialise; the social cost of road transport will rise. However, there are other factors peculiar to Ceylon. Very many of the roads are liable to serious damage when the volume of traffic rises beyond a certain critical level. This situation will be accentuated by operators who overload their vehicles. The costs of other road users are then increased. Those who are responsible for this exceptional damage create social costs in excess of their private costs.

The failure to observe the conditions of vehicle safety is another source of divergence between social and private costs. An operator who fails to maintain his vehicle in proper condition, with a view to saving money, causes exceptional damage to road surface, while a possible break down of his vehicle on the road at a busy time of the day increases the costs of other road users. Likewise, speeding with a view to securing traffic (and avoiding certain private costs), has a social cost when the safety of the vehicle users and other road users is imperilled.

The non-adherence to a socially desirable wage structure and conditions of employment is a positive case of divergence between private and social costs. Lower wages compel employees to increase

their incomes by working excessive hours. Society stands to lose in that another of its member is deprived of the opportunity of supporting himself and his family. Excessive hours of duty by an owner driver operator has the same effect. (Unemployment relief, as in the United Kingdom, is not available in Ceylon). Unemployment is a cause for many social problems, e.g. an increase in crime, the circumvention of which imposes costs on society, say the extension of police supervision, etc.

Furthermore, excessive hours are a hazard to health, often accentuated by the desire of the bread-winner to provide for the family even at the risk of his own health; society incurs additional costs in providing free medical attention. Overworking is also a cause for accidents and possible deaths, which are again costs to society. Taxes should be imposed to bring about equality between social and private costs.

Besides the social costs in these directions the costs arising from the use of the scarce foreign exchange on road transport instead of on capital goods, etc, cannot be overlooked. Significant costs arise with imports of motor cars for private use.(1) Motor cars are the preserve of the relatively wealthy, and on moral grounds it is wrong for a few to imperil the wider interests of the majority by expending foreign exchange to acquire items of 'luxury! It is appropriate to tax them on grounds of equity, on the one hand, and to ensure that their private costs are equal to the social costs, on the other.

12.7.4. <u>The Tax Structure</u>

Taxes should then be imposed on the road operators on three counts:-

(1) The social costs of importing haulage vehicles for private use are also there.

(i) To ensure that their charges are at their proper level in respect of track cost;

(ii) To ensure that their charges are at their proper level in relation to rail charges in other directions; and

(iii) To ensure that their charges are at their proper level in respect of social costs.

It is obvious that the cost of the road cannot be apportioned among the road motor operators in direct proportion to their use, and that some averaging is inevitable. It is also noted that while the toll system is more effective in relating particular (road) cost to particular users more closely than is possible with a tax on fuel, the practical difficulties associated with that measure makes the fuel tax the most appropriate. However, it is doubtful whether the fuel tax could be adjusted to take account of the differences in the cost imposed by different category of operators. Perhaps, a pattern of licensing for vehicles could be a means to recover part of the cost that cannot be recovered through the fuel tax.

The pattern of road tax structure would appear as follows:-

(i) A tax on fuel designed to recover the major part of the road cost, that is, cost of construction and maintenance. But, the tax cannot be varied from area to area and, as such, no provision will exist for the recovery of the cost of the roads in high cost areas nor for granting relief to operators in areas where the cost is low.

(ii) This could be remedied by varying the licence fees. Operators in areas where the cost of roads is high will bear a

higher fee than those in low cost areas. The snag is that operators cannot be prevented from living in low cost areas (say, at the border between low and high cost areas) and operating in high cost areas thus escaping the higher licence fee. This could be circumvented only by restricting operators to particular areas, which is not conducive to effective competition. However, a system of permits will ensure that those who operate in high cost areas did not avoid the higher cost attributable to such areas. The additional costs of policing are properly recoverable from the operators.

(iii) A licence fee, to be suitably varied, to take account of the excess costs imposed by certain categories of vehicles, (to be varied from area to area). Heavy vehicles would bear a higher fee than lighter vehicles; but the licence fee, since based on the load capacity and tare of vehicles will not take account of possible overloading. These operators who overload their vehicles escape the costs for which they are responsible. The remedy is to prevent such costs from being incurred. This means effective supervision, the cost of which is again recoverable from the road operators.

(iv) A licence fee, varying from area to area, to take account of the divergencies arising from external economies and diseconomies. The fee for vehicles operating in areas, such as Colombo, will be higher than for those operating in less populated areas, such as Vavuniya, Trincomalee and Jaffna. Consideration will be paid to

the degree of road congestion and inconveniences of other nature. There is, however, the need to ensure that operators normally stationed in low cost areas do not fail to contribute to the high cost areas when they operate services thereto occasionally or regularly. Here again, the desirability of a permit system, for which a charge is made, is apparent.

(v) A licence fee to ensure that road charges are at their proper level in relation to rail charges in respect of costs pertinent to the conditions of safety, employment, etc. Larger road undertakings, such as the Ceylon Transport Board, adhere to the requirements of safety, employment, etc. much more than individual operators do; their charges are morenearer to being at their proper level. While they are relieved of a fee, the small scale operator will bear one in order that his charges are not below their proper level, within practical limits. This fee will also induce them to form into bigger units. The revenue earned from this direction could be used for the benefits of transport in general.

(vi) A licence fee on motor cars to ensure that the private costs to the users equalled the social costs arising from the non-use of the scarce foreign exchange on more important purposes, say to develop industry, etc. The fee will vary with the cost of the cars, those imported bearing a higher fee than those assembled locally.

(vii) An additional duty on fuel to meet the requirements of the Government, but provided a corresponding charge is also made on rail traffic.

12.8 Equality through Administrative Measures

Earlier it was maintained that administrative measures could be sought to bring about a competitive atmosphere for rail/road operations. The initial difficulty is in the direction of foreign exchange. Although opportunities to lavish foreign exchange to that extent as to sustain an unrestricted investment policy on transport are absent there can be no doubt that foreign exchange has to be set apart if the community were to benefit from modern transport. It means that investments will have to be undertaken if either road or rail transport, or both, have to be maintained. What is the basis of expending foreign exchange? The Government or a planning authority will not be in a position to determine the most efficient form of transport. If an error in judgment were to be avoided the remedy is to auction that amount set apart for transport. The highest bidder will make use of that amount to acquire equipment from overseas. Unfortunately, this pattern of auctioning may run contrary to the interests of the vast majority of the community for, as has already been explained, it will not prevent the affluent minority to bid and secure a large portion of this foreign exchange to acquire their own means of transport. It is here that the inevitable necessity to invoke some sort of restrictions in the use of foreign exchange is conspicuous.(1) The authorities have to determine on the proportions to be set aside for the private, public/haulage, passenger sectors.

Without complicating the issue, it is the assumption here that there are two bidders_the Railway and the road industry. The rail

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(1) See Chapter 5.5

administration, if convinced that the demand for its services is substantial, will bid for foreign exchange, but only to keep going its economic services. The undertaking could be reequipped, or if conditions warrant, its activities could be expanded by opening up new sections. Similarly, the road industry will bid for foreign exchange to the level up to which returns on investments are adequate. This method of providing foreign exchange ensures that the most efficient form of transport is developed.

No attempt is made for the purpose of this study to determine which sections of the Railway are efficient and which not, nor to ascertain the extent to which individual road operators are affected. The concern here is the use of the available foreign exchange resources to maximum advantage while creating an atmosphere for competition. This measure ensures substantial revenue to the Government as well.

Since the rail administration bids for foreign exchange only to keep its economic services, it seems reasonable that if for other reasons it is expected to maintain uneconomic services or sections, the Government provides foreign exchange separate from what has been set apart to be auctioned. The issue of retaining uneconomic services should be treated separately for this purpose, failing which, there is the inevitable risk that the rail administration, strengthened by the fact that it has the backing of the Government, bids more than it would under competitive conditions.

Although this measure of auctioning foreign exchange ensures competitive equality in the direction of investments, and the fuel taxes

and licence fees endeavour to bring the road charges to their proper level it is important that other steps should be taken to foster complete equality in operating conditions between the road undertakings and the Railway. There is no denying that the rail charges are not at their proper level; they are above the appropriate level because of the financial burdens imposed on the administration as a matter of Government policy. Steps should be taken to bring them to their proper level.

The greater concern, however, is to devise ways to ensure that road operators function under competitive conditions. An examination of the prevailing conditions of road operation (chapter 10) demonstrated the inadequacy of regulation of road transport. Overloading and speeding of vehicles; neglecting vehicle maintenance; the non-observance of appropriate conditions of employment, which include duty hours and adequate wages; have facilitated the road operators to quote lower prices for their services.

It has also been acknowledged that the system of licensing is in many respects wasteful, ineffective and unduly complicated; reliance on it to regulate the activities of the road operators is less meaningful. The existing system gives little scope to decide the suitability and competence of intending operators. The disciplinary powers available to deal with those who infringe the law are insufficient.

These deficiencies call for remedial measures. The protection of public safety by the promotion of high standards of vehicle maintenance and operation could be achieved through a pattern of permit system, which will also be the medium of collecting the appropriate road

licence fees. (12.8.4). Unsafe vehicles could be kept off the roads by the withdrawal of the permits.

Holders of permits (both passenger and goods operators) should be compelled to observe the conditions in respect of safety and efficiency. This cannot be done in the absence of an efficient supervisory machinery. The need for an enlarged traffic police force is thus conspicuous. Frequent road side checks for contravention of the conditions of the issue of permits would have a salutory effect when backed up with severe punishments.

Although no means can be devised to ensure proper wages to employees or to make self driver operators pay themselves an adequate wage, compulsion to observe the duty hours through frequent checks on records of journeys made, etc. will certainly cause road costs to rise considerably in relation to rail costs. While the Railway incurs additional costs in the course of guaranteeing standard hours of duty and adequate wages, road operators escape them.

12.9 Proposals for the Railway

It has to be agreed that the policy aims of the Government in the direction of subsidising industry, agriculture, etc.; employment and strategy have interfered with the rail prices. It has also to be recognised that these aims fail to reconcile with the aim of transport policy and hinder the determination of the Railway's proper role. The need then is for a sound transport policy.

The fundamental question is: on what basis should the Railway be run? Is it on a commercial or social basis?. Admittedly, there is general agreement that it should be run on a commercial basis. The administration has not been debarred from making profits; in the past it has made substantial profits. But although the conduct of the rail operations has a commercial outlook, in reality, the administration is burdened with features common to a social institution. This dual position has been the primary cause for its financial difficulties, apart from the loss in resources to society. The arguments in favour of running a rail undertaking as a commercial enterprise are overwhelming.(1)

12.9.1. Railway Corporation(2)

The success of the road operators has been primarily due to their organisational set up - private ownership. Public ownership generally provides for that kind of conviction that enterprises are run in the interests of the consuming public. This conviction is deeply rooted in Ceylon. Alongside, however, is the argument that ownership of an enterprise need not be mixed up with the economies of its operation. Nothing prevents an enterprise, public in nature, to operate on a commercial basis; but it is more appropriate to hope for profits under a private rather than a public set-up.

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(1) See Chapter 7.

(2) The Transport Commission has recommended the setting up of a Railway Corporation. The ominous lapse, however, is the absence of further (necessary) recommendations to ensure that the Railway, as a Corporation, is commercially viable.

Public ownership in Ceylon is synonymous with political interference and, at times, complete political control. These features are identified with the administration of the Railway. The need is then to reconstitute its administrative structure; features common to a private enterprise should be bestowed. A private administration will possess the freedom to decide its policy free from outside interference and to run the undertaking on a commercial basis.

Nevertheless, reverting the Railway to private ownership at a time when the demand is for more public ownership is not politically acceptable. The alternative is to transform it into a public corporation, similar to the Ceylon Transport Board. However, changing the character of the Railway from that of a Government Department to that of a nationalised industry does not mean that it acquires spontaneously the efficiency it lacks at the moment. That measure just assures the administration wider freedom; further success could be achieved only if the appropriate condition for commercial operation are afforded. What are those conditions?.

12.9.2. <u>Freedom to evolve its Investment Policy</u>

The Railway should be bestowed with the freedom to evolve its own investment policy. Competing for foreign exchange (in the auction room) does not imply that the freedom to invest according to its requirements is achieved. The undertaking has to be reequipped to attain equality in technical efficiency with the road operators. New locomotives, additional rolling stock, an efficient signalling system, strengthened track,

modernised yards and mechanical handling facilities have to be provided.

At present the administration cannot decide on its own to invest on a fleet of diesel locomotives, expensive but efficient, to embark on a programme of electrification even if traffic conditions warrant. The circumstances are such that it may be compelled to acquire inexpensive steam locomotives instead; or perhaps, burdened with an inefficient signalling system on the argument that the country's external finances cannot accommodate demands from these directions.

12.9.3. Freedom to Fix Charges

The administration has long been denied the privilege to fix its charges. A tariff based on value has imposed on it severe financial burdens; standard rates have been another source of difficulties.

It should be free to adhere to a tariff based on ascertained costs.(1) The undertaking's future success depends on the quality of its services; charges are an essential element of quality. With a reduction in the charges for the high valued traffic (the tariff based on ascertained costs), a portion of that traffic presently carried by the road operators will seek rail. It is the assumption that the overall advantages of rail transport are greater than road transport for this category of traffic.

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(1) The Transport Commission expresses with consternation the lack of freedom for the rail administration to fix prices for traffics in accordance with the requirements of both the Railway and the users. - page 13 of Report.

The higher rail charges for the low valued traffic, on the other hand, will drive a large portion of it to road; but since road charges cannot be anything other than based on costs, (especially with the suggested pattern of taxes and licence fees) and, as such, cannot be unduly favourable under equal conditions of operation, there is the likelihood that the Railway will retain a fair portion of that traffic as well.

12.9.4. The Common Carrier Liability

If the road operators are freed from the obligation not to refuse traffic and are thus in a position to choose only such traffic that is economic to carry, there is no denying that the Railway also should enjoy that privilege. It should be able to decide on the services it shall provide rather than allow some other party to determine them. The freedom of self-determination will help it to eliminate uneconomic traffic and abandon uneconomic services (and sections).

12.9.5. Unremunerative Services

While ordinarily it shall not be called upon to provide unremunerative services; either freight or passenger, or both, with a view to subsidising industry, agriculture, and the less privileged sections of the travelling public, the rail administration shall be entitled to financial assistance from the Government if it were to provide them.

Presently cheap rates are offered for agricultural and industrial produce. Export produce - tea, rubber and coconut - is charged the second lowest rate, whilst rice and other foodstuffs are charged the lowest. Passengers, particularly, commuters, pay considerably less than what they should normally pay. These concessions will disappear under a profit seeking administration.

Under circumstances enabling it to decide on its investment policy, the administration may take action to abandon the Kelani Valley section for freight. Perhaps, satisfied that a portion of it can be retained profitably for passenger traffic, fresh investments may be undertaken in the light of developments in road transport.

While it is possible to assume that the Matale section will also be abandoned for both freight and passenger traffic, a decision over the future of the Chilaw section will rest on the success of the cement, coconut and salt industries. The decision to reopen the Puttalam section has been Governmental policy, influenced by political considerations. A commercial rail administration's decision will be based on economic criteria.

12.9.6. Employment Policy

The financial burdens arising from the adherence to Government policy requirements in the direction of employment should be eliminated. The Railway should possess the freedom to evolve its own employment policy. The proposal for additional licence fees on road operators who fail to take account of the costs related to labour will not entirely

eliminate the present inequality between road and rail in that direction. Railway employees are entitled to pension, subsidised housing and travel, etc. which cannot be demanded in the private sector; these are not available for employees with the Ceylon Transport Board, either. There is no valid reason for one section of the public to enjoy facilities which others are denied. If, however, the Government insists on such preferential treatment it is the view that a subsidy should be granted the administration. The Committee from the World Bank (1966) estimated that more than Rs.5 million could be saved if the administration makes the best use of its available labour resources. It is the view that when once the extra social burdens are removed the Railway, as a corporation, will be able to save more than Rs.15 million.

12.10. Conclusions

From the discussions made so far two facts emerge. First, the national interest cannot be overlooked in any solution to the island's transport problem. Second, the proper role of the Railway cannot be determined unless the appropriate conditions are afforded for its operation.

The national interest demands that wherever possible foreign exchange should be saved in order to expand agriculture and industry. It is recognised that the wider use of the Railway will yield substantial savings. Restrictions on road transport are a suitable measure towards that end. Restrictions on imports of motor vehicles and

accessories have yielded substantial savings in the last few years. More savings will accrue if restrictions are retained.

However, the argument of saving foreign exchange is valid only until such time there is spare rail capacity. When once the existing equipment ceases to be usable the question of reequipping the Railway raises the issue whether rail transport is efficient than road.

The efficiency of rail transport cannot be determined unless the appropriate working conditions are afforded for the Railway. This implies that it should be freed from the burdens of present controls and obligations, and further brought to a position of competitive equality with the road operators by providing opportunities to secure foreign exchange on an equitable basis and by eliminating the latter's undue advantages over it in other directions.

The proposals for the Railway provide for more realistic conditions of operation. The taxes and licence fees suggested for the road operators, besides other administrative measures, will eliminate their undue advantages. A greater degree of competitive equality between road and rail will ensue.

The Railway, as a corporation, will enjoy wider freedom to improve its technical, operational and administrative efficiency, and to evolve successful policies in respect of employment, investment, etc. Considerable savings in operating costs can be anticipated. (For instance, the General Manager believes that the annual saving from dieselisation will be around Rs. 13 million). A realistic policy on

employment may save an additional Rs. 15 million. (The withdrawal of the pension scheme alone will result in a saving of Rs. 10 million). This could lead to the reduction in the charges for rail services; additional custom would be attracted.

The Railway should set up a costing unit that has long been delayed. It should be able to identify the costs of individual services and sections. With the freedom to fix charges in accordance with costs it could offer lower rates for the high valued traffic and attract much of it. Although with the increase in rates a loss in custom for the low valued traffic is possible yet, with the unfavourable road charges consequent to an increase in the rate of taxes and licence fees, the Railway will be able to retain much of that traffic.

While the Railway no longer enjoys a position of monopoly it is unfair to impose on it the burdens of common carrier.liability and other social and legal obligations - relics of the monopolistic past. It should be able to select economic traffic, maintain only remunerative services and economic sections. The Kelani Valley and Matale sections will thus be abandoned. The concessions granted to certain sections of the public and categories of traffic will be withdrawn. The question of maintaining other services and sections will be critically examined on the basis of financial returns, after careful studies have been made of traffic demands, expenditure and revenue. However, there is the likelihood that the Government may require the retention of certain un-remunerative services and sections to meet the needs of strategy,

industry and agriculture, in which case, it is the view (universally accepted) that it should meet the losses. The Railway should not be called upon to cross-subsidise the services.

Notwithstanding, the success of the Railway cannot be spectacular unless appropriate measures are adopted to remedy the shortcomings in road transport. Effective regulation in the direction of vehicle safety, duty hours to crews, and other conditions of employment is essential. The establishment of an efficient traffic police force, suitably remunerated, cannot be delayed. The allegation that corrupt practices among members of the police force have been largely responsible for the laxity in enforcing existing regulations cannot be lightly treated.

Undoubtedly, the peculiar social and economic conditions will not permit for the proper enforcement of the conditions of employment in the private sector of the road industry, and a grave inequality between road and rail transport will persist. While the additional licence fees will remedy this inequality, yet the feature that operators who observe the conditions stand to be penalised prompts more to the acceptance of the alternative - a financial subsidy to the Railway.

The licensing system is not a means to ensure efficiency in road transport, but it could be used to recover part of the road costs and to bring about a greater degree of equality between road and rail transport in the direction of employment. Efficiency in other directions could be satisfactorily ensured through a permit system, which, in addition,

could be used to recover part of the road cost that cannot be recovered through licences and the fuel tax.

Permits will be granted to all applicants without restrictions on the nature of their operations provided the conditions in respect of vehicle and operational safety are observed. Permits of those who infringe those conditions will be withdrawn. Furthermore, permits can be a means to determine whether the vehicles operate in low or high cost areas, and to the recovery of charges related to such areas.

The system of auctioning foreign exchange, while ensuring the optimum use of it, affords the Railway the opportunity to have its share. It will also avoid preferential treatment to one form of transport or the other. Furthermore, since specific amounts of it will be set apart for the different categories of users-private motorists, taxi-operators, and so forth, certain number of motor vehicles in each category will be imported; the community will not be totally deprived of the benefits of an efficient form of road transport.

With these freedoms for the Railway and effective regulation over road transport the atmosphere to determine the efficiency of railway transport will be established. The new policy would enable the Railway in coordination with the road operators to 'give the maximum practical service to the public at the lowest real cost'. In other words, it will ensure the 'division of functions between road and rail in such a way as to allow each to perform the services, which, in a given state of technique it can perform best'.(1)

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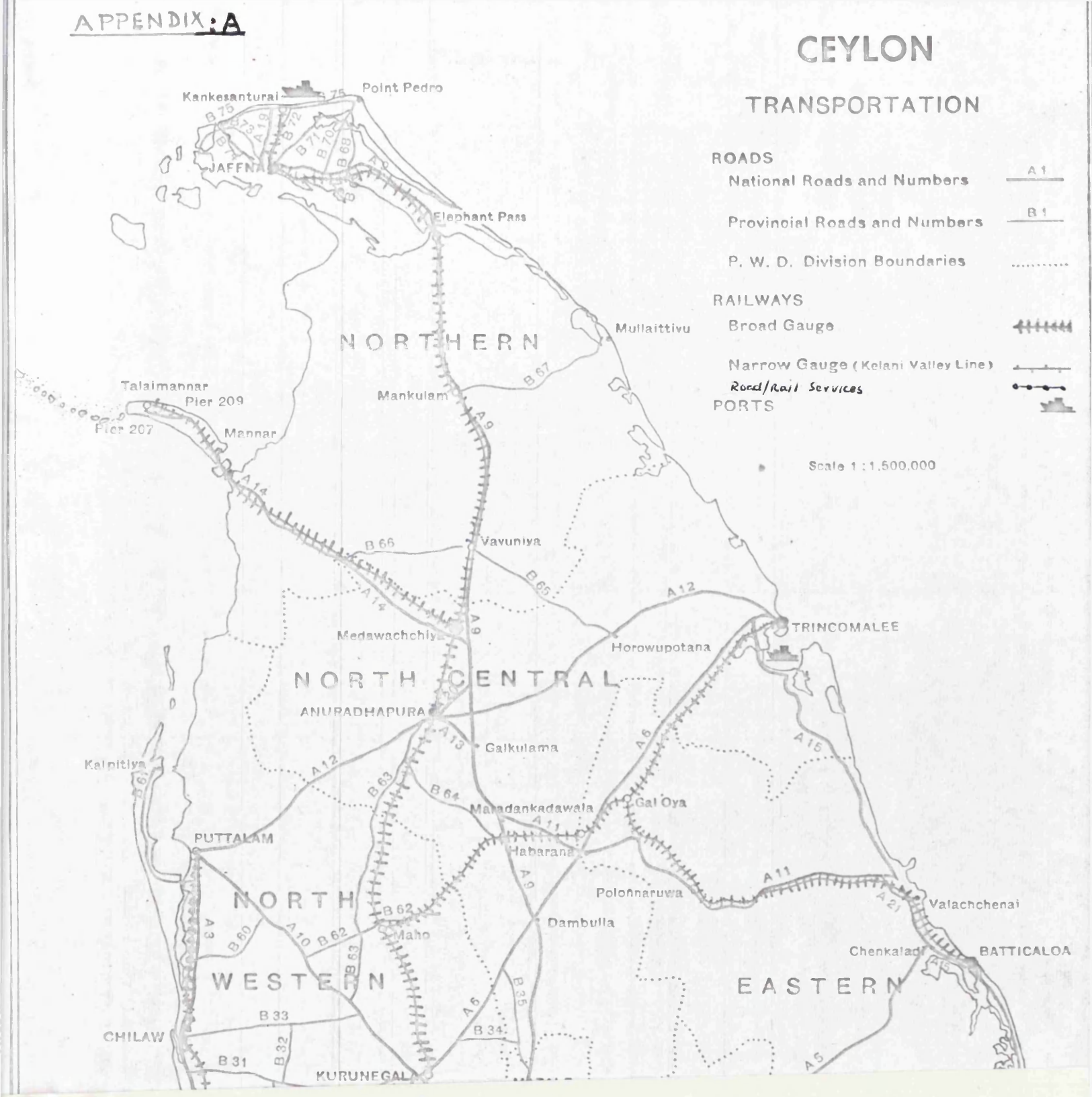
(1) J.R.Sargent, British Transport Policy, page viii.

APPENDIX : A


CEYLON
TRANSPORTATION
ROADS
National Roads and Numbers
Provincial Roads and Numbers
P. W. D. Division Boundaries
RAILWAYS
Broad Gauge
Narrow Gauge (Kelani Valley Line)
Road/Rail Services
PORTS
Scale 1 : 1,500,000
Kankesanturai
Point Pedro
JAFFNA
Elephant Pass
Mullaittivu
NORTHERN
Talaimannar
Pier 209
Pier 207
Mannar
Mankulam
Vavuniya
TRINCOMALEE
Horowupotana
Medawachchiya
NORTH CENTRAL
ANURADHAPURA
Galkulama
Kalpitiya
PUTTALAM
Maradankadawala
Gal Oya
Habarana
NORTH WESTERN
Polonnaruwa
Valachchenai
Dambulla
Maho
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BATTICALOA
EASTERN
CHILAW
KURUNEGALA

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5. The Director of Agriculture.
6. The Director of Public Works.
7. The Director of Industries.
8. The Inspector General of Police.
9. The Principal Collector of Customs.