PART THREE

RAILWAY RATING POLICY

CHAPTER 5.

THE PRINCIPLES, PRACTICE AND ECONOMIC CONSEQUENCES OF RAILWAY RATING POLICY.

1. Introduction

No discussion of the transport system of a Region would be complete without an account of the principles and practice of railway rate fixation and its effect on economic and commercial development. In general, and certainly in the long run, the cost of transportation must be borne by the consumer and included in the selling price of the article or commodity.(1) This is particularly important when it is remembered that the charge for railway transportation is a significant part of the delivered wholesale price when:

a. the ratio of value to weight and bulk is low;

b. the haul is long; or

c. the commodity, because of perishability, fragility or its dangerous nature, requires special provision or care in handling and transportation.

An aggravating factor is that these three factors are seldom found to occur singly, but are usually found in combination.

The incidence of the railway rate on the delivered price of the article varies with the type of commodity. For example, the railway rates on finished manufactured goods seldom represent a significant proportion of the final selling price, though it should be noted that the final selling

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(1) In the short run, market conditions may involve a fixed supply of a given commodity and a relatively fixed demand for it. Excess of supply may depress the market price to the consumer or receiver of the goods, and therefore all or portion of the cost of transportation may be forced upon the producer. The erratic behaviour of crops from year to year often produces this result in the marketing of agricultural commodities. Such conditions, however, do not usually persist in the long run. (Fair and Williams: "Economics of Transportation"; page 331.)

price will be affected also by the cost of transporting the raw materials to the factory and the cost of transporting the fuel used by the manufacturer. In many cases, the transportation costs on manufactured products are too small to be included as a measureable part of the price of the article. Even fairly large changes in such rates cannot always be reflected accurately in a price change, but must either be exaggerated or absorbed by producers or middlemen. There may well be cases, therefore, in which the aggregate transportation costs to a business undertaking are covered on the whole by the firm's selling prices, but the prices of individual items do not necessarily reflect the cost of transporting the particular item.

In the case of agricultural commodities, variations in weather and growing conditions from season to season, beyond the control of the producer, introduce an element of instability into the supply of these products. Hence, except where there is some form of price fixation,(2) prices of agricultural products tend to fluctuate more widely than do the prices of manufactured products, particularly when the demand for the agricultural product is relatively inelastic. The ratio of transportation costs to price also fluctuates considerably in the case of agricultural products, because railway rates are considerably more stable than agricultural prices. Yet it would seem that the cost of transportation does not limit the area in which agricultural products are

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(2) In South Africa, for example, the several Commodity Boards, established in terms of the Marketing Act, number 26 of 1937, as amended, generally have the power to fix the prices of the commodities controlled, subject to the approval of the Minister of Agriculture. This position applies, inter alia, to maize and maize products, wheat and citrus fruit.

distributed in the way which might be expected.(3) A study in the United States of America of the behaviour of the prices of certain perishable fruits and vegetables revealed wide price fluctuations, upon which in the short run transportation costs had a negligible effect, other factors affecting prices being much stronger.(4) The net return to the sender is, of course, affected by his transport costs, which vary with the distance of the producer from the market, for his net return is obviously the selling price, less cost of transportation and commissions, where applicable, or other expenses. To the extent that transportation costs differ with distance, the sender's net return will decline as his distance from the market increases.(5) Livestock moves over wide areas at comparatively low rates when the faster handling and special care involved in its movement are considered.(6)

Prices of cheap, bulky commodities, such as coal, sand and stone, bricks, lime and salt are more seriously affected by transportation costs than manufactured articles and agricultural commodities. The effect of the cost of transportation in many cases is to limit very definitely the area within which these commodities will be distributed.(7)

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(3) In Chapter 6 of this thesis the widespread area from which fresh fruit and fresh vegetables were sent to East London is statistically demonstrated. This would seem to agree with the findings of the United States study.

(4) M.L. Fair and E.W. Williams, Jr.: "Economics of Transportation"; page 336. (Published in 1950 by Harper & Brothers, New York.)

(5) The reason why costs of transport do not increase proportionately with distance are dealt with later.

(6) The following are examples of the livestock rates charged by the South African Railways Administration, with effect from 1st January, 1956, are for one large or seven small animals:

	mileage						
	50	100	200	300	500	600	1,000
pence:	78	112	185	250	398	474	620

(7) See later in this Chapter.

In view of the proneness of the South African Railways Administration arbitrarily to increase railway tariffs, and their unfettered ability to do this, it is important to discuss the effect of these railway rate increases on the price paid by the consumer.(8) Fair and Williams make the following comment on this particular problem:

> "Much confusion exists in the consideration of price changes because of a failure to distinguish between the short-run and the long-run effects of changes in rates. In the short-run, supply and demand must be taken as given. Stocks of any product are in existence, and production is geared to the going rate of sales. Until production can be curtailed and stocks worked down , it may be unwise to pass on a rate increase as an increase in price. Under some circumstances supply can adjust itself to the reduced demand associated with a higher price more readily than under others.
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> The supply of a product of agriculture is established by the results of the growing season. A certain amount of acreage is in cultivation under certain conditions of climate, weather and the presence or absence of pests, producing a crop of given size. No conscious step to alter this supply of the commodity can be taken until, in the next growing season, acreage may be reduced. Some manufacturing industries, on the other hand, can curtail production with considerable despatch, thus reducing the period of the short run. Similarly, demand is not affected by an increase in freight rates - until such an increase is reflected in a higher price. Reductions in rates encounter similar inertia of supply and demand, which may cause a delay in full adjustment to the new condition.
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> In the long run, however, an adjustment will come about. But, although the consumer bears the burden of freight costs, it must not be assumed that a specific increase in freight rates is always shifted to the consumer.... The relative portions shifted to the consumer in the higher price and borne by the producer in reduced net, as well as the extent to which output will decline, depend largely upon the elasticities of supply and demand for the particular product affected. The less elastic the demand for the commodity the more likely it is that the increase in freight, or the greater part of it, will be shifted to the consumer. Similarly, the greater the elasticity of demand (i.e., the greater the change in quantity which consumers desire to

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(8) Between 1st September, 1946 and 31st August, 1954, South African Railway rates were increased by approximately 50 per cent. With effect from 1st September, 1954, the goods tariff structure was completely revised, probably affecting the average level of rates in an upward direction.

> purchase at a changed price) the less simple it is to shift the rate increase to the consumer. The elasticity of supply also has its effects. With an inelastic supply it will be difficult to shift the increase because it is hard to adjust supply downward to the level of demand at an increased price. An elastic supply, however, will facilitate the shifting of the increase. ...
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> These adjustments may take some time to work themselves out. The factor of temporarily fixed supply has already been noted. In the short run it is also possible that middlemen may absorb part or all of the increase. Moreover, on some items the increase may be so small as to be impossible of inclusion in the price of a common unit ... In such cases, however, the total freight paid by concerns in the business will eventually be absorbed in the composite of their prices if not adjusted individually.
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> On the other hand, dealers may not only add the increase but use the increased unit cost as the basis for their percentage spread in determining their selling prices. Thus price to the consumer would increase more than by the amount of the rate increase. This practice, carried on by a succession of wholesalers and retailers handling the product in the marketing stream, might considerably pyramid the rate increase. ... (9)

It should be noted that rate increases may take several forms. The rate on a single commodity, or on a limited number of commodities, may be increased. Sometimes a special flat-rate surcharge may be added, irrespective of the length of the haul. The third method of increasing railway tariffs is to add a percentage to all rates: this means that those who paid the highest rates bear the heaviest burden of the increase. It also adversely affects those who have to forward goods the longest distances, for they will be placed in a more disadvantageous position than formerly.

In conclusion, it should be noted that transportation costs play an important part in the determination of the

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(9) Fair and Williams: op. cit.: pages 342-344.

location of economic activity. This aspect of railway rating policy will be discussed after the principles of railway rate fixation have been explained.

2. The Principles of Railway Rate Fixation.

Railway rates are the prices charged by a railway undertaking for the services it renders in the transportation of goods. In fixing its rates, a railway undertaking employs - or should employ - two principles, known respectively as the "cost-of-service" principle, and the "value-of-service" principle. If the latter has tended to overshadow the former, it is because, firstly, often only a slight attempt has been made to ascertain the costs incurred by a railway administration in moving traffic; and secondly, it is very difficult to allocate costs to individual items of service. This is the result of the general characteristics of all railway undertakings of having substantial amounts invested in fixed assets and for their overhead costs to be large.(10) As will be explained later, there is a definite limit to which costs can be applied in railway rate fixation,(11) though like any other undertaking, a railway must in the long run earn enough to cover its expenses, including capital and operating expenses or cease to exist.(12) As far as this

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(10) Not only is a heavy investment necessary in buildings, plant and equipment, but railway undertakings often have to purchase the land over which their lines are laid.

(11) This does not excuse an inattentive attitude to costs, for as the Committee appointed to Inquire into Railway rating policy in South Africa said in its report in 1950 (U.G.32-1950), at page 5:

> "By a combination of special tests and cost studies, an effective approach can be made to determining the cost characteristics of different classes of traffic."

(12) This is true unless the railway undertaking has access to sources of revenue other than the revenue for the transportation services it renders.

applies, the cost-of-service principle may be considered to prevail in the determination of railway rates.

In order to understand the application of the cost of service principle to the fixation of individual railway rates, it is necessary to examine the dominant cost characteristics of railway undertakings:(13)

a. the prevalence of joint and common costs;(14)

b. the unusually large proportion of charges which are constant and fixed; and

c. the tendency for unit costs to decrease as the volume of traffic increases.

All railway traffic incurs common costs as far as the investment in terminals, administration, maintenance of plant, equipment and the permanent way, communications and signalling systems are concerned. Furthermore, the cost of hauling a train is common to all the goods consignments and/or passengers carried in it. All these costs are common, rather than joint, because the transportation of one commodity at a given time is not inseparable from the transportation of another. The only aspect of transportation in which joint costs may be said to apply is the "back-haul" of a

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(13) This section is based mainly on Fair and Williams: op. cit.; chapter 20.

(14) Joint costs arise when one product cannot be produced independently of another, the supply of each varying directly with that of the other. The costs are entirely indivisable until, at some stage in the proceedings the two products are separated.
Common costs apply to products handled or processed by the same undertaking - e.g., the cost of renting a building is common to all the products produced in it. These products could be handled separately, but there is a service or cost advantage in having them handled or produced together. Unlike joint products, the supply of one product does not necessarily vary with that of the other products in the case of common costs.

vehicle moving between two points. When a vehicle moves directly back and forth between two points, joint costs are clearly created. The operation of sub-urban passenger train services, for instance, is an example of such a situation. It may, to a certain extent, also characterize main line passenger services, particularly at certain seasons of the year, but it does not usually apply to general purpose goods vehicles. These usually follow indirect and circuitous routes in returning to their starting point, if they do so at all.(15) Specialized vehicles, such as tank trucks, refrigerator trucks, and mineral hopper trucks, however, often make empty return trips.(16) Where a return load cannot be expected, the forward rate must be based on the one directional flow of traffic. When a railway has empty trucks moving in one direction, it can carry traffic in that direction at virtually out-of-pocket expenses and railway undertakings often seek to develop a more balanced traffic by setting rates that are lower in one direction than in another. Joint costs, then, can be important in railway cost structure, but they are not as important as in other forms of transport where the return movement of vehicles is more regular and frequent.(17)

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(15) This problem will be less acute in the case of a single railway undertaking covering the whole of a country than when there are a number of competing undertakings.

(16) For example petrol - in tank trucks - and fish - in refrigerated trucks - move inland from East London, but there is no corresponding return traffic to utilize the empty trucks.

(17) In the earlier years in South Africa this was precisely the problem, for manufactured imported goods moved from the ports, while there was insufficient traffic moving to the ports to utilize the empty vehicles moving in that direction. This was one of the reasons for the introduction of reduced rates for commodities for export. (See later in this chapter.)

It is, however, the prevalence of common costs which usually limits the application of the cost-of-service principle to railway rates. Apart from the difficulty of ascertaining these costs, the problem is magnified by the difficulty of distributing these costs over the various types of traffic using the railway. The problem is that all commodities cannot bear an equal share of the common costs because the individual commodities vary greatly in value. If all commodities were charged an equal share of the common costs, this in many instances would amount to much more than the price of the commodity at its point of origin. Not only would this preclude many commodities from moving, as a result of which they would not be available outside the area in which they were produced, and specialization would be impossible; but the community as a whole would suffer because all railway rates would have to be higher. This particular problem of railway undertakings has been solved by the adoption of a discriminatory rating policy - i.e., different commodities are charged with a differing share of the common costs, so that the rate for the same service is different from one commodity to another.

If it is true that an unusually large proportion of the costs of a railway undertaking are fixed, or do not vary in proportion to changes in the volume of traffic, then up to a point such undertakings will operate under conditions of decreasing costs. Simply expressed, this means that, as traffic increases, the cost per unit carried decreases, and so it is profitable to both the railway undertaking and the community as a whole, for the railway undertaking to increase the volume of traffic carried. Fuller utilization of the railway's facilities, through heavier and more balanced

traffic, results in a lower cost per ton-mile of service performed, as well as a greater number of units over which the common costs can be spread. Accordingly, by a discriminatory policy, railway undertakings attempt to attract the maximum quantity of traffic to pass over their lines.

The question which arises, however, is the extent to which such a policy as that outlined above is expedient: in other words, does there not come a time when the optimum utilization of the railway installations is exceeded and, instead of costs decreasing as additional traffic is carried, the unit cost increases? The answer to this question is perhaps the most controversial aspect of the theory of railway rating. All who have studied the problem are agreed that, in the early stages of the history of railway undertakings, their facilities are not used to full capacity, and therefore an increase in traffic up to the optimum capacity of the undertaking brings about a decrease in costs. Some economists, however, contend that it is virtually impossible for a railway undertaking in its maturity to have unused capacity and that there is, therefore, no justification for a policy which, beyond a certain point, aims at increasing traffic. The opposing point of view, however, is that a railway undertaking, at all stages of its development, exhibits some degree of unused capacity, and so fixed costs are always present, and thus there is the justification for attracting additional traffic. The Newton Committee (18) pointed out that the argument that beyond a certain point there was no unused capacity in a railway undertaking appeared to overlook certain significant aspects of railway

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(18) This simpler term will be used henceforth for the Committee appointed to Inquire into Railway Rating Policy in South Africa, and which published its report in 1950.

construction and operation. It was further pointed out that, while in certain cases it was possible to extend a railway's facilities by a continuous process, (19) the addition was often considerably in excess of the current demand, thus allowing a margin for still further growth of traffic in future years. Sometimes large and costly works had to be carried out and these could not be exactly graduated to the increased demand prevailing at the time when they were constructed. It is also true that not all sections of a railway system are used to the same extent at the same time. In support of its argument the Newton Committee said:

> "... the war-time performance of even the 'mature' railway systems of Great Britain and the United States of America indicates that considerable latent capacity was present. South African experience confirms this in a striking way in that, compared with 1939, the Union Railways in 1947 succeeded in handling 48 per cent. more ton-miles of goods per annum and 112 per cent. more passengers without any comparable expansion of physical facilities. Thus, the open mileage increased by only .27 per cent between the two dates, engine tractive capacity by 11 per cent., and aggregate truck capacity by 37 per cent. Improved methods doubtless partly accounted for this remarkable performance, but contrary to the underlying assumption of the Board of Trade and Industries, the results shown reveal that a sizeable degree of under-utilization is characteristic of railway systems in general, in their early life and their 'maturity'."(20)

Whatever view is accepted, it is important to note that what has influenced railway undertakings in the fixation of their goods traffic rates is the belief that railway undertakings operate under conditions where a large percentage

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(19) A single-track line may, for instance, be increased in capacity by, first of all, increasing the number of stations and sidings along its length, improving despatching facilities and increasing rolling stock, before a second line is built. At first this second line may be confined to those sections where traffic is densest, and only later linked up.

(20) U.G. 32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 2

of costs is fixed or does not vary directly with variations in the traffic carried.(21)

It has been said that, because of the prevalence of joint and common costs, particularly the latter, railways, which handle an infinite variety of products and render a variety of services, cannot in most instances determine and allocate the cost of handling a particular commodity or rendering a particular service. It is possible, though, to determine the special or "out-of-pocket" expenses involved in handling a particular consignment of goods;(22) it is possible, although difficult, and it is not very often attempted, or if it is the attempt is unenthusiastic.(23) And yet it is most important that such costs should be determined, and as accurately as possible, <u>because these costs set the limit below which rates should not be reduced</u>.

<u>The value-of-service principle</u>:

Stated simply, this second principle of railway rating policy means that railway administrations, in fixing rates, take into account what the user of rail transport will be prepared to pay for the service which he is buying. In the case of certain commodities, the purchaser of transport will be prepared to pay - or will tolerate - a higher rate

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(21) For example the maintenance of way, terminals, shops, buildings, vehicles, bridges and even of rolling stock is caused more by exposure to the elements than by wear and tear of traffic.

(22) This matter is discussed in the report of the Newton Committee (U.G.32-1950); pages 57-74.

(23) The Newton Committee said at page 5:

"At present the [South African Railways] Administration has not sufficient information to enable reliable estimates of costs to be made and, in this respect, and in practice, it relies on general averages and experience".

than for the same service for other commodities.(24) This means that, while some transport service may have to be priced at less than full cost, other transport can be priced at more than its full cost without preventing the movement of certain commodities. This means, in effect, that the rates on some commodities bear a more than proportionate share of joint and common costs, while others bear a less than proportionate share. The distribution of these overhead costs according to the value-of-service principle - often called "charging what the traffic will bear" - is possible because competition among railway undertakings, where it exists at all, is incomplete competition, while in many countries, as for instance South Africa, the railways are in a position of virtual monopoly.(25)

There are four factors which determine the extent to which the value-of-service principle can be applied in the fixation of railway rates; in other words, which determine the value to the purchaser of the transport service he is

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(24) This is not confined to the sphere of transport alone. For example, conditions of severe scarcity of a product caused by monopoly, restraint of supply, or wartime restrictions of output, may enable a producer or merchant to sell at a price far above cost, because the value of the commodity to the buyer is at variance with the producer's cost.

(25) "Charging what the traffic will bear" should not be taken as meaning that the rates on any commodity should be set as high as possible, but that the high rates should be as low as possible and the low rates should be as high as possible.

The Newton Committee found that there was little objection to the application of a discriminatory rating policy by the South African Railways, but what was objected to was that the South African Railways Administration was in a position to classify goods, and fix rates, as it wished without any form of impartial control such as would be provided, for example, by an independent railway rates tribunal. Another objection made is that, as the Administration does not accurately know the out-of-pocket expenses incurred in moving traffic, it is quite possible that some of the lower rates are unremunerative to the Railways.

buying.

a. Firstly, there is the difference in the market price of the commodity at its point of origin and at its destination. If the transport costs exceed this margin, the transfer will not take place, and so this factor may be said to set the upper limit to a rate, very much as the out-of-pocket expenses set the lower limit. Usually the rate will be set somewhere between these two limits, and its actual level will be determined by a combination of the other value-of-service factors still to be discussed. The difference between prices at two points is, however, not a perfect measure of the upper limit of the value of the service to the buyer, because this difference may be influenced by the rate itself.

b. Secondly, the value of the commodity has a great influence upon its ability to stand a given rate; and perhaps more than any of the other factors, it is this which determines the rate for individual commodities. The higher the value, per given unit of weight, the higher the rate will be.

c. Thirdly, the degree of competition is a factor in determining the value of service to the buyer. If there are several competing transport undertakings - either of the same or different kinds - the level of the rate will be influenced.

d. A fourth factor is the use of rates to develop a new area or industry, where no inter-carrier competition is involved. Where the railway undertaking

is state-owned, the railway rating structure may be designed, or manipulated, not only to develop an industry or area, but permanently to favour various interests, or to achieve some aim of social or national policy.(26)

Summary:

In fixing the rates which are charged for the services they render, Railway undertakings follow a discriminatory policy, i.e., different commodities are charged different rates for the same service, the charge being based on other principles than cost-of-service. This policy is the result of several factors, some of which are incentive, some enabling, and some coercive. Firstly, the incentive to discriminate arises from the ever present threat of under-utilization of the railway undertaking's plant and facilities - or at least the under-utilization of certain lines or routes, or under-utilization at certain seasons or under-utilization because traffic moves principally in one direction only. Railway Administrations, being unable to store transport, must have sufficient plant and service capacity to handle a peak demand - and a very considerable part of a railway undertaking's traffic is seasonal. A second incentive factor is the large proportion of joint and common costs. The total cost of moving given traffic cannot be determined accurately. It is profitable for a railway undertaking to improve the utilization of its facilities by a discriminatory rate which may contribute but little above the out-of-pocket expenses involved in carrying it. A third incentive is the desire to foster the development of

(26) Prior to September 1st, 1954, the rating structure of the South African Railways was burdened with a whole series of special rates - to be discussed later - which had been introduced, at one time or another, for precisely the purposes mentioned in paragraph (d) above.

a new area, industry or of some national interest, by charging a low rate in the initial stages, sometimes with the hope that profitable traffic will materialize in the future.

The principal enabling factor is the incompletely competitive - or almost entirely monopolistic - position occupied by railway undertakings, particularly those which are State-owned. The second enabling factor is the difference in the ability of various commodities to bear transportation charges, because of their value and the length of the haul. The higher the value, the higher the rate may be set without discouraging the movement of the commodity.

The force or pressure for rate discrimination usually emanates from the forwarders of traffic - or from a particular group of forwarders, who want their goods placed in a lower classification or who demand rate reductions. Where the interest is sufficiently strong politically or economically, or vociferous enough, it may be able to force a rate reduction or discrimination which is favourable to itself.

It is clear that both the cost-of-service principle and the value-of-service principle should enter into the fixation of railway rates for individual commodities. Because transportation service cannot be stored, but must be produced currently, cost is always a factor in the price charged; but competition is never really so complete as to cause rates to be based solely on costs. The lower limit to a rate is the out-of-pocket expenditure incurred by the railway administration in moving the traffic; the upper limit is the difference between the market prices at origin and

destination (if the latter is not determined by the cost of transportation). The actual rate charged will usually be set somewhere between these points by the other aspects of the value-of-service principle: the value of the commodity and the degree of competition among the providers of transport.

The effect of quantity and distance on rates:

In addition to the cost-of-service principle, and the value-of-service principle, the quantity of goods forwarded in a consignment, and the distance they have to be carried, are also used in the preparation of rate schedules.

Quantity:

Rates differ for various quantities carried; e.g., it is usual to find that railway undertakings will quote a lower rate for full truck loads than for lesser quantities, and for bulk consignments than for sub-divided consignments - i.e., commodities in cartons, bottles, tins or other small containers which are then packed in boxes, cases or bags.(27) There is good reason for the charging of lower rates for full truckloads or for bulk consignments: the clerical costs of checking, invoicing and collecting the railage are the same, whether the consignment is large or small. The cost of loading and unloading and transhipping, if this is necessary, varies with quantity, but not in direct proportion; in fact in much truck load traffic the consignor is required to load, and the consignee to unload, the traffic thus relieving the railway undertaking of all such

(27) See the select list of commodities given in Appendix D for some examples of the application of this procedure by the South African Railways.

expense.(28) Furthermore, a better utilization of trucks is obtained with large consignments than with small ones. There are only two objections which might be raised against this system, which is analagous to the giving of quantity discounts in commercial undertakings. These objections are:

a. the system may favour the large undertaking against his smaller competitor;(29) and

b. the margin between the rate for the larger quantity and the rate for the smaller quantity may be unduly widened by depressing the lower rate unreasonably, but this is not so much an objection to the system as to its manner of application.

Distance:

Since the function of a railway undertaking is the conveyance of traffic from one area to another, it is to be expected that rates will increase with distance, as this is the measure of the amount of transportation performed. Although the cost of rendering the transportation varies with the distance, it does not do so directly because:

a. an indirect - and therefore longer - railway route may be faster and cheaper because it avoids congested lines and stations;

b. train-mile costs are considerably higher, and so are maintenance of permanent way and rolling stock costs, in mountainous areas than in level areas.

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(28) See the select list of Commodities given in Appendix D for some examples of the application of this by the South African Railways Administration, such traffic being termed "station to station" traffic.

(29) Dealing with this problem (in relation to the abolition of the distribution rate scheme and its replacement by a special rate for large quantity consignments) the Newton Committee said at page 18 of its report:

"The most economic method of railway haulage is by means of bulk loads and, as an ordinary business transaction, a large consignment should, therefore, be favoured in regard to rates as against small consignments which are more costly and troublesome to handle."

(U.G.32-1950).

c. the terminal costs do not increase with distance, so that really two costs are involved: a flat-rate terminal cost, and a variable haulage cost; and

d. the expense of hauling goods does not vary in proportion to distance, even if no allowance need be made for variations in operating conditions: better locomotive and vehicle utilization is usually obtained in handling long distance traffic, while, when a consignment is offloaded at some intermediate station after a short haul, the railway may or may not obtain traffic to utilize the space left by the offloaded goods; and, in any case, the time taken to offload and/or shunt reduces the number of train miles which can be run per day.

It is, therefore, general practice for railway undertakings to introduce what is known as a "taper" into their rate schedules. The effect is that, while total costs increase with distance, the rate per ton per mile decreases. Furthermore, the taper is more pronounced for the lower rates than the higher, this being largely because the low-value traffic moving over long distances could not bear the cost which would be produced if a uniform rate of tapering were to be applied to all rates. (See Table A.25) This does not, however, justify the carrying of the "taper" principle to such lengths that the return from long hauls of low-value traffic is unremunerative, or that unreasonably large variations are created between the different classes of traffic at different distances.

Another reason for the application of the "taper" principle in railway rating is that the different areas of a country do not differ in their productive capacity in proportion to their distances from the main consuming centres. The application of the "taper" enables the Products produced at some distance from the consumption areas to compete more effectively with the products

produced nearer the consumption areas. Within reasonable limits, and for both of the above reasons, there is ample justification for the application of the "taper" principle in the rate schedules of a railway undertaking.

Other factors influencing railway rates:

In addition to the factors mentioned above, there are certain other factors which influence railway rates, and the principal ones are listed below.

a. Packing: Commodities which are securely packed or crated may be conveyed at a lower rate than those which are not so packed. Consignments packed in uniform-shaped containers may be carried at a lower rate than the same commodity packed in irregular-shaped containers.(30)

b. Country of origin: Sometimes a specially reduced rate is placed on the home-produced commodity, compared with that on the same commodity if it is imported.(31)

c. Risk: Over the South African Railways, certain commodities are carried at "owner's risk" only; if it is desired to have these commodities carried at "railway risk", a higher rate or a surcharge

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(30) For example, rectangular bales of wool are carried over the South African Railways at a lower rate than wool packed in other ways.

(31) Prior to 1st September, 1954, the South African Railways Administration maintained a series of preferential rates favouring the home-produced commodity, e.g.:

Commodity	Rate, if imported	Rate, if S.A. Produce
Cheese	2	6
Cider	2	4
Barley meal	2	7

The "nearest port rate" arrangement was also in the nature of a preference rate.

must be paid.(32)

3. The Practice of Railway Rate Fixation in South Africa.

In common with other railway undertakings, since its inception in 1910 the South African Railways has employed a discriminatory rating structure, the simpler structures of the three pre-union undertakings being amalgamated into one unified structure.(33) The South African Railways are bound by section 127 of the South Africa Act of 1909 as far as their rating policy is concerned. The relevant part of Section 127 reads:

> "The railways, ports and harbours of the Union shall be administered on business principles, due regard being had to agricultural and industrial development within the Union and promotion, by means of cheap transport, of the settlement of an agricultural and industrial population in the inland portions of all provinces of the Union. So far as may be, the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation, and the paying of interest due on capital not being capital contributed out of railway or harbour revenue, and not including any sums payable out of the Consolidated Revenue Fund in accordance with the provisions of sections one hundred and thirty and one hundred and thirty one. The amount of interest due on such capital invested shall be paid over from the Railway and Harbour Fund into the Consolidated Revenue Fund."

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(32) "Owner's risk" means that the transport of the goods is undertaken by the South African Railways Administration on the special condition that the Administration shall not be liable for loss, damage, shortage or delay except upon proof by the consignor or consignee, that such loss, damage, shortage or delay was occasioned by and through the wilful misconduct or malfeasance of the Administration's servants.

(33) The three pre-Union Railway Administrations were the Cape Government Railways, the Natal Government Railways and the Central South African Railways.
As has been mentioned, the principle of a discriminatory rating policy has generally been accepted in South Africa. In its report number 285, however, the Board of Trade and Industries challenged this policy and suggested that a policy of marginal cost charging should be introduced. This question is dealt with in detail in the Newton Committee's report (U.G.32-1950); at pages 2 to 4.

Much has been written about what precisely this section of the South Africa Act means; it is not proposed to discuss this matter here, but rather to give a factual account of the rating structure of the South African Railways, with reference, where possible, to the economic and commercial development of the Border Region.(34)

Classification of Commodities:

Prior to September 1st, 1954, commodities were classified into nine classes, and there were also a number of special rates. In addition, there were special rating schemes which had been superimposed on the basic tariff structure in an endeavour to assist various sections of the community.(35) The Newton Committee criticized the pre-September, 1954, tariff structure on the following grounds:

> "... we consider that the reduction of the tariff classes from 15 to 9,(36) was unfortunate as the margins between the rates applicable to the classes is so wide that additional schedules have had to be provided for various commodities. A number of exceptional arrangements also appears in the classification itself. These supplementary schedules and arrangements have rendered the operation of the tariffs unduly involved. The classification shows signs that, in its growth from a foundation chiefly of agricultural and imported goods, sufficient consideration has not always been given to factors of value, weight in relation to bulk, risk of damage

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(34) A fuller discussion of the meaning of section 127 of the South Africa Act will be found in:
U.G.56-1930: Report of the Departmental Railway Tariffs Committee, dated 15th February, 1930.
White Paper of the S.A.R. Administration: "The Rates and Tariffs of the South African Railways and their relation to Industry, Commerce and Agriculture", dated 28th May, 1946.
Report 285 of the Board of Trade and Industries: "An Analysis of Railway Rating Principles and the Effect of Transport Costs on the Industrial Development of the Union", dated 29th December, 1945.
U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa", dated 16th September, 1949.

(35) These will be discussed later in this Chapter.

(36) This reduction took place in October, 1920. Although the rates were numbered from one to ten, there were only nine classes because number nine was not used.

> and cost of handling, with the result that some commodities are, in our opinion, erroneously classified. ...
>
> For a limited number of commodities there is differential rating in the provinces. ... This anomalous position is a relic of pre Union, for which there is no longer justification.
>
> ...
>
> Having regard to the rapid industrial development in South Africa we consider that it would be advantageous to the public, the Administration and its staff if a more comprehensive classification than the present one were provided. We feel ... that such a classification should be based on an increased number of tariff classes which would reduce the margins between rates and permit of the elimination of most if not all of the existing supplementary rate schedules; simplicity in the rating structure would also be achieved." (37)

The new tariff structure, enforced by the Administration with effect from 1st September, 1954, increased the number of tariff classes to fourteen and reduced the number of special rates. The rates, for each of the fourteen classes, and the special rates which still exist are shown in Table A.26 in Appendix A. Appendix D gives a select list of commodities arranged according to the new classification. The new tariff structure also abolished branch line rates, distribution rates, nearest port rates, sea competitive rates, maximum rates, preferential rates and the milling-in-transit scheme. Export rates, the special port rates and the "owner's risk" provision were retained and the export rates and port rates will now be considered.

Export rates:

Specially reduced rates were introduced many years ago by the Railways Administration to stimulate exports by assisting producers to compete in overseas markets at favourable

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(37) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 12.

prices. This policy was also actuated by a desire to secure a more even flow of traffic between the ports and the inland areas, for in the early years of Union traffic consisted principally of imported manufactured commodities consigned from the ports to the interior, and thus there was a constant movement of empty trucks to the coast. In his book, "The Railway Policy of South Africa", Dr. Frankel says:

> "It was, therefore, right and a profitable policy for the railways to develop a traffic from the interior to the coast, in order to make use of the empty wagons which had to be hauled in any case, and it was as sound, from the point of view of railway practice, as it was economic and justifiable, for the railways to obtain this traffic by quoting specially low rates for it. These rates could easily be half the ordinary rates, and often even less, for the traffic which moved under such rates helped to cover expenses which had, to a large extent, to be incurred whether the traffic was forthcoming or not. Such traffic, therefore, made a substantial contribution to overhead charges, and lowered the charges that had to be placed on the existing traffic on the railways, and especially on that traffic ... by which the empty haulage was occasioned. ..." (38)

Although traffic became more balanced, thus removing one justification for these export rates, the Administration continued to grant them on raw materials, minerals and foodstuffs. The Newton Committee pointed out that "in an endeavour to assist in the securing of overseas markets for South African products, rates have been authorized on such a low level as to be unremunerative to the Administration." The Committee also considered that the existing differences between the "local" and the "export" rates were too wide.(39)

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(38) S.H. Frankel: "The Railway Policy of South Africa"; pages 185-6. (Published in 1928 by Hortors Limited, Johannesburg)

(39) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; pages 23-24. Examples of export rates will be found in the select list of commodities in Appendix D.

The new tariff structure has continued to provide export rates for certain commodities. These rates apply only when the goods are consigned direct to a port for shipment over-sea to places beyond South or South-West-Africa, Moçambique and Portuguese East Africa.(40)

Port rates:(41)

Traffic between the ports and certain inland stations, sidings and stopping places, and vice versa, is charged at rates set out in a supplement to the Official Railway Tariff Book. These port rates have been in force for many years and have never applied to all traffic, but only to that in the higher classes. Before 1st September, 1954, these rates were applicable to traffic in classes 1 to 6 and also petrol, and with the exception of stations, etc., in the competitive area of the Transvaal,(42) were the ordinary schedule rates for the mileage over the shortest distance between the port and destination. Rates on traffic to the competitive area were, however, based on special considerations, partly to give effect to various agreements with the Portuguese Government in regard to the share of sea-borne commercial traffic to the competitive area passing through Lourenço Marques; and partly to distribute this traffic among the Union ports.

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(40) Official Railway Tariff Book number 26, clause 253 (6)

(41) These rates apply in both directions, i.e., from the port (which includes the port town as well as the harbour precincts) to the inland stations, sidings and stopping places specified in the supplement to the tariff book; and from these inland places to the ports. To avoid clumsiness in expression, the term "between" will be used to indicate that the rates apply on traffic moving in both directions between port and inland station, etc.

(42) The competitive area of the Transvaal is bounded by a line from Pretoria to Springs to Vereeniging to Klerksdorp and back to Pretoria.

As shown in Table A.27, before the revision of the South African Railways rating structure in September, 1954, traffic to which the port rates were applicable was carried between East London and the stations in the competitive area of the Transvaal for the same charge as traffic between Durban and the competitive area. Traffic between Port Elizabeth and the competitive area was conveyed at a charge slightly above that from East London to the competitive area. Traffic between Cape Town and the competitive area was charged ordinary schedule rates, while the traffic from or to Lourenço Marques was charged slightly above schedule rates. This arrangement meant that traffic betweeen East London or Port Elizabeth and places outside the competitive area was sometimes charged more than traffic between these ports and the competitive area, although in the former case the mileage was less.

Reporting on the rating procedure between East London or Port Elizabeth and the competitive area, the Newton Committee said:

> "We support the principle of equal rates for equal distances. Approximate equalization of rates from East London and Port Elizabeth to the Transvaal competitive area to some extent disturbs this principle. The original reasons for this arrangement, however, still have the same force to-day since it is in the national interests as well as those of the Railway Administration itself to ensure a proper spread between the principal ports of the imported traffic for the competitive area. This allows scope for development and contributes towards the full utilization of all facilities. In the circumstances we regard the arrangement as justified.(43)

The revised rating structure, adopted with effect from 1st September, 1954, retained the special rates between East

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(43) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 20.

London or Port Elizabeth and the competitive area of the Transvaal, but altered the principle slightly. Rates between East London and the competitive area are now set at three pence per hundred pounds higher than Durban's rate, while the rates between Port Elizabeth and the competitive area are set at three pence per hundred pounds above East London's rate. The rates between Durban or Cape Town and the competitive area are ordinary mileage schedule rates, while those between Lourenço Marques and the competitive area are slightly above the schedule rate for the distance involved. These rates are shown in Table A.28. Table A.29 shows the port rate between East London or Port Elizabeth and Johannesburg, compared with the schedule rate for that mileage. It should be noted that there is no method by which the actual cost of conveying goods between East London or Port Elizabeth and the competitive area can be ascertained, so that it is not possible to say whether these specially reduced rates involve the Railways Administration in a loss or not.

Sea-borne commercial traffic to the competitive area must be viewed against the background of the differentials in the sea freight rates from the United Kingdom or the United States of America to the several Union ports. Sea-borne traffic from the United Kingdom pays the same sea freight to Cape Town or Port Elizabeth, while traffic to East London or Durban pays the same sea freight, which is three shillings and sixpence per ton (or per forty cubic feet) higher than the freight to Cape Town or Port Elizabeth. This means that if a ton of traffic is conveyed to East London by sea the net saving is one shilling and sixpence (the railway rate to the competitive area is five shillings per

ton less than from Port Elizabeth, but the sea freight is increased by three shillings and sixpence.) If, however, it is carried on to Durban by sea the saving is six shillings and sixpence (there is a saving of ten shillings per ton in land transport from Durban to the competitive area compared with Port Elizabeth to the competitive area, but sea freight is increased by three shillings and sixpence). In the case of cargo from the United States, the sea freight rises by fifty cents between each of the Union ports, so that the freight rate to Durban is one dollar fifty cents more than to Cape Town.(44)

For a number of stations, etc. in the Transvaal, outside the competitive area, the rates between them and East London or Port Elizabeth are set at less than schedule mileage rates for the distance involved. The position in regard to traffic between stations on the "fringe" of the competitive area and East London or Port Elizabeth, compared with stations in the competitive area, would be a disproportionately high charge in the case of the former stations. This increased charge would be out of all proportion to the mileage difference between the stations just inside the competitive area and the stations just outside the competitive area. To obviate this, the rates applicable between either East London or Port Elizabeth and the stations on the "fringe" of the competitive area are based on the special port rates

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(44) Fifty cents is at presnt (November 1958) equivalent to approximately three shillings and sixpence. (The information in regard to sea freight has been supplied by a firm of Landing, Shipping and Forwarding Agents in East London.)

applicable to the nearest station within the competitive area on the same section of line. These rates are then increased progressivly in the direction away from the competitive area until they merge into the mileage schedule rates from Port Elizabeth or East London at a point some distance from the border of the competitive area. In the case of stations nearer to the ports than the competitive area stations are, a similar procedure is adopted for after a certain distance from the port concerned the charge decreases gradually to the border of the competitive area. This is illustrated in the following tabulation.

Miles from E.L.	Station	Pence per 100lb Rate 1 Traffic from East London		
		Port rate		Mileage rate
587	Dover	257		264
599	Wolwehoek	250		266
604	Coalbrook	247		270
613	Viljoendrif	244		270
618	Vereeniging	235	Competi-	270
666	Johannesburg	238	tive	282
694	Pretoria	244	area	286
698	Hercules	253		286
703	Pretoria North	253		290
-	Bon Accord	-		-
710	Pyramid	258		290
723	Hammanskraal	265		294
736	Pienaarsrivier	273		294
759	Warmbad	287		298
776	Nylstroom	299		302
801	Naboomspruit	306		310
822	Drummondlea	310		314
832	Potgietersrus	314		314
871	Pietersburg	322		322

The rates from Port Elizabeth, under this system of rating, are generally 3d per 100 lb. above the rates from East London but this differential becomes variable at the point where the Port Elizabeth special rates merge into the mileage schedule rate, which is slightly sooner than in the case of the East London rates.

Obsolete rating arrangements:

Although several special rating arrangements were abolished by the new tariff structure which came into force on 1st September, 1954, it is necessary to discuss the more important of these arrangements because they have had a profound effect on the economic and commercial development of the Union. In some cases their abolition has created new problems for industry and commerce.

1. The distribution rate scheme:

Distribution rates applied to certain traffic forwarded from certain inland stations,(45) of which as far as the Border Region was concerned, there were four: King William's Town, Queenstown, Burgersdorp and Aliwal North. In addition to the traffic specified in the Official Railway Tariff Book, these rates were frequently authorized from numerous stations for locally manufactured products falling within the specified classes. This scheme was introduced prior to Union in 1910 to enable merchants in inland towns to compete with the coastal merchants in the distribution of imported merchandise throughout the country districts of South Africa. Such a special rating arrangement was considered necessary because the application of the taper principle to railway rating schedules meant that, if a merchant in an inland town imported goods and then distributed them from his place of business, the combined railage on the goods would have

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(45) The classes of traffic to which distribution rates applied were:

traffic in classes 1 to 4;
rough timber classified at tariff 6, but charged at tariff 5 less a maximum deduction of 20 per cent;
petrol and motor spirit;
agricultural machinery and implements as defined in clause 254 of the Official Tariff Book.

A full list of the stations which were distribution centres will be found in Official Tariff Book number 24 and previous editions.

have been higher than that payable if the goods were railed direct to their ultimate destination from the ports.(46) The original aim of the scheme was to ensure that, when the goods to which it applied were sent from a distribution centre to a destination, the railage on the second leg of the journey should be approximately the difference between the railage direct from the port to the destination and the railage from the port to the distribution centre. To achieve this, and taking into account that goods might be forwarded from a distribution centre back towards the port where they originated, a series of involved formulae were devised. The computation of the railage differed, depending upon whether the distribution centre and the destination were both in the "Inland Zone", both in the "Coastal Zone", or one in either zone.(47) King William's Town had a special distribution rating arrangement, the broad effect of which was to neutralize the effect of its being 40 miles from East London.

When first introduced, this scheme was designed to facilitate the distribution of imported goods in a country in which secondary industry played only a negligible part. When secondary industries developed in the interior of the Union, the distribution rate scheme was extended to cover the products of these industries, if they fell within the

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(46) For example, class 1 traffic, per hundred pounds, if forwarded directly from East London to Springfontein was charged 127d; if forwarded to Queenstown and then subsequently sent to Springfontein the total railage was 138d. (East London to Queenstown: 63d plus Queenstown to Springfontein: 75d.)

(47) Because these rates are no longer in force, it has not been considered necessary to give a detailed account of the formulae or the zones. The full details will be found in Official Railway Tariff Book number 24 and previous issues.

classes to which the scheme was applicable. Reporting on this scheme, the Newton Committee said:

> "... the arrangement which was introduced with the primary object of decentralising the distributive trade in imported goods, now covers a much wider field, so wide that if it is continued there appears to be no possibility of denying the facility to any inland factory producing goods falling within the classes to which it is applicable. This facility is of considerable advantage to manufacturing industries situated inland and inevitably accords preferential treatment over manufacturing industries established at the coast.(48) The statement has sometimes been made that industry at the coast is in turn compensated to some extent by the availability of the sea competitive rates. In this connection it must be borne in mind that were sea competitive rates not operative coastal industry could use the sea route.
>
> From the point of view of railway economics little, if any, justification can be found for distribution rates. The raison d'être for the tapering rate principle is the continuous haul. If the transsit of goods is divided into two separate transactions, as it is under the scheme in so far as imported commodities are concerned, and the second transaction, involving as it does fresh loading, unloading, sheeting, unsheeting, invoicing, marshalling, etc., can be charged at reduced, in many instances half, rates, it would appear that either the throughout rate is excessive or the transaction is an uneconomic one to the railway. In this connection also an important feature is that it is not in all cases traffic that has borne high rates from the coast which is concerned. Where the traffic is of local manufacture distribution rates simply afford a railage rebate.
>
> The Departmental Railway Tariffs Inquiry Committee (1930)(49) stated that if distribution rates were abolished, the tendency would be for the distributing business carried on by the merchants in the interior to be diverted to coastal towns and that this would be contrary to section 127 of the South Africa Act. We do not believe, however, that the intention of the section in question was to provide for a series of substantially reduced rates ... .

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(48) This point is clearly illustrated by the fact that the distribution rate from Johannesburg to Burgersdorp for 1001b. of class 1 commodity was 103d. The ordinary mileage schedule rate payable by a manufacturer in East London for the same commodity sent to Burgersdorp was 102d. It thus cost the same to send the commodity 403 miles from Johannesburg as to send it 223 miles from East London. The same position occurred with Aliwal North: the schedule mileage rate from East London was 117d; the distribution rate from Johannesburg was 113d.

(49) U.G.56-1930: Report of the Departmental Railway Tariffs Inquiry Committee; paragraph 142.

> As mentioned ... the main purpose of distribution rates was to obviate the centralization of the distributive business at the coast. It has been also stated that the reduced rates granted under the scheme have assisted in combating road competition. It is true that any reduction in railage assists in this latter direction but a scheme which has that purpose in view should apply to all traffic and not only to that fowarded from certain inland points. Traffic from port towns is just as much subject to road competition as that railed from the larger inland centres; the former does not, however, receive any benefit from the distribution rates scheme. Further traffic ex distribution centres falling within the classes to which distribution rates apply, transported within the inland zone, enjoys the same reduction irrespective of whether a long or a short haul is involved, though in the latter the railways are much more vulnerable to road competition.
>
> We may conclude that while the distribution rates scheme may have been justified in the early stages of South Africa's development, when the country was in the main dependent on overseas for its manufactured articles, with its extension to local production it has become a rate subsidy."(50)

The recommendation of the Newton Committee that the distribution rate scheme should be withdrawn was accepted by the Railways Administration. The scheme was withdrawn on 1st September, 1954.

2. Nearest Port rates:

Clause 253 (8) of the Official Railway Tariff Book number 24, and earlier editions, provided that:

> "no higher rate was to be charged between South African Railway stations in respect of certain articles of South African production or manufacture than the port rate, according to classification, from the port nearest (or cheapest) to the destination station, subject to a minimum rate per ton per mile (as between forwarding and destination stations)."

The object of this arrangement was to enable South African manufacturers to compete with overseas producers where the

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(50) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; pages 18-19.

cost of sending the imported commodity from a South African port to a given destination was less than that of sending the same commodity to the same destination from a South African factory.(51) If the cost of sending the commodity from the factory was less than that of sending the same commodity from the nearest or cheapest port, the normal schedule rate applied, e.g:

paint: per 100lb.

from Johannesburg to Kroonstad:	34d
from Durban to Kroonstad (i.e. from the nearest port)	88d.

In such a case the normal schedule rate was payble from Johannesburg to Kroonstad. If, however, the position was as follows then the nearest port rate applied:

paint per 100lb.:

from Johannesburg to Queenstown	99d
from East London to Queenstown (i.e., from the nearest port)	40d.

In such a case as the second example, the rate from the nearest or cheapest port was charged and not the schedule mileage rate, or else a rate based on a series of minima laid down in the Official Railway Tariff Book instead of the normal mileage schedule rate. In the second example above, this latter procedure would have had to have been adopted and it would have cost approximately 49d pence to send the paint

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(51) The following is a select list of commodities to which this rating arrangement applied, together with the minimum rate applicable in each case:
Bacon, not tinned or cooked - 1.9d per ton per mile;
Glass bottles and jars - 0.8d per ton per mile;
Chalks and crayons - 2.6d per ton per mile;
Acetylene gas generators - 2.6d per ton per mile;
Sheet lead - 1.3d per ton per mile;
Paint - 1.9d per ton per mile;
Crude carbonate of soda - 1.3d per ton per mile;
Schoolroom furniture - 2.3d per ton per mile;
Binder twine - 1.3d per ton per mile.

from Johannesburg to Queenstown.(52) This example indicates how the nearest port rating arrangement favoured the inland manufacturer compared with his counterpart in the coastal area.

In its White Paper,(53) the Railways Administration stated that "the principle underlying the nearest port rate provisions of the railway tariff was introduced before the Union embarked on a policy of protecting industries through the medium of the customs tariff" and "the object was to assist infant industries, using South African raw materials, to compete with imported" goods. The White Paper further stated that it had seldom been necessary to consider the question of withdrawing a nearest port rate on the grounds that it was unfair in its incidence. The Departmental Railway Tariffs Inquiry Committee in 1930 stated that this rating concession should not be granted unless it was clearly proven that it was actually necessary to enable a South African manufacture to compete with the imported article.(54) The Committee added that the principle should not be extended to enable one South African factory to compete with another, because the rates produced anomalous results as far as they

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(52) This minimum has been calculated on the basis of 510 miles (the distance from Johannesburg to Queenstown) at 1.9d per ton per mile.
The maintenance of a minimum rate per ton per mile, as between forwarding and destination stations, was necessary because, on traffic railed to a port town, there was no rate from the port to the town, and the rate from the nearest port to towns in the coastal area would have been so low when applied to traffic from inland that the charge would have been entirely uneconomic. The minimum rates ranged from 0.8d per ton per mile to 2.4d per ton per mile, according to the commodity.

(53) "The Rates and Tariffs of the South African Railways and their relation to Industry, Commerce and Agriculture", dated 28th May, 1946; page 11.

(54) U.G.56-1930: Report of the Departmental Railway Tariffs Inquiry Committee; paragraph 178.

affected competition between South African factories producing the same commodities.

The Newton Committee found that the nearest port rate arrangement, especially when taken together with the distribution rate scheme, operated with marked advantage to the inland factories when the same commodity was produced both in the inland areas and in the coastal areas. The Newton Committee illustrated the advantage the nearest port arrangement gave to the inland factories with the following example:

Route	Cost in pence per 100lb. of sending commodities in		
	class 1	class 2	
		2 ton lots	lesser quantities
From Johannesburg to			
Cape Town	114	76	86
Port Elizabeth	86	57	65
East London	80	54	60
Durban	59	39	44
From All Ports to Johannesburg	146	108	108

Note: The rates from Johannesburg are minimum rates; the rates to Johannesburg are based on the rate from Lourenço Marques - the nearest port to Johannesburg.

The Newton Committee continued:

"In so far as the Administration is concerned the low minima prescribed result in high class traffic being conveyed at rates greatly below schedule rates. E.g., schedule tariff number 2 rates range from 6.4d per ton per mile for a haul of 25 miles, to 3.44d at 1,000 miles, while the minimum rate usually applied to tariff No. 2 traffic under the 'nearest port rate arrangement' is only 1.8d per ton per mile.

...

The 'nearest port rate arrangement' brings into the rating system of the South African Railways an undesirable complication with unfortunate repercussions on the comparative positions of inland and coastal manufacturers. As regards South African competition with imported articles there is the

> difficulty that the Administration has to judge whether concessional rates are vitally necessary or merely welcome since it has no real means of proving or disproving whether the granting of a special rate is really essential to enable the home producer to secure the business.(55)

The nearest port rate arrangement was abolished with effect from 1st September, 1954.

3. Sea Competitive Rates:

The abolition of the sea competitive rate scheme as from 1st September, 1954, has proved to be one of the most controversial aspects of the new rating structure introduced by the Railways Administration.(56) These sea competitive rates were first introduced by the Cape Government Railways in 1908 to secure to the railways the traffic which would otherwise have passed by the sea route between the ports of the Colony. When the several tariffs of the pre-Union Railway Administrations were amalgamated, the sea competitive rate scheme was extended to all Union ports.

The essence of the sea competitive rates scheme was the charging by the railway of a sum which, when wharfage and other dues at harbours, sea freight and all other costs were taken into account, made the cost of carriage by rail approximately the same as carriage by the sea route. These rates, therefore, were not calculated on a mileage basis, although the Railways Administration has stated that it did maintain a minimum rate per ton per mile, and also a minimum rate per ton per mile over and above the harbour dues which would, in any case have been received, if the traffic had been conveyed

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(55) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 20.

(56) Since the abolition of these rates there has periodically been talk of their re-introduction by the Railways Administration. Although thus far this has not been done, the position is still unsettled.

by the sea route. It was not obligatory for the Administation to grant sea competitive rates.

In the case of traffic between certain inland centres, the sea competitive rate was made up of the ordinary railway rate from the sending station to the port from which the goods would have been loaded, if they were being sent by sea, and the ordinary railway rate to the destination from the port at which the goods would have been landed if they had been conveyed by sea, plus the sea competitive rate between the two ports.(57)

Periodically, these sea competitive rates have been discussed by various authorities and a synthesis of their arguments will be made here. In 1930, the Departmental Railway Tariffs Inquiry Committee arrived at the conclusion that, if sea competitive rates were abolished, the traffic conveyed at those rates would simply revert to the sea route; and that as the scheme was useful to the public, and also to the Administration, it ought to be retained.(58)

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(57) This somewhat complicated position may be illustrated by the following hypothetical example of 1001b. of class 1 commodity being sent from King William's Town to Worcester, under the sea competitive rate scheme. The railage would have been calculated as follows:

Railage from King W'ms Town to East London	80d
Sea competitive rate from East London to Cape Town, say	50d
Railage from Cape Town to Worcester	53d
Total railage:	183d

On the same hypothesis, the sea competitive rate from East London to Cape Town would have been only 50d.

(58) U.G.56-1930: Report of the Departmental Railway Tariffs Inquiry Committee.
In explanation of this statement it should be mentioned that it is generally agreed that the sending of goods by rail is more regular, convenient and less troublesome than sending them by sea between the South African ports, but that the advantages will be sacrificed and the additional trouble accepted if the cost of sending the goods by sea is materially lower than sending them by rail.

In 1945, the Board of Trade and Industries commented thus on the sea competitive rate scheme:

a. The fact that rail services are utilized by manufacturers is proof that they are more convenient than the alternative sea route. Sea competitive rates are therefore an extra inducement for business men to locate their business in areas already well served by cheap means of transport.

b. These rates are strongly opposed by the inland towns in the coastal provinces on the grounds that they are unfair in their incidence and that it is unreasonable to charge a higher railage on a shorter than on a longer distance.(59)

c. As these rates have been designed with the object of equalising the charge for transport between Union harbours by rail with the corresponding charge for carriage by sea, it must be a purely fortuitous fact if they also cover the direct cost of railage and make a contribution to overhead expenses.

d. If any traffic does not substantially cover the full average cost of conveyance it is carried at a loss and the inland centres are, therefore, in fact subsidising centres already adequately provided with cheap alternative means of transport. As the sea competitive traffic is carried over some of the most congested lines, the discarding of this traffic by the railways would enable it to carry other goods at a lower average unit cost.(60)

The Railways Administration's defence of the sea competitive rate scheme was set out in their 1946 White Paper.

"The sea competitive rates quoted by the Administration for conveying goods between Union port towns, do not undercut the costs incidental to conveyance by the sea route. Although these competitive rates yield less than the average total cost per ton of carrying goods over the South African Railways, they cover direct expenses and, in addition, make a substantial contribution to overhead charges.

If sea competitive rates were abolished the traffic now carried by rail between the Union ports would be diverted to the sea route and the contribution to overhead charges which the traffic makes would have to be made by other traffic. Industrialists and others would lose the advantage of an alternative mode of transport."(61)

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(59) This refers to the position shown in the example in footnote 57 on page 227.
(60) Report 285 of the Board of Trade and Industries; paras. 127 and 129-130.
(61) White Paper dated 28th May, 1946; page 12.

In regard to its procedure of charging traffic between inland centres a higher rate than traffic between two ports, the Railways Administration maintained:

a. As the principle followed was to base the railway sea competitive rate on the costs by the sea route, it was correct to add ordinary rail charges between the ports and inland centres to the sea competitive rate; and it was unsound to expect sea competitive rates to be based on mileage considerations;

b. As the charge by rail approximated to the charge by the sea route which would have been incurred if sea competitive rates had not existed, inland towns were not prejudiced in their natural geographical position by the basis employed in computing these rates; and

c. If the principle were established that the sea competitive rate from, say, East London to Cape Town must also apply from King William's Town to Cape Town, or from East London to Worcester, it would follow that the East London-Cape Town sea competitive rate would be the maximum rate chargeable between any two points on the direct route between East London and Cape Town, which would mean that practically the whole of the tariffs throughout the Union would have to be recast and this would completely undermine the entire basis of railway rates generally.

Rather than concede this latter point, the Railways Administration would have withdrawn the sea competitive rates scheme.

The Newton Committee found that very conflicting views had been expressed by authoritiative sources on the utility and merits of the sea competitive rates scheme. Thus, those with businesses located in the coastal areas obtained the benefit of substantial reductions in railage, and generally favoured the continuance of this rating scheme. On the other hand, those whose businesses were located in the inland areas, and who did not obtain any reductions in railage under the scheme, considered that undue preferential treatment was being given to the coastal towns. The Committee also pointed out that the Railways Administration's difficulty in combating sea transport competition was not unique, but was a problem which all countries having an extensive

sea-board had to face, and most had been forced to give rate concessions to retain even a share of the traffic offering. The difficulty in combating sea competition between the Union ports stems mainly from the fact that the shipping serving the Union brings cargo from overseas, a considerable proportion of which is discharged at Cape Town or Durban, depending on the direction of arrival of the vessel. This leaves ample space for the conveyance of cargoes between ports, and whether they have cargo or not for the ports other than Durban or Cape Town, the ships often continue their voyage to convey passengers. If cargo is not carried between the ports much hold accommodation is not utliized. In these circumstances, rates considerably lower than the Administration's schedule railway rates are remunerative to steamship companies. Another factor contributing to the very considerable difference in the steamship rates and those charged by the Railways is that the shipping companies cater almost exclusively for the traffic which is rated in the highest classes by the Railways Administration.

While the Newton Committee agreed that, at times, it was necessary to make concessions in the standard railway rates where sea competition existed, it pointed out that it should not be necessary for the railway rates to be reduced to the level of the sea rates. The more convenient and frequent service of the railway justified the railway charge being higher than the sea charge. It expressed the view that, in South Africa, the sea competitive rates were too low,(62) and the number of these rates was so great, and in many cases bore so little relation to schedule rates, that a tariff structure in respect of the traffic concerned was

(62) The minimum rates permitted under this scheme varied from one-quarter to one-tenth of schedule rates.

practically non-existent.

The Newton Committee also upheld the Administration's policy of charging a higher rate on traffic railed between two inland centres than on that railed between two ports, when both were entitled to the sea competitive rate concession. The Committee considered the continuance of the sea competitive rate scheme to be justified, but recommended that minimum rates be raised and brought into closer relation to the schedule rates, even if this would mean that a large amount of the traffic would be conveyed by the sea route. In any case, continued the Committee, this traffic produced such "an exceedingly small margin of gain" to the Railways that the effect of the loss would be negligible.(63)

Despite this recommendation, the Railways Administration decided to abolish the sea competitive rate scheme as from 1st September, 1954. The result has been a most marked increase in the amount of goods traffic passing coastwise by ship, as is shown in Table 27.

TABLE 27 (64)

Quantity of Coastwise Traffic Forwarded from the Union Ports in each year between 1st September, 1953 and 31st August, 1956.

Year ended	Quantity of goods forwarded coastwise from the Union ports.
	harbour tons
31st August 1954	79,606
31st August 1955	129,676
31st August 1956	143,736

(63) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 22.

(64) Source: Unpublished monthly Statement of Cargo Shipped Coastwise, compiled by the General Manager of Railways and Harbours, Johannesburg. (Reference H.33/5.)

This increase in the quantity of coastwise traffic indicates that industrialists and merchants are prepared to tolerate the less convenient sea-transport in return for the substantial economies in transport costs which its employment affords. There has also been an increase in the size and number of South African owned coasting vessels operating between the Union ports, and their service has improved in regularity and efficiency, so that the coastwise traffic is not conveyed only by ocean-going vessels visiting the major Union ports. Any re-introduction of a sea competitive rate scheme would have an adverse effect on the companies owning these coasting vessels. The abolition of the sea competitive rate scheme has also created problems in regard to the expeditious handling of the increased traffic at the Union Harbours. The increase in the traffic handled at East London Harbour is shown in Table 28.

TABLE 28 (65)

Coastwise Traffic Through East London Harbour.

Details	Year ended 31.8.1954	31.8.1955	31.8.1956
	Harbour Tons		
FORWARDED CARGO:			
To Durban	6,781	13,089	14,040
To Port Elizabeth	1,615	2,652	1,431
To Cape Town	2,468	13,213	13,666
To Other Ports	348	544	683
TOTAL:	11,212	29,498	29,820
RECEIVED CARGO:			
From Durban	60,911	77,976	81,928
From Port Elizabeth	1,920	3,808	3,715
From Cape Town	5,331	24,436	27,804
From Other Ports	232	958	469
TOTAL:	68,394	107,178	113,916

(65) Source: As Table No. 27.

The large harbour tonnage received from Durban, even before the abolition of the sea competitive rate scheme, is explained by the fact that sugar, and a number of manufactured commodities, have for long been sent to East London by sea from Durban. Unfortunately, there are no figures available of the individual commodities entering into this increased coastwise traffic; but some interesting features are revealed when the traffic forwarded from, and received at, East London by rail in the year ended 31st March, 1956 is compared with the corresponding traffic in the year ended 31st March, 1954, i.e., after and before the sea competitive rate scheme was abolished. Too much reliance should not be placed on these figures for they reflect the traffic to and from wide areas of the Union, and there may be changes in other commodities which cannot be discerned. With this qualification, it is submitted that the decreases in certain commodities forwarded by rail indicates a shift to the sea route. This has been confirmed by shipping and forwarding agents in East London who have indicated that these are the commodities which have been switched to the sea route.

There has, according to shipping officials in East London, been little change in the quantity of goods forwarded by sea between East London and Port Elizabeth, and vice versa, following the abolition of the sea competitive rate. There has been a tendency for tyres and tubes to be brought to East London by sea from Port Elizabeth instead of by rail.

The changes in the quantity of certain selected products received at, or forwarded from, East London by rail in the years ended 31st March, 1954 (before the abolition of the sea competitive rate) and 31st March, 1956, (after the abolition of the sea competitive rate), respectively, are shown in Tables 29 and 30 on page 234.

TABLE 29 (66)

Quantities of certain selected commodities received by rail at East London in the years ended 31st March 1954 and 31st March 1956.

Traffic	Year ended 31.3.1954	Year ended 31.3.1956
	tons	tons
Alcoholic Beverages:		
from Western and South-western Cape	8,253	297
from Natal	1,255	-
Condensed milk:		
from Natal	702	259
Soap:		
from Natal	215	8
Tinned fruit and Vegetables:		
from Western and South-western Cape	1,210	179
Boards: (woodboard, hardboard, millboard, etc.)		
from Western and South-western Cape	455	-
from Natal	853	553

TABLE 30 (67)

Quantities of certain selected commodities forwarded by rail from East London in the years ended 31st March 1954 and 31st March 1956.

Traffic	Year ended 31.3.1954	Year ended 31.3.1956
	tons	tons
Confectionery:		
to Western and South-western Cape	1,317	93
to Natal	1,217	8
Empty containers:		
to Western and South-western Cape	3,517	476
to Natal	1,064	424
Soap:		
to Natal	388	4

(66) Source: Tables A.38, A.39, and A.40 in Appendix A.
(67) Source: Tables A.31, A.32, and A.33 in Appendix A.

4. Maximum rates:

Prior to 1st September, 1954, certain commodities enjoyed a maximum rate privilege: after a certain distance the same rate was charged irrespective of the length of the journey. Thus, for distances of 411 miles and over, South African maize and maize meal was charged 310d per ton, while coal, if forwarded in full truck loads, was charged 258d per ton for a journey of 881 miles and over.

The Newton Committee considered that maximum rates were based on an unsound principle because the traffic was hauled free of charge for the distance in excess of that at which the maximum rate equalled the schedule rate. The Committee considered, further, that these maximum rates could conceivably have led to the fostering of industries in unsuitable locations, and that the reasonable cost of transport was a legitimate part of the cost of production and that this should not be artificially reduced by the waiving of any part of the proper transport charge.(68) The abolition of maximum rates, recommended by the Committee, was effected by the Railways Administration on 1st September, 1954.

A note on the railage charged on coal:

The maximum rate formerly charged on coal is evidence of the particularly difficult position this commodity occupies in the industrial, commercial and social structure of of South Africa. The principal coal deposits are located in the South-eastern Transvaal, Northern Natal and the Northern part of the Orange Free State.(69) The average quantity of

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(68) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; pages 22-23.

(69) No appreciable quantity of coal has been mined in the Cape Province (Indwe-Stormberg area) for many years. No mining has taken place in this area since 1949.

coal railed from the collieries in the Union in each financial year between 1st April, 1951 and 31st March, 1956, was:

Province	Tons	Percentage of Total
Transvaal	19,627,134	76.8
Natal	5,095,498	19.8
Orange Free State	845,487	3.4
TOTAL:	25,568,119 (70)	100.0

This coal was used for the following purposes, the figures again being the annual average for the five year period from 1st April, 1951 to 31st March, 1956:

Purpose	Tons	Percentage of Total
Public consumption	18,202,157	71.4
Railway consumption	6,866,693	26.8
For shipment by sea	499,269 (71)	1.8
TOTAL:	25,568,119	100.0

Included in the coal intended for public consumption is a considerable quantity which is consigned to the power stations of the Union. The average annual consumption by the major power stations of the Union in the last five calendar years was 6,798,595 tons.(72)

The importance of coal, and therefore of the railage charged on it, arises from the fact that it is the only source of power available in South Africa; and so the whole country is dependent upon the economical and efficient distribution of this commodity. The distribution of the coal railed in the year ended 31st March, 1956, is summarized in

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(70) In the year ended 31st March, 1956, approximately 1,881,000 tons of coal were transported by road from the collieries, mainly to the Witwatersrand. This figure is not included in those given above.

(71) Part of this coal is exported, and part is for coastwise distribution to East London, Port Elizabeth and Cape Town. The quantity distributed coastwise cannot be ascertained.

(72) The statistics given on this page have been calculated from the data appearing in the several annual reports of the General Manager of Railways.

the following tabulation:

Destination	Tons		Percentage of Total	
Transvaal:				
Witwatersrand stations	4,080,780		15.7	
Other stations	7,873,751	11,954,531	30.3	46.0
Orange Free State:		760,373		2.6
Cape Province:				
Table Bay Docks and Cape Town	906,014		3.5	
Kimberley area	147,731		0.6	
East London and Cambridge	180,267		0.7	
Other stations (73)	2,123,853	3,357,865	8.2	13.0
Natal:				
Durban, Point, Berea Road, Congella and Wests	1,019,504		3.9	
Other stations	1,736,756	2,756,260	6.7	10.6
Lourenço Marques:		266,143		1.3
TOTAL REVENUE EARNING COAL TRAFFIC:		19,095,172		73.5
Coal for railway and harbour use:		6,866,693		26.5
GRAND TOTAL: (74)		25,961,865		100.0

The pit-head price of coal in South Africa is about 14s. per ton; it can readily be appreciated, therefore, that it cannot bear high transport costs, especially when one considers the distances which are involved in South Africa, as the following figures show:(75)

route	miles	railage per ton
VANDYKSDRIF to:		
Johannesburg	96	118d
Kimberley	403	255d
Bloemfontein	350	230d
Cape Town	1,044	370d
Port Elizabeth	789	340d
East London	742	331d
BOOMLAER to		
Durban	309	209d

(73) This figure includes coal for South-West-African and Rhodesian stations.

(74) Compiled from the data given in statement number 26 in the Report of the General Manager of Railways for the year ended 31st March, 1956 (U.G.36-1956); and from Table A.38, from which the figures for East London and Cambridge were obtained.

(75) The railage has been calculated from Official Railway Tariff Book number 26, operative from 1st January,1956.

It will be noticed that, although the distance from Vandyksdrif to Cape Town is more than ten times that from Vandyksdrif to Johannesburg, the railage to Cape Town is only about 3.5 times that to Johannesburg.

5. Branch line rates:

A peculiar feature of the South African Railways rating structure prior to 1st September, 1954, was the existence of two schedules of rates: Scale "A" and Scale "B". This arose from an alteration in the method of calculating branch line rates in 1936. Before 22nd April, 1936, railage to, from or via branch lines was calculated separately to, or from, the junctions of the branch lines with the main lines. When this practice was abolished, mileage scale "B" was brought into operation, being applicable on the total mileage from forwarding station to destination on traffic in classes 1 to 6 and on petrol. This scale applied when traffic was sent to, from or via certain branch lines as laid down in the Official Railway Tariff Book.(76) Mileage scale "B", which was higher than Scale "A", did not apply to local traffic on the branch line itself, in which case scale "A" applied. Scale "B" also did not apply in the case of certain traffic consigned to, or from, factories situated on branch lines, for in such cases the factory was regarded as being situated on a main line for the compilation of rates. The traffic in respect of which this concession was made was:

a. bona fide raw materials consigned direct to, and used by, a factory in the manufacture of its products;

(76) In the Cape Eastern System area mileage scale "B" applied to all branch lines except the Blaney-Cookhouse line and the Stormberg-Rosmead line, but it did apply to the spurs from these lines: the Fort Beaufort-Seymour line and the Schoombee-Hofmeyr line, respectively.

b. materials for packing the products manufactured by the factory; and

c. manufactured products consigned direct from the factory.

The Railways Administration took the density of traffic over a line as the determining factor in deciding whether or not to apply scale "B" rates to a branch line. Thus, in some cases where the volume of traffic was regarded as being comparatively light, lines linking two main lines were declared to be lines to which scale"B" rates were applicable; in other cases lines terminating in dead ends, but over which traffic was comparatively heavy, were accorded scale "A" rates. The Newton Committee suggested that the traffic criterion appears to have been applied somewhat arbitrarily, and the report remarked that if this policy had been followed consistently, it should have resulted in differentiation on main lines also. In recommending the abolition of these differential rates, the Committee said:

> "In our opinion the present arrangement is in effect preferential treatment to customers of the Administration served by main lines. We have ... expressed the view that no differentiation in rates should be made by reason of the nature of the terrain traversed, direction or seasonal flow of traffic and on this principle we feel no justification exists for distinguishing between main lines and those sections now designated as branch lines."(77)

As has been mentioned, these differential rates were abolished as from 1st September, 1954.

The re-organization of the tariff structure of the South African Railways in September, 1954, and the simultaneous abolition of the numerous special rates, as well as the special rating arrangements, which encumbered the old structure

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(77) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 25.

has produced not only a much simpler rating structure, but one better adapted to the needs of South Africa's changing economy in which secondary industry is playing an increasing part. Although the new tariff structure has been criticised periodically in various quarters, this criticism is sometimes sectional or partial.

4. The Economic Consequences of Railway Rating Policy.

There is a reciprocal relationship between the growth of a railway undertaking and the economic and commercial development of a Region or a Country. In particular, the level of economic and commercial development will be affected by railway rating policy because this determines the cost of transport, which as has been shown earler in this chapter has a profound effect on prices, and can thus encourage or retard economic and commercial development. Furthermore, railway rating policy has a significant effect on:

a. the exploitation of natural resources;

b. the location of industry; and

c. the wholesale trading areas of urban centres.

The influence of railway rating policy on each of these three matters will now be considered in detail.

a. The exploitation of natural resources:

At first it might seem that railway rating policy could have little effect on the exploitation of such natural resources as mineral deposits and timber plantations, for example. Natural resources are located by nature in certain areas, and often the resources in a particular area have unique characteristics. In the case of a mineral, for example, the ore may be easier to mine at one place than at another; one deposit may be

of a higher quality than others; or the ore in one place may be in a form that is easier to refine or use with given standards of technology. It might be thought that these considerations would override the cost of overcoming the distance separating natural resources from their consumers in determining whether a particular resource will be exploited or not. But the cost of transferring these commodities from their source to their consumers is important; and the cost of transport forms the greater part of these transfer costs. If the transfer cost is too great, the particular resource will not be exploited, unless the exploiters have a monopoly and the high transfer cost is no barrier to the sale of the commodity.

b. The location of industry:

The location of industry is affected by a number of interdependent factors, inter alia:

i. the differential cost of labour in various areas;
ii. the reputation of a particular area for a certain type of skilled labour, as well as the availability of labour in general;
iii. the availability of capital in different areas;
iv. the ties of one industry with another;
v. the availability of sites, water supplies and other items; and
vi. the encouragement given to industry by local authorities.

Furthermore, the location of a particular industrial establishment is sometimes the result of historical accident and sometimes the location is decided upon without an adequate analysis of the economic position. Relatively unsound locations often persist over long periods of time and other industrial undertakings may be attracted, for one or other reason, to the same

locality. Sometimes a badly located firm will not alter its location at all; sometimes the necessity to replace obsolete or worn-out plant is made the opportunity to transfer the undertaking to a more favourable location.

While all the above factors are important in determining the location of industrial activity, they are likely to be overshadowed by three other factors: the availability of raw materials; the availability of fuel and power and accessibility to markets. In each of these major factors transport costs assume great importance, and these costs are influenced to a very considerable extent by railway rating policy. It has been said that:

> "Nearness of markets is usually a matter of the cost of reaching markets; only in rare cases is physical identity of the point of production and market desirable for other than reasons of cost. Likewise, fuel and raw materials need be near only in terms of cost, i.e., the sum of production and transport costs." (78)

Industrial undertakings are, therefore, often located either near the raw materials they use or near a source of fuel or power. On the other hand, they may be located near the market for their product. Which of these situations will be chosen depends upon two things:

i. the weight lost by the raw materials in the manufacturing process; and

ii. the relationship between the rates on finished products and on raw materials.

Where a considerable loss of weight takes place during manufacturing or refining, e.g., in the smelting

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(78) Fair and Williams: op. cit.: page 355.

of mineral ores, in the crushing of sugar cane or in the canning industry, industrial undertakings tend to be located near the source of the raw material, as this obviates railage being paid on waste material. Sometimes it is the difficulty of transporting a commodity, either owing to some inherent natural characteristic or its perishability, which leads an industrial undertaking to choose a location near the source of the raw material, The cost of transport has to be measured not only in terms of actual railage payable, but also in terms of the payment of railage upon raw material, a quantity of which on arrival at the factory proves to be unsuitable for manufacturing purposes. Sometimes the principal weight-losing element is not the raw material, but the fuel; e.g., in the smelting of iron ore large quantities of coal are required and this is almost one hundred percent weight losing. In such a case, the location chosen may be near a source of the major fuel consumed.

Where the manufacturing or processing does not result in a substantial weight loss to the raw material, the location of the industry will usually be governed by the relative rates upon raw materials and upon manufactured goods. In such a case, the location may be near the source of the raw material, near the market, or at some intermediate point. It is, however, the general practice of railway undertakings to charge rates which progress with the stage of fabrication, this being in part a reflection of the value-of-service principle in rate fixation and partly a reflection of the cost-of-service principle. If the value of the manufactured

article is considerably greater than that of the raw materials entering into its composition, then higher railway rates can be charged without discouraging its movement. Some manufactured articles, however, are not only of considerably greater value than their component raw materials, but they are more fragile, while others are very bulky in relation to the weight of raw materials used in their manufacture.(79) In both cases these commodities are costly to handle and it is only to be expected that the railway rates will be higher on the manufactured article than on the raw materials of which they are composed. In many cases the fact that railage is greater on manufactured articles than on raw materials will lead an industrial undertaking to establish itself near the market. In its report on railway rating principles and the effects of transport costs on industrial development in the Union, the Board of Trade and Industries said:

> "The policy of charging much lower rates for raw materials than for finished products has contributed towards drawing factories processing agricultural raw materials, wood and even minerals to the bigger urban centres."(80)

In some cases, however, the railage on manufactured goods forms only a small part of the value of the article and it has no appreciable effect on location, other factors being considered more important.(81)

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(79) Compare, for example, porcelain and the clay from which it is made; or the comparative bulk of motor vehicles, agricultural machinery and furniture and the raw materials used in their manufacture.

(80) Report 285 of the Board of Trade and Industries: "An Analysis of Railway Rating Principles ..." para. 234.

(81) Nylon stockings are manufactured in East London, tyres and tubes in Uitenhage and the main locations of the motor vehicle assembly plants are the major ports.

Location at a point between the market and the source of the raw material is generally associated with some overruling advantage. Railway rates usually contain a basic terminal cost element, and because of the application of the "taper" principle to railway rating, a short haul is relatively more expensive than a long one for railage does not increase proportionately with distance. Hence intermediate locations normally tend to be expensive, since a terminal charge must be borne both by materials and the manufactured product and the length of each journey is shortened. Sometimes an intermediate, or other, location may be advantageous because of some special rating scheme or arrangement.(82)

The choice of a location, however, is generally more complicated than has been suggested above, because most industrial undertakings use several raw materials, often drawn from a wide area, and they sell in a number of markets, again covering a wide area. The typical solution in such a case is to seek a location which will minimize total production or distribution costs. Sometimes a whole country will be supplied from a single factory; in other cases a series of regional factories will be established if the raw materials, or the finished products, cannot profitably be transported over long distances; e.g. bricks and cement are commonly produced in regional factories.

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(82) "Distribution rates have undoubtedly contributed to the development of commerce and industry in the Southern Transvaal as opposed to their concentration at the ports. Nearest Port Rates have also facilitated the competition of establishments situated in this area with those situated on the coast.

Sea Competitive Rates, on the other hand, form an extra inducement for business men to locate their undertakings at the ports ..."
(Report No. 285 of the Board of Trade and Industries, dated 29th December, 1945. paragraph 235.)

In South Africa, industry is concentrated in four main areas: the Southern Transvaal, and in the vicinity of Cape Town, of Durban and of Port Elizabeth. The Southern Transvaal is pre-eminent as a location of industrial activity in South Africa and the reasons for this are clear. It offers not only a market composed of a large and fairly wealthy population, but it is also the source of many of the raw materials of industry, including coal with perhaps the lowest pithead price in the world, and it is the centre of a fertile and highly productive farming area. Moreover, because of the considerable distance from the coast, a factory located in the Southern Transvaal enjoys a natural advantage in the local market equal to the transport charges which a competing imported product would have to pay. Despite the advantages of the Southern Transvaal as an industrial location, the ports of South Africa are likely to retain a certain advantage where products using a high proportion of imported raw materials are manufactured, other things being equal. The decisive factor may well be the relationship between the railway rates upon the raw materials and upon the finished product, and this also applies to the establishment at the ports of industries planning to export some or all of their production. The ports may be favoured as an industrial location by firms which have to import heavy industrial machinery, particularly if their product is light and easily transported into the interior of the Union. If, however, the machinery and plant are manufactured in South Africa, the Southern Transvaal will have the advantage for it is the principal location of the heavy

engineering industry in the Union.

In conclusion it can be said that the rates charged by railway undertakings on different commodities are often the final determinant of the location of a factory, though the other factors would not be excluded. Sudden, arbitrary changes in rates may bring unexpected profits, or severe losses, and even ruination, to a long established factory.(83)

c. The wholesale trading areas of urban centres:

Wholesale trading establishments are usually located in the major urban centres of a country and railway rates have played a significant part in determining the relative importance of cities as centres of wholesale trade. Wholesale centres usually serve a considerable surrounding hinterland, the extent of which is determined by the relative transport costs from one centre in comparison with those from neighbouring centres.(84)

5. Summary.

Like that of most railway undertakings, the South African Railways rating structure is discriminatory: the policy is followed of charging what the traffic will bear. Railway rates are also tapered so that the rate per ton per mile decreases as the length of the journey increases. Although it has been stated by the South African Railways

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(83) The material in this and the preceding paragraph has been taken, with some slight adaptation, from Chapter 5 of "Economic Development in a Plural Society (Studies in the Development of the Border Region of the Cape Province)." Edited by D. Hobart Houghton.

(84) East London's commanding position, particularly in earlier years, as the wholesale centre for an area of 27,699 square miles, with a population of almost 1.5 million, has been mentioned earlier in this thesis.

Administration that costs of providing the service are taken into consideration in rate fixation, it is doubtful if the Administration has a really accurate method of determining costs. This means that certain rates could be lower than the cost of providing the service. In rate fixation, the Railways Administration has also taken certain minor things into consideration: the quantity forwarded or the nature of the packing, for example.

Prior to 1st September, 1954, there were, in addition to the ordinary mileage schedule rates, various special rating schemes superimposed on the basic structure. These had been devised at one time or other to assist certain sections of the community. Many of these special rating schemes had either served their purpose or were unfair in their incidence upon certain sections of the community and the goods tariff structure of the South African Railways was much simplified when they were abolished in September, 1954.

PART FOUR

EAST LONDON'S HINTERLAND

CHAPTER 6

EAST LONDON'S HINTERLAND.

1. Introduction.

The attempt to determine East London's hinterland has been based on an analysis of the goods traffic forwarded by rail[1] from and to the Buffalo Harbour, East London and Cambridge,[2] during the period from 1st April, 1953 to 31st March, 1956.[3] The railway figures, upon which this analysis is based, are compiled monthly, showing in the case of East London the stations to which commodities are forwarded, and in the case of other stations, the commodities forwarded to East London. These monthly figures have been reduced to annual figures and the stations of the South African Railways have been grouped into seven regions:

1. The Western and South-western Cape;
2. The North and North-western Cape;
3. The Cape Midlands Region;
4. The Border Region;
5. The Orange Free State;
6. The Transvaal; and
7. Natal and Griqualand East.

Southern Africa, outside the Union, has been divided into:

1. South West Africa; and
2. The Bechuanaland Protectorate and the Rhodesias.

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(1) No figures are available of the goods conveyed by privately owned motor transport vehicles. The goods conveyed by the Railway Administration's Road Transport Service will be dealt with in this chapter.

(2) The term "East London" will be used henceforth to mean these three stations combined.

(3) This is really too short a period upon which to base an analysis such as this, but it is the only period for which statistics were available, the policy of the Railways Administration being to retain these records only for three years.

All these areas, except the five Cape Regions, are the same as the Provinces or, in the two latter cases, with the territories bordering the Union. The Cape Province has been sub-divided into five areas on the basis of Magisterial Districts. (See Figure 26 and Appendix C.) It must be stressed that this division of the Cape is a purely arbitrary division, which has no validity outside the context of this thesis. It must also be stressed that the Region in which a particular station falls will not necessarily correspond to the Railway System in which it is located.(4)

It must also be emphasized that the figures which are given in Tables A.31-A.33 and A.38-A.40 showing the detailed analysis of the commercial traffic from and to East London,(5) and which form the basis for the statements made in this chapter, are general trends rather than absolutely accurate quantities. In making this analysis various statistical difficulties were encountered, but it is believed that the data shown in the Tables concerned are sufficiently accurate to make the analysis valid.(6)

The data collected by the Railways Administration are based on a Commodity Classification System, the effect of which is to select certain commodities for enumeration and to place the remainder into an "other commodities" group. In making this analysis the position was further complicated by a change in the commodity classification system with effect

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(4) The South African Railways are divided into eight Systems. An example of stations being in a Region which does not correspond to the System which controls them is Bedford and Eastpoort, which are in the Cape Midland Region, but which are part of the Cape Eastern System, which is largely co-extensive with the Border Region.

(5) Commercial traffic excludes railway stores and material, motor cars accompanying tourists and second-hand furniture (household removals).

(6) See Appendix B.

from 1st September, 1954, as a result of which various commodities previously enumerated were no longer selected from the "other commodities" group, while other commodities were selected for special enumeration.

2. Ports and their Hinterlands.

Before discussing in detail East London's hinterland, some account should be given of the principles underlying the concept of hinterlands. In his book "Ports and Harbours", Morgan says:

> "The concept of hinterlands of ports as a simple parcelling out of the country behind them, with areas of overlap where ports compete, and with certain peculiar courses where a mountain range or a frontier affects the flow of trade, is hardly adequate. A port generally has a different hinterland for each commodity which enters into its trade, and has thus an enormous number of hinterlands. Sometimes, it is true, the limits or limiting zones of these commodity hinterlands will co-incide so that there will be some justification for the idea of a linear boundary. The nature of the structure and the aeral extent of hinterlands are subject to variations arising from three main factors: the nature of commodities, the mechanism of sea transport and the influence of political policies. As a result of the interplay of these factors hinterlands show variations, not merely in extent, but also in complexity; there are orders of hinterlands, or a heirarchy." (7)

Morgan goes on to distinguish three types of hinterlands:

a. Primitive hinterlands;

b. Raw material hinterlands; and

c. Liner port hinterlands.

Primitive hinterlands are defined as being "simple in composition and outline". "They lie behind ports on islands or behind ports along coasts where there is no cheap and easy lateral communication with the hinterland of the next port along the coast. Then all

(7) F.W. Morgan: "Ports and Harbours", published by Hutchinson's University Library, London, 1952: page 111.

goods entering into the trade of each isolated community pass through each port and the hinterland of each port is the entire local inhabited area."(8) To a certain extent this was true of the ports of South Africa before the development of railways, even though there was a certain amount of inter-penetration of each other's hinterlands by road transport.(9) The hinterland of Port St. John's, before the construction of the railway line from Amabele to Umtata, must have shown some of the aspects of a primitive hinterland.(10) Morgan also says that where there is a railway running inland from a port but not connected with any other lines, the same principle of the primitive hinterland applies.(11) The construction of the Eastern main line from East London to Aliwal North, in the period between 1874 and 1885, undoubtedly increased East London's hinterland, while its isolation from the Midland line northwards from Port Elizabeth did much to preserve the Border Region as a hinterland for East London, although it also prevented East London penetrating the Kimberley Diamond Fields hinterland of Port Elizabeth. The inter-penetration of each other's hinterlands by East London and Port Elizabeth is illustrated by the difficulty which was experienced in deciding the route to be taken by the junction line between the Midland and the Eastern lines. Each port desired it in a different location, Port Elizabeth being anxious to secure some of the trade

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(8) Morgan: op. cit.: page 111.
(9) It will be remembered that reference to this point was made in Chapter 2; it was the practice for the Port Elizabeth merchants to send goods overland to King William's Town instead of sending them via East London.
(10) Although no longer used as a port, Port St. Johns was once used quite extensively by coasting vessels, especiaaly before the railway line to Umtata was completed.
(11) Morgan: op. cit.: page 111.

of the North-eastern Cape, while East London desired the mileage to the Kimberley Fields to be as short as possible. To-day, the gap between the Maclear, and the Umtata, branch lines, on the one hand; and the Natal lines on the other, secures to East London much of the trade of the Maclear area and the Transkeian Territories. Morgan continues:

> "Such primitive hinterlands are brought to an end as soon as lateral communications become possible and cheap in terms of all neighbouring transport costs. In the past the development of a railway network marked this phase and usually took some decades to come about. In the last twenty years or so the multiplication of motor transport has brought about rapid changes in the accessibility of territory some distance from a port. Once lateral communication is established differentiation among commodities takes place and thus the concentration of traffic into certain ports and the aggrandizement of their hinterlands." (12)

Raw material hinterlands are determined to a considerable extent by the relationship between the cost of land transport and the cost of sea transport, which is the cheapest of all forms of large scale transport. Thus, the lower the value of a commodity in relation to its bulk, the more advantageous it will be to carry it as far as possible by sea before transferring it to a land carrier. Similarly, with exports land transport will be reduced to a minimum. This theory, however, does not always apply in practice; e.g., in South Africa coal is distributed mainly by railway - even to the Western Province, which is a considerable distance from the Natal and Transvaal Coal Fields - rather than being sent to Durban by rail and carried by sea to Cape Town for distribution. In the period from 1st April,

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(12) Morgan: op. cit.: page 112.

1956 to 31st March, 1958, sillimanite and cryolite ores from South West Africa have been exported through East London because nearer ports have been unable to cope with this additional traffic. This latter is also an illustration of how the hinterlands of ports may be administratively manipulated by a State-owned railway undertaking. Another illustration of this practice is the Administration's policy of selecting certain ports to handle certain traffic; e.g., manganese ore is exported through Port Elizabeth, while it has been announced that East London is to be developed as a major maize exporting port. The concentration of certain commodities in certain ports has, however, the advantageous feature that often special handling equipment can be installed. Where a commodity requires special handling equipment at the ports through which it passes, there is a tendency to distribute it through fewer ports than would be the case if special equipment were not required. If allowed a free choice, producers may sometimes prefer to use a port other than the nearest one. In the wool and mohair export trade, for example, all the Union ports are equally well equipped for the selling and exporting of wool and mohair, but for a variety of reasons ports other than the nearest one may be chosen.

Liner port hinterlands are the most complicated in structure, for within them move semi-manufactured products and manufactured capital and consumer goods. In South Africa the ports serving this type of hinterland also cater for raw materials for there are no ports which handle raw materials exclusively. In South

Africa the principal hinterland of this type is the Southern Transvaal and there is considerable competition for the sea-borne commercial traffic to this area. In an attempt to secure a certain percentage of this traffic to Lourenço Marques,(13) and in order to distribute the remainder to a certain extent among the Union ports, special railway rates have been applied to this traffic to the competitive area of the Transvaal. Before Union in 1910, railway rates were used as a means of extending and maintaining the hinterlands of the several ports. While the Southern Transvaal is the principal hinterland for the liner ports - which term covers the four major ports of the Union - it is not the only hinterland: for certain commodities the hinterland of a particular port will be more restricted; for others it extends far to the North into Rhodesia. Morgan says, at page 117,:

> "This combination type ... of hinterlands for the big general ports may be likened to the simple relief models which geographers make up from a number of layers of cardboard, except that for hinterlands each smaller layer exists within and not on top of, the next larger layer.
>
> Thus we must conceive of the hinterland of the general port as comprising an entire series of hinterlands, often different in extent from each other. ... Conversely a tract of country may lie in the hinterlands of many different ports for the various commodities which enter into its trade. There will be an almost infinite series of frontier zones. Some authorities use the terms 'primary' and 'secondary' hinterlands. In this usage the primary hinterland is the area in which the port is well established, the secondary hinterland the area of frontier or fringing zones in which other ports compete with it. But there is no such neat division by which all the primary hinterlands are separate

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(13) In return for certain facilities in the recruiting of Native labour for the Witwatersrand gold mines, the Portuguese Government was promised that 50-55 per cent of the sea-borne commercial traffic to the competitive area would pass through Lourenço Marques.

from each other, and by which the secondary hinterlands form a general area where rivalry is is a 'free for all'."

3. The Traffic Forwarded from East London.

It is not possible to make a true analysis of East London's hinterland, because the only data available refers to all forwarded or received traffic, and not to only imports or exports. In the examination of the traffic forwarded from, or received at, East London emphasis will, however, be laid on imports or exports wherever possible.

NOTE: THE FIGURES IN THIS SECTION ARE THE ANNUAL AVERAGE FOR THE THREE YEAR PERIOD FROM 1st APRIL, 1953 TO 31st MARCH, 1956

Table A.30 gives a summary, by destination, of the commercial traffic forwarded from East London in the three year period from 1st April, 1953 to 31st March, 1956. The following were the principal Regions to which goods traffic was forwarded:

Destination	Tons	Percentage of Total
The Border Region:		
The main line, up to and incl. Queenstown; and Tarkastad	96,692	17.2
The main line, north of Queenstown	7,932	1.4
The Transkei, incl. Komgha and Qamata	49,635	8.9
The King William's Town branch line, excluding Bedford and Eastpoort, but including Katberg and Seymour	35,577	6.3
The Maclear branch line and Jamestown	11,538	2.1
The Barkly East branch line	11,584	2.1
TOTAL: Border Region	212,958	38.0
Other Areas:		
The Transvaal	160,315	28.7
The Orange Free State	123,611	22.1
The Cape Midland Region	34,840	6.2
Western and south-western Cape	7,717	1.4
North and North-western Cape	6,982	1.2
Natal	5,247	0.9
South West Africa	831	0.1
Rhodesia and Bechuanaland Prot.	8,166	1.4
TOTAL:	560,667	100.0

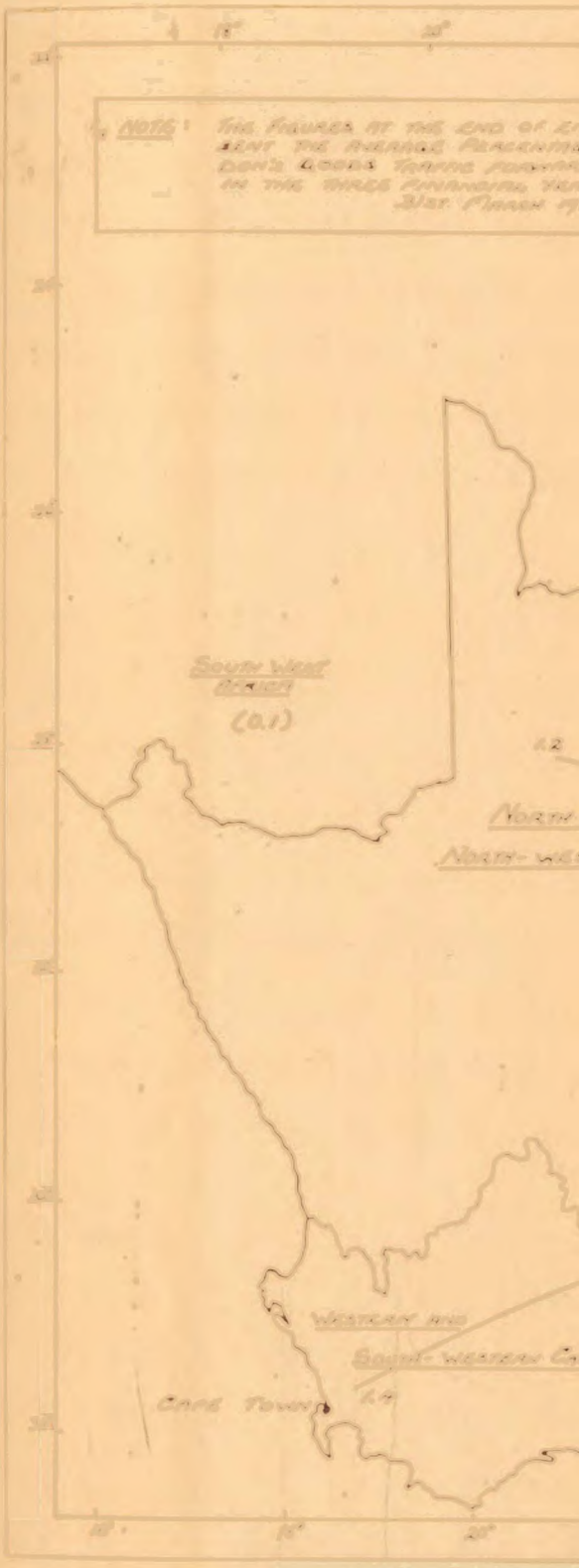

Fig. 26

Goods Traffic forwarded from East London in the period from 1st April, 1953 to 31st March, 1956

In analysing the traffic forwarded from an area, it is necessary to decide whether the analysis should be based on the areas supplied, or whether each commodity should be discussed in order of importance with the destination a secondary consideration. After due consideration, it has been decided to adopt the former procedure in the case of East London's forwarded traffic. The Border Region, the Transvaal and the Orange Free State together accounted for approximately 89 per cent of East London's forwarded traffic and each of these areas will be discussed in detail; thereafter the principal products forwarded to the other areas of the Union will be discussed.

A. THE BORDER REGION:

This Region accounted for 38.0 per cent of the goods traffic forwarded from East London in the period from 1st April, 1953 to 31st March, 1956; this was a larger percentage than was forwarded to any other Region in this period and it indicates the mutual interdependence of the Region and its principal urban area. It is now proposed to take the seven groups into which individual commodities have been classified and to discuss the important commodities in each group.

1. Agricultural products:

This group accounted for 23,426 tons, representing 11.0 per cent of the total tonnage forwarded from East London to the Border Region. The commodities included in this group were:

Commodity	Tons
Wheat	10,359
Flour	6,100
Maize meal	3,114
Maize	2,220
Cotton	717
Fresh Vegetables	638
Fresh Fruit	278
TOTAL:	23,426

The wheat was imported through East London Harbour and approximately two-thirds of the tonnage was forwarded to Queenstown and one-third to Aliwal North, there being flour mills at both these towns.(14) The commodity next in order of importance was flour, distributed as follows:

Destination	Tons
King William's Town branch line	3,778
Transkei, incl. Komgha	1,378
Main line, south of Queenstown; incl. Tarkastad(15)	795
Main line north of Queenstown(16)	133
Maclear branch line and Jamestown	16
TOTAL:	6,100

This figure represented 79.5 per cent of the flour forwarded from East London.

Maize meal was forwarded, like flour, mainly to the southern section of the System, thus:

Destination	Tons
The Transkei, incl. Komgha	1,431
Main line south of Queenstown; incl. Tarkastad	611
The King William's Town branch(17)	567
Main line, north of Queenstown	263
Maclear branch and Jamestown	184
Barkly East branch line	58
TOTAL:	3,114

The maize meal forwarded to the Border Region represented 78.2 per cent of the total tonnage forwarded from East London.

Of the total forwarded tonnage of maize, 34.7 per cent was forwarded to the Border Region, but this percentage is distorted by large consignments of maize to

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(14) The quantity of wheat forwarded in different years has varied considerably. At present the tonnage is much lower than that shown in this summary.
(15) Queenstown is included in this section.
(16) This section excludes Queenstown and Bethulie.
(17) This section includes Katberg and Seymour, but excludes Bedford and Eastpoort.

the Transvaal and the Orange Free State in the year ended 31st March, 1954. These consignments were abnormal and the greater part of the maize forwarded from East London in ordinary years goes to the Border Region. The distribution of maize in the period from 1st April, 1954 to 31st March, 1956, was :

Destination	Tons
King William's Town branch line	624
The Transkei, incl. Komgha	617
Main line, south of Queenstown; incl. Tarkastad	612
Northern sections(18)	367
TOTAL:	2,220

The cotton is obviously imported and was forwarded to King William's Town for use at the Zwelitsha cotton mills. The fresh vegetables forwarded to the Border Region represented 40.3 per cent of the total tonnage forwarded from East London, but the fresh fruit, to a considerable extent composed of pineapples, forwarded to the Border Region represented only 2.1 per cent of that forwarded from East London. This latter position arises because approximately 11,000 tons of this commodity were forwarded annually to Port Elizabeth from East London for canning purposes, and so the quantity of fruit sent to any Region other than the Cape Midland Region will be but a small percentage of the total. Both these commodities were distributed to all sections of the Border Region.

2. Animal Products:

This group accounted for only 3,690 tons, or 1.7 per cent of the total traffic from East London to the Border Region. Two commodities only warrant special

(18) This term embraces the main line north of Queenstown, the Maclear branch line and Jamestown, and the Barkly East branch line.

attention being paid to them: wool and mohair and fresh fish. The wool and mohair (2,304 tons) was consigned to wool-washing establishments in the Border Region, while the fish (1,071 tons) was forwarded generally throughout the area. The tonnage of fish forwarded to the Border Region represented 48.4 per cent of the total traffic in this commodity from East London and was distributed thus:

Destination	Tons
Main line south of Queenstown; incl. Tarkastad	359
The Transkei, incl. Komgha	244
The King William's Town line	181
The Barkly-East branch line	133
Main line, north of Queenstown	105
Maclear branch and Jamestown	49
TOTAL:	1,071

Other commodities in this group were:

Hides and skins	230 tons
Dairy Produce	76 tons
Leather	9 tons

The hides and skins, and the leather, were forwarded to King William's Town.

3. Construction Materials:

The commodities in this group were:

Commodity	Tons
Timber	5,105
Fencing material, incl. wire	2,176
Bricks, sand and stone	1,634
Cement	1,098
TOTAL:	10,013

The tonnage in this group represented 4.7 per cent of the total tonnage forwarded to the Border Region from East London.

Timber is mainly imported and the tonnage forwarded to the Border Region was only 11.3 per cent of the total tonnage of timber forwarded from East London.

The timber forwarded to the Border Region was distributed as follows:

Destination	Tons
Main line, south of Queenstown; including Tarkastad	1,319
The Transkei, incl. Komgha	1,008
The King William's Town line	962
The Barkly East branch line	692
Maclear branch and Jamestown	578
Main line, north of Queenstown	546
TOTAL:	5,105

The fencing material, including wire, forwarded to the Border Region accounted for 54.6 per cent of the total tonnage of this commodity forwarded from East London. It was distributed as follows:

Destination	Tons
Main line south of Queenstown; incl. Tarkastad	585
Maclear branch and Jamestown	431
The Transkei, incl. Komgha	372
The Barkly East branch line	347
The King William's Town line	243
Main line, north of Queenstown	198
TOTAL:	2,176

The bricks, sand and stone forwarded from East London to the Border Region represented 98.9 per cent of the tonnage of this commodity forwarded from East London. As would be expected with a commodity of this nature, it was supplied to areas near to East London, thus:

Destination	Tons
The King William's Town line	1,381
The Transkei, incl. Komgha	197
Other sections	56
TOTAL:	1,634

The cement forwarded to the Border Region represented 86.8 per cent of the traffic in this commodity forwarded from East London. The distribution of this commodity

was as follows:

Destination	Tons
Main line south of Queenstown; including Tarkastad	486
Maclear branch and Jamestown	238
King William's Town branch line	129
The Transkei, incl. Komgha	108
Main line, north of Queenstown	74
The Barkly East branch line	63
TOTAL:	1,098

4. Merchandise:

Seven items are included in this group:

Commodity	Tons
Sugar	24,041
Alcoholic Beverages	5,340
Soap	2,117
Confectionery	703
Paints and Distempers	217
Salt	229
Batteries	32
TOTAL:	32,679

It must not be assumed that the tonnage shown above represents all the merchandise forwarded from East London; it is, however, impossible to identify many items of merchandise forwarded, as they are not enumerated by the Railways Administration except in an other commodities group. Certain other merchandise items have been included in the other commodities group because individually their tonnage is too small to warrant their separate enumeration. The distribution of these commodities throughout the Border Region is shown in the summaries on pages 263-4, the percentages in the last line in each case indicating the percentage of the total tonnage of the commodity forwarded from East London which went to the Border Region.

Destination	Commodity		
	Sugar	Alcoholic Beverages	Soap
	---------- Tons ----------		
Main line, south of Queenstown, incl. Tarkastad	4,134	1,572	429
Main line north of Queenstown	857	324	145
King William's Town line	5,678	702	426
Transkei, incl. Komgha	11,144	1,738	814
Maclear branch line, and Jamestown	1,230	507	174
Barkly East branch line	998	497	129
TOTAL:	24,041	5,340	2,117
Percentage of total tonnage of the commodity forwarded, which went to the Border Region	89.7	98.5	43.6

Sugar has always been shipped to East London from Durban and from there it has been distributed by rail throughout the Border Region. The distribution of this commodity throughout the Union is controlled by a series of Sugar Exchanges,(19) the aim being the reduction to a minimum of the railage incurred. This is an example of a commodity being carried by sea as near to its destination as possible before being transferred to a land carrier, which as was mentioned earlier in this chapter is done because the cost of transport by sea is considerably lower than the cost of rail transport. There are no undertakings in East London which manufacture alcoholic beverages, but these are forwarded in bulk to East London and distributed throughout the Border Region.(20)

(19) The controlling authority in this case is the Border Sugar Exchange.

(20) Particularly since the abolition of the sea competitive rate - see Chapter 5 - these commodities have been forwarded to East London by sea from Cape Town and Durban.

Destination	Commodity		
	Confec-tionery	Salt	Paint & Distemper
	Tons		
Main line south of Queens-town, incl, Tarkastad	182	97	42
Main line north of Queens-town	50	36	29
King William's Town line	153	22	61
Transkei, incl. Komgha	188	26	41
Maclear branch line, and Jamestown	71	31	24
Barkly East branch line	59	17	20
TOTAL:	703	229	217
Percentage of total tonnage of the commod-ity forwarded, which went to the Border Region	10.3	14.5	24.2

5. Metals, Metal Manufactures and Machinery:

This group accounted for a lower tonnage than any other group - 2,415 tons, representing only 1.1 of the total tonnage forwarded from East London to the Border Region. The following commodities are included in this group:

Commodity	Tons
Iron and steelware	1,560
Agricultural machinery	524
General Machinery	198
Motor and other self pro-pelled vehicles	133
TOTAL:	2,415

In each case the proportion of the total tonnage forwarded from East London, which went to the Border Region was comparatively small. Iron and steelware is a composite commodity including all forms of worked and unworked iron and steel, pipes, tubing, bolts and nuts, etc. An explanation of why this group is the smallest of all the commodity groups is probably to be found in two facts. As there is little industrialisation in

the rural areas of the Border Region, the demand for iron and steel, and for general machinery, is unlikely to be large. Furthermore, much of the iron and steelware required will be supplied from the Southern Transvaal and so will not pass through East London. Motor vehicles, whether assembled locally in East London, or sold by distributors after being imported, are often delivered by road or driven from East London by the owner. The distribution of the two principal commodities in this group was as follows:

Destination	Commodity	
	Iron and Steelware	Agricultural Machinery
	Tons	
Main line south of Queenstown, incl. Tarkastad	523	135
Main line, north of Queenstown	87	31
King William's Town line	401	69
Transkei, incl. Komgha	389	101
Maclear branch line and Jamestown	95	126
Barkly East branch line	65	61
TOTAL:	1,560	523

6. Petrol, oil and liquid fuel:

This is the most important commodity group among those forwarded from East London and it accounted for 77,623 tons, or 36.6 per cent of the total traffic from East London to the Border Region.(21) Distribution is by two methods: in bulk tank trucks to a storage depôt in Queenstown(22) from where these products are re-distributed throughout the Northern section of the

(21) This tonnage includes the weight of the containers, excluding tank trucks, in which these products are forwarded from East London; there is no means of ascertaining the weight of the containers.

(22) There is also a smaller depôt at Aliwal North now, but it handles petrol only.

Border Region; or in drums or similar containers. It must be noted that no petrol is forwarded by rail to King William's Town, for being within a thirty-mile radius of East London it can be supplied by the oil companies' special vehicles. The following tabulation shows the distribution of these commodities, arranged in order of magnitude.

Destination	Commodity	
	Petrol	Power Paraffin
	Tons	
Main line, south of Queenstown; incl. Tarkastad	28,474	9,093
King William's Town branch	4,242	1,265
The Transkei, incl. Komgha	9,811	761
Total: Southern section	42,527	11,119
Main line, north of Queenstown	266	440
Maclear branch line and Jamestown	676	371
The Barkly East Branch line	643	306
TOTAL:	44,112	12,236
Percentage of total tonnage of petrol and power paraffin forwarded from East London, which went to the Border Region	56.7	38.3

Destination	Paraffin	Crude Fuel Oil	Lub. Oil & Grease
	Tons		
Main line south of Queenstown, incl. Tarkastad	5,731	4,612	1,387
King William's Town line	1,300	1,185	245
Transkei, incl. Komgha	2,837	1,657	294
Total: Southern section	9,868	7,454	1,926
Main line, north of Queenstown	18	490	53
Maclear branch and Jamestown	114	734	60
The Barkly East branch line	47	456	55
TOTAL:	10.047	9,134	2,094
Percentage of total tonnage of these products forwarded from East London, which went to the Border Region.	74.2	54.3	36.1

7. Miscellaneous:

This group contains the following commodities:

Commodity	Tons
Empty containers	19,864
Animal Foodstuffs	14,260
Road making materials	512
Shooks	413
Fertliizer and Manure	101
Paper	88
Tanning extracts	19
Other commodities	27,855
TOTAL:	63,112

This group accounted for 29.6 per cent of the total tonnage forwarded from East London to the Border Region. The empty containers tonnage, as has been mentioned in Chapter 3, consists of:

i. the weight of new and second-hand containers forwarded from East London;

ii. the weight of the tank trucks returned empty from Queenstown, i.e., the trucks in which petrol, oil and other liquid fuels were forwarded in bulk from East London; and

iii. the weight of petrol and oil drums which, when empty, have to be returned to East London.

The tonnage of goods forwarded from East London is, therefore, ficticiously inflated by the inclusion in it of the empty containers in (ii) and (iii), above. Unfortunately there is no method of ascertaining the tonnage involved. Animal Foodstuffs were distributed as follows:

Destination	Tons
Main line south of Queenstown; incl. Tarkastad	4,675
Maclear branch and Jamestown	2,989
The Transkei, incl. Komgha	2,184
Main line north of Queenstown	1,719
The King William's Town line	1,450
The Barkly East branch line	1,243
TOTAL:	14,260

The tonnage of animal foodstuffs forwarded from East London to the Border Region represented 60.8 per cent of the total tonnage of this commodity forwarded from East London.

The other commodities tonnage consists, as has been mentioned, of:

i. the weight of those commodities which are not sufficiently important to warrant special enumeration; and

ii. the weight of those commodities which are not enumerated individually by the Railways Administration.

Much of the tonnage of this group is composed of items of general merchandise. While a high proportion of this tonnage will be composed of imported goods, it also includes such commodities as furniture, textiles and pharmaceutical goods, all three of which are manufactured in East London.

8. Motor Transport:

In addition to the commodities forwarded from East London by rail, a certain amount was also conveyed by motor vehicle. These motor vehicles fall into two categories:

i. those owned by the seller or the buyer of the goods - so called "ancillary transport"; and

ii. public hauliers for reward, including the South African Railways Administration's Road Transport Service.

No figures are available of the quantity of goods conveyed by ancillary transport or by public hauliers other than the Railway Administration's Road Transport Service. This latter service operates westward from East London to Kidd's Beach, and then on to Peddie, via either Cross Roads or Wooldridge. Eastward, services operate to Macleantown, Kei Mouth, Morgan's Bay, Haga Haga, Cintsa Mouth, Mooiplaats and Ridge Valley. (See Figure 28.) The goods conveyed by the

Railways Administration's Road Transport Service are thus delivered in the immediate vicinity of East London and the proportion is approximately 40.1 per cent to the west and 59.9 per cent to the east.(23) Table A.34 shows the principal commodities conveyed by the Railway Administration's Road Transport Service from East London in the period from 1st April, 1946 to 31st March, 1956. The following summary gives the average annual figure for this decade:

Commodity	Tons
General merchandise	8,734
Fertilizer and manure	1,077
Animal Foodstuffs, incl. lucerne	992
Maize	684
Maize meal	250
Pine-apple plants	171
Agricultural lime	134
Chicory roots	53
Other	14
TOTAL:	12,109

B. THE TRANSVAAL:

The Transvaal accounted for 160,315 tons, or 28.7 per cent of the goods traffic forwarded from East London. The principal commodities forwarded to this Region are listed on page 270, the asterisk against certain commodities indicating that they are entirely, or largely, imported. The considerable tonnage accounted for by the commodities so marked is an indication of the importance of the Transvaal, particularly the Southern Transvaal, as a hinterland for East London Harbour. It must also be remembered that a high proportion of the other commodities tonnage consists of imported merchandise and semi-processed or processed

(23) No detailed destination figures are available. This proportion is based on information supplied by the Road Transport Section of the System Manager's Office, Cape Eastern System of the South African Railways, East London.

raw materials of industry.

Commodity	Tons	Percentage sent to the Transvaal of the total quantity of each commodity forwarded from East London.
* Wheat	33,113	61.5
* Timber	30,195	67.7
* Paper	15,932	81.2
* Machinery: all types	7,484	65.8
Scrap metal	4,033	98.0
* Iron and steelware ...	2,976	53.1
* Motor and other self propelled vehicles, incl. parts for assembly	2,911	48.2
Confectionery	2,168	31.8
Empty containers	1,443	3.3
Soap	1,119	23.0
* Lubricating oil and grease	1,018	17.5
Fresh fruit	778	5.9
Fresh fish	588	26.2
Flour	581	7.6
Fencing material, incl. wire	523	13.1
Paint and distemper ...	370	41.6
Other commodities ...	55,083	-
TOTAL:	160,315	-

The above traffic was forwarded mainly to the competitive area of the Transvaal,(24) only 6.0 per cent being forwarded to stations outside that area.

C. THE ORANGE FREE STATE:

The principal commodities forwarded to the Orange Free State are tabulated on page 271. The petrol, oil and liquid fuels are forwarded in bulk in tank trucks to Hamilton and Bloemfontein, the distance from East London to Bloemfontein being 47 miles less than that

(24) The competitive area of the Transvaal is that area bounded by a line drawn from Pretoria to Springs to Vereeniging to Klerksdorp and back to Pretoria.

from Port Elizabeth and 101 miles less than that from Durban. The empty containers tonnage is principally composed of the weight of the tank trucks returned empty to East London from Bloemfontein and Hamilton.

Commodity	Tons	Percentage sent to the O.F.S. of the total tonnage of each commodity forwarded from East London
*Petrol	32,820	42.1
*Power Paraffin	19,409	60.7
*Crude fuel oil	7,162	42.6
*Paraffin	3,824	25.0
*Lubricating oil and grease	2,367	40.7
Total:	65,582	44.7
Empty containers	18,175	41.2
*Wheat	9,784	18.1
*Timber	6,389	14.1
*Paper	3,560	18.1
*Sugar	2,271	8.5
*Machinery	2,043	17.9
Confectionery	866	12.7
Animal Foodstuffs ...	737	3.1
*Iron and steelware ...	539	9.6
*Motor vehicles and other self-propelled vehicles	425	7.5
Fresh vegetables	421	26.5
Soap	372	7.8
Fencing material, incl wire	345	8.7
Fresh fruit	267	2.0
Fresh Fish	112	5.1
Other commodities	11,723	-
TOTAL:	123,611	-

The asterisk indicates those commodities which were partly, or entirely, imported through East London Harbour. The wheat was forwarded to a number of stations, particularly in the central and eastern parts of the Province. A small quantity of timber was forwarded directly to stations in the Orange Free State - for instance to the Goldfields - but the greater part was sent to the Bloemfontein area. Likewise, almost the whole of the tonnage of paper went to Bloemfontein. The

sugar was distributed in the southern section of the Orange Free State. An examination of the principal commodities forwarded to this Region shows again a high proportion of sea-borne traffic and this further emphasises the importance of the Harbour to East London and the Cape Eastern System of the South African Railways. The following tabulation shows the geographical distribution of the traffic from East London to the Orange Free State:

Destination	Tons	Percentage of Total
Southern stations(25)	106,015	85.8
Gold Fields stations(26)	3,898	3.1
Other stations	13,698	11.1
TOTAL:	123,611	100.0

In Table A.35 an attempt has been made to show the extent to which the four ports of the Union share in the traffic to the Orange Free State Gold Fields. There are several difficulties in the way of making such an estimate:

a. the Table takes into account only traffic from the port town, but there may be traffic from subsidiary stations in the same area;

b. the traffic taken into consideration is the direct traffic to the goldfields - traffic to Bloemfontein and to Kroonstad, for example, which is re-distributed to the Gold Fields is not taken into account;

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(25) The Southern stations are: Bloemfontein, Hamilton, Bethulie, Springfontein, Lofter, Trompsburg, Krugers, Edenburg, Wurasoord, Kafferrivier, Kaalspruit, Ferreira, Philippolis Road, Jagersfontein, Fauresmith, Koffiefontein, Jammerdrift, Wepener, Rouxville, Zastron and Boesmanskop, Meadows and Dewetsdorp.

(26) Virginia, Kalkvlakte, Whites, Henneman, Glen Harmony, Welkom, Friedesheim, Allanridge and Odendalsrus.

c. imported and local traffic is combined for there are no figures for sea-borne commercial traffic as there are in the case of the Transvaal competitive area; and

d. there is no accepted list of Orange Free State Gold Fields stations: the list given at the foot of the previous page is a list compiled by the writer.

Allowing for the inadequacies of the basic data, however, the Figures in Table A.35 serve as a guide to the extent to which each port shares in the traffic to this area.(27) The following summary gives the average annual figure for the three-year period from 1st April, 1953 to 31st March, 1956:

Forwarding station	Tons	Percentage of Total
Durban	28,586	72.6
Port Elizabeth	4,003	10.7
East London ...	3,897	10.3
Cape Town ...	2,514	6.4
TOTAL:	39,000	100.0

Durban is the most important supplier of goods to the Orange Free State Gold Fields, and although Port Elizabeth shows a slightly higher average percentage than East London, in the year ended 31st March, 1956, East London's share was 9.2 per cent compared with Port Elizabeth's 7.3 per cent.

D. OTHER AREAS:

The Cape Midland Region is the area next in importance to the Orange Free State as a destination for goods forwarded from East London. The Cape Midland

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(27) This Table will be found in Appendix A.
The comparative mileages from the four ports to two of the Gold Fields towns are:

Port	mileage to Welkom	mileage to Odendalsrus
Durban	449	458
East London	517	526
Port Elizabeth	563	572
Cape Town	861	870

Region is a vast and heterogeneous area to which approximately 35,000 tons of goods were forwarded, the principal commodities being:

Commodities	Tons
Fresh fruit	11,198
Animal Foodstuffs	8,445
Wool and mohair	2,797
Empty containers	1,416
Petrol, oil and liquid fuel	1,075
Confectionery	764
Maize meal	682
Maize	680
Fencing material, incl. wire	507
Flour	439
Soap	431
Hides and skins	381
Timber	318
Fresh vegetables	245
Dairy Produce	231
Iron and steelware	200
Motor vehicles	154
Machinery	146
Other commodities	4,731
TOTAL:	34,840

The fresh fruit was mainly pine-apples and was consigned to Port Elizabeth; this tonnage represented 85.6 per cent of the fresh fruit forwarded from East London.(28) The animal foodstuffs were forwarded mainly to the Karroo, while the confectionery was distributed throughout the whole Region. The wool and mohair was sent to Uitenhage. The petrol, oil and liquid fuels were sent mainly to Bedford and Steynsburg, both of which towns fall within this Region.

The traffic forwarded to the Western and South-Western Cape is shown in the following summary, but in

(28) At the same time as these pine-apples were being forwarded to Port Elizabeth, 3,218 tons of fresh fruit, believed to be mainly pine-apples, was forwarded from the Cape Midland Region to East London.

certain cases it is not the average which is important, but the decrease in the quantity forwarded by rail.

Commodity	Tons
Empty containers	2,211
Motor vehicles and other self-propelled vehicles	796
Confectionery	668
Wool and mohair	533
Fresh fruit	398
Soap	284
Other commodities	2,827
TOTAL:	7,717

The tonnage of empty containers forwarded in the year ended 31st March, 1953, was 3,517; in the year ended 31st March, 1956 it was 476. In the former year 1,317 tons of confectionery were forwarded by rail to this area; in the year ended 31st March, 1956 only 93 tons were forwarded by rail. The decrease in each case is due to the commodity being transferred from the rail to the sea route between East London and Cape Town, following the abolition of the Railways Administration's sea competitive rate scheme with effect from 1st September, 1954.(29)

The following commodities were forwarded to the *North-western and Northern Cape:*

Commodity	Tons
Timber	2,161
Petrol, oil and liquid fuel	1,075
Confectionery	328
Fencing material, incl. wire	262
Empty containers	248
Fresh vegetables	202
Animal Foodstuffs	159
Machinery	157
Maize meal	154
Soap	131
Flour	115
Other commodities	1,990
TOTAL:	6,982

(29) This has been dealt with in detail in Chapter 5.

To Natal the following commodities were forwarded in the period from 1st April, 1953 to 31st March, 1956:

Commodity	Tons
Empty containers	619
Confectionery	507
Fresh fish	395
Flour	353
Motor and other self-propelled vehicles	282
Soap	190
Machinery	153
Other commodities	2,748
TOTAL:	5,247

As with traffic to the Western and South-western Cape Region, there is a marked decrease in the tonnage of three commodities: confectionery, soap and empty containers forwarded in the year ended 31st March, 1956 compared with the year ended 31st March, 1954. Confectionery decreased from 1,217 to 8 tons; soap from 388 to 4 tons and empty containers from 1,078 to 424 tons. This is attributed by responsible persons to a transfer of traffic to the sea route between East London and Durban, following the abolition of the sea competitive rate on 1st September, 1954.

South West Africa is quite unimportant as a destination for goods forwarded from East London. The only remaining area is the Bechuanaland Protectorate and Rhodesia to which the following commodities were forwarded:

Commodity	Tons
Motor and other self-propelled vehicles	1,179
Timber	987
Confectionery	718
Machinery	642
Iron and steelware	282
Soap	182
Other commodities	3,981
TOTAL:	7,971

A point of considerable interest to the Railways Administration and to other interested bodies is the extent to which the ports share in the traffic to the Rhodesias. Table A.36 is an attempt to show the relative importance of the ports in this trade, but this table shows all the traffic from the ports and not merely the sea-borne commercial traffic. This is unavoidable as no other figures are available. The annual average for the six year period from 1st April, 1950 to 31st March, 1956 was:

Forwarding station	Tons	Percentage of Total
Port Elizabeth	109,309	58.1
Durban	51,831	26.1
Cape Town	15,789	9.3
East London	12,669	6.5
TOTAL:	189,598	100.0

There is no doubt of the supremacy of Port Elizabeth as far as the trade to the Rhodesias is concerned, nor of the insignificant position occupied by East London.

Table 31 shows the commodities forwarded from East London in the period from 1st April, 1953 to 31st March, 1956, arranged in order of magnitude and without reference to their destination.

TABLE 31

Principal Commodities Forwarded from East London in the Period from 1st April, 1953 to 31st March, 1956.

Commodity	Year ended 31st March			AVERAGE	
	1954	1955	1956		
	tons	tons	tons	tons	%
Petrol	80,604	82,524	70,426	77,852	13.9
Power Paraffin	31,594	34,417	29,940	31,984	5.7
Paraffin	19,941	12,503	9,974	14,139	2.5
Crude fuel oil	22,909	15,399	12,041	16,783	3.0
Lub'g oil and grease	7,083	5,593	4,751	5,809	1.0
TOTAL: oil and liquid fuel	162,131	150,436	127,132	146,567	26.1
Wheat	64,574	55,973	41,005	53,851	9.6
Timber	44,903	49,613	41,116	45,211	8.3
Empty containers	51,867	44,841	35,716	44,141	7.9
Sugar	28,373	26,982	25,082	26,812	4.8
Animal foodstuffs	25,437	21,632	23,386	23,485	4.2
Paper	17,568	18,736	22,580	19,628	3.5
Fresh fruit	13,714	13,673	11,842	13,076	2.3
Machinery	5,134	14,389	14,644	11,389	2.1
Flour	8,243	8,206	6,568	7,672	1.6
Confectionery	6,602	6,026	7,820	6,816	1.2
Maize	3,446	1,679	14,020	6,382	1.1
Motor and other self-propelled vehicles, incl. spare and unassembled parts	8,324	5,238	4,500	6,021	1.0
Wool and mohair: to factories or woolwasheries	5,790	5,880	5,522	5,731	1.0
Iron and steelware	9,577	4,880	2,378	5,612	1.0
Alcoholic beverages	5,564	5,112	5,614	5,430	0.9
Soap	4,538	5,062	4,955	4,851	0.8
Fencing m'tl, incl wire	4,283	4,244	3,405	3,977	0.7
Maize meal	4,276	3,655	4,015	3,982	0.6
Other commodities	142,566	103,413	114,119	120,033	21.3
GRAND TOTAL:	616.910	549,670	515,419	560.667	100.0

Note: East London includes the Buffalo Harbour and Cambridge

Source: Tables A. 31, A. 32 and A. 33 in Appendix A.

4. East London's Incoming Traffic

NOTE: THE FIGURES IN THIS SECTION ARE THE ANNUAL AVERAGE FOR THE THREE YEAR PERIOD FROM 1st APRIL, 1956 TO 31st MARCH, 1956.

Table A.37 gives a summary, by destination, of the commercial traffic received at East London in the three year period from 1st April, 1953 to 31st March, 1956. The following were the principal areas in which this traffic originated, the percentage in parenthesis being the Region's share of East London's forwarded traffic:

Origin	Tons	Percentage of Total Incoming (Forw'd) Traffic	
The Border Region:			
The main line up to and incl. Queenstown; and Tarkastad	14,711	2.9	(17.2)
The main line north of Queenstown	4,357	0.9	(1.4)
The Transkei, incl. Komgha	7,736	1.5	(8.9)
The King William's Town line, excl. Bedford and Eastpoort, but incl. Katberg and Seymour	11,878	2.3	(6.3)
The Maclear branch line and Jamestown	9,183	1.8	(2.1)
The Barkly East branch line	4,363	0.8	(2.1)
Total: Border Region	52,228	10.2	(38.0)
Other Areas:			
The Transvaal	220,437	42.6	(28.7)
The Orange Free State	100,266	19.3	(22.1)
Natal	64,146	12.3	(0.9)
Cape Midland Region	42,957	8.1	(6.2)
Western and South-western Cape	23,906	4.6	(1.4)
North-western and Northern Cape	12,283	2.3	(1.2)
Rhodesia and the Bechuanaland Protectorate	2,278	0.5	(1.4)
South West Africa	749	0.1	(0.1)
TOTAL:	519,250	100.0	(100.0)

One noticeable feature in the above summary is the position occupied by the Border Region - the area served by the Cape Eastern System: whereas it was more important than

any other Region as far as forwarded traffic was concerned, it ranked fourth in respect of incoming traffic and it was the Transvaal which was most important. This was due to a considerable extent to the coal traffic to East London. The Orange Free State, which was third in order of importance in the case of forwarded traffic, was second in order of importance as far as East London's incoming traffic was concerned. The Orange Free State's position was due principally to the increased quantity of maize exported through East London, and it is this traffic which accounts for the increase in this Region's share of the total traffic received at East London. This rose from 12.2 per cent in the year ended 31st March, 1954 to 22.8 per cent in the year ended 31st March, 1956. Natal, which accounted for only 0.9 per cent of East London's forwarded traffic, provided 12.3 per cent of the incoming traffic, this being due to coal, which accounted for approximately 70 per cent of the traffic received from this Region. The increased coal traffic also compensated for a loss to the sea route of a considerable tonnage between Durban and East London following the abolition of the sea competitive rate scheme on 1st September, 1954. This abolition of the sea competitive rate scheme also explains the fall in the percentage of the total traffic received from the Western and South-western Cape: the figure fell from 5.7 per cent in the year ended 31st March, 1956, to 3.5 per cent in the year ended 31st March, 1956. The traffic received from the North-western and Northern Cape fell from 3.2 per cent, in the year ended 31st. March, 1954, to 0.9 per cent in the year ended 31st March, 1956: this was due to the fact that only insignificant quantities of cement and wheat were forwarded from this area

in the latter year. The traffic from the Cape Midland Region increased from 7.7 per cent in the year ended 31st March, 1954 to 10.0 per cent in the year ended 31st March, 1956, mainly as a result of increased quantities of cement and fresh fruit forwarded from this region.

Tables A.38, A.39, and A.40 show the detailed statistics of the traffic received at East London from the various Regions; and Figure 27 shows a diagram of the average figures of received traffic. It is now proposed to examine, in detail, the principal commodities received at East London in the three year period ended 31st March, 1956.

i. Coal accounted for 30.4 per cent of all the traffic received at East London in the period under review. Accounting for 157,691 tons, coal was approximately four times as great as the commodity next in importance. Coal came from the following two areas:

Year ended	Origin	
	Transvaal	Natal
	Tons	Tons
31st March, 1954	108,784	25,815
31st March, 1955	101,740	56,467
31st March, 1956	123,413	56,854
AVERAGE:	111,312	46,379

ii. Maize is classified into maize for local consumption and maize for export. Maize for local consumption accounted for 46,427 tons or 8.9 per cent of the total traffic received at East London. It came from the following areas:

Year ended	Origin		
	Transvaal	O.F.S.	Other areas
	Tons		
31st March, 1954	23,213	4,350	4,036
31st March, 1955	36,695	17,913	2,621
31st March, 1956	36,430	12,492	1,529
AVERAGE:	32,113	11,585	2,729

Fig. 27 Goods Traffic received at East London in the period from 1st April, 1953 to 31st March, 1956.

Maize for export accounted for 45,849 tons or 8.8 per cent of the total traffic received at East London and it came mainly from the Orange Free State, thus:

Year ended	Origin O.F.S.	Origin Transvaal	Origin Other Areas
	Tons		
31st March, 1954	9,790	-	
31st March, 1955	53,521	9,756	894
31st March, 1956	63,305	292	-
AVERAGE	42,206	3,349	298

iii. Wool and mohair: These commodities accounted for 35,730 tons, or 6.9 per cent, of the total traffic received at East London. There has been no great variation in either the annual tonnages or the areas of origin, as the following shows:

Year ended	Origin Border Region	Origin O.F.S.	Origin Other Areas
	Tons		
31st March, 1954	20,470	12,387	1,205
31st March, 1955	21,649	13,735	1,202
31st March, 1956	21,646	13,372	1,522
AVERAGE:	21,255	13,165	1,310

In view of the small quantities of mohair exported through East London Harbour, it can be assumed that practically the whole of this tonnage is wool.
Some of the wool produced in the Border Region was forwarded to Port Elizabeth for sale; similarly about 1,000 tons per annum was received at East London from areas which would have been expected to send their wool to Port Elizabeth for sale, some four-fifths coming from the Cape Midland Region. The origin of the wool forwarded from the stations of the Border Region has been analysed in Chapter 3.

iv. Cement. accounted for 26,537 tons, or 5.1 per cent of the total traffic received at East London.

There have been considerable variations as far as the supplying areas were concerned, as the following summary shows:

Year ended	Origin			
	N. and N-W Cape	Cape Midland Region	O.F.S.	Transvaal
	Tons			
31. 3.1954	5,581	9,634	436	7,439
31. 3.1955	6,857	14,118	1,306	5,537
31. 3.1956	890	22,450	81	5,175
AVERAGE:	4,443	15,401	608	6,050

An average of 35 tons was also received from areas other than those listed above.

v. Fresh fruit is classified into fruit for export and fruit for local consumption. In the year ended 31st March, 1956, separate statistics were given for citrus and non-citrus fruit, but to obtain average figures it has been necessary to disregard this sub-division and adhere to the earlier classification. Fresh fruit for export accounted for 22,711 tons, or 4.4 per cent, of the total traffic received at East London. It originated in the following areas:

Year ended	Origin	
	Border Region	Transvaal
	Tons	
31st March, 1954	5,954	16,912
31st March, 1955	5,297	18,252
31st March, 1956	10,269	11,448
AVERAGE:	7,173	15,537

In the year ended 31st March, 1956, 20,742 tons of citrus were received at East London and only 975 tons of other fruit.

Fresh fruit for local consumption came from the whole of the Union, but preponderantly from the Cape Midland area. This latter appears to have been mainly pineapples and mention has been made earlier in this Chapter that, at the same time, pine-apples were being

sent from East London to the factories in Port Elizabeth. The areas from which fresh fruit (6,915 tons, or 1.4 of the total traffic received at East London) came were:

Origin	Year ended 31.3.54	31.3.55	31.3.56	Average
	Tons			
Cape Midland Rgn	2,036	2,797	6,426	3,753
The Transvaal	1,360	2,247	1,482	1,696
Western and South-Western Cape	557	406	565	509
Border Region	450	591	661	568
Natal	270	395	306	324
Other areas	132	48	15	65

Although the next most important commodity is empty containers, it is not proposed to analyse this commodity but to pass to maize meal.

vi. Maize meal is divided into maize meal for local consumption and for export. The former accounted for 12,762 tons, or 2.4 per cent, of the total traffic received at East London, and came from the following areas:

Year ended	Origin: Transvaal	O.F.S.	Border Region	Other Areas
	Tons			
31. 3.1954	7,884	2,568	536	74
31. 3.1955	9,342	5,197	116	30
31. 3.1956	6,093	6,266	172	6
AVERAGE:	7,773	4,677	275	37

It was only in the years ended 31st March, 1955 and 31st March, 1956, that maize meal for export (5,058 tons; 1.0 per cent) was forwarded to East London, the origin being:

Year ended	Origin: Transvaal	O.F.S.	Other areas
	Tons		
31st March, 1954	-	-	-
31st March, 1955	8,123	3,799	-
31st March, 1956	2,448	731	74
AVERAGE	3,524	1,510	24

vii. Wheat, accounting for 9,385 tons, or 1.8 per cent, of the traffic received at East London, came from the following areas:

Year ended	Origin: W. and S-W Cape	N-W and N Cape	Border Region	Other Areas
	Tons			
31. 3.1954	1,287	3,819	2,696	12
31. 3.1955	7,373	3,134	646	457
31. 3.1956	6,949	203	1,021	556
AVERAGE:	5,203	2,385	1,454	342

viii. Alcoholic beverages accounted for 8,536 tons, or 1.6 per cent, of the traffic received at East London, and this is one commodity which illustrates the effect of the abolition of Railways Administration's sea competitive rate scheme. The following summary indicates the origin of these commodities:

Year ended	Origin: Cape Town	Port Elizbeth	Durban	Other
	Tons			
31. 3.1954	8,253	4,147	1,255	17
31. 3.1955	4,811	3,407	47	8
31. 3.1956	297	3,335	--	31
AVERAGE:	4,454	3,630	434	18

In this commodity the average tonnage forwarded is less important than the decrease in the quantity forwarded from Cape Town and from Durban. Responsible officials have indicated that the cause of this decrease is, in each case, the transfer of the commodity to the sea route, following the abolition of the sea competitive rate.

ix. Animal foodstuffs include all types of this commodity: fresh lucerne, lucerne meal, hay, etc. 7,047 tons were forwarded to East London and this represented 1.4 per cent of the total traffic received at East London. The sources from which this commodity was

forwarded were:

Origin	Year ended 31.3.54	31.3.55	31.3.56	Average
The Transvaal	3,289	2,967	2,670	2,975
North-western and Northern Cape	1,859	3,079	1,226	2,055
Cape Midland Region	665	1,281	1,773	1,240
Western and South-Western Cape	1,031	517	215	588
Other areas	372	50	146	189

x. Next in order of importance comes Fresh vegetables, the significant feature of which is that 51 per cent of the tonnage received at East London came from the Transvaal. The next two areas in order of importance were the Cape Midland Region and the Orange Free State. This tends to confirm the statement made in Chapter 5 that in many cases railway rates do not appear to limit the distribution of fresh fruit or vegetables. This widespread origin of this commodity must be viewed against the background of the factors surrounding the marketing of these commodities:

> "The marketing of perishables is an especially hazardous business. The crops usually mature in a short period of time and can be preserved only for a very few days. Once they have reached a market they must be disposed of at once, frequently at auction sales, and under whatever conditions of supply and demand may prevail at the moment. If the market is glutted, little will be received for the crop. In exceptionally poor conditions the receipts may not even cover the cost of transportation. Such situations occur notwithstanding growers' efforts to watch markets ... A year of good crops may cause a glut of the market with attendant low prices and poor return to the grower. These crop fluctuations are often so large as to obscure any effect of railway rates on prices." (30)

This position does not occur in the case of certain other agricultural products forwarded to East London: citrus fruit, maize and wheat, for example; for the prices at which these commodities may be sold are

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(30) Fair and Williams: "Economics of Transportation"; pages 335-336.

controlled by the respective Commodity Control Boards, appointed in terms of the Marketing Act.(31)

The areas from which fresh vegetables were forwarded to East London are shown in the following summary:

Origin	Year ended 31.3.54	31.3.55	31.3.56	Average
Transvaal	3,773	3,495	3,772	3,680
Cape Midland Region	1,264	1,556	1,213	1,344
Orange Free State	730	1,167	454	784
Border Region	559	419	664	548
North-western and Northern Cape	357	372	358	362
Western and South-western Cape	310	283	265	286

xi. The next commodity, iron and steelware, includes all types of worked and unworked iron and steelware, pipes, nails, bolts, etc., but excludes fencing wire. The tonnage of this commodity received at East London was 6,823, of which 5,627 tons came from the Transvaal, a not unexpected situation in view of the localisation of the iron and steel works in the Southern Transvaal and the Pretoria district. Details are as follows:

Year ended	Origin: Transvaal	Natal	Other areas
		Tons	
31st March, 1954	6,010	274	81
31st March, 1955	5,409	-	400
31st March, 1956	5,463	2,686	147
AVERAGE:	5,627	987	209

xii. It is surprising to find bricks (6,727 tons; 1.3 per cent of the total traffic received at East London) next in order of importance, and to find that this commodity moves to East London over considerable distances. The explanation is that it is not the ordinary stock brick which is involved, but face brick, which costs about £21 per 1,000 in East London compared with the

(31) Act number 26 of 1937, as amended.

£7 per 1,000 of ordinary bricks. No face bricks are made in East London. The following summary shows the origin of this traffic:

Year ended	Origin	
	Transvaal	Other areas
	Tons	
31st March, 1954	4,650	1,415
31st March, 1955	6,551	1,611
31st March, 1956	4,737	1,217
AVERAGE	5,313	1,414

The other areas comprise almost the whole of the Union outside the Transvaal, but the tonnage forwarded from each area is not significant enough to warrant special enumeration.

xiii. Although flour is milled in Queenstown and Aliwal North and distributed throughout the Border Region, only a very small percentage is sent to East London. Of the 3,330 tons received at East London, representing 0.6 per cent of the total traffic received at East London, 79.9 per cent came from Port Elizabeth, thus:

Year ended	Origin	
	Port Elizabeth	Other areas
	Tons	
31st March, 1954	2,337	585
31st March, 1955	2,737	548
31st March, 1956	2,895	888
AVERAGE:	2,656	674

It will be observed that this traffic has not been transferred to the sea route following the abolition of the sea competitive rate scheme; this is presumably because it is extremely cheap to transport flour by rail: approximately 1/5d per hundred pounds from Port Elizabeth to East London.

xiv. Fertilizer and manure (2,682 tons; 0.5 per cent) originated principally in the Western and South-western Cape, the average figure being 1,411 tons from that

Region and 1,271 tons from other areas. The large tonnage from the other areas is the result of a large tonnage forwarded from the North-western and Northern Cape in the year ended 31st March, 1955. Normally, the other areas contribute only a few hundred tons.

xv. South African Timber (2,410 tons; 0.5 per cent) came mainly from the southern section of the Border Region, the most important supplying station being Stutterheim. The other main source of supply was Natal, thus:

Year ended	Origin		
	Border Region	Natal	Other areas
	Tons		
31st March, 1954	1,122	943	129
31st March, 1955	1,329	673	265
31st March, 1956	1,324	1,007	438
AVERAGE:	1,258	875	277

xvi. Hides and skins were once a principal export through East London Harbour, but the quantity forwarded to the port has declined considerably in recent years. Of the 2,280 tons received, 1,677 tons came from the Border Region, 454 tons from the Orange Free State and 148 tons from other areas. As has been mentioned in Chapter 3, the quantity of hides and skins forwarded to East London from the Border Region was sixty tons less than that forwarded from the same area to Port Elizabeth: a totally different position from wool, where only a small part of the total Border Region clip was sent to Port Elizabeth.

xvii. The next commodity in order of importance was Grain, other than maize or wheat (2,140 tons; 0.4 per cent) consisting mainly of kaffir corn, oats, rye and barley. These grains were forwarded from a considerable part of the Union, the average tonnages being

almost equal:

Origin	Average (Tons)
Orange Free State	512
Western and South-western Cape	504
Border Region	502
Transvaal	502
Other areas	120

xviii. Fencing material consists mostly of non-ornamental wooden fencing poles, forwarded from the Cape Midland and the Border Regions, and steel fencing standards and barbed, plain and netting wire from the Transvaal.

Average figures were:

Origin	Average (Tons)
Transvaal	1,205
Cape Midland Region	432
Border Region	275
Other areas	156
	2,068

xix. The last commodity, of which the average annual tonnage received at East London exceeded 2,000 tons, was Salt. Two interesting features were the quantity of this commodity received at East London and the distances over which it is conveyed, thus:

Origin	Average (Tons)
North-western and Northern Cape	767
Cape Midland Region (32)	667
South West Africa	590
Other areas	24
	2,048

xx. There are several other commodities which have not been dealt with in detail because the average tonnage of each received at East London was too small to warrant special attention being given to each. These commodities are summarised in the tabulation on page 291

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(32) The greater part of this tonnage came from Teviot, which although included by the Railway Administration in the Cape Eastern System, from the point of view of the division of the Union into Regions by the writer falls in the Cape Midland Region.

Commodity	Principal forwarding Areas.	Average Tonnage
Lime and limestone	W; N; TVL	1,654
*Condensed milk	W; M; OFS; TVL; N.	1,529
Dried beans and peas	TVL	1,529
Crude treacle	NTL	1,490
Eggs	B; OFS.	1,150
*Boards: all kinds(33)	NTL; W.	1,086
Motor and other self-propelled vehicles	W; M; TVL (34)	1,054
Granite and stone	N; TVL; NTL	995
Vegetable oil	TVL; OFS	988
*Tinned fruit and vegetables	W; M; TVL	930
Butter	B	929
Agric. Machinery	TVL	926
Cheese	B; OFS	580
Fresh fish	W	527
Brass, bronze, copper, lead and tinplate	TVL	439
*Soap	KWT, TVL, NTL	426
Paper and cardboard	PE, TVL	417
Rice	W; TVL	393
General machinery	-- --	378
Tobacco	TVL	337
Confectionery	PE, TVL	330
*Paint and distemper	PE; TVL; NTL	302
Raw and ginned cotton	N; NTL	286
Oatmeal and rolled oats	W	211
Ground-nuts	TVL	208
Wattle bark(35)	B	128
Candles	KWT	125

*: Commodities transferred to the sea route between Cape Town and East London or between Durban and East London, following the abolition the Railways Administration's sea competitive rate scheme on 1st September, 1954.

W: Western and South-western Cape Region
N: North-western and Northern Cape Region
M: Cape Midland Region
B: Border Region
OFS: Orange Free State
NTL: Natal
TVL: Transvaal
PE: Port Elizabeth
KWT: King William's Town.

(33) This includes woodboard, hardboard, millboard, strawboard and composition board.
(34) A considerable proportion of the vehicles assembled in Port Elizabeth are driven to East London.
(35) This commodity is being exported through East London after an interval of several years.

Table 32 (on page 293) shows the principal commodities received at East London in the period from 1st April, 1954 to 31st March, 1956. The commodities are arranged in order of magnitude and irrespective of origin.

Road Transport Service Traffic:

In addition to the commodities received by rail at East london, a certain number of commodities are brought into the area by the Railways Administration's Road Transport Service. (It has been explained that no figures are available for traffic conveyed by other forms of motor transport.) These commodities originate in the immediate environs of East London and Figure A.41 shows the detailed figures for each year in the period from 1st April, 1946 to 31st March, 1956. The following summary gives the average tonnage per annum of the principal commodities conveyed into East London by the Railways Administration's Road Transport Service in the ten years ended 31st March, 1956:

Commodity	Average Annual Tonnage.
General traffic	1,972
Maize	1,144
Pineapples	562
Citrus fruit	480
Pineapple plants	416
Wool	236
Fruit and vegetables	227
Kaffir corn	77
Chicory root	60
Other	17
TOTAL:	5,191

5. Summary

The year ended 31st March, 1922 is the earliest year for which it has been possible to obtain tonnages of the

TABLE 32.

Principal Commodities Received at East London in the Period from 1st April, 1953 to 31st March, 1956.

Commodity	Year ended 31st March 1954	1955	1956	AVERAGE	
	tons	tons	tons	tons	%
Coal	180,267	158,207	134,599	157,691	30.4
Maize: local consumpt'n	50,451	57,229	31,599	46,427	8.9
for export	63,597	64,171	9,790	45,849	8.8
Wool and mohair	36,540	36,586	34,062	35,730	6.9
Cement	28,633	27,888	23,090	26,537	5.1
Fresh fruit: for export	21,717	23,549	22,866	22,711	4.4
Empty containers	14,089	14,071	15,305	14,489	2.9
Maize meal: local c'spn	12,537	14,685	11,062	12,762	2.4
Wheat	8,729	11,610	7,814	9,385	1.8
Alcoholic beverages	3,663	8,273	13,672	8,536	1.6
Animal foodstuffs, incl. lucerne and lucerne meal	6,030	7,894	7,216	7,047	1.4
Fresh Vegetables	6,726	7,292	6,993	7,004	1.4
Fresh fruit: local c'spn	9,455	6,484	4,805	6,915	1.4
Iron and steel ware	8,296	5,809	6,365	6,823	1.4
Bricks	5,954	8,162	6,065	6,727	1.3
Maize meal: for export	3,253	11,922	--	5,058	1.0
Flour	3,783	3,285	2,922	3,330	0.6
Fertilizer and manure	2,060	4,035	1,951	2,682	0.5
Timber: South African	2,769	2,267	2,194	2,410	0.5
Hides and skins	2,001	2,086	2,752	2,280	0.4
Grain, not otherwise specified	1,988	2,211	2,222	2,140	0.4
Fencing material, incl. wire	2,182	1,692	2,331	2,068	0.3
Salt	1,733	2,516	1,896	2,048	0.3
Other commodities	70,606	77,948	92,411	80,322	15.4
From Union and S.W.A.:	547,059	559,872	443,982	516,971	99.5
from Rhodesia (no details of commodities are available)	1,546	2,554	2,737	2,279	0.5
GRAND TOTAL:	548,605	562,426	446,719	519,250	100.0

Note: East London includes the Buffalo Harbour and Cambridge

Source: Tables A.38, A.39, and A.40 in Appendix A.

goods traffic received at, and forwarded from, East London. The figures for this and each succeeding year, will be found in Table A.42. In the financial years ended 31st March 1922, 1923, 1924, 1926, 1928, 1944, 1945 and 31st March, 1946, received traffic was greater than forwarded traffic; in all other years the forwarded tonnage has been the greater.

In the year ended 31st March, 1922, 91,760 tons of goods traffic were forwarded from East London; in the year ended 31st March, 1956, 636,217 tons were forwarded, representing an increase of 592 per cent over the tonnage of the former year. In the year ended 31st March, 1922, 155,682 tons were received at East London; in the year ended 31st March, 1956, 531,274 tons were received, representing an increase of 241 per cent over the tonnage of the former year.

In the period from 1st April, 1953 to 31st March, 1956 an average of 560,667 tons per annum of commercial traffic was forwarded from East London and Cambridge, including traffic forwarded directly from the Buffalo Harbour. Approximately 90 per cent of this traffic was forwarded to three Regions:

Destination	Percentage
The Border Region	38.0
The Transvaal	28.7
The Orange Free State	22.1

Such data as are available indicate that a very considerable tonnage of imported goods enters into East London's forwarded commercial traffic, thus emphasising the importance of the Harbour, and the main line to the north, in East London's commercial prosperity.

In the period from 1st April, 1953 to 31st March, 1956, an average of 519,250 tons per annum of commercial traffic was forwarded to East London and Cambridge, including traffic forwarded directly to the Buffalo Harbour. Four areas accounted for approximately 85 per cent of this tonnage:

Origin	Percentage
The Transvaal	42.6
The Orange Free State	19.3
Natal	12.3
The Border Region	10.2

(It will be seen that the Border Region occupied only fourth place whereas, in regard to forwarded goods traffic, it occupied first place.) Coal is the most important single commodity forwarded to East London, but agricultural products (a considerable quantity of these are for export), construction material and general merchandise are also important.

PART FIVE

ROADS AND ROAD TRANSPORT

CHAPTER 7.

ROADS AND ROAD TRANSPORT

1. The era of the ox-wagon

One hundred years ago virtually the only means of transport in the Cape Colony was the ox-wagon using a thin network of indifferent roads. Very often these so-called "roads" were nothing more than wagon tracks, sometimes several tracks running parallel, for as each track became too pitted and rutted for even the ox-wagons, they moved over and created a new track. It was not uncommon to see as many as twenty parallel tracks, consequently wasting considerable areas of arable land. Sometimes the roads bore some semblance to what to-day is commonly understood by the word "road", but even on the construction of these better roads little public money had been spent, and even less was provided for their maintenance.

In 1843, a system of public road-making was initiated by Mr. John Montagu, the then Colonial Secretary of the Cape Colony, who devised a scheme for the construction of main lines of communication throughout the Colony. A Central Road Board was established, and several important undertakings were carried out, but east of Grahamstown the roads were virtually untouched by the schemes of the Board.(1) This also applied to all non-main roads throughout the Colony, the "Grahamstown Journal" saying in 1859:

> "The industries of the Colony are to a certain extent paralysed owing to the absence of adequate means of inter-communication ... How many large orders for heavy goods are held in abeyance owing to the

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(1) Some of the more notable achievements of the Central Road Board were the Montagu Pass at George, Bain's Kloof, Michell's Pass, and the construction of a better road from Cape Town to Grahamstown, including Howieson's Poort.

> scarceness or dearness of carriage from town to town. There is in fact no inter-urban trade in consequence of this amongst the interior towns and transport, instead of being a means of promoting trade, is only resorted to as a dire necessity. It certainly is not such as to give any impulse to trade, which under an improved system would be sure to be stimulated in a degree appreciable only by those who have noted the precedents of other countries in this particular."(2)

In 1853 Responsible Government was granted to the Cape Colony and, subsequently, the control of roads in the Colony was re-organized, the House of Assembly on 16th May, 1855, adopting a resolution:

> "That the present Road Ordinance is unsuitable and defective, and the system in operation partial and unjust, and that the said law ought to be repealed and a new law enacted." (3)

This resolution had a two-fold result. Firstly, in 1855, Divisional Councils were created and upon them were conferred various powers, including the power to levy a road rate. The construction and maintenance of divisional and branch roads throughout the Colony were placed under the charge of these bodies.(4) Secondly, in 1858, an Act was passed, making provision for the Government to maintain and improve main roads as far as the funds voted by Parliament allowed. The Civil Engineer of the Cape Colony was appointed Chief Commissioner of Roads.(5)

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(2) "Grahamstown Journal": 7th May, 1859.

(3) The Ordinance referred to is number 8 of 1843, by which the Central Road Board was created. The resolution is to be found in: Cape of Good Hope: Votes and Proceedings of the House of Assembly: 1855; page 84
The main objection to the Central Road Board was that, in the opinion of the Eastern parts of the Colony, a disproportionate part of its revenue had been spent on the works in the Western part of the Colony.

(4) The Divisional Council System is still in force in the Cape of Good Hope: see Appendix F.

(5) The Act was number 9 of 1858.
Report of the Commission of Inquiry into Road Motor Transportation (1945); (U.G.46-1947); page 157.

The roads of British Kaffraria, and the surrounding territory, were certainly no improvement on the roads in the Cape Colony; because of the difficult financial position of the British Kaffraria Government they were probably worse. After the proclamation of British Kaffraria, a Kaffrarian Roads Board had been established, and Natives put to work on certain roads in the Territory.(6) In 1866 British Kaffraria Ordinance number 3 extended to the Territory the provisions of Act number 9 of 1858 and various roads were proclaimed, all of which radiated from King William's Town. With the incorporation of British Kaffraria into the Cape Colony in 1866, a uniform system of road control became applicable throughout the whole area of the Colony.

One hundred years ago, the most important road in the Border Region was the road from Grahamstown to King William's Town. At first this road was used almost exclusively for military traffic, but:

> "the occupation of the divisions of Queenstown, Albert, Aliwal North, Victoria, Peddie and Stockenstrom and ... Kaffraria ... converted a country formerly occupied by Natives into an extensive wool-producing district, to which large quantities of imported goods [were] conveyed".(7)

It was pointed qut that it was not to be expected that the means of communication hitherto found sufficient for military purposes would suffice for the newly developing trade, and that the roads would have to be adapted to the needs of the increased and changing traffic. The development of the port at East London made it essential that a reasonable road should exist between it and King William's Town. In the

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(6) A.E. du Toit: "The Cape Frontier ... 1847-1866" in the S.A. Archives Year Book for 1954, Volume 1.; pages 44 and 80.

(7) G.21-1861: Report of the Chief Commissioner of Roads of the Cape Colony; page 19.

middle years of the nineteenth century, and for some time afterwards, large merchant houses were located in King William's Town, from which centre the goods were distributed by ox-wagon over a very wide area. Later the importance of this road decreased somewhat with the construction of the railway line to Aliwal North. There was also a move by the King William's Town merchants to establish branches in East London from which imported goods could be distributed by both road and rail throughout the Border Region. In the course of time, as has been mentioned, East London secured to itself the greater share of this trade.

There are, unfortunately, no detailed figures of the quantity of goods passing over the roads of the Border Region, but the following summary will give an idea of the position in 1872, shortly before the railway construction was commenced in the area:(8)

a. King William's Town

From King William's Town to:		To King William's Town from:	
Port Elizabeth	2,995 tons	Port Elizabeth	3,440 tons
East London	2,946 tons	East London	7,315 tons
Queenstown, etc.	1,197 tons	Queenstown, etc.	1,343 tons
Diamond Fields	340 tons		

b. East London

From East London to:		To East London from:	
King W'ms Town	7,624 tons	King W'ms Town	3,186 tons
Queenstown, etc.	2,467 tons	Queenstown, etc.	407 tons
Diamond Fields	96 tons.		

An average of the above figures shows that approximately 23,000 tons of goods passed over the roads of the

(8) These figures are taken from the Cape Government Blue Book: A.22-1873: "Statistics collected by Mr. W.G. Brounger, C.E., of the weight of traffic between King William's Town and other places during the year 1872"; pages 4-6. The King William's Town figures were compiled from returns submitted by twenty-eight firms and an estimate by two leading merchants of the trade of a few smaller houses from which it would have been difficult to obtain returns. The East London figures were compiled from returns supplied by six firms.

Border Region

The earliest figure it has been possible to obtain of traffic to the Native Territories is for 1901. It is particularly easy to measure this traffic for there are only three points at which the Great Kei River can be crossed. In 1901 the following figures were recorded:

Imported into the Transkeian Territories via:

Great Kei Bridge, near Komgha	14,000 tons
Bolo Drift	800 tons
St. Mark's Bridge	1,500 tons
TOTAL:	16,300 tons

In the same year it was estimated that approximately 6,000 tons of traffic left the Territories, the predominant commodity being wool. The Engineer who collected the figures continued to say that, whereas in 1897-98 the import trade into the Transkeian Territories had been divided equally between East London and King William's Town, in the period between 1st July and November 30th, 1901, King William's Town accounted for only about 30 per cent of the traffic, while East London's share had risen to 69 per cent.(9) In 1907, by which time the railway line had reached Butterworth, approximately 7,000 loaded ox-wagons crossed the Great Kei Bridge into the Transkei, while some 6,000 left the Territories by the same route.(10)

With the coming of the railway some roads diminshed in importance, but in areas not supplied with railway communication roads remained of paramount importance. It was not until 1916, for example, that the railway reached Umtata and the importance of the road and the ox-wagon have been indicated in the previous paragraph. With the coming of the

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(9) G.22-1902: Reports on Flying Surveys: pages 11-26; the Dohne-Umtata Survey.
(10) These figures were obtained from some unsorted Cape Government Railways files in the Cape Archives.

railway other roads assumed the new rôle of feeders to the railway system. In almost every report, the Chief Inspector of Public Works referred to the unsatisfactory state of the roads, and as the following quotation shows the Border Region was no exception to the general rule:

> "Owing to the absence of good metalling for road purposes, the cost of maintaining the principal roads from King William's Town and East London through the Border Divisions and the Native Territories is enormous and the result, in spite of our best efforts, is very unsatisfactory."(11)

Competition between the railway and the ox-wagon:

The General Manager of the Cape Government Railways complained regularly in his annual reports that the railways were suffering from ox-wagon competition and the force of these complaints indicates that the ox-wagon traffic must have been considerable. No only did the ox-wagon operators undercut the railway rates, but in many cases, owing to the circuitous nature of the railway line, they also had a mileage advantage. Not all the ox-wagon traffic was competitive, however, for in many areas it and the post cart remained the only means of communication until after the first decade of the twentieth century.

Periodically drought and animal diseases reduced the extent of ox-wagon competition with the railways, but at Railway Headquarters something more effective than these curbs were desired. Various suggestions made from time to time were:

a. that there should be specially reduced rates - one for agricultural traffic and one for general traffic - over routes where ox-wagon competition existed;

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(11) Report of the Chief Inspector of Public Works for 1901 (G.49-1902); page 5.

b. that where ox-wagon competition existed, the railage should be calculated on a mileage "as the crow flies" and not on the actual railway mileage;

c. that where ox-wagon competition existed, certain stations should be granted a mileage rebate so that railage would be charged on a less than actual mileage;

d. that tolls or other hindrances to ox-wagon traffic should be established; or

e. that Parliament should make it compulsory for ox-wagon operators to obtain a licence before carrying goods traffic in competition with the railways.

In 1906, a Bill was introduced providing for the imposition of a tax upon ox-wagons competing with the railways, but the Cape Parliament refused to assent to such a measure.(12)

In 1908, however, a successful attempt to curb ox-wagon by legislation was made when Parliament passed the Harbours Control Act. Clause 7 of this Act gave the Minister - i.e., the Commissioner of Crown Lands and Public Works - power to:

> "differentiate in the charge made for wharfage dues on goods imported into any one of the harbours [of the Cape Colony] ... between such goods as are imported by persons and firms who contract to have all their goods conveyed by rail between any points where, in the opinion of the Minister, there is competition between rail and wagon or other vehicle for the carriage of such goods, and goods imported by persons and firms who do not so contract, ... and to collect the amounts of such difference in wharfage dues from any consignee of such goods so conveyed by wagon or other vehicle ..." (13)

This penalty was enforced as from 1st March, 1909,(14) and combined with a further severe outbreak of East-Coast Fever,

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(12) These devices are recorded in the unsorted Cape Government Railways files in the Cape Archives.
(13) The Act was number 38 of 1908.
(14) It is interesting to note that King William's Town merchants opposed the Bill, and bitterly resented the enforcement of Clause 7, saying that they could not possibly retain their Transkeian trade without the benefit of the low ox-wagon rates from East London to King William's Town, seeing that East London merchants had the double benefit of direct wagon transport to the Transkei at low rates and a special railway truck (reduced) rate to the same area.

almost completely eliminated ox-wagon competition with the railways of the Cape Eastern System.

2. The Era of the Internal Combustion Engine.

In the nineteenth century the development of the steam engine and the construction of railways revolutionized inland transport; in the twentieth century the improvement in the internal combustion engine has had much the same effect. This improvement, combined with the increase in size and adaptability of the motor vehicle, has had two far-reaching effects: firstly, on roads; and secondly on railway undertakings.

The road in the twentieth century:

There have undoubtedly been improvements in the roads of South Africa in the last twenty-five years: new techniques of road construction and maintenance have been employed; new bridges have been built and some roads have been relocated with easier gradients and wider curves. Nevertheless, in 1945, the Commission of Inquiry into Road Motor Transportation in South Africa said, in regard to the approximately 200,000 miles of road in the rural areas:

> "These roads range in condition and importance from mere tracks on the construction of which little money has been spent and on their maintenance less - to national roads of high standard with bitumen or equivalent surface ... the length of road having a bitumen or concrete surface represents only 1.6 per cent of the total length of public road; and although the length of crushed-stone or gravel surfaced road is shown as 40,592 miles, this includes roads of all conditions of such surface - good, indifferent and bad. It cannot be said with precision what length of road of this type has a surface which can be described as good, but it is improbable that more than half of it deserves this description. Of the remaining ... indifferent and bad stone or gravel surfaced road and the 150,000 odd miles of natural surface road it can only be said that it depends largely on the geological formation which they traverse and on weather conditions whether they are

trafficable at all. In any case they are quite unsuitable to modern motor transport requirements".(15)

In explanation of the last sentence in the above quotation the Commission pointed out that:

a. the impact on the road surface increased at a much higher rate than the weight of the loaded vehicle, so that even allowing for the distribution of the weight over more axles, the wear and tear is much greater on a road now than it was, say, in 1930;

and

b. the speed of vehicles has a most important effect on road wear and damage and every increase in speed results in an increase at a much higher rate of wear and damage to the road surface - e.g.: the wear caused by a car travelling at sixty miles an hour is much more than twice that caused by a car travelling at thirty miles an hour.

With the constant increase in the weight and average speed of all motor vehicles there is still greater wear and tear of the roads.(16)

National roads:

In the above quotation reference was made to national roads and this term requires some explanation. In 1935, the Union Parliament passed the National Roads Act,(17) the main purpose of which was to establish a National Road Board and a National Roads Fund. The Act empowered the National Road Board to pay to the Provincial Administrations from the National Roads Fund the whole cost of construction, maintenance and repair of national roads, as well as the whole or part of the cost of construction or reconstruction

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(15) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945): para. 727.

(16) This paragraph is based on paragraphs 734 and 735 of the Report of the Commission of Inquiry into Road Motor Transportation (1945).

(17) Act number 42 of 1935.
The National Road Board was abolished on 1st December, 1948, and its powers and functions transferred to the National Transport Commission.

of provincial or special roads.(18) Within a year of its establishment, however, the Board "decided that it had, and would have no money for provincial or special roads and eliminated them thenceforth from its programme." The tragedy of this is that "special" roads included the roads which served as "feeders" to the railway.(19)

The funds administered by the National Road Board have been derived from three sources:

a. an allocation out of the customs duty collected on petrol imported into the Union; (20)

b. moneys specially appropriated by Parliament; and

c. interest on the Fund's cash balances.

In general, the sums available for expenditure on the National Road programme have been inadequate.

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(18) The National Roads Act laid down the following definitions:
   a. national roads: any road, or part of a road, the immediate or early construction or re-construction of which, in the opinion of the Governor-General, is necessary in the national interest, or any road or part of a constructed road, the proper maintenance of which is, in the opinion of the Governor-General, necessary in the national interest;
   b. provincial road: any road or part of a road which in the opinion of the Governor-General may be regarded as a potential national road; and
   c. any road or part of a road, other than a national or provincial road, shall be a special road, if its construction, repair or maintenance is, in the opinion of the Governor-General, likely to advance substantially the development of the Union or is otherwise desirable in the public interest.

(19) Quoted from the report of the Commission of Inquiry into Road Motor Transportation (1945); U.G.46-1947; para. 732.
It should be noted that at the 31st March, 1956, 280 miles of special roads within the meaming of the Act had been proclaimed.

(20) In the year ended 31st March, 1951, the allocation from the customs duty on imported petrol was increased from 3d per gallon - at which figure it had remained since 1936 - to 6d per gallon, but at the same time the maximum sum to be spent on National Roads in any financial year was fixed at £5 million. In the 1958 Budget Speech the Minister of Finance announced that the allocation from the customs duty on imported petrol was to be increased.

In 1936, the National Road Board submitted a Five-Year Scheme of National Road development involving the construction of 5,173 miles of road, it being subsequently decided to provide the whole mileage with bitumen surface. The outbreak of the second world war inevitably interfered with this programme and it is only now approaching completion; at the 31st March, 1957, there were 4,288 miles of National Road in South Africa.(21) In the Border Region there are two National Roads:

a. part of Route N.2: the route from Cape Town to Durban - passing through Peddie, King William's Town, East London, Great Kei Bridge, Umtata and on to Durban via Kokstad and Pietermaritzburg; and

b. part of Route N.6: the route from East London to Reddersburg in the Orange Free State where it joins the Cape Town-Johannesburg road: in the Border Region it passes through King William's Town, Stutterheim, Queenstown, Jamestown and Aliwal North.

(These two roads are shown in the frontispiece to this thesis.) To a considerable extent Route N.6 duplicates the main railway line to the north; but Route N.2 opens up country to the west of East London into which there is no railway. Eastward this road brings the Transkeian Territories into closer and more convenient contact with East London.(22)

The remaining roads in the Border Region are divided into four classes:

a. trunk roads: proclaimed in terms of section 4 of Ordinance 12 of 1949; (23)

b. main roads: established by the same Ordinance;

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(21) These are the latest published figures, in U.G.26-1958: Report of the National Transport Commission.

(22) The distance from East London to Umtata by rail is 225 miles and the passenger train takes approximately 27 hours to do the journey. By National Road the distance from East London is 143 miles.

(23) Cape of Good Hope Ordinance to make further provisions in respect of roads and to amend the law relating thereto.

c. divisional roads: proclaimed in terms of Ordinance 15 of 1952,(24) and

d. minor roads, which are roads which are neither trunk, main or divisional roads, but over which a right of way exists in favour of the public.

It is not possible to establish the mileage of each type of road in the Border Region for no figures of the road mileage in each Magisterial District are published. Figures are published for Divisional Council areas, but there are no Divisional Councils for that part of the Transkei which falls within the Border Region.(25) There are the following Divisional Councils in the Border Region:

> Albert, Aliwal North, Barkly East, Cathcart, East London, Elliot, Fort Beaufort, Indwe, King William's Town, Komgha, Lady Grey, Molteno, Peddie, Queenstown, Sterkstroom, Stockenstrom, Stutterheim, Tarka, Wodehouse and Victoria East, and partly, Bedford.

In these twenty divisions there were, at 31st December, 1955 224 miles of trunk road, 2,066 miles of main road and 3,361 miles of divisional road.

The importance of the road as a feeder to the railway cannot be over-estimated, and this is emphasized by the Administration's policy no longer to build branch lines, but to develop their Road Transport Service to provide communications in areas not served by the railway. This lends point to the following statement in the report of the 1945 Commission of Inquiry into Road Motor Transportation:

> "We have no wish to diminish the importance of what has been accomplished in road construction during the past fifteen years. No one can be blind to the very great improvement which has been made during that time in the country's roads. Not only has the National Road Board contrived the construction of 3,400 miles of road of very high standard, but the Provincial Administrations, ... and divisional councils are devoting increasingly large sums annually to reconstruction and improvement.

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(24) Cape of Good Hope Ordinance to consolidate and amend the laws relating to Divisional Councils and roads.

(25) The roads in the Transkeian Territories, outside the areas of divisional councils (where they exist) fall directly under the Provincial Administration.

> It remains nevertheless that most of this improvement has been effected to the roads which serve the touring car rather than to those which open up the countryside to the commercial vehicle. Of the 3,400 miles of national road only a small proportion, being in general those sections which are within a radius of twenty miles or less of an urban centre, carries any appreciable volume of commercial traffic. And this is true, also, though not to the same extent, of the reconstruction and improvement effected by the Provinces which devote the greater part of their money and effort to the roads which link the larger centres.
>
> The roads which carry to the railway by far the greater part of the produce of the platteland and bring thence the farmers' requirements, the roads along which run the heavy lorries of the Railways Motor Service - the function of which is to take the place of branch railways; these roads are mostly to be classified among the 'indifferent or bad' stone or gravel surfaced roads and the natural earth roads. Though there has been improvement in the state of some of these, it is, in general, still aptly to be described in the words of the 1929 Road Motor Competition Commission Report (Para. 186):-
>
> > 'The branch or divisional roads converging on arterial roads and/or the railway system are, generally, of a poor standard and are not designed for the carrying of heavy traffic.' " (26)

There would appear to be no reason to doubt that the opinion expressed in 1945 is still valid. There is also every reason to believe that the roads of the Border Region are no improvement on those in other rural areas of the Union.

There is, in the opinion of the 1945 Road Motor Transportation Commission, one main reason for the Union's failure to construct and maintain rural roads on an adequate scale: a lack of sufficient funds at the disposal of the roadmaking authorities. From the evidence presented to them, the Commissioners concluded that roadmaking authorities not infrequently had to choose between urgently needed new construction and essential maintenance, money being

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(26) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); paras. 728-730.

sufficient only for one or the other, but not for both. In this dilemma construction of new roads was sometimes preferred and maintenance neglected, with the result that before long roads were no longer able to serve their purpose effectively, and thus heavy expense had to be faced in reconstruction. With regard to maintenance, the Commissioners said:

> "Even where maintenance can be undertaken, want of funds sometimes leads to the work being done in a manner which, though it keeps the road in fair condition for the time being, tends to its ultimate destruction. The grader - that useful machine which is so often to be seen on the roads - keeps the surface reasonably smooth, but at the cost of continual removal of the material. Unless this is replaced the level of the surface sinks gradually lower and the road, which can no longer be drained, becomes a water-course. But replacement of the material is a process much more costly than its removal."(27)

In the opinion of the Commission, further contributory causes to the unsatisfactory state of the Union's rural roads were the multiplicity of roadmaking authorities; the uneven incidence of responsibility; the comparative absence of planning and the financial and technical inefficiency of some of the bodies charged with roadmaking.(28)

One final matter which must be mentioned here is the loss which is caused by the unsatisfactory state of so great a mileage of the Union's rural roads. Firstly, there is the obvious and direct loss, resulting from the damage sustained by vehicles travelling over bad roads, and which not only increases the costs of operation through increasing the operating costs and the cost of repairs, but materially shortens the life of the vehicle. In addition to this

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(27) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); para. 740.
(28) See Appendix F.

direct loss, there is also an indirect loss. "Carriers are naturally reluctant to maintain a service over roads which are never good and may, under certain weather conditions, become impassable. If the service is provided, charges must be levied at rates which discourage, instead of foster, local production: if no service is provided the area becomes in effect unproductive." Thus bad roads are a direct hindrance to an increase in the productivity of a country and to its development.(29)

The South African Railways Administration's Road Transport Service:

Improvements in the internal combustion engine and in the design and carrying capacity of the motor vehicle have had a profound effect upon the provision of communications in the rural areas of the Union. Before 1925, it was accepted that the railway was the only effective method by which such communication could be provided. The result was the construction of a considerable number of branch lines, many of which were not - and never could be - paying propositions. On the other hand, the agricultural development of large areas of the Union could not have taken place without communications - and so the lines had to be constructed. Since 1929, new railway lines have been constructed only:

a. subject to an unqualified and unlimited guarantee against all losses in working, including interest charges; or

b. in cases where it is clearly established that the needs of the area can not adequately be met by the Administration's Road Transport Service and that the volume and nature of the traffic available is such as to ensure that the line will prove an economically sound undertaking for the Government.

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(29) This paragraph has been adapted from para. 736 of the Report of the 1945 Commission of Inquiry into Road Motor Transportation; U.G.46-1947.

Instead of new railway lines, the Railways Administration has developed, as an integral part of the South African Railways, a Road Transport Service which, in the year ended 31st March, 1956, ran more than 36 million vehicle and trailer miles, operated over 27,344 route miles, carried almost 11.5 million passengers and approximately 3.5 million tons of goods.(30) The Railways Administration's Road Transport Service operates passenger vehicles, goods vehicles and dual purpose vehicles, and it is by far the largest of the carriers for reward in the rural areas of the Union.

The motor vehicle possesses two definite advantages compared with the railway in regard to the provision of communications in rural areas. These are in regard to capital outlay and flexibility.

a. Capital outlay:

The capital outlay required to equip a road transport service is considerably less than that required to construct and equip a railway. The railway has generally not only to purchase the land over which its lines are laid and on which its buildings are constructed, but has to bear the cost of constructing necessary installations such as buildings, bridges and various signalling devices. In addition, it has to bear the cost of constructing the permanent way. On the other hand, the motor vehicle needs no elaborate installations and it operates over a highway which is provided by the State and maintained at the expense of the community and which becomes available for the price of the licence which must be obtained before the vehicle may be driven

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(30) Report of the General Manager of Railways for the year ended 31st March, 1956, (U.G.36-1956); page 131.

over a public road. Furthermore, the capital outlay necessary to purchase a fleet of motor vehicles is much less than that required to purchase locomotives and rolling stock. For a railway to be financially successful, regular and fairly heavy traffic is necessary - two things which as a general rule are not to be found in rural areas, where traffic tends to be seasonal. Though traffic may be insufficient to support a railway, it is often adequate to make a road transport service remunerative.

b. Flexibility:

The canal, the river and the railway provide a service only at special points or along a fixed route. In the case of a railway, once it has been constructed it is not profitable to uplift it and relay it in another area if it is found that the first location is unprofitable, either owing to a misjudged demand for the service or to a change in conditions in the area. It must be operated with maximum possible profit - or, in some circumstances - with the minimum possible loss, or abandoned, in which latter case it is still necessary to pay the interest charges on the capital involved. With a road transport service, not only does less capital have to be invested in the undertaking than in the case of a railway, but it is not irretrievably committed to a certain route or area. If a service proves unremunerative it can be withdrawn, or the route changed without difficulty, and without any great loss. Again, the flexibility of the vehicle makes it possible to extend the route with ease, or to design a route which enables the vehicles to serve the maximum number of traffic-producing points; it is also a simple matter to arrange alternative routes on different days between two termini. When the traffic in an

area develops sufficiently to warrant the construction of a railway, the vehicles and other equipment used in providing the road transport service can be easily transferred to another district. This easy transferability of vehicles is also an advantage where traffic is seasonal, for it makes it a simple matter temporarily to augment the service in a particular area. In general, it can be said that it is possible for a road transport service to pick up or deliver goods and passengers under more diverse conditions and more easily than any other form of transport. It must be noted, however, that the absence of suitable roads in a country or district materially reduces the flexibility of motor transport.(31)

It has been mentioned that the Railways Administration's Road Transport Service is operated as an integral part of the Railways. The Union has been divided into a number of Road Transport Areas and these in turn are grouped into Systems under the control of the appropriate System Manager of Railways. The Cape Eastern System, for example, consists of thirteen areas, each area comprising one or more routes. A diagramatic representation of the Cape Eastern System road transport routes and their relationship to the Cape Eastern Railway System will be found in Figure 28. The route mileage in each area will be found in Table A.43. Figure 28 shows that the Railways Administration's Road Transport Service operates either between two stations, or between a station and a town not supplied with railway communication.

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(31) There are other advantages which are claimed for road transport as compared with railway transport, but these refer more particularly to privately owned and operated road transport and will be dealt with later in this chapter.

Fig. 28 The Road Transport Service routes of the Cape Eastern System as at 31st March, 1956

In 1926, the first service under the control of the Cape Eastern System was introduced: a twenty-eight mile long route between East London and Mooiplaats.(32) By the 31st March, 1933, the route mileage under the control of the Cape Eastern System had risen to 566, and from that year it continued to increase, reaching a maximum figure of 2,187 miles at the 31st March, 1947. By the 31st March, 1956 the route mileage had decreased to 1,930 miles, following the transfer of certain routes in the Maclear-Mount Fletcher-Matatiele area to the control of the Natal System and the shortening of other routes by the withdrawal of unprofitable sections.

The development of the Cape Eastern System Road Transport Service is illustrated in Figures 29 and 30, which are based on Tables A.44 and A.45. Figure 29 shows the fluctuation in vehicle and trailer mileage between the 1st April, 1932 and 31st March, 1956.(33) As with train mileage, while an increase in vehicle and trailer mileage represents an increase in activity, it does not necessarily represent an increase in efficiency. Vehicles may be running long distances, but they may be only lightly loaded; or small vehicles may have to run more miles to cope with a given traffic than larger vehicles would have to run. In

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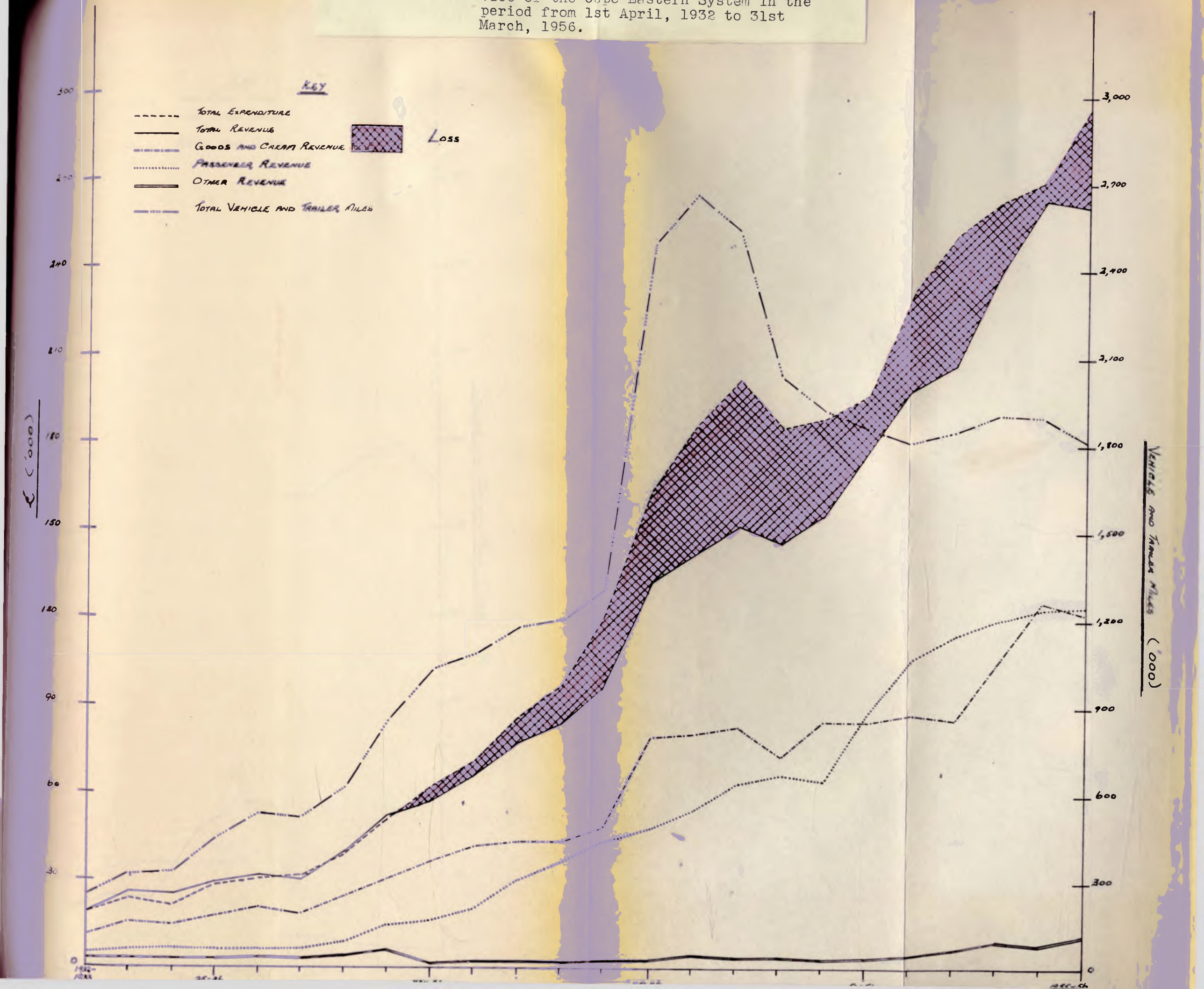
(32) The Administration's first Road Transport Service was introduced in 1912 between Bot River and Hermanus; by 31st March, 1925, there were only seven services in operation.

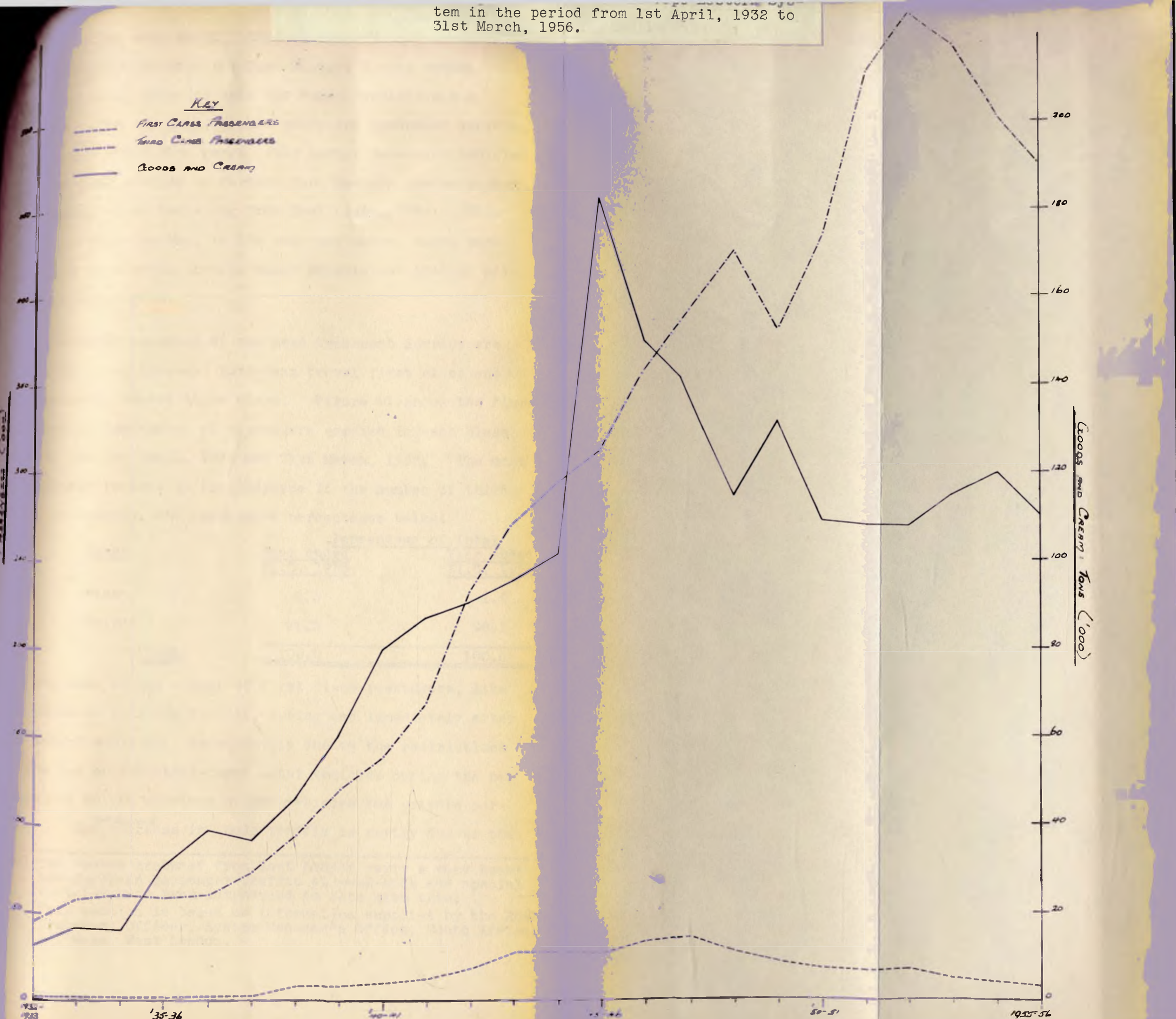
(33) The year ended 31st March, 1933 is the first year for which it has been possible to obtain Cape Eastern System data.

The use of trailers was introduced in the Cape Eastern System in the year ended 31st March, 1934 and since then their use has been extended considerably. The motor vehicle pulls one or two trailers, according to the nature of the country through which the route passes and the traffic offering. The theory underlying the use of trailers is that the additional revenue produced by their use is greater than the additional expenditure incurred in pulling them.

Revenue, Expenditure and Vehicle and Trailer Miles of the Road Transport Service of the Cape Eastern System in the period from 1st April, 1932 to 31st March, 1956.



tem in the period from 1st April, 1932 to 31st March, 1956.



the year ended 31st March, 1953, ten-ton goods vehicles were put into operation over the Cape Eastern System routes for the first time; prior to this the normal vehicle was a seven or eight ton dual purpose goods and passenger vehicle. In the year ended 31st March, 1952 larger passenger vehicles were put into service on certain Cape Eastern System routes, principally those radiating from East London.(34) This partially explains why, in the post-war years, there were increases in certain traffic while vehicle and trailer mileage was decreasing.

Passengers carried by the Road Transport Service are placed into two classes: Europeans travel first class and Non-Europeans travel third class. Figure 30 shows the fluctuations in the number of passengers carried in each class between the 1st April, 1932 and 31st March, 1956. The most significant feature is the increase in the number of third class passengers, the respective percentages being:

Class	Percentage of Total	
	Year ended 31.3. 1933	Year ended 31.3. 1956
First	8.5	1.9
Third	91.5	98.1
TOTAL:	100.0	100.0

The increase in the number of first class passengers, like the increase in goods traffic, during and immediately after the second world war, is certainly due to the restrictions on the use of privately-owned motor vehicles during the war years and to the shortage of new vehicles for private purposes. The subsequent decrease in goods traffic is partly due to the

(34) The routes eastward from East London carry a very heavy Non-European passenger traffic at week-ends and special vehicles have been introduced to cope with this.
This section is based on information supplied by the Road Transport Officer, System Manager's Office, South African Railways, East London.

transfer of the Maclear-Mount Fletcher-Matatiele services to the control of the Natal System.

It is very difficult to ascertain what commodities are conveyed by the Administration's Road Transport Service; no figures are available for particular routes and there is no record of the destinations to which commodities are sent. The following summary of such data as are available shows the quantity of certain commodities conveyed by the Service in the area under the control of the Cape Eastern System:

Commodity	Tons (Annual Average for the three year period from 1st April, 1953 to 31st March, 1956)
Grain	18,719
Wool	6,008
Fertilizer	5,877
Lucerne	4,201
Pine-apples	2,689
Cement	2,314
Fruit, other than pineapples	2,150
Pineapple plants	1,817
Cotton(35)	1,228
Coal	798
Fresh vegetables	506
Mohair and skins	466
Salt	450
Bricks	377
Chicory	238
Cheese	92
Other commodities	66,800
TOTAL:	114,730

The full figures for the three years will be found in Table A.46, in Appendix A.

It is possible to determine on a System basis the revenue and the expenditure of the Railways Administration's

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(35) This tonnage represents cotton conveyed from King William's Town railway station to the textile factory at Zwelitsha.

Road Transport Service, and the figures for the Cape Eastern System are shown in Table A.44. The position is shown diagramatically in Figure 29. Table 33 shows the importance of goods and passenger traffic in certain years between the 1st April, 1932 and 31st March, 1956.

TABLE 33 (36)

Revenue derived from Passenger Traffic, Goods Traffic and Other Sources as a Percentage of the Total Revenue of the Cape Eastern System's Road Transport Services in selected Years between 1st April, 1932 and 31st March, 1956

Year ended 31st March	Revenue			TOTAL
	Passenger	Goods	Other	
	%	%	%	%
1936	23.4	63.8	12.8	100.0
1941	30.0	65.0	5.0	100.0
1946	37.1	60.4	2.5	100.0
1951	49.7	48.2	2.1	100.0
1956	47.5	46.8	5.7	100.0

The most significant fact revealed by the above Table is the increasing importance of passenger revenue, which in the last two sample years contributed slightly more to total revenue than the formerly more important goods revenue. In Table 34 below, the increase in revenue between the year ended 31st March, 1933 and the year ended 31st March, 1956 is shown: passenger revenue increased by 2,100 per cent; goods revenue by 950 per cent and total revenue by 1,165 per cent. While this increase in revenue is important, it is the increase in expenditure which is more significant, for the increase in revenue and expenditure is coupled with the disquieting feature of recurrent annual deficits, as shown in Figure 29.

(36) Source: Table A.44 in Appendix A.

The disquieting feature about these annual deficits is not only their continuity, but their increasing magnitude. Between 1st April, 1932 and 31st March, 1937, very small annual profits were made, the average figure being only £1,355 per annum. In the next year there was a small loss, then two years with a negligible profit in each, averaging £430 per annum. Since the year ended 31st March, 1941, there has been a deficit every year. From £5,196 in that year, the deficit increased to £51,052 in the year ended 31st March, 1948. In the next three financial years the loss decreased, being only £19,143 in the year ended 31st March, 1951, but by the year ended 31st March, 1953 it had again increased and was as high as £43,862. In the year ended 31st March, 1955 the loss was only £7,226 - the lowest figure for thirteen years - but in the year ended 31st Mar. 1956, however, the loss had risen to £32,549.

This recurrent annual deficit is not an isolated phenomenon, but is characteristic of the Administration's Road Transport Service as a whole. It is important to notice that this deficit is <u>not</u> caused by falling revenue, for revenue has risen steadily throughout the period under review. The recurrent deficit is attributed by the Railways Administration to the increased cost of vehicles and maintenance, the increased direct costs of operation and increased overhead expenses, especially supervision. It is therefore obvious that the deficit is caused by the low rates of the Road Transport Service. As this recurrent deficit is absorbed into the general accounts of the South African Railways, in effect the users of the Road Transport Service are subsidized by those who use the railways. In view of these facts, the following quotation from the report

of the 1945 Commission of Inquiry into Road Motor Transportation is specially relevant:

> "The popularity of the Railways Motor Service among the farming community is impressive ... We are satisfied that the esteem in which the service is held is to be ascribed in no small measure to the high standard of its equipment and the efficiency of its operation ... but there is also little doubt that the lowness of its charges - a tariff with which the private operator confesses himself unable to compete - contributes to earn the farmer's favour." (37)

The Commissioners continued:

> " ... even though the Service remains a part of and under the management of the South African Railways it should, as far as possible, be a separate financial entity and should be so administered as to be financially self-supporting, neither being subsidized by, nor subsidizing the Railways. Had the Railways Motor Service been administered as a separate undertaking, and had it not had access to the Railway Administration's money chest, it must have adjusted its rates to meet the steadily rising costs. In effect, the users of the Service were subsidized by other users - the customers of the railway - to the extent of the deficit." (38)

There can be little quarrel with these findings of the Commission, and despite various increases in the rates charged by the Administration's Road Transport Service, the statements set out above now apply with equal, if not greater, force than they did in 1945.

Table 34 compares the percentage increase in various heads of traffic and revenue of the Cape Eastern Road Transport Service between 1st April, 1932 and 31st March, 1956, with the increase for the Road Transport Service as a whole.

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(37) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); Para. 519. The italics are the writer's.
(38) ibid.: para 523.

TABLE 34 (39)

Increase in the Revenue, Expenditure and Traffic of the Cape Eastern System Road Transport Service between 1st April, 1932 and 31st March, 1956 Compared with that of the Service as a whole.

Head	Percentage Increase	
	Road Transport Service of the Cape Eastern System	Road Transport Service of the South African Railways
	%	%
Expenditure:		
Total Expenditure	1,326.0	1,265.0
Revenue:		
Total Revenue	1,165.0	1,185.0
Passenger Revenue	2,100.0	No figures available
Goods Revenue	950.0	
Other Revenue	361.0	
Traffic:		
Number of passengers	871.0	474.0
Tonnage of Goods and cream*	775.0	903.0
Mileage:		
Route mileage	241.0	172.5
Vehicle and trailer mileage	606.0	687.0

* : Cream has been converted to tons from gallons at the figure of 9.91b. equals 1 gallon of cream

Privately-owned Road Motor Transport:

At the same time as the Railway Administration was expanding its Road Transport Service, privately-owned road

(39) Source: Calculated from the data in Tables A.44 and A.45, in Appendix A to this Thesis; and from the data in the Reports of the General Manager of Railways for the years ended 31st March, 1933 (U.G.34-1933) and 31st March, 1956 (U.G.36-1956), respectively.

motor transport was also increasing. This latter type of transport takes three forms:

a. persons and firms use their own transport for business purposes: this is called "ancillary transport";

b. persons use their own motor transport for pleasure; and

c. persons hold themselves out as public carriers for reward.

There was no direct method of ascertaining the tonnage of goods carried by ox-wagons; the same applies in the case of motor transport. One can gauge, however, from the complaints voiced by the General Manager of Railways in his Annual Reports about competition from privately-owned motor vehicles that motor transport, in all its forms, has been, and still is, of considerable importance. Another index which can be used to measure the increased importance of privately-owned motor transport is the increase in the number of licenced vehicles. Detailed figures for each Magisterial District in the Border Region will be found in Table A.47, of which a summary is given below:

Type of Vehicle	Number of motor vehicles in the Border Region in the year ended 31st Dec.		Percentage increase
	1935	1956	
Motor cars	14,755	27,461	86.0
Motor buses	69	241	249.0
Commercial vehicles	1,821	8,865	386.0

In his report for the year ended 31st March, 1928, the System Manager of the Cape Eastern System pointed out that competition from road motor transport was increasing in the area under his jurisdiction, particularly in the Transkeian

Territories and in the neighbourhood of Cala Road and Maclear, and also, occasionally, between East London and King William's Town, Fort Beaufort and Adelaide. Owing to the circuitous route followed by the railway line from East London to the Maclear area, and to the Transkei, the use of motor transport brought these points considerably nearer to East London, the road being much more direct. Furthermore, being situated on branch lines, traffic to or from these stations and main line stations was charged at a higher rate than traffic for the same distance between two main line stations.(40) The public carriers transported high-value general traffic, especially petrol in drums, from the coast to the inland areas, returning with wool, hides and skins and farm products.(41) This was what the Railways Administration called "skimming the cream off the traffic" for they complained that the railways were left with the low value traffic, upon which it was impossible to levy high railway rates so that the revenue of the Railways was adversely affected. In addition to the public carriers offering cheaper transport, there were other advantages to be gained from their employment:

a. there was less handling of the goods;

b. the time consumed in transporting the goods was reduced;

c. door to door transport was possible; and

d. it was possible to exercise a greater degree of control over the transport operator, and thus it was easier to apportion the responsibility for loss or damage and the laborious process of making claims against the Railways Administration, with the attendant period of waiting, was obviated.

The Railways Administration, however, was not prepared to sit passively and watch inroads being made into its

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(40) See Chapter 5.
(41) This information is contained in the annual reports of the System Manager, Cape Eastern System, over a period of years.

traffic by public carriers using motor vehicles. As a first step, the Railways Administration brought into effect clause 3 (1) of Act number 22 of 1916.(42) This clause had precisely the same effect of clause 7 of the Cape Harbours Control Act, number 38 of 1908: it gave the Minister of Railways power to levy additional wharfage charges on landed goods when the consignee would not enter into a contract with the Railways Administration to have all his imported goods forwarded by rail to areas in which, in the opinion of the Minister, there was competition from road motor transport. The only alterations to the original clause were purely administrative, necessitated by the unification of the four independent Colonies into the Union of South Africa in 1910. The operations of the public carriers continued, however, and the General Manager of Railways, as well as the System Manager of the Cape Eastern System, continued their complaints, the crescendo reaching a climax in 1929. In this year the Union Government appointed a Commission to inquire into road motor competition and the Commissioners reported that, after a careful survey, they had come to the conclusion that competition was, in its then unregulated and uncontrolled form, not likely to promote the best interests of the country.(43) As a result, the Union Government decided to institute some form of control over motor transport and, in 1930, Parliament enacted the Motor Carrier Transportation Act.(44) Before discussing the provisions

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(42) Railways and Harbours Regulation, Control ... Act.
(43) U.G. 8 -1930: Report of the Road Motor Competition Commission (1929): para. 79.
(44) Act number 39 of 1930.

of this Act it is necessary to digress at some length to discuss the whole question of the control of motor transport.(45)

The control of motor transport:

Control may be applied to motor transport for three principal reasons:

a. to promote the safety of both users and providers of public transport;

b. to limit and control monopoly; and

c. to control competition within the sphere of motor transport, and between motor transport and other forms of transport, particularly rail transport.

There can be no quarrel with the imposition of the first type of control and it does not warrant any further attention. The imposition of control for the second reason would also generally be accepted as being beneficial to the community - though it might perhaps be corrected by competition rather than by control. The imposition of control for the third reason is a much more controversial point, though it would generally seem to be agreed that some degree of control over motor transport is desirable.(46) The differences of

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(45) In certain countries where there are competing privately-owned railway systems, control has been applied to all forms of transport. In South Africa the railway system is state owned and no legislation has been enacted to control transport as a whole, but only motor transport. It should be noted, however, that Act 39 of 1930 made no mention of special protection for the Railways, but put the Administration on the same footing as other transport operators, competition with whose service was prohibited when, and only when, those services were deemed to be satisfactory and sufficient to meet at a reasonable charge public transportation requirements. This principle has been maintained in the various amendments to the Act.

(46) For example, some form of control has been applied to motor transport in Great Britian, the United States of America, the States of the Commonwealth of Australia and in New Zealand.

opinion arise in regard to the method of imposing such control and the extent to which it should be carried.

In South Africa the factors influencing the 1929 Road Motor Competition Commission to recommend the introduction of some form of control over motor transport were:(47)

a. the prevention of excessive competition among motor transport operators themselves was desirable, when that competition brought about conditions of instability, inefficiency and a higher cost of operation in the motor transport industry;

b. that control encouraged the provision of motor transportation in areas, or on routes, in or on which transport facilities were non-existent or inadequate for present needs or future development, because it protected the operators from excessive competition; and

c. that excessive competition by motor carriers with the Railways must be prevented where that competition caused financial loss to the Railways which was not compensated by an equal or greater gain to the community.

Before approaching the question of how motor transport may be controlled, it is necessary to investigate why control should be introduced in preference to the allowance of free competition. The effect of free competition in the sphere of transport is summarized by Fair and Williams as being:

" ... to ensure that shippers receive a variety of service and each variety of service at a rate which approximates cost as nearly as it may be known. Price is a major competitive weapon and price competition will attract business to the most efficient concerns, those able most cheaply to serve the public. The competitively induced reflection of costs in rates will go a long way to secure that economic division of traffic among the several agencies which we are said to lack to-day. The less efficient carriers, if

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(47) The words which follow have been adapted from the Report of the 1945 Commission of Inquiry into Road Motor Transportation, U.G.46-1947, para. 291. The report goes on to say at paragraph 292:

"From the Report of the 1929 Commission it is clear that these were also its conclusions, though it did not state them in precise terms; and that they inspired the recommendations of that Commission ..."

their capacity be not needed to supplement that of their peers, will be weeded out and the average of efficiency raised to the benefit of the public. No protective umbrella will be held out over the inefficient. Active and effective competition, too, will exert a powerful stimulus upon technical, organizational and managerial advances designed to effect improvements in service and decreases in the cost of performing them. ... Control of costs, search for economies, experimentation, study of the market, all occur in more rigorous and active form to the enormous benefit of the public. The diminution or cessation of competition, on the other hand, ordinarily brings a letdown and a gradual return to the old ways, including a growing lack of concern for the interests of the shipper. ..."(48)

On the other hand, however, competition produces certain disadvantages as well and Fair and Williams say:

"Competition, then, can do much to promote the shipper's major interests in his transportation service, i.e., it brings about service improvements, promotes the search for economy, brings a lowering of rates, removes the shipper's dependence upon a single agency or carrier, and fosters a regard for the individual needs of shippers in respect of service and rates. But the shipper also has certain interests which excessive competition has customarily damaged. Although interested in low rates he also seeks rate stability and fixed and known relationships among rates. ... Moreover, he seeks regular, responsible and reliable service and, although he is pleased to have alternative services at his command, does not generally wish to have to shift frequently from carrier to carrier. There is an advantage in having an established relationship with a carrier which comes to know his needs and adapts its service to them. Sharp competition tends to destroy these elements of stability. Transportation is not a homogeneous commodity, the identity of the carrier is not a matter of indifference, and pure or perfect competition is an impossibility. It would appear that some compromise between unfettered competition and tight control upon competition is necessary to serve best the interests of the shippers and the travelling public." (49)

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(48) M.L. Fair and E.W. Williams, Jr.: "Economics of Transportation"; pages 641-642. (Published by Harper and Brothers, New York, 1950.)

(49) ibid.: page 642.

Fair and Williams continue to say that one of the factors which operate most against effective competition in transport is the "intransigent economic characteristics of the most important of the carrier groups, the rail roads". They emphasize that the railway undertakings are frequently in a position to eliminate piecemeal their competitors. The position as they describe it is, of course, with reference to the United State of America. Though the South African Railways was perhaps not in a position to eliminate the competing motor transport by economic means, it is not to be imagined that free competition would be permitted in the transport field, particularly since the railways are a State-owned undertaking. This was especially true because the effect of competition was to affect adversely the revenue of the Railways, which in turn would have had repercussions upon the community as a whole.

There are two principal methods, with variations within each, by which transport may be controlled:

I. <u>By creating some form of monopoly in which all forms of transport are united</u>: <u>e.g.</u>,:

   a. government ownership and operation: nationalization;

   b. amalgamation under private ownership and operation;

   c. government ownership with private operation for profit under lease and licence;

   d. ownership by the State or by a Corporation created by Statute on the managing body of which the State has majority representation, and operation by that Corporation at cost or for a profit limited by the creating statute.

II. <u>By a Statutory Body</u>, of which method there are two variations:

   a. directly, by a Government Department; or

b. indirectly, by Boards established by the Government, but having powers vested in, and duties imposed on, them by Statute, and being free from Ministerial or Departmental dictation in the exercise of the one and the discharge of the other.(50)

It has been mentioned that there were in South Africa three main factors prompting the introduction of control over motor transport. There are three methods by which this control is enforced:

a. control of entry, by making it obligatory to obtain a licence, or similar document, before motor vehicles may be used for commercial purposes;

b. control of tariffs, by which either *minimum* or *maximum* rates may be fixed or absolute rates may be specified; and/or

c. control of the area in which the owner may operate his vehicle commercially.

These three methods are frequently used in combination, the first two being used to control competition among the road transport operators themselves. They may also be used to limit competition with other forms of transport, e.g., by

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(50) This is the method which is in use in South Africa and, in the opinion of the 1945 Commission of Inquiry into Road Transportation, it was better suited to the country's requirements and circumstances than the other method of statutory control. The main reason prompting this opinion was that, in the Union, not only is the Government the largest transport operator - being the owner of the Railways, but transport operations of the Government are directed at the highest level by the Minister who is the Minister of Transport. "Were control over other operators to be exercised directly by the Department of Transport," continues the Commission, "the belief which even now prevails, that the Railway Administration exercises a profound and sinister influence in the control system, would undoubtedly gain much wider credence." The Commissioners then go on to say: "control by boards, as compared with control by individual officers, presents other advantages. It affords to provincial administrations and the larger local authorities ... a share in the control; and it ensures participation in the work of control by men whose outlook should be, by training and experiece that of the business man or the ordinary citizen as distinct from that of the official ... ."

limiting the number of competing units or by preventing competitors from undercutting the Railway Administration's Road Motor Service on a particular route. The third method is entirely a device for protecting another transport interest, usually the railway. Provided all the operators are allowed the same area of operation, this type of control does not affect competition among the operators themselves. The following quotation is a fitting conclusion to this outline of the general principles of motor carrier control:

> "Your commissioners regard it as axiomatic that interference by the State with activities of individual citizens or groups of citizens by way of the imposition or restriction of, or control over, those activities is proper only when the interference is necessary to preserve or promote conditions seen to be beneficial to the community, or to prevent or mitigate conditions seen to be harmful to it. It follows that measures of restriction and control should be so devised and so administered that they will be no more restrictive and have no wider application than is necessary to the attainment of one or other of those ends." (51)

The administration of motor transport control in South Africa:

The Motor Carrier Transportation Act, number 39 of 1930, brought under control only transportation by carriers for reward, excluding motor vehicles in ancillary use, within certain areas and on certain routes to be defined, leaving it uncontrolled in non-proclaimed areas or over non-proclaimed routes. To administer this control the Act established a Central Road Transportation Board (52) and Local Road Transportation Boards, vesting in them the power

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(51) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945): para. 290.

(52) This Board was abolished on 1st December, 1948 and its functions transferred to the National Transport Commission, established in terms of Act 44 of 1948 : The Transport (Co-ordination) Act.

of granting motor transportation certificates without which motor transport might not be operated within a proclaimed area or along a proclaimed route. The Central Transportation Board also acted as an appeal tribunal.(53)

The passing of the Act, while it did to a certain extent reduce the competition of motor transport with the Railways, did not have the immediate effect which the Administration had anticipated. In annual reports the System Manager of the Cape Eastern System attributed this to the following reasons in the area under his control:

a. many farmers, traders, etc., who had previously employed cartage contractors, purchased their own lorries, which were exempt from the operations of the Act;

b. by no means all the roads in the country areas were proclaimed as routes to which the Act was applicable; and

c there was a revival of animal-drawn transport for the conveyance of petrol from East London to Grahamstown, Port Alfred, Bathurst, and Somerset East,(54) and from East London to Umtata, Ugie, Maclear, Cala and between Queenstown and Indwe and Maclear,

The first two of the above reasons were subsequently dealt with by amendments to the definition of "motor transport" in the Act,(55) and by the extension of the Act to cover the whole Union. The animal-drawn transport eventually ceased, but not before it had caused the Railways Administration considerable anxiety. With amendments to the Motor Carrier Transportation Act, clause 3 (1) of Act number 22 of 1916 became redundant and its enforcement ceased.(56)

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(53) A detailed summary of the provisions of the Motor Carrier Transportation Act, as amended, will be found in Appendix E.
(54) At that time there were bulk petrol installations at East London, but not a Port Elizabeth.
(55) See Appendix E.
(56) This was the clause which provided for differential wharfage charges being imposed: see page 323.

Eventually, the Union was divided up into a number of transport areas, each under the jurisdiction of a Local Road Transportation Board.(57)

The Motor Carrier Transport Act, and its amendments, have been criticised in certain quarters, particularly by the Associated Chambers of Commerce of South Africa. The 1945 Road Motor Transportation Commission, however, was not prepared to condemn completely the control of motor transport in South Africa. The Commissioners said:

> "Your Commissioners do not think that the 1929 Commission in recommending the Act, or the Act of 1930 in enacting, measures imposing or empowering transportation boards to impose limitation and control on motor carrier transportation went further than was necessary for the achievement of the purposes which we have defined, and this is the opinion too of the witnesses we have heard, with the exception of course of the very few who oppose any control whatever except traffic control.
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> .....
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> But though the original Act has escaped serious objection that cannot be said either of its subsequent amendments or of the manner of its or their administration, the effect of the amendments has been to enlarge very greatly the field of restriction; and the administration of transportation boards, it is alleged, has been in various respects such as to pervert the intention of the statutes." (58)

At the outbreak of the second world war, the Railways Administration was complaining not only of competition with its train services, but also with its Road Transport Service. Within the Border Region this latter competition was the main

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(57) The present jurisdiction of the East London Local Transportation Board will be found in Appendix E.

(58) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); paras. 293 and 296. The Commission supported the amendment of the definition of motor transport in the original Act to cover ancillary transport. Its reasons for so doing will be found in paragraph 299 of its report.

concern of the Administration, particularly within the Transkeian Territories where taxis owned by Non-Europeans made considerable inroads into the passenger traffic carried by the Administration's Road Transport Service. Owing to the restrictions imposed on the sale of tyres, tubes and petrol during the war years, privately-owned motor transport virtually disappeared - a state of affairs which also continued into the immediate post-war years.(59)

In recent years there has been a considerable development in privately-owned motor transport in the Border Region, in common with the remainder of the Union, and in its report for the period from 1st April, 1952 to 31st March, 1954, the National Transport Commission referred to "the problems which had arisen in and near larger towns as a result of the enormous increase in traffic due to the expansion in industry and commerce." (60) In the Border Region this motor transport includes that which is legally permitted in terms of the Motor Carrier Transportation Act, and that which is carried on illegally in defiance of the Act. Again, no figures are available of the quantity of goods and the number of passengers carried by privately-owned transport.(61) Tables A.48 and A.49, in Appendix A, show the number of Motor Carrier Certificates, and Exemptions from the obligation to obtain a Motor Carrier Certificate, issued by the East London Local Transportation Board between 1st April, 1948 and 31st March, 1956. Owing to certain procedural

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(59) This considerably augmented the passenger traffic carried by the Railways, and the passenger and goods traffic carried by the Administration's Road Transport Service, in the Border Region.

(60) U.G.53-1957: Report of the National Transport Commission for the financial years 1952-53 and 1953-54; page 1.

(61) Before the second world war Local Road Transportation Boards published figures of the tonnage of goods carried by private transport operators, but there was no way by which the Boards could check returns submitted to them and the figures are regarded as being quite unreliable.

alterations, the comparison of the earlier and later figures in these Tables does not give a true reflection of the actual position. The attention given to the question of competition from privately-owned motor transport by the System Manager of Railways at East London in his more recent annual reports is a fair indication that this type of transport has assumed considerable proportions. Both the System Manager of Railways and the Secretary of the East London Local Road Transportation Board draw attention to the fact that the Natives in the Transkeian Territories are displaying an increasing tendency to patronize the services provided by their own people in preference to the Railways Administration's Road Transport Services where both transport agencies operate over the same route.(62) This is partly to be explained by the fact that the Railways Administration's vehicles operate away from the towns or stations out into the locations in the mornings and return to their depots in the evenings: any other system would be impossible as there is no accommodation in the locations for the drivers or their vehicles. The Natives, however, require transport which moves in the opposite directions at those times: they wish to go to the towns in the morning,and having transacted their business, to return to their locations in the afternoons. Such a service Native operators of motor transport can provide and the Local Road Transportation Board has consistently maintained that it is obliged to grant Motor Carrier Certificates for such services.

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(62) Unpublished report of the Local Road Transportation Board, East London for the year ended 31st March, 1956. Unpublished reports of the System Manager, Cape Eastern System of the South African Railways, East London, for the years ended 31st March, 1955 and 31st March, 1956.

The standard of service provided, and the efficiency of the vehicles employed, by private motor transport operators in the rural areas of the Border Region varies considerably from one to the other. It should not, however, be assumed that [redacted] privately-operated motor transport services are inefficient or use vehicles of an inferior standard.

Since 1952, various relaxations have been made in the control of motor transport,(63) but according to the System Manager of Railways at East London, it was only in isolated instances that public carriers applied for permission to convey by road the items listed in the 1952 and 1954 relaxations. There was, however, a tendency for motor transport operators to apply for permission to convey petrol, power paraffin and diesel oil. In all cases, however, the Local Road Transportation Board refused to allow petrol to be conveyed by road by public carriers.(64) The System Manager, in his report, further stated that the Railways, as a matter of policy, strenuously oppose any applications to the Local Road Transportation Board, if these are likely to bring about competition with the Administration's road and rail services.(65)

The last statement in the preceding paragraph raises the question of the extent to which the Motor Carrier Transportation Act affords protection to the Railways, or the Railways Administration's Road Transport Service, from

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(63) See Appendix E.
(64) In terms of the Regulations to the Motor Carrier Transportation Act, as amended, the oil companies may deliver petrol by their own bulk tanker vehicles within a radius of thirty miles from their depots.
(65) Report of the System Manager, Cape Eastern System of the South African Railways, East London, for the year ended 31st March, 1956.

competition by privately-owned motor transport. It has been mentioned, and it must again be stressed, that the Motor Carrier Transportation Act does not say anything in regard to the protection of either the Railways or the Administration's Road Transport Service from motor transport competition. The basic rule to be observed by the Local Road Transportation Boards is laid down in section 13 (3) of the Act:

> "Whenever any transportation facilities in existence within any area or over any route, are in the opinion of the Board (66) or local board concerned, satisfactory and sufficient to meet at a reasonable charge the transportation requirements of the public within that area or along that route, the Board or such local board shall not grant any motor carrier certificate in respect of any motor carrier transportation within substantially the same route in competition with the said transportation facilities, unless in the opinion of the Board or local board concerned the granting of such a certificate will, having regard to the circumstances, be expedient in the public interest."

A proviso to this section provides, however that:

> if the transportation in respect of which the certificate is required, can be co-ordinated with an existing transportation service, whether railway, tramway, trolley-bus or motor vehicle service, operated by the Railways Administration, or a local authority, or a person to whom this proviso has been declared applicable by the Minister of Transport, the Railways Administration, local authority or person concerned, may at any stage of the proceedings, in addition to, or as an alternative, and without prejudice to any objection which may be or may have been lodged against the application by it or him, apply for a certificate to provide that transportation for which a motor carrier certificate is being requested ... and no application for such a certificate shall be granted until the Railways Administration, local authority or person concerned has been given a reasonable opportunity to apply.

It will be seen that the Act requires the Boards to form their own opinion when applications and objections come before them and this is precisely the point at which the intention of the Statute can become perverted. The Commissioners appointed to inquire into road transportation in South

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(66) This refers to the Central Transportation Board, now superseded by the National Transport Commission.

Africa said in their 1945 report:

> "The complaint that was most frequently made to us of the administration of the Act by transportation boards was that quite undue consideration was given by most boards to the financial interests of the Railway Administration. Some witnesses indeed profess to believe that the Administration, through the Department of Transport, exerts a controlling influence on the decisions of the boards.
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> We are satisfied that the Railway Administration neither controls nor attempts to control transportation boards in the discharge of their duties under the Act, save by the quite legitimate and proper procedure of making its representations in the capacity of a party - applicant or objector - to an application. But there is nevertheless good reason to think that some local boards have been inclined to listen too readily to these representations and to regard it as their principal duty to protect the Railways against competition of almost any kind by motor vehicle transport.
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> ...
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> This outlook has been adopted, not in response to the pressure or influence of the Railways - though the Administration, naturally enough, has not been ill-content that it should prevail - but as a result of the proneness of the boards concerned to seek guidance from Parliamentary debates than from the language of the statute itself. It must be said that this has not been the attitude of the Central Board which, as its annual reports reveal, holds views not widely divergent from those we are now about to express; but the reluctance, even the refusal, of the Central Board to give direction to local boards on questions of policy, otherwise than in the form of decisions on appeal ... has led to the pursuance by certain local boards of a policy in this matter which differs materially from that of other local boards and of the Central Board itself." (67)

The criticism outlined above, together with the Railways Administration's objection to almost all applications for motor carrier certificates - i.e., for permission to operate as a public carrier for reward, has produced a position where, in certain areas, a monopoly in transport in

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(67) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); paras. 309-311. The Commission's views on the attitude to be adopted by road transportation boards are to be found in paragraphs 312-322 of their report. This matter will be referred to further in the conclusion to this thesis.

favour of the Railway Administration has been created where none was intended by the Act or indicated by the facts of the situation or the dictates of common sense.

One other development should be mentioned here: the institution of what the Railways Administration terms "ancillary road transport services". These services are designed to carry traffic between stations which would normally be served by the train. The aim has been either to cater for traffic more expeditiously (e.g., between East London and Port Elizabeth)(68) or to carry traffic which, owing to a shortage of trucks, the Administration would have to delay, e.g.: petrol in drums from East London to various stations in the Border Region. This transport, like all motor transport operated by the Railways Administration, requires a Motor Carrier Certificate. It is difficult to justify this traffic being carried solely by the Railways Administration's motor vehicles instead of privately-owned motor vehicles.

3. Summary.

The following findings emerge from the material considered in this Chapter.

1. Although the ox-wagon proved itself to be a severe competitor with the railways in the Border Region, by 1910 this traffic had almost completely disappeared, except in those areas not provided with railway communication. This was due partly to

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(68) The distance from East London to Port Elizabeth by rail is 301 miles; by road it isapproximately 200 miles.

animal diseases, such as East Coast Fever, and partly to the enforcement of clause 7 of the Harbours Control Act of 1908.

2. The development of the internal combustion engine, and the improvement in the design of the motor vehicle, particularly after the first world war, has had a far reaching effect upon the provision of transport facilities in the Border Region, as in the Union of South Africa as a whole. This development of the motor vehicle has had two consequences:

   a. the Railways Administration could provide transport facilities in the rural areas by using motor vehicles rather than by building expensive and uneconomic branch lines; and

   b. privately-owned road motor transport has developed in competition with the rail and road transport services of the South African Railways Administration.

3. In the Border Region there has been a very marked expansion in every aspect of the Railways Administration's Road Transport Service: in route miles, vehicle and trailer miles, passengers carried and goods conveyed. Though the expansion has passed its peak, the figures recorded in the year ended 31st March, 1956 are very many times greater than those for the year ended 31st March, 1933. As far as passengers are concerned, there has been a marked increase in the number of Non-Europeans conveyed. The disquieting feature, however, is the sustained annual loss incurred in operating this service; a loss which has increased by a greater percentage than that of the Road Transport Service as a whole, in the period between 1st April, 1932 and 31st March, 1956.

Compared with the Road Transport Service as a whole the revenue, goods traffic and vehicle and trailer miles of the Cape Eastern System services have increased at a lesser rate than those of the service as a whole. The expenditure has, in the case of the System services, increased at a faster rate than the Service as a whole - an undesirable feature. In the case of passengers conveyed, however, the increase in the number conveyed by the System services in the year ended 31st March, 1956, was 871 per cent greater than in the year ended 31st March, 1933. In the same period, the number of Passengers conveyed by the Service as a whole increased by only 474 per cent.

4. The growth in privately-owned road motor transport - both that owned by business firms and used exclusivly for their own business purposes (ancillary transport) and that owned by public carriers for reward - led to considerable competition with the Railways and also among the carriers themselves. In 1930 the Motor Carrier Transportation Act was passed by the Union Parliament to control road motor transportation in the Union.

5. In terms of this Act, Boards were set up to issue licences to both ancillary and public carrier motor transport. There has been considerable criticism, not so much of the Act itself, as of the way in which it has been administered by some local boards, who have considered it their duty to protect the railways from all forms of competition, rather than

to "appreciate that the whole intent and purpose of the Act is to serve and protect the interests of the public, and those interests only". Since 1952, and more particularly since 1954, there have been various relaxations in the control of motor transport. Since the end of the second world war there has been a very marked increase in the amount of road motor transport in the Border Region, in common with the remainder of the Union.

6. Much has been done by the National Road Board, now superseded by the National Transport Commission, and by the Provincial Authorities and the Divisional Councils, to improve the condition of the roads in the Border Region. It is, however, principally only the main roads between the larger centres which have been improved, while the rural roads, which open up the country-side to commercial and economic development and which take the place of railway branch lines, remain very largely in an unsatisfactory state for the modern heavy, high-speed vehicle. Owing to the tremendous cost involved in improving these roads, it seems that this state of affairs will continue for many years to come.

CONCLUSION

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> "There is a close relation between the development of a country and its means of transport, because an efficient and highly integrated economy requires that the obstacles of time and distance be effectively and expeditiously overcome, and growing specialisation makes the various activities, sectors and regions increasingly dependent on one another. The higher the level of activity, the more people have to be moved to and from work, and the more raw materials have to be carried to the factories and finished goods distributed to consumers; and the more the population becomes concentrated in towns, the greater becomes its dependence on a variety of resources that have to be obtained outside its own immediate neighbourhood." (1)

The Border Region, with which this thesis has been concerned, covers an area of 27,699 square miles and extends approximately from the Fish River in the West to the Umzimvubu River in the East, and is bounded on the North by the Orange River and Basutoland. Within this predominantly rural and agricultural area live 119,452 Europeans and 1,305,134 Non-Europeans.(2) The transport facilities of this Region are supplied by the Cape Eastern System of the South African Railways and by motor vehicles using the varying types of road in the area. Unfortunately, much of the road mileage is provided with an indifferent or bad surface and this materially reduces the efficiency of road transport. While increasingly large sums should be devoted to the maintenance, improvement and expansion of roads, it seems unlikely that the standard of the roads in the Border Region will be improved in the near future - this is serious because the road is the only means of communication available to large areas in the Border Region.

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(1) U.G.36-1958: Report of the Commission of Enquiry into Policy Relating to the Protection of Industries; para. 396.

(2) These are the figures given in the report of the Union Census taken on 8th May, 1951.

The focal point of the transport system of the Border Region is East London, a fact which is undoubtedly due to the existence of the Buffalo Harbour. With only minor exceptions on the Western and the Eastern peripheries of the Region, East London is the undisputed port of the Border Region, which thus forms a hinterland in which East London is virtually free from competition from either Port Elizabeth or Durban.

In the case of certain commodities, however, East London's hinterland extends far beyond the Border Region. The railway line to the North is the link with the prosperous industrial and mining area of the Southern Transvaal and, since 1948, East London has been the second most important Union port of entry for sea-borne commercial traffic to that area, although East London's share is far below that of Durban, while Lourenço Marques overshadows all the Union Ports combined. East London is also the second most important Union Port supplying goods to the Free State Gold Fields and the great economic and commercial development of this area - a development not by any means completed - gives rise to the hope that this area might prove a prosperous and important hinterland for East London Harbour. For some commodities, East London's hinterland extends into Rhodesia, but East London ranks fourth as a port of entry for this area and it seems that there is little prospect of this trade developing to any appreciable extent in view of the dominant position of Port Elizabeth in the traffic to this area. East London is also the port of entry for a considerable tonnage of traffic destined for Bloemfontein and the Southern part of the Orange Free State. The pattern of imports through East London Harbour has changed from being predominantly

manufactured consumer goods to one in which capital goods, industrial raw materials and liquid oil and fuels predominate and because of this the Harbour and the railway line to the North continue to contribute materially to East London's prosperity.

It is abundantly clear that without the development of a transport system in the Border Region, neither the Region nor East London, its principal urban area, would have developed as they have. There has been a reciprocal relationship between the growth of its transport system, particularly the railways, and the economic and commercial development of the Region, which being mainly an agricultural area relies upon transport for the conveyance of its products either to East London or farther afield, and for bringing to it the manufactured consumer goods which it particularly demands. Apart from those connected with agriculture, there is little demand for capital goods and to a lesser extent this is true also of raw materials of industry. For long the manufactured consumer goods required by the Border Region were supplied to it from the wholesale houses in East London, through which port they were mainly imported. Consumer goods are, however, now being obtained in increasing quantities directly from the South African factories where they are manufactured, and this has forced certain adjustments upon some of East London's commercial undertakings.

In the last thirty years, motor transport has played an increasingly important part in the transport system of the Border Region and has assisted materially in providing more efficient transportation facilities than ox-wagon transport could have done in areas not provided with railway

facilities. The growth of motor transport has led to competition with the railways for the conveyance of certain types of traffic, though this is not confined to the Border Region alone, but is a common phenomenon throughout the Union in common with many other countries where both types of transport operate.

Since 1946, there has been a marked increase in the activity at the East London Harbour and in the quantity of goods traffic conveyed over the Cape Eastern System lines of the South African Railways. There has also been a marked increase in the number of Non-European passengers conveyed over the Cape Eastern System lines. These expansions have been accompanied by an increase in the train mileage run over the lines of the System. Although there are no statistics to substantiate this, it cannot be doubted that there has been a marked increase in the last decade in the quantity of goods and the number of passengers conveyed by all forms of motor transport. All this points to the increasing economic and commercial development of East London and the Border Region since the end of the second world war, and this development is in turn related to the increasing economic and commercial development of the Union as a whole.

East London is no longer as important a centre of wholesale trade as it once was, but economic studies in the Border Region have established that a very rapid industrial development has taken place in East London.(3) It is obvious that the tempo of this industrial development, as well as the continued development of the port and the agricultural

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(3) "Economic Development in a Plural Society (Studies in the Border Region of the Cape Province)". Edited by D.Hobart Houghton; Chapter 5.

resources of the Region as a whole, will depend to a considerable degree upon the provision of adequate harbour facilities and of cheap and efficient transport facilities, both road and rail. This is also true of such industrial development as may take place in the Region.

There is little doubt that the present series of harbour works, when completed, will provide harbour facilities which will be able to meet the demands made upon them for many years to come. On the other hand, there are various desirable technical improvements which could be made to the main and branch lines of the Cape Eastern System, but it is unlikely that these will be undertaken in the near future. There are, in addition, three important aspects concerning the provision of cheap and efficient transport which must be discussed here. They are:

a. the influence of railway rating policy;

b. the co-ordination of road and rail transport in the Region; and

c. the control of motor transport.

a. Railway rating policy:

> "Railway rates enter to a greater or lesser degree into the cost of almost every article that is manufactured and distributed in this country. They also have an important effect on the location of industry, on the measure of industrial specialisation, on exports, and on industrial development generally."(4)

In common with other railway administrations, the South African Railways employ a discriminatory rating policy by which different commodities are charged different rates according to "what the traffic will bear". In addition,

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(4) U.G.36-1958: Report of the Commission of Enquiry into Policy Relating to the Protection of Industries; para. 408.

the taper principle is applied in rate fixation, so that the cost of transport does not increase proportionately with the distance, but as the distance increases, the rate per ton per mile decreases. Such a rating policy to be effective requires to be based on the twin principles of cost-of-service and value-of-service. It is often possible, however, that the former principle may receive less attention, and the latter more prominence, than sound railway economics demands.

The discriminatory rating policy employed by the South African Railways is generally accepted in principle, but certain misgivings have been expressed about its method of application. In view of the profound influence exerted by railway rating policy on economic and commercial development, it is necessary to examine the two most important misgivings which have been expressed periodically.

i. First and foremost, undoubtedly, is the concern which stems from the fact that the South African Railways Administration has the unfettered right arbitrarily to decide into which particular rating class a commodity shall be placed and the rates which shall be applied to each class. On this matter the Newton Committee said:

> "The practical need for rate differentiation, to reflect outstanding differences in the direct costs of transporting various classes of traffic, and for a measure of discrimination, in view of the varying incidence of rail charges on these classes of traffic, is widely accepted in the Union. According to the evidence there is nevertheless much genuine concern over the actual results of this rating practice, not on principle but on the grounds that unlimited powers of discrimination have been granted to the Railway Administration without safeguards to the public that these powers will not be arbitrarily used. The fact that the Union's railways are a State monopoly

does not remove the fear of excessive discrimination and arbitrary rate fixation ... ." (5)

Periodically, the establishment of some form of independent rates tribunal has been advocated , analagous to the Inter-State Commerce Commission in the United States of America or the Permanent Transport Tribunal in Great Britain. In recommending the appointment of such a body, the Newton Committee said:

"... a sound and businesslike system of rates can only be achieved by the introduction of stringent safeguards. These safeguards are of two main kinds, designed to cover the fundamental bases of rating, namely cost of service and value of service. The former requires the continuous and cumulative ascertainment of basic minimum costs, the latter a continuous economic evaluation of the effect, immediate and dispersed, of the rates charged. In respect of the ascertainment of costs, the Railway Administration is best equipped to carry out investigations ... . The reception, study and criticism of any such data should, however, be undertaken by an independent expert body having authority to initiate the process of review or amendment of rates. In respect of the evaluation of economic effects, this also is a sphere in which expert knowledge and accumulated experience should be brought to bear. Safeguards against errors and arbitrary decisions are, in our opinion, essential requirements of the future and the place and function of a Rates Commission in such a system of checks is described in the following paragraphs.

To ensure that rating is based on business principles --

(1) every rate must more than cover the direct costs, not merely of carrying an extra parcel of that particular traffic but of carrying the general run of that traffic in loads of normal bulk;

(2) subject to (1), no rate must exceed what the traffic can reasonably bear.

The final adjudication of rates within these limits clearly requires a high degree of independence in the authority of the body entrusted with such duty, equally clearly a body independent of the Railway Administration itself. There must be a clear division of powers, that of rate-fixing being separated from that of railway operation. Though these powers must, for reasons of efficient working, be

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(5) U.G.32-1950: Report of the Committee appointed to Inquire into Railway Rating Policy in South Africa; page 4.

> separated they must be designed to and in fact co-operate in the common task of the economic provision of transport. It is in the light of this statement of principles that we recommend the setting up of a Permanent Rates Commission. The authority of such a Commission should flow directly from Parliament, by means of a statute defining its composition, duties and powers. It should be a body having the full confidence of Parliament and the country generally. As has been found and abundantly justified in other countries, only in this way can rating control be applied in the general public interest." (6)

This recommendation, like all other proposals along the same lines, was rejected by the Railways Administration. Such an attitude the Newton Committee regarded as unjustified because:

> "... The power to regulate and discriminate in selling prices is not present in competitive economy and where it is possessed by private monopoly it is generally agreed that outside control is necessary in substitution of objective determination of prices. We are of the opinion that the Administration should accept the position that just as other organisations exercising monopolistic or near monopolistic control of supplies, whether by statute or private arrangement, are by general agreement, proper subjects of control in the interests of the community, so the Administration which has, and must continue to have, a monopoly in the supply of rail transport should be within the same rule. Its selling prices should be subject to review by an external, independent, expert body acting on behalf of the State. From the point of view of the public there is also the importance of the function, which a Rates Commission would carry out, of securing publicity and promoting knowledge and interest in rating matters which are of the greatest national significance, and ascertaining vital information which would not otherwise be forthcoming." (7)

Despite the cost such a body would involve, it would seem that its creation would be beneficial and is urgently necessary. The Committee of Enquiry into Policy Relating to the Protection of Industries, in paragraph 411 of its report, urged the creation of a consultative committee

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(6) U.G.32-1950: Report of the Committee Appointed to Inquire into Railway Rating Policy in South Africa; page 8.

(7) ibid.: page 8.

representative of industry, mining, commerce and agriculture. This Committee was suggested because the Railways Administration had not accepted the recommendation of the Newton Committee that a Rates Tribunal should be created. Itwas felt by the Protection of Industry Commission that the creation of a consultative committee "would greatly assist the Administration in the continuous adaptation of the rate structure to the requirements of the South African economy".

ii. Secondly, concern is frequently expressed that the Railways Administration does not know accurately the costs involved in moving various types of traffic and thus it is possible for some traffic to be carried at unremunerative rates. Ascertainment of costs in the case of a Railway Undertaking is notoriously difficult, as is the application of costs to various types of traffic, but "cost studies should replace estimates; and ... general averages, embracing a large variety of traffic with greatly differing loading factors and other cost characteristics, should be replaced by the assessed direct cost relating to each of the distinctive classes of traffic".(8)

This section may be fittingly concluded with a paraphrase of part of the report of the Newton Committee: if a policy of maximising traffic regardless of the cost-revenue aspect of railway rating is followed, a blind development of a nation's resources will take place, but such a course is clearly not commendable for what counts is not the blind development of a nation's resources, but their optimum economic development.

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(8) U.G.32-1950: Report of the Committee Appointed to Inquire into Railway Rating Policy in South Africa; page 6.

b. Co-ordination of road and rail transport:

Each form of transport has advantages within certain spheres and for certain types of traffic. Motor transport is better adapted for the carriage of high-grade commodities and short hauls, whereas the train is better for long haul movement of goods, particularly in truck-load quantities. Co-ordination means the assigning of road or of rail transport each to its proper place in the transport system of a country or region, so that traffic is always moved by the means which involves the least social cost. This means that a decision has to be made as to which types of traffic are better suited to rail transport and which are better suited to road. It also usually implies that the selection of the better means should not be left exclusively to competitive forces.

It must be noted, however, that the effective co-ordination of road and rail transport is made extremely difficult by a number of factors, the principal of which are summarized below.

a. The exact field of operation in which each form of transport is more efficient than the other cannot be mapped out precisely. There appears to be considerable overlapping of the spheres in which rail and road transport can operate effectively.

b. Competition between a highly monopolized (the South African Railways) and a highly competitive competitive form of transport (motor transport) cannot be free and equal. On the other hand, various social services have been imposed upon the railways and burdens placed upon them by the fact that they are public carriers serving the needs of the country as a whole. A certain measure of restriction of competition may therefore be economically justifiable.

c. The whole economic system of South Africa has been geared to the rating structure of the South African Railways and changes in these rates, which would be a necessary accompaniment to any degree of co-ordination, cannot be made without disturbing

the economic and commercial conditions in individual industries or in a region. (9)

There is, therefore, no single nor easy solution to the problem of bringing about that flexible combination of transport facilities which will ensure that services are rendered efficiently and at the least possible total cost to the country. Some form of control will therefore be necessary in order to ensure that services are rendered efficiently and at the least possible total real cost to the country. As such control is likely, in South Africa, to be extended only to motor transport, it is now necessary to discuss the control of this form of transport.(10)

c. The control of Motor Transport:

By the Motor Carrier Transportation Act, number 39 of 1930, extensive powers were given to the Central Transportation Board - now superseded by the National Transport Commission - to control motor transport in South Africa. These powers were in turn delegated to Local Road Transportation Boards. This control has been extended to cover not only public hauliers, but also ancillary transport users. The former have no haulage rights under the Act and any motor carrier certificate granted is granted at the discretion of the Boards. Public hauliers are free to carry all classes of goods within a radius of operation varying from ten to fifteen miles, except in certain parts of the country where

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(9) Sudden changes in railway rates may bring diminished profits, or even ruination, to established industrial or business undertakings, or unexpected profits.

(10) This section is largely a paraphrase of paragraphs 191 and 194 of Report 285 of the Board of Trade and Industries: "An Analysis of Railway Rating Principles and the Effect of Transport Costs on Industrial Development in the Union".

extended cartage areas have been created. Outside cartage areas - normal or extended - cartage contractors can convey goods to and from the nearest railway station within a defined radius of thirty miles. Ancillary users have the right to convey their goods within a radius of thirty miles from their place of business, but there are also nine exempted areas,(11) in which ancillary users may operate freely. Since 1952, various relaxations in the control of both types of motor transportation have been introduced, so that wider areas of operation are now available for certain types of transport. There are two points which stem from this position. The first is that public hauliers are subject to greater restriction than ancillary users and this:

> "... not only penalises cartage contractors and restricts the development of adequate local transport services, but places the small concern, whether industrial or commercial, at a disadvantage in comparison with larger undertakings. Many undertakings are compelled to invest capital in vehicles and to relegate managerial services for the operation of their own transport services, services that could be performed more economically by public hauliers, who would also be in a position to obtain return freight and who would be able to get more adequate loads."(12)

The second point is that the relaxations which have been introduced since 1952 are essentially relaxations and are not permanent changes in motor transport control. These relaxations exist at the pleasure of the Minister of Transport and the National Transport Commission and there are already signs that the position envisaged by the Commission of Enquiry into Policy Relating to the Protection of Industries has arisen and there are indications that the Railways will

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(11) There are in the Border Region two exempted areas: the East London, King William's Town and Komgha Magisterial Districts, and the Queenstown, Glen Grey and Tarka Magisterial Districts.

(12) U.G.36-1958: Report of the Commission of Enquiry into Policy Relating to the Protection of Industries; para. 402.

demand that the relaxations be withdrawn. The Protection of Industries Commission said:

> "The provision of adequate rail services requires planning on a longterm basis and the large sums required indicate that the expansion, replacement and modernisation of the system can be provided only over a considerable period of years. ... the provision of adequate capital facilities takes time. Therefore the increase in the provision of services does not become immediately apparent, with the result that the shortages tend to remain and even to increase, and seems to call for still greater capital facilities. By the time that all these facilities are put into operation, however, a comparatively slight decline in the rate of growth of the economy might render a sizeable proportion of the equipment redundant. Such a position might conceivably arise in regard to the Union's railways in the near future. Should it eventuate this would not, in the opinion of the Commission, lead to any appreciable misallocation of funds in a growing economy, but there is undoubtedly the danger that, with such a surplus capacity on hand, the railways might be tempted to demand the further curtailment of competitive services that are in a position to provide these services more economically and efficiently. ..."(13)

(The italics are the writer's.)

From time to time certain Members of Parliament have taken upon themselves the duty of warning road transport that, at some time in the future, it will be subject to stricter control in order to protect the railways. Such irresponsible statements in themselves could be ignored, but for the fact that such statements might influence some local boards in their decisions. This is not as fanciful as it might seem, for the 1945 Commission of Inquiry into Road Motor Transportation recorded that there was a proneness for the boards in some cases to seek guidance from Parliamentary debates rather than from the language of the statute itself.(14)

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(13) U.G.36-1958: Report of the Commission of Enquiry into Policy Relating to the Protection of Industries; para. 418.

(14) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); para. 311

In the Border Region there is generally little objection to the principle of motor transport control, but concern has been expressed, as it has in other parts of the Union, at the policy of the Railways Administration to object to all applications which come before the Boards, not only in respect of competition with train services, but also those which are, or might be, competitive with the Administration's Road Transport Service.(15) This should be viewed against the background that there is sound evidence to support the belief that some boards have regarded their prime purpose to be the protection of the railways from any form of competition whatsoever.(16) It cannot be too strongly stressed that (in the words of the 1945 Commission of Inquiry into Road Motor Transportation) "the whole intent and purpose of the Act is to serve and protect the interests of the public, and these interests only". It is not suggested that the Railways Administration exercises any form of control over the local road transportation boards, or that these boards are anything other than scrupulously fair in their activities, but it is often a very difficult matter to decide what is in the public interest and the constant objection on principle by the Railways Administration must make the task of the local boards even more difficult.

The 1945 Commission of Inquiry into Road Motor Transportation had this to say about the very difficult problem of determining what is in the public interest in any

(15) In his annual report for the year ended 31st March, 1956, the System Manager of Railways at East London stated that it was the policy of the Administration strenuously to oppose any applications to the Local Road Transportation Board if these were likely to bring about competition with the Administration's rail and road services.
(16) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945); para. 310.

particular instance:

> "... the object to be attained is the prevention of competition which is harmful to the community, and ... in considering whether competition is harmful regard must be had not only to its effect on the finances of the Railway, but to its effect on the public as a whole; and not only to its immediate consequences but to its eventual consequences.
>
> It is clear that to allow the carriage by road of any passengers or of any goods that could be carried by rail - and would be so carried if road transportation were denied - does deprive the Railways of the revenue which would be derived from the carriage, less the additional expense which the Railways would have incurred in their transportation. It is clear, too, that that loss falls on the community as a whole as owner of the Railways. But that does not conclude the enquiry. The public interest to be regarded is not only that which the people of the Union have in the financial stability of the Railways; it includes also that which as being all users of transport, directly or indirectly, they have in the provision and development of efficient, speedy and economical means of transportation ... .
>
> ...
>
> In the case postulated the actual cost to the community of the conveyance of the goods, or persons, by *rail is less than that of the conveyance by motor* transport. The Railway is available and the overhead or fixed charges must be met whether it is used or not and the actual cost of conveyance is therefore only the running cost - the cost which is saved if the goods are sent by another method. Consequently, when goods are sent by road instead of by rail, the Railways - and the country - lose the contribution to fixed charges of the amount by which the railage exceeds the actual cost. The only compensating gain is that accruing to the owner of the goods, being the amount by which the cost of conveyance by road is less than the railage charge. Not only is that gain much smaller than the loss sustained by the community in general but when the consignment comprises a large number of articles having a high ratio of value to weight and intended for separate sale to consumers it cannot affect materially the retail price of each. The public has therefore all to lose and nothing to gain from the use of motor vehicle transport in such *a case, and the refusal rather than the grant of a* transportation certificate is in the public interest." (17)

The Commission recognized, however, that this was not the only factor to be considered, but that such things as speed of transit, the avoidance of repeated handling of goods

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(17) U.G.46-1947: Report of the Commission of Inquiry into Road Motor Transportation (1945) paras. 312-315.

(with its attendant decreased risk of damage and the lesser need for expensive packing), ability to assign responsibility for damage or loss (by theft or otherwise), were factors of importance and that the importance varied according to the character of the goods being conveyed. In particular instances one or more of these factors might outweigh the effect on railway finances of allowing traffic to be transported by road, as might the cheapness of a proposed service, and the granting of a transportation certificate rather than its refusal be in the public interest.

And so this thesis is brought to a conclusion with the same statement as with which it began: transport is of profound importance in the economic and commercial life of a country or a region; and this is true no less of the Border Region than of any other part of the Union of South Africa.

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APPENDIX A.

Table A.1

Value of Goods Imported and Exported through East London in Each Calendar Year from 1860 to 1955

Year Ended 31st December	Imports	Exports	Total Trade Through the Port
	£	£	£
1860	46,067	28,501	74,568
1861	104,979	21,539	126,518
1862	129,014	42,600	171,614
1863	169,014	24,970	193,984
1864	103,647	31,140	134,787
1865	79,487	28,928	108,415
1866	47,623	94,734	142,357
1867	44,844	104,502	149,346
1868	47,246	112,460	159,706
1869	21,496	27,899	49,395
1870	51,117	33,169	84,286
1871	96,144	69,234	165,378
1872	299,682	142,343	442,025
1873	338,687	79,492	418,179
1874	527,521	96,985	624,506
1875	552,033	131,800	683,833
1876	785,919	168,429	954,348
1877	702,130	171,184	873,314
1878	898,936	189,764	1,088,700
1879	1,080,122	265,622	1,345,744
1880	1,152,610	303,991	1,456,601
1881	1,652,143	377,212	2,029,355
1882	2,007,518	458,736	2,466,254
1883	1,048,138	548,859	1,596,997
1884	858,675	597,339	1,456,014
1885	724,222	572,829	1,297,051
1886	564,887	623,301	1,188,188
1887	768,974	716,938	1,485,912
1888	777,844	859,767	1,637,611
1889	1,129,751	942,948	2,072,699
1890	1,502,046	991,093	2,493,139
1891	1,231,314	911,733	2,143,047
1892	1,546,172	825,734	2,371,906
1893	2,245,574	783,993	3,029,567
1894	2,324,696	791,112	3,115,808
1895	2,890,021	755,399	3,645,420
1896	3,456,569	851,436	4,308,005
1897	3,121,270	817,368	3,938,638
1898	3,519,697	954,654	4,474,351
1899	3,101,303	1,014,306	4,115,609
1900	2,786,796	512,610	3,299,406
1901	3,583,634	834,262	4,417,896
1902	5,681,223	973,778	6,655,001
1903	6,866,983	1,061,169	7,928,151
1904	4,344,315	1,124,513	5,468,828
1905) to 1909)	No Figures Available		
1910	3,763,235	1,908,381	5,671,616
1911	3,768,278	1,708,198	5,476,476
1912	3,886,366	2,128,450	6,014,816
1913	4,002,277	2,574,073	6,576,350
1914	3,153,933	1,978,497	5,132,430
1915	2,924,730	2,427,330	5,352,060

1916 ...../2.

Table A.1 (continued)
Value of Goods Imported and Exported through East London in each Calendar Year from 1860 to 1955.

Year Ended 31st December	Imports	Exports	Total Trade Through the Port
	£	£	£
1916	3,810,635	2,916,889	6,727,524
1917	3,016,893	3,557,666	6,574,559
1918	3,461,294	3,636,883	7,098,177
1919	3,606,957	7,174,013	10,780,970
1920	7,802,315	6,468,712	14,271,027
1921	4,106,293	3,357,958	7,464,251
1922	3,859,437	4,351,589	8,211,026
1923	4,572,763	5,474,429	10,047,192
1924	5,614,632	6,358,492	11,973,124
1925	5,491,934	6,714,617	12,206,551
1926	5,906,343	4,928,711	10,835,054
1927	6,131,293	6,882,245	13,013,538
1928	6,371,522	7,095,907	13,467,429
1929	6,923,736	5,591,002	12,514,738
1930	4,620,104	3,185,286	7,805,390
1931	3,334,967	2,089,534	5,424,501
1932	2,079,439	2,409,063	4,488,502
1933	3,031,878	2,948,229	5,980,107
1934	4,181,437	2,566,789	6,748,226
1935	4,723,404	3,076,805	7,800,209
1936	5,954,141	3,112,066	9,066,207
1937	6,810,232	3,981,019	10,791,251
1938	6,163,091	2,830,478	8,993,569
1939	6,012,194	2,149,685	8,161,879
1940)			
1941)			
1942)	No Figures Available		
1943)			
1944)			
1945	4,575,054	2,059,062	6,634,116
1946	11,189,493	8,835,554	20,025,047
1947	18,910,956	6,493,061	25,404,017
1948	27,972,238	9,785,263	37,757,501
1949	23,412,170	10,390,814	33,802,984
1950	22,547,078	17,436,358	39,983,436
1951	38,709,384	20,137,994	58,847,378
1952	38,147,971	16,587,687	54,735,658
1953	35,611,999	18,541,154	54,153,153
1954	33,648,282	18,516,946	52,165,228
1955	37,738,527	18,092,019	55,830,546

SOURCES: 1860 to 1904: Comparative Trade returns published annually in the Cape of Good Hope Government Gazette.

1910 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa published by the Department of Customs and Excise.

Table A.2

Quantity of Goods Imported and Exported through East London in each Calendar Year from 1885 to 1955

Year Ended 31st. December	Imports	Exports	Total Trade of the Port
	Measurement Tons	Measurement Tons	Measurement Tons
1885	59,657	14,364	74,021
1886	29,307	29,493	58,800
1887	40,862	37,791	78,653
1888	37,016	43,349	80,365
1889	67,226	43,444	110,670
1890	78,457	45,604	124,061
1891	88,330	45,411	133,741
1892	128,298	40,873	169,171
1893	166,918	40,974	207,892
1894	170,849	39,553	210,402
1895	203,061	43,827	246,888
1896	241,214	45,024	286,238
1897	246,731	52,796	299,527
1898	310,835	61,519	372,354
1899	284,557	64,739	349,296
1900	679,919	41,205	721,124
1901	633,832	98,840	732,672
1902	640,687	66,938	707,625
1903	696,073	69,113	765,186
1904	486,824	58,062	544,886
1905	404,097	58,155	462,252
1906	319,036	59,852	378,888
1907	299,199	72,238	371,437
1908	246,243	70,272	316,515
1909	216,310	104,957	321,267
	Harbour Tons	Harbour Tons	Harbour Tons
1910	307,155	105,765	412,920
1911	312,825	95,158	407,983
1912	336,487	102,670	439,157
1913	355,113	137,531	492,644
1914	256,725	126,536	383,261
1915	195,340	154,564	349,904
1916	195,906	113,847	309,753
1917	116,851	107,228	224,079
1918	77,285	118,800	196,085
1919	139,747	152,091	291,838
1920	271,644	92,529	364,173
1921	167,565	201,112	368,677
1922	168,633	132,357	300,990
1923	217,599	183,487	401,086
1924	290,993	111,596	402,589
1925	342,825	239,407	582,232
1926	392,553	140,004	532,557
1927	380,119	189,938	570,057
1928	442,204	188,037	630,241
1929	547,178	191,602	738,780
1930	383,151	146,377	529,528
1931	293,320	126,436	419,756
1932	230,008	198,587	428,595
1933	277,763	138,290	416,053
1934	364,831	97,865	462,696
1935	426,002	125,924	551,926
1936	545,561	112,868	658,429
1937	610,573	124,710	735,283
1938	619,984	123,833	743,817

1939 ...../2.

Table A.2 Quantity of Goods Imported and Exported through East London (continued)

Year Ended 31st December	Imports	Exports	Total Trade of the Port
	Harbour Tons	Harbour Tons	Harbour Tons
1939	586,131	101,544	687,675
1940	397,061	85,064	482,125
1941	444,289	73,987	518,276
1942	311,562	150,785	462,347
1943	293,440	58,842	352,282
1944	206,813	33,705	240,518
1945	308,205	72,823	381,028
1946	509,473	193,235	702,708
1947	576,931	114,439	691,370
1948	815,278	130,141	945,419
1949	791,183(1)	125,066	916,249
1950	669,910	127,239	797,149
1951	746,244	129,249	875,493
1952	873,717	135,948	1,009,665
1953	876,988	151,233	1,028,221
1954	862,629	242,876	1,105,505
1955	897,141	270,981	1,168,122

SOURCES:

1. 1885 to 1893: *Annual reports of the Traffic Manager, Eastern* System of the Cape Government Railways, published in the Annual Reports of the General Manager of the Cape Government Railways.

2. 1894 to 1909: Annual reports of the East London Harbour Board.

3. 1910 to 1956: Annual statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise, except for the years 1940 to 1943, which are from unpublished figures supplied by the Port Goods Superintendent, South African Railways, East London.

(1) In 1949 imports totalled 1,061,639 harbour tons, but this figure included 270,456 harbour tons of domestic water imported from Durban owing to the failure of East London's water supply during a prolonged drought.

Table A 3

Value of Goods Imported through Cape Town, Port Elizabeth, East London and Durban in Certain Selected Calendar Years from 1865 to 1955

Year Ended 31st December	Cape Town		Port Elizabeth		East London		Durban(1)		Total	
	£	Percentage of Total	£	Percentage of Total	£	Percentage of Total	£	Percentage of Total	£	Percentage
1865	884,563	34.5	1,148,762	44.8	79,487	3.1	455,206	17.6	2,568,018	100.0
1870	986,357	36.7	1,214,254	45.3	51,117	1,9	429,527	16.1	2,681,255	100.0
1875	2,144,750	32.3	2,681,333	40.3	552,033	8.3	1,268,838	19.1	6,646,954	100.0
1880	2,801,463	29.0	3,382,378	35.0	1,152,610	11.9	2,336,584	24.1	9,673,035	100.0
1885	1,828,077	31.7	1,681,293	29.3	724,222	12.6	1,518,557	26.4	5,752,149	100.0
1890	2,738,566	23.4	3,995,858	34.2	1,502,046	12.9	3,443,182	(2) 29.5	11,679,652	100.0
1895	3,343,105	21.7	6,790,963	44.1	2,890,021	18.8	2,370,022	15.4	15,394,111	100.0
1900	7,826,863	35.0	5,051,905	22.6	2,786,796	12.5	6,694,501	29.9	22,360,065	100.0
1904	8,080,558	27.0	6,885,729	23.0	4,344,315	14.5	10,673,943	35.5	29,984,545	100.0
1910	6,147,253	22.2	7,643,239	27.7	3,763,235	13.5	10,148,031	36.6	27,701,758	100.0
1915	7,106,581	26.6	6,933,950	26.0	2,924,730	11.0	9,687,764	36.4	26,653,025	100.0
1920	26,041,510	30.7	21,392,640	25.2	7,082,315	8.3	30,386,553	35.8	84,903,018	100.0
1925	15,537,540	27.9	14,263,766	25.6	5,491,934	9.9	20,383,829	36.6	55,677,069	100.0
1930	15,797,502	30.4	13,261,834	25.6	4,620,104	8.8	18,275,878	35.2	51,955,318	100.0
1935	15,181,802	24.9	16,572,499	27.2	4,723,404	7.8	24,432,997	40.1	60,910,702	100.0
1939	19,376,692	25.7	19,542,806	25.9	6,012,194	8.0	30,492,591	40.4	75,424,283	100.0
1945	22,890,181	25.1	22,518,240	24.8	4,575,054	5.1	40,858,627	45.0	90,842,102	100.0
1950	55,081,547	22.9	62,878,140	26.2	22,547,078	9.4	99,352,316	41.5	239,859,081	100.0
1955	85,396,131	22.3	102,673,958	26.8	37,738,527	9.8	157,987,797	41.1	383,796,413	100.0

SOURCES: A: Cape Ports: i. 1865 : Blue Book of the Cape of Good Hope
ii. 1870 to 1904 : Comparative Trade Returns published annually in the Cape of Good Hope Government Gazette.

B: Durban: 1860 to 1904 : Natal Blue Book and the Natal Statistical Year Book.

C: Union Ports: 1910 to 1955 : Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

(1) The figures for the years 1895, 1900 and 1904 are for the twelve months ended 30th June.
(2) Owing to the change of the statistical year from the calendar year to a year ending on the 30th June it has been necessary to estimate the 1890 figure.

Table A.4

Analysis of Merchandise imported through East London in certain Calendar Years from 1885 to 1955, showing the Value of each Commodity Group as a Percentage of the Total Value of Merchandise Imported through the Port in each Selected Year

Commodity Group	1885	1890	1895	1900	1904
	%	%	%	%	%
1. Ales, Beers, Wines and Spirits (potable and non-potable)	2.4	2.2	2.5	3.3	1.7
2. Drugs and Chemicals	.9	.8	1.6	1.3	1.1
3. Clothing and Textiles	41.8	48.5	24.9	29.1	19.0
4. Foodstuffs and Grain	19.8	11.6	8.7	28.7	22.9
5. Leather and Leather Manufactures	6.6	8.0	3.5	5.2	3.6
6. Metals, Metal Manufactures and Machinery	9.4	13.7	34.5	14.2	25.9
7. Minerals, Earthenware, Glassware and Cement	.8	.8	.7	.9	1.5
8. Oils, Waxes (including soap and candles), Paints and Varnishes	3.9	2.0	2.9	3.0	2.8
9. Paper, Stationery, Books and Printed Matter	1.9	1.5	2.1	1.3	2.3
10. Tobacco, Cigars and Cigarettes	.3	.3	.4	.9	.4
11. Wood and Cane and Manufactures thereof, including Furniture and Carriages and Carts	1.4	3.7	5.8	3.4	8.3
12. Other	10.8	6.9	12.4	8.7	10.5
Total	100.0	100.0	100.0	100.0	100.0

Commodity Group	1915	1920	1925	1930	1935	1939	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1. Ales, Beers, Wines and Spirits (potable and non-potable)	.8	.8	.9	.8	.7	.7	.5	.4	.3	.3	.2	.1	.2	.2	.3	.4
2. Drugs, Chemicals and Fertilizers	9.5	2.0	1.9	1.9	2.8	2.1	2.6	2.5	2.2	3.0	3.3	2.7	2.6	2.8	3.5	4.0
3. Clothing, Textiles, Yarns and Fibres	25.2	30.0	24.3	19.7	16.7	14.8	23.2	25.0	20.4	19.2	17.4	23.0	10.3	14.4	17.1	14.6
4. Foodstuffs and Grain	19.8	13.2	11.2	6.2	4.5	4.4	13.2	3.9	6.5	6.6	9.7	3.3	6.2	9.3	5.9	7.6
5. Leather and Rubber and Manufactures thereof	3.5	4.0	2.8	2.9	1.2	1.2	.5	.3	.3	.3	.3	.3	.5	.4	.5	.7
6. Metals, Metal Manufactures, Machinery and Motor Vehicles	26.9	29.3	39.5	41.7	54.1	50.0	36.1	45.5	50.0	48.7	43.6	45.8	51.6	49.0	46.9	48.1
7. Minerals, Earthenware, Glassware and Cement	.6	1.0	1.5	1.6	2.0	1.8	3.2	3.3	3.0	4.1	3.1	2.9	3.3	2.5	3.1	2.4
8. Oils, Waxes, Paints, Varnishes and Motor Spirit	5.4	7.3	6.6	14.3	8.7	14.8	7.7	6.6	7.0	8.2	11.8	8.1	8.8	9.0	9.2	8.7
9. Paper, Stationery, Books and Printed Matter	3.3	5.0	2.9	2.7	2.5	2.5	3.2	3.5	2.4	2.2	2.2	4.4	7.3	5.3	4.8	4.5
10. Tobacco, unmanufactured and manufactured	.2	.2	.2	.2	-	-	.2	.1	.1	-	-	-	-	-	-	-
11. Wood and Cane and manufactures thereof	2.5	4.0	4.0	4.5	3.9	4.5	5.2	4.6	4.4	3.5	4.6	5.0	5.7	3.8	4.7	4.6
12. Other	2.3	3.2	4.2	3.5	2.9	3.2	4.4	4.3	3.4	3.9	3.8	4.4	3.5	3.3	4.0	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Calculated from data contained in (i) the Comparative Trade Returns published annually in the Cape of Good Hope Government Gazette (1885 to 1904) and (ii) in the Annual Statement of the Trade and Shipping of the Union of South Africa published by the Department of Customs and Excise (1910 to 1955).

Table H.5

Value of Goods, excluding Gold and Diamonds, exported through Cape Town, Port Elizabeth, East London and Durban in certain selected calendar years from 1865 to 1955

Year Ended 31st Dec.	Cape Town £	Cape Town % of Total	Port Elizabeth £	Port Elizabeth % of Total	East London £	East London % of Total	Durban (1) £	Durban % of Total	Total £	Total %
1865	524,572	22.4	1,574,032	67.4	28,928	1.1	210,254	9.1	2,337,786	100.0
1870	448,066	16.5	1,858,185	68.1	33,169	1.2	382,779	14.2	2,722,199	100.0
1875	690,454	15.4	2,832,523	63.0	131,800	2.9	835,643	18.7	4,490,420	100.0
1880	861,027	18.3	2,653,729	56.4	303,991	6.5	890,874	18.8	4,709,621	100.0
1885	608,256	17.2	1,483,852	41.9	572,829	16.2	877,483	24.7	3,542,420	100.0
1890	618,966	14.2	1,998,125	46.2	991,093	23.1	712,814(2)	16.5	4,320,998	100.0
1895	648,659	15.2	2,020,467	47.6	755,399	17.7	826,444	19.5	4,250,969	100.0
1900	553,248	15.4	1,376,684	38.6	512,610	14.4	1,124,217	31.6	3,566,759	100.0
1904	929,022	17.3	1,966,449	36.6	1,124,513	20.9	1,356,341	25.2	5,376,325	100.0
1915	1,816,531	16.1	3,210,901	28.4	2,427,330	21.5	3,842,990	34.0	11,297,752	100.0
1920	4,291,334	15.7	7,593,833	27.8	6,468,712	23.7	8,966,607	32.8	27,320,486	100.0
1925	6,272,884	19.5	6,996,787	21.8	6,714,617	20.9	12,055,934	37.8	32,040,222	100.0
1930	5,406,256	24.5	4,396,315	19.9	3,185,286	14.5	9,041,505	41.1	22,029,362	100.0
1935	4,878,292	22.9	4,815,563	22.6	3,076,805	14.5	8,532,200	40.0	21,302,860	100.0
1939	6,626,338	28.7	4,551,422	20.2	2,149,685	9.4	9,487,670	41.7	22,815,115	100.0
1945	9,705,212	21.0	8,260,852	17.9	2,059,062	4.5	26,140,405	56.6	46,165,531	100.0
1950	29,680,923	24.3	37,465,729	30.7	17,436,358	14.3	37,329,663	30.7	121,912,673	100.0
1955	58,890,333(3)	32.8	38,746,031	21.6	18,092,019	10.2	63,480,026(3)	35.4	179,208,409	100.0

(1) The Durban figures for the years 1895, 1900 and 1904 are for the twelve months ended 30th June.
(2) Owing to the change of the statistical year from the calendar year to a year ending on the 30th June it has been necessary to estimate the 1890 figure
(3) Excluding the value of material prescribed under the Atomic Energy Act.

SOURCES: A: Cape Ports:
i. 1865: Blue Book of the Cape of Good Hope.
ii. 1870 to 1904: Comparative Trade Returns published annually in the Cape of Good Hope Government Gazette.

B: Durban:
1860 to 1904: Natal Blue Book and the Natal Statistical Year Book.

C: Union Ports:
1910 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

Table A.6

Principal Commodities Exported through East London in Each Calendar Year from 1860 to 1955

Year Ended 31st Dec.	Wool	Hides and Skins (1)	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Fodder and Forage	Citrus Fruit (2)	Other Fruit (3)	Butter	Eggs (4)	Fresh or Frozen Meat	Ground nut oil	Raw Asbestos
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
1860	151	167		15	1		3									
1861	91	434		43	1		2									
1862	348	261		1	1											
1863	241	60														
1864	245	13		5												
1865	298	10		6												
1866	765	31		7			2									
1867	885	5														
1868	1,042			29	20		10									
1869	336			159	5		2									
1870	383	1		180	66	3	8									
1871	671	21														
1872	1,030	292	2	57												
1873	504	145	3													
1874	670	152	1	183	8											
1875	963	65		40												
1876	1,296	77														
1877	1,595	99	1													
1878	1,790	658			6											
1879	2,561	608	10													
1880	2,627	269	24													
1881	3,162	742	34				2									
1882	4,059	839	145													
1883	4,493	1,106	147													
1884	5,223	2,021	270													
1885	5,596	3,301	189													
1886	7,876	2,735	428	994	2	31	5									
1887	8,745	2,341	383	1,622	2,496		101									
1888	11,695	2,303	525	1,467	2,945	14	25									
1889	12,803	2,666	646	177		125	2									
1890	13,054	2,800	660	1,136	5	17	16									
1891	13,188	3,094	576	1,375	4	65	2									
1892	11,759	3,260	588		1	570										
1893	11,111	3,622	486	140	4	325										
1894	11,162	3,624	511	94	7	463	16									
1895	11,894	3,515	381			322	36									
1896	13,505	3,295	423		2	210										
1897	11,358	5,544	501		3	265										
1898	14,032	6,000	502			815										
1899	13,866	1,967	631	1	3	800										
1900	6,319	1,869	510			126										
1901	15,376	2,625	616		1	90										
1902	16,516	2,969	892			25										
1903	15,705	2,585	1,057			130										
1904	15,815	3,195	924	1												
1905	No Figures Available															
1906	16,869	x	1,000													
1907	17,928	x	1,119					537								
1908	19,551	x	1,015					182	14							
1909	25,231	x	1,320					303	399							
1910-1911	No Figures Available															
1912	29,486	6,534	1,327	1,677		4		125					2			8
1913	32,440	7,443	1,289			10		12					1			
1914	26,456	4,875	1,158	1,749												527
1915	32,055	6,650	993	5,930		10							1			2,078
1916	27,937	4,997	1,153	11,679				95								2,599
1917	21,317	3,877	159	x												386
1918	20,520	3,162	932	51,430												
1919	38,785	8,013	867	31,525												
1920	22,183	4,743	972	13,185		100		18								
1921	40,978	4,793	1,025	65,146		78		11		24						
1922	41,500	6,278	1,397	727		105		55		89						
1923	30,802	6,326	721	77,496				2		194			2			
1924	32,101	8,405	893	1,943				200		550	x			2		
1925	39,210	6,772	472	94,615				350		552	x		40			
1926	36,319	5,740	474	26,102				734		376	x		52	3		
1927	47,329	9,457	413	23,260				2,296		648	x		104			
1928	46,095	7,868	175	26,758				3,607		956	x		168			
1929	47,904	5,690	203	33,213				1,417		2,112	x		240			
1930	46,425	5,051	55	396				1,827		2,766	x		332			
1931	40,235	3,935	227	111				1,395		2,012	x		474	771		
1932	64,072	4,186	172	550				576		3,477	x	121	506	847		
1933	43,584	5,386	499					910		2,875	x	133	374	330		
1934	26,972	5,045	182	195				336		4,490	x	156	328	81		
1935	38,012	4,179	314					126		5,101	x	695	354	551		
1936	28,164	3,619	234							9,316	x	620	390	2,792		
1937	31,236	3,607	152							9,833	x	1,008	214	2,268		
1938	34,722	3,708	334					231		9,247	x	254	200	180		
1939	24,069	4,006	236					84		12,047	x	464	246	466		
1940) 1941) 1942) 1943) 1944)	No Figures Available															

x - No figures Available.

1905	No Figures Available														
1906	16,869	x	1,000												
1907	17,928	x	1,119				537								
1908	19,551	x	1,015				182	14							
1909	25,231	x	1,320				303	399							
1910-1911	No Figures Available														
1912	29,486	6,534	1,327	1,677		4	125					2			8
1913	32,440	7,443	1,289			10	12					1			
1914	26,456	4,875	1,158	1,749											527
1915	32,055	6,650	993	5,930		10						1			2,078
1916	27,937	4,997	1,153	11,679			95								2,599
1917	21,317	3,877	159	x											386
1918	20,520	3,162	932	51,430											
1919	38,785	8,013	867	31,525											
1920	22,183	4,743	972	13,185		100	18								
1921	40,978	4,793	1,025	65,146		78	11		24						
1922	41,500	6,278	1,397	727		105	55		89						
1923	30,802	6,326	721	77,496			2		194			2			
1924	32,101	8,405	893	1,943			200		550	x			2		
1925	39,210	6,772	472	94,615			350		552	x		40			
1926	36,319	5,740	474	26,102			734		376	x		52	3		
1927	47,329	9,457	413	23,260			2,296		648	x		104			
1928	46,095	7,868	175	26,758			3,607		956	x		168			
1929	47,904	5,690	203	33,213			1,417		2,112	x		240			
1930	46,425	5,051	55	396			1,827		2,766	x		332			
1931	40,235	3,935	227	111			1,395		2,012	x		474	771		
1932	64,072	4,186	172	550			576		3,477	x	121	506	847		
1933	43,584	5,386	499				910		2,875	x	133	374	330		
1934	26,972	5,045	182	195			336		4,490	x	156	328	81		
1935	38,012	4,179	314				126		5,101	x	695	354	551		
1936	28,164	3,619	234						9,316	x	620	390	2,792		
1937	31,236	3,607	152						9,833	x	1,008	214	2,268		
1938	34,722	3,708	334				231		9,247	x	254	200	180		
1939	24,069	4,006	236				84		12,047	x	464	246	466		
1940)															
1941)	No Figures Available														
1942)															
1943)															
1944)															

x = No figures Available.

Table 17.6

Principal Commodities Exported through East London in Each Calendar Year from 1860 to 1955

Year Ended 31st Dec.	Wool	Hides and Skins (1)	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Fodder and Forage	Citrus Fruit (2)	Other Fruit (3)	Butter	Eggs (4)	Fresh or Frozen Meat	Ground nut oil	Raw Asbestos
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
1860	151	167		15	1		3									
1861	91	434		43	1		2									
1862	348	261		1	1											
1863	241	60														
1864	245	13		5												
1865	298	10		6												
1866	765	31		7			2									
1867	885	5														
1868	1,042			29	20		10									
1869	336			159	5		2									
1870	383	1		180	66	3	8									
1871	671	21														
1872	1,030	292	2	57												
1873	504	145	3													
1874	670	152	1	183	8											
1875	963	65		40												
1876	1,296	77														
1877	1,595	99	1													
1878	1,790	658			6											
1879	2,561	608	10													
1880	2,627	269	24													
1881	3,162	742	34				2									
1882	4,059	839	145													
1883	4,493	1,106	147													
1884	5,223	2,021	270													
1885	5,596	3,301	189													
1886	7,876	2,735	428	994	2	31	5									
1887	8,745	2,341	383	1,622	2,496		101									
1888	11,695	2,303	525	1,467	2,945	14	25									
1889	12,803	2,666	646	177		125	2									
1890	13,054	2,800	660	1,136	5	17	16									
1891	13,188	3,094	576	1,375	4	65	2									
1892	11,759	3,260	588		1	570										
1893	11,111	3,622	486	140	4	325										
1894	11,162	3,624	511	94	7	463	16									
1895	11,894	3,515	381			322	36									
1896	13,505	3,295	423		2	210										
1897	11,358	5,544	501		3	265										
1898	14,032	6,000	502			815										
1899	13,866	1,967	631	1	3	800										
1900	6,319	1,869	510			126										
1901	15,376	2,625	616		1	90										
1902	16,516	2,969	892			25										
1903	15,705	2,585	1,057			130										
1904	15,815	3,195	924	1												
1905	No Figures Available															

Table 17.6

Principal Commodities Exported through East London in Each Calendar Year from 1860 to 1955

Year Ended 31st Dec.	Wool	Hides and Skins (1)	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Fodder and Forage	Citrus Fruit (2)	Other Fruit (3)	Butter	Eggs (4)	Fresh or Frozen Meat	Ground nut oil	Raw Asbestos
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
1860	151	167		15	1		3									
1861	91	434		43	1		2									
1862	348	261		1	1											
1863	241	60														
1864	245	13		5												
1865	298	10		6												
1866	765	31		7			2									
1867	885	5														
1868	1,042			29	20		10									
1869	336			159	5		2									
1870	383	1		180	66	3	8									
1871	671	21														
1872	1,030	292	2	57												
1873	504	145	3													
1874	670	152	1	183	8											
1875	963	65		40												
1876	1,296	77														
1877	1,595	99	1													
1878	1,790	658			6											
1879	2,561	608	10													
1880	2,627	269	24													
1881	3,162	742	34				2									
1882	4,059	839	145													
1883	4,493	1,106	147													
1884	5,223	2,021	270													
1885	5,596	3,301	189													
1886	7,876	2,735	428	994	2	31	5									
1887	8,745	2,341	383	1,622	2,496		101									
1888	11,695	2,303	525	1,467	2,945	14	25									
1889	12,803	2,666	646	177		125	2									
1890	13,054	2,800	660	1,136	5	17	16									
1891	13,188	3,094	576	1,375	4	65	2									
1892	11,759	3,260	588		1	570										
1893	11,111	3,622	486	140	4	325										
1894	11,162	3,624	511	94	7	463	16									
1895	11,894	3,515	381			322	36									
1896	13,505	3,295	423		2	210										
1897	11,358	5,544	501		3	265										
1898	14,032	6,000	502			815										
1899	13,866	1,967	631	1	3	800										
1900	6,319	1,869	510			126										
1901	15,376	2,625	616		1	90										
1902	16,516	2,969	892			25										
1903	15,705	2,585	1,057			130										
1904	15,815	3,195	924													

Table A.6 (continued)
Principal Commodities exported through East London in each Calendar year from 1860 to 1955

Year Ended 31st Dec.	Wool	Hides and Skins (1)	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Fodder and Forage	Citrus Fruit (2)	Other Fruit (3)	Butter	Eggs (4)	Fresh and Frozen Meat	Ground-nut Oil	Raw Asbestos	
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	
1945	13,458	788	502							6,234		2		10			
1946	64,275	1,717	481							7,181				1			
1947	30,329	2,285	503							12,069	13			5			
1948	34,649	1,803	417							12,415			72				
1949	28,372	2,449	194							17,061			100	896			
1950	24,238	2,544	492							22,461		76	76	111			
1951	21,528	1,018	387							22,424		214	110				
1952	29,652	2,268	306							18,352	367		216		664		
1953	26,874	2,271	295	16,880						20,972	591		280	3	5,542		
1954	28,710	1,650	336	65,687						28,893	1,274	10	422		8,372		
1955	31,918	1,938	275	80,261				233		23,829	1,793		791		9,771		

SOURCES: 1860 to 1904: Comparative Trade Returns published annually in the Cape of Good Hope Government Gazette

1906 to 1909: Annual Statement of the Trade and Shipping of the Colonies and Territories forming the S.A. Customs Union, published by the S.A. Customs Statistical Bureau, Cape Town.

1912 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

NOTES:

1. Exports of hides and skins from 1860 to 1887 were recorded in units : these figures have been converted to tons on the basis of the average weight of a hide, a sheepskin and a goatskin in the years 1888 to 1892 (both units and weights being given in these years), viz:

1 hide	=	20.3 lbs.
1 goatskin	=	2.7 lbs
1 sheepskin	=	4.0 lbs

2. Exports of citrus fruit from 1916 to 1945 were recorded in cases : these figures have been converted to tons at the rate of 1 case = 70 lbs.

3. Exports of other fruit from 1924 to 1939 are recorded in boxes, owing to the nature of the commodity it has not been possible to convert boxes into tons. To prevent the number of boxes being mistaken for tons, the figures for these years have been excluded from the table.

4. Exports of eggs recorded in dozens : these figures have been converted to tons at the rate of 1,000 dozen = 1 ton.

Table A.7

Comparison of the Quantities of Wool Exported through each of the Four Major South African Ports in each Calendar Year from 1865 to 1955

Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons
1865	1,639	14,403	298	785
1866	2,094	14,489	765	835
1867	2,068	14,067	885	987
1868	1,869	13,655	1,042	1,359
1869	2,055	14,380	336	1,675
1870	1,250	15,976	383	1,806
1871	2,572	18,919	671	2,882
1872	2,519	19,698	1,030	2,827
1873	2,693	15,505	504	3,155
1974	2,837	16,720	670	3,944
1875	2,760	15,402	963	4,055
1876	2,217	12,771	1,296	4,275
1877	2,073	13,033	1,595	5,006
1878	2,429	11,280	1,790	6,039
1879	2,472	14,427	2,561	6,015
1880	2,965	15,238	2,627	7,642
1881	2,677	15,177	3,162	6,289
1882	2,741	13,640	4,059	7,028
1883	2,219	11,878	4,493	7,913
1884	2,224	10,791	5,223	8,665
1885	2,136	9,077	5,596	8,953
1886	2,850	12,620	7,876	10,865
1887	2,285	10,968	8,745	11,122
1888	3,592	17,444	11,695	14,491
1889	3,111	17,702	12,803	14,745
1890	2,668	16,680	13,054	(1)
1891	3,429	20,732	13,188	13,654(1)
1892	3,311	19,526	11,759	11,538(1)
1893	4,302	17,242	11,111	12,034(1)
1894	3,073	12,534	11,162	8,897(1)
1895	4,064	16,325	11,899	9,725
1896	3,644	18,859	13,505	12,769
1897	2,515	15,667	11,358	10,078
1898	3,382	18,847	14,032	12,146
1899	3,688	16,543	13,866	10,218
1900	1,631	5,426	6,319	1,276
1901	3,006	13,607	15,376	(2)
1902	3,597	18,864	16,516	(2)
1903	3,352	13,060	15,705	(2)
1904	2,588	13,142	15,818	(2)
1905	---------- No Figures Available ----------			
1906	2,903	14,809	16,869	8,935
1907	3,317	16,571	17,928	10,132
1908	3,244	16,098	19,551	14,976
1909	3,303	21,013	25,231	12,059
1910)	---------- No Figures Available ----------			
1911)				
1912	4,232	22,991	29,486	23,358
1913	4,266	24,581	32,440	26,592
1914	3,275	16,645	26,456	19,688
1915	3,977	22,651	32,055	25,386
1916	4,519	17,934	27,937	16,955
1917	3,462	17,718	21,317	15,767
1918	5,180	15,229	20,520	16,888
1919	6,212	30,033	38,785	21,513
1920	3,260	17,495	22,183	16,432
1921	6,890	36,346	40,978	30,109
1922	6,911	28,906	41,500	26,853

1923 ...../2.

Comparison of the Quantities of Wool Exported through each of the Four Major South African Ports in each Calendar Year from 1865 to 1955 (continued)

Year	Cape Town Tons	Port Elizabeth Tons	East London Tons	Durban Tons
1923	5,473	27,042	30,802	18,299
1924	5,115	24,021	32,101	25,568
1925	5,884	33,376	39,210	25,562
1926	5,789	35,502	36,319	27,665
1927	6,596	43,446	47,329	32,275
1928	6,005	41,658	46,095	32,440
1929	6,918	46,981	47,904	41,177
1930	9,870	45,429	46,425	35,021
1931	8,773	37,429	40,235	31,241
1932	12,592	61,044	64,072	47,875
1933	9,946	42,124	43,584	40,104
1934	8,007	28,480	26,972	31,280
1935	12,475	45,989	38,012	33,248
1936	10,958	41,320	28,164	26,033
1937	11,266	43,772	31,236	32,071
1938	12,393	42,881	34,722	31,789
1939	9,677	37,006	24,069	22,845
1940) to 1944)	No Figures Available			
1945	11,333	41,748	13,458	10,496
1946	27,087	81,063	64,275	60,929
1947	15,173	41,644	30,329	25,031
1948	12,463	42,481	34,649	21,077
1949	11,135	41,494	28,372	19,577
1950	12,834	41,831	24,238	20,015
1951	13,891	39,592	21,528	17,945
1952	14,582	49,391	29,652	23,912
1953	16,068	46,281	26,874	24,241
1954	17,549	47,967	28,710	25,052
1955	21,504	50,584	31,918	26,067

NOTES: (1) For the years 1891 to 1894 figures are for the twelve months ending on the 30th June.

(2) Between 1901 to 1904 the exports were recorded in bales and pounds: as it has not been possible to ascertain whether these should be added together or whether they are alternatives it has been decided to omit the figures for these years.

SOURCES: (i) Cape Town, Port Elizabeth and East London (1865-1904): Comparative trade returns published annually in the Cape of Good Hope Government Gazette.

(ii) Durban (1864-1904): Natal Blue Book and Natal Statistical Year Book.

(iii) All Ports:

a. 1905 to 1909: Annual Statement of the Trade and Shipping of the Colonies and Territories forming the S.A. Customs Union, published by the S.A. Customs Statistical Bureau, Cape Town.

b. 1910 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

Table A.8

Comparison of the Quantities of Hides and Skins Exported through each of the Four Major South African Ports in each Calendar Year from 1865 to 1955

Year	Cape Town(1)	Port Elizabeth(1)	East London(1)	Durban(2)
	Tons	Tons	Tons	Tons
1865	1,438	1,714	10	
1866	1,412	2,079	31	
1867	1,545	2,319	5	
1868	1,437	2,369	-	
1869	1,556	2,777	-	
1870	1,392	3,630	1	
1871	1,840	3,722	21	
1872	1,662	4,039	292	
1873	2,360	3,375	145	
1874	1,810	4,289	152	
1875	2,128	4,473	65	
1876	1,475	3,460	77	
1877	1,772	3,374	99	
1878	882	3,520	658	
1879	2,092	2,695	608	
1880	1,785	3,143	269	
1881	1,823	3,716	742	
1882	2,350	3,771	839	
1883	2,166	4,510	1,106	
1884	1,671	5,022	2,021	
1885	1,806	6,353	3,301	
1886	1,774	4,570	2,735	
1887	1,690	4,393	2,341	
1888	2,042	5,325	2,303	
1889	2,105	5,424	2,666	
1890	2,150	5,659	2,800	
1891	2,348	6,655	3,094	
1892	2,443	6,903	3,260	
1893	2,858	6,512	3,622	
1894	2,810	6,090	3,624	
1895	2,913	6,493	3,515	
1896	2,864	5,336	3,295	
1897	2,610	5,931	5,544	
1898	2,487	5,839	6,000	
1899	2,311	4,332	1,967	
1900	2,286	3,114	1,869	
1901	3,033	4,668	2,625	
1902	2,800	4,594	2,969	
1903	2,402	4,208	2,585	
1904	1,932	3,930	3,195	
1905) to 1911)	---------- No Figures Available ----------			
1912	5,174	8,687	6,534	7,978
1913	5,096	10,054	7,443	8,351
1914	4,553	9,570	4,875	7,270
1915	4,951	10,952	6,650	7,597
1916	5,289	11,444	4,997	7,290
1917	5,370	6,551	3,877	7,318
1918	3,591	7,646	3,162	7,441
1919	6,459	11,203	8,013	9,383
1920	4,023	7,770	4,743	7,704
1921	3,799	6,032	4,793	7,986
1922	5,185	10,475	6,278	9,560
1923	5,236	8,939	6,326	9,186
1924	4,774	9,576	8,405	11,469
1925	4,686	8,061	6,772	5,955
1926	4,701	8,134	5,740	12,150
1927	6,054	12,970	9,457	15,723
1928	6,042	15,209	7,868	14,894

1929 ...../2.

Comparison of the Quantities of Hides and Skins Exported through each of the Four Major South African Ports in each Calendar Year from 1865 to 1955 (continued)

Year	Cape Town Tons	Port Elizabeth Tons	East London Tons	Durban Tons
1929	5,382	14,057	5,690	12,049
1930	5,721	12,721	5,051	15,170
1931	4,985	9,439	3,935	9,965
1932	6,395	10,468	4,186	8,925
1933	7,082	13,328	5,386	12,360
1934	4,973	10,461	5,045	11,166
1935	6,122	9,335	4,179	12,423
1936	6,750	10,595	3,619	12,752
1937	5,878	10,378	3,607	12,239
1938	5,924	9,613	3,708	8,881
1939	7,570	10,057	4,006	10,429
1940) to 1944)	---------- No Figures Available ----------			
1945	7,729	6,089	788	10,738
1946	8,800	10,670	1,717	4,761
1947	9,264	14,259	2,285	8,602
1948	8,431	10,352	1,803	12,225
1949	8,286	12,655	2,449	11,411
1950	7,636	12,679	2,544	10,836
1951	7,493	9,958	1,018	6,703
1952	8,389	13,250	2,268	9,769
1953	8,364	14,647	2,271	10,330
1954	7,214	12,576	1,650	9,261
1955	7,614	16,997	1,938	9,882

NOTES: (1) Between 1865 and 1887 exports of hides and skins were recorded in units. These figures have been converted to tons on the basis of the average weight of a hide, a sheepskin and a goatskin in the years 1888 to 1892 (both units and weights being given in these years), viz.

	Cape Town	Port Elizabeth	East London
1 hide	16.6 lbs.	24.3 lbs.	20.3 lbs.
1 goatskin	3.3 lbs.	3.2 lbs.	2.7 lbs.
1 sheepskin	4.6 lbs.	4.4 lbs.	4.0 lbs.

(2) The exports of hides and skins through Durban between 1865 and 1904 were recorded in units, and included wild animal and game hides and skins as well as bovine hides, sheepskins and goatskins and so it has not been possible to convert the units to tons.

SOURCES: (i) Cape Town, Port Elizabeth and East London (1865-1904): Comparative trade returns published annually in the Cape of Good Hope Government Gazette.

(ii) Durban (1864-1904): Natal Blue Book and Natal Statistical Year Book.

(iii) All Ports:

a. 1905 to 1909: Annual Statement of the Trade and Shipping of the Colonies and Territories forming the S.A. Customs Union, published by the S.A. Customs Statistical Bureau, Cape Town.

b. 1910 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

Table A.9

Comparison of the Quantities of Maize and Maize Products Exported Through each of the four Major South African Ports in each Calendar Year from 1912 to 1955

Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons
1912	29,699	3,054	1,677	53,639
1913	6,126	222	-	3,832
1914	37,977	2,777	1,749	66,853
1915	40,282	1,067	5,930	102,430
1916	62,330	6,905	11,679	92,689
1917	No Figures Available			
1918	112,190	32,523	51,340	121,205
1919	86,475	29,379	31,525	150,855
1920	21,779	15,548	13,185	22,820
1921	90,389	79,540	65,146	251,169
1922	90,485	3,363	727	214,767
1923	141,168	30,673	77,496	353,821
1924	35,591	-	1,943	90,926
1925	445,219	21,271	94,615	499,877
1926	77,572	1,778	26,102	76,435
1927	119,802	-	23,260	153,415
1928	210,292	-	26,758	407,427
1929	149,533	-	33,213	261,129
1930	316,462	-	396	373,739
1931	60,177	-	111	147,542
1932	171,284	-	550	190,213
1933	87,560	-	-	75,407
1934	120,571	-	195	224,319
1935	254,064	-	-	388,405
1936	14,756	-	-	15,241
1937	563,284	-	-	495,117
1938	169,895	-	-	117,921
1939	428,331	-	-	452,526
1940) to 1944)	No Figures Available			
1945	-	-	-	2,305
1946	-	-	-	497
1947	-	-	-	292
1948	-	-	-	209,860
1949	-	-	-	54,182
1950	-	-	-	328
1951	-	-	-	28,585
1952	-	-	-	9,505
1953	-	-	16,880	1,527
1954	98,663	60,075	65,687	377,835
1955	328,128	23,280	80,261	403,447

SOURCE: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

Table A.10

Comparison of the Quantities of Citrus Fruit Exported through each of the four Major South African Ports in each Calendar Year from 1912 to 1955

Year	Cape Town Tons	Port Elizabeth Tons	East London Tons	Durban Tons
1912)				
1913)	---------- No Figures Available ----------			
1914)				
1915)				
1916	1,278	467	-	263
1917	---------- No Figures Available ----------			
1918	-	-	-	-
1919	1,749	-	-	39
1920	3,893	598	-	123
1921	8,128	445	24	402
1922	8,332	1,706	89	1,486
1923	10,589	1,697	194	1,900
1924	7,920	4,823	550	3,175
1925	11,692	4,074	552	9,893
1926	9,865	6,017	376	4,969
1927	16,977	5,318	648	6,243
1928	17,195	3,225	956	4,727
1929	20,341	7,305	2,112	8,210
1930	33,964	12,701	2,766	16,374
1931	33,709	12,200	2,012	16,072
1932	16,992	16,778	3,477	27,910
1933	18,858	22,873	2,875	29,570
1934	23,542	28,714	4,490	30,896
1935	21,819	27,054	5,101	28,423
1936	21,142	30,394	9,316	27,022
1937	41,606	30,848	9,833	39,580
1938	58,974	35,569	9,247	15,439
1939	77,261	37,688	12,047	26,120
1940) to 1944)	---------- No Figures Available ----------			
1945	48,825	29,280	6,234	10,215
1946	31,306	27,850	7,181	9,692
1947	39,609	33,954	12,069	22,764
1948	44,443	36,960	12,415	21,473
1949	33,142	36,546	17,061	29,064
1950	34,236	50,870	22,461	34,370
1951	49,108	44,302	22,424	25,005
1952	35,650	31,007	18,352	25,784
1953	61,531	47,376	20,992	24,540
1954	87,632	54,818	28,893	27,143
1955	85,752	70,047	23,829	22,174

SOURCE: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

Table A.11

Comparison of the Quantities of Angora Hair Exported through each of the Major South African Ports in each Calendar Year from 1870 to 1955

Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons
1870	2	195	-	1
1871	2	263	-	1
1872	5	426	2	4
1873	9	359	3	5
1874	9	502	1	6
1875	9	561	-	14
1876	11	649	-	16
1877	15	698	1	35
1878	15	650	-	71
1879	15	1,103	10	61
1880	24	1,245	24	152
1881	21	2,018	34	102
1882	24	1,720	145	121
1883	26	2,046	147	160
1884	26	1,866	270	223
1885	26	2,409	189	203
1886	31	2,250	428	253
1887	29	3,161	383	199
1888	32	4,238	525	280
1889	38	4,033	646	268
1890	35	3,915	660	(1)
1891	39	4,351	576	259(1)
1892	31	4,630	588	214(1)
1893	35	4,197	486	323(1)
1894	29	4,450	511	258(1)
1895	28	5,126	381	214
1896	22	4,546	423	258
1897	35	5,745	501	340
1898	38	4,885	502	365
1899	44	5,707	631	(2)
1900	58	3,945	510	74
1901	85	4,705	616	(2)
1902	96	7,810	892	288
1903	62	5,956	1,057	373
1904	76	6,009	924	354
1905	---------- No Figures Available ----------			
1906	54	6,263	1,000	538
1907	72	7,588	1,119	563
1908	59	7,350	1,015	664
1909	55	7,758	1,320	660
1910)	---------- No Figures Available ----------			
1911)				
1912	70	9,494	1,327	827
1913	37	6,408	1,289	931
1914	31	7,693	1,158	542
1915	21	6,676	993	455
1916	22	7,179	1,153	334
1917	19	1,514	159	152
1918	122	7,737	932	1,047
1919	3	7,293	867	294
1920	-	1,969	972	196
1921	4	7,124	1,025	388
1922	2	11,150	1,397	332
1923	6	6,531	721	228
1924	3	5,744	893	187
1925	5	5,085	472	215
1926	1	4,845	474	250
1927	-	4,678	413	299

1928 ...../2.

Comparison of the Quantities of Angora Hair Exported through each of the Major South African Ports in each Calendar Year from 1870 to 1955 (continued)

Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons
1928	-	3,492	175	185
1929	-	4,622	203	195
1930	7	3,288	55	87
1931	-	2,328	227	166
1932	-	2,930	172	116
1933	-	6,913	499	460
1934	-	2,893	182	165
1935	-	4,831	314	174
1936	-	2,793	234	94
1937	-	2,073	152	55
1938	-	2,172	334	50
1939	-	2,280	236	61
1940) to 1944)	No Figures Available			
1945	-	3,793	502	28
1946	6	5,206	481	80
1947	6	2,612	503	59
1948	-	1,680	417	47
1949	-	1,341	194	25
1950	18	1,970	492	25
1951	5	2,109	387	56
1952	-	2,070	306	29
1953	-	2,185	295	17
1954	5	2,455	336	8
1955	-	2,817	275	18

NOTES: (1) For the years 1891 to 1894 the figures are for the twelve months ending on the 30th June.

(2) In 1899 and 1901 the exports were recorded in bales and pounds; as the weight of the bales is not known the figures for these two years have been omitted.

SOURCES: (i) Cape Town, Port Elizabeth and East London (1870-1904): Comparative trade returns published annually in the Cape of Good Hope Government Gazette.

(ii) Durban (1870-1904): Natal Blue Book and Natal Statistical Year Book.

(iii) All Ports:
a. 1905 to 1909: Annual Statement of the Trade and Shipping of the Colonies and Territories forming the S.A. Customs Union, published by the S.A. Customs Statistical Bureau, Cape Town.

b. 1910 to 1955: Annual Statement of the Trade and Shipping of the Union of South Africa, published by the Department of Customs and Excise.

TABLE A.12

Area and Population of the Magisterial Districts in the Border Region of the Cape Province as at 8th May, 1951.

Magisterial District	Area in Sq. miles	Population			
		European	Native	Other	TOTAL
Adelaide	596	1,774	7,616	1,183	10,573
Albert	1,595	3,687	10,300	1,326	15,313
Aliwal North	773	4,400	12,316	1,990	18,706
Barkly East	1,407	2,031	7,378	697	10,106
Cathcart	1,007	1,632	13,643	387	15,662
East London	693	48,908	76,121	8,073	133,102
Elliot	750	2,100	10,003	299	12,402
Fort Beaufort	495	1,979	14,910	2,034	18,923
Glen Grey	939	504	65,008	204	65,716
Herschel	641	214	48,777	1,282	50,273
Indwe	343	1,683	6,302	247	8,232
Keiskamma Hoek	218	507	18,029	496	19,032
King William's Town	854	9,380	59,298	2,377	71,055
Komgha	570	1,729	18,934	217	20,880
Lady Grey	549	1,226	4,084	399	5,709
Maclear	968	2,502	10,587	508	13,597
Middledrift	275	219	24,818	112	25,149
Molteno	726	1,758	6,671	508	8,937
Peddie	669	992	25,827	98	26,917
Queenstown	1,347	10,304	39,131	2,963	52,398
Sterkstroom	651	1,652	6,380	360	8,392
Stockenstrom	314	1,351	8,128	1,891	11,370
Stutterheim	631	3,345	21,499	485	25,329
Tarka	1,234	1,339	6,922	726	8,987
Victoria East	369	1,370	17,089	737	19,196
Wodehouse	1,139	2,709	10,693	600	14,002
Tsolo	649	379	43,512	330	44,221
Elliotdale	296	280	36,867	40	37,187
Engcobo	981	753	78,244	352	79,349
Mqanduli	461	322	50,805	59	51,186
St. Mark's	614	355	55,856	316	56,527
Umtata	683	3,353	58,044	1,024	62,421
Xalanga	357	655	22,083	861	23,599
Butterworth	264	1,213	27,644	158	29,015
Idutywa	464	466	37,722	212	38,400
Kentani	431	421	48,421	55	48,897
Nqamakwe	472	252	42,732	24	43,008
Tsomo	410	211	32,617	63	32,891
Willowvale	551	309	63,339	54	63,702
Libode	537	225	43,030	149	43,404
Ngqeleni	526	308	54,174	481	54,963
Port St. John's	250	655	24,716	487	25,858
TOTAL:	27,699	119,452	1,270,270	34,864	1,424,586

Source: U.G.42-1955: Population Census of the Union, 8th May, 1951, Vol. 1: Geographical Distribution of the Population of the Union of South Africa.

TABLE A.13

Number of Cattle and Sheep in the Border Region in the Year ended 31st August, 1954.

Magisterial District	Area in Sq. miles	Cattle	Sheep		
			woolled	non-woolled.	Total
Adelaide	596	22,273	150,290	3,568	153,858
Albert	1,595	20,969	397,458	4,627	402,085
Aliwal North	773	20,278	206,007	7,415	213,422
Barkly East	1,407	29,006	400,317	792	401,109
Cathcart	1,007	33,098	290,026	1,584	291,610
East London	693	64,782	5,115	454	5,569
Elliot	750	31,602	317,740	266	318,006
Fort Beaufort	495	21,750	99,038	3,123	102,161
Glen Grey	939	49,563	223,678	98	223,776
Herschel	641	33,625	88,459	-	88,459
Indwe	343	15,159	140,495	124	140,619
Keiskamma Hoek	218	13,083	17,484	-	17,484
King W'ms Town	854	71,131	204,281	428	204,709
Komgha	570	47,824	94,728	844	95,572
Lady Grey	549	15,557	140,625	1,167	141,792
Maclear	968	44,122	223,121	1,176	224,297
Middledrift	275	17,489	48,597	-	48,597
Molteno	726	15,283	206,199	694	206,893
Peddie	669	37,763	46,137	2,024	48,161
Queenstown	1,347	46,356	351,683	898	352,581
Sterkstroom	651	14,868	162,460	1,346	163,806
Stockenstrom	314	18,784	64,836	1,361	66,197
Stutterheim	631	30,556	189,239	1,514	190,753
Tarka	1,234	18,734	274,591	4,340	278,931
Victoria East	369	21,623	32,439	943	33,382
Wodehouse	1,139	29,808	438,726	1,212	439,938
Tsolo	649	50,896	96,430	-	96,430
Elliotdale	296	43,843	39,362	-	39,362
Engcobo	981	87,457	179,205	-	179,205
Mqanduli	461	56,994	115,403	-	115,403
St. Mark's	614	49,359	156,766	-	156,766
Umtata	683	63,295	354,195	-	354,195
Xalanga	357	27,378	53,555	-	53,555
Butterworth	264	26,906	55,477	-	55,477
Idutywa	464	34,476	138,971	-	138,971
Kentani	431	41,993	66,219	-	66,219
Nqamakwe	472	33,900	106,258	-	106,258
Tsomo	410	29,868	84,778	-	84,778
Willowvale	551	69,863	93,863	-	93,863
Libode	537	48,715	76,612	-	76,612
Ngqeleni	526	67,925	85,536	-	85,536
Port St. John's	250	26,999	9,460	-	9,460
TOTAL:		1,544,973	6,525,859	39,998	6,565,857

Source: Union of South Africa: Bureau of Census and Statistics: Agricultural Census No. 28 for Census Year 1953-1954.

TABLE A.14

Grain Production in the Border Region in the Year Ended 31st August, 1954

Magisterial District	Area in Sq. miles	Maize	Kaffir Corn	Wheat*	Other Grains*
		tons			
Adelaide	596	469	-	25	140
Albert	1,595	218	-	1,939	182
Aliwal North	773	1,680	2	3,262	339
Barkly East	1,407	81	-	530	316
Cathcart	1,007	1,440	2	214	920
East London	693	3,784	77	-	-
Elliot	750	2,418	8	465	573
Fort Beaufort	495	403	30	33	62
Glen Grey	939	8,105	1,506		
Herschel	641	403	600		
Indwe	343	3,535	238	920	595
Keiskamma Hoek	218	1,135	68	13	15
King William's Town	854	3,806	82	14	80
Komgha	570	4,935	54	-	-
Lady Grey	549	1,576	-	1,008	248
Maclear	968	4,671	-	1,702	420
Middledrift	275	701	511		
Molteno	726	45	-	1,716	265
Peddie	669	712	1,443	3	11
Queenstown	1,347	2,835	10	535	1,316
Sterkstroom	651	480	-	615	593
Stockenstrom	314	602	-	77	149
Stutterheim	631	2,968	11	3	98
Tarka	1,234	260	-	696	474
Victoria East	369	438	110	3	43
Wodehouse	1,139	595	3	2,602	1,192
Tsolo	649	6.615	167		
Elliotdale	296	3,009	10		
Engcobo	981	12.000	500		
Mqanduli	461	5,017	700		
St. Mark's	614	8,650	3,633		
Umtata	683	7,319	40		
Xalanga	357	1,879	1.044		
Butterworth	264	3,086	30		
Idutywa	464	6,226	600		
Kentani	431	3,895	70		
Nqamakwe	472	4,901	353		
Tsomo	410	7,005	90		
Willowvale	551	3,002	50		
Libode	537	6,503	15		
Ngqeleni	526	7,003	10		
Port St. John's	250	1,672	-		
TOTAL:		136.107	12.067	16.375	8.031

*: The statistics in the case of these commodities refer to production by European farmers only. There may be production in the Magisterial Districts against which blank spaces appear in the above table.

Source: Union of South Africa: Bureau of Census and Statistics: Agricultural Census No. 28 for Census Year 1953-1954.

TABLE A.15

Fruit Trees and Pineapples in the Border Region in the Year ended 31st August, 1950.

Magisterial District	Citrus fruits	Deciduous fruits	Sub-tropical fruits	Pineapples
	number of trees (all ages)			morgen planted
Adelaide	15,448	3,286	-	-
Albert	-	37,196	-	-
Aliwal North	-	14,863	-	-
Barkly East	-	9,378	-	-
Cathcart	2,212	10,368	-	-
East London	26,453	19,058	83,402*	3,376
Elliot	248	12,901	-	-
Fort Beaufort	65,260	1,917	-	-
Glen Grey	198	14,983	1,449	-
Herschel	-	30,678	3,403	-
Indwe	-	8,411	-	-
Keiskamma Hoek	2,685	3,977	902	-
King William's Town	19,230	25,781	2,070	134
Komgha	3,570	4,028	5,453	536
Lady Grey	-	9,255	-	-
Maclear	-	22,349	-	-
Middledrift	-	368	364	-
Molteno	-	8,277	-	-
Peddie	5,850	2,832	695	1,839
Queenstown	421	23,145	-	-
Sterkstroom	-	4,222	-	-
Stockenstrom	99,101	11,301	-	-
Stutterheim	4,689	23,070	-	-
Tarka	-	3,710	-	-
Victoria East	39,418	4,493	2,033	-
Wodehouse	-	13,132	-	-
Tsolo	965	13,750	-	-
Elliotdale	719	1,315	1,135	-
Engcobo	158	9,636	-	-
Mqanduli	1,085	5,664	1,141	-
St. Mark's	1,108	13,015	2,035	-
Umtata	2,047	12,231	255	-
Xalanga	278	27,083	380	-
Butterworth	1,921	15,048	185	-
Idutywa	134	5,225	-	-
Kentani	1,872	5,403	2,578	-
Nqamakwe	211	14,899	-	-
Tsomo	679	15,491	1,133	-
Willowvale	1,678	4,859	437	-
Libode	533	1,881	767	-
Ngqeleni	2,263	2,834	4,077	-
Port St. John's	3,681	509	33,948	-
TOTAL:	304.115	471.822	147.842	5,885

*: Guavas: 38,666 trees; Paw-paw: 37,029 trees.

Source: Union of South Africa: Bureau of Census and Statistics: Agricultural Census No. 24: Census Year 1949-1950.

TABLE A.16

Area of Timber Plantations, and Natural Forest, in the Border Region in the Year ended 31st August 1950.

Magisterial District	Conifers	Eucalypt	Wattle	Other	Total	Natural Forest
	Plantations					
	Morgen					
Adelaide	2	15	4	20	41	3,687
Albert	8	156	-	112	276	13
Aliwal North	3	33	1	100	137	18
Barkly East	3	40	-	7	50	-
Cathcart	314	185	318	115	932	385
East London	84	217	189	12	502	3,334
Elliot	22	42	1,055	128	1,247	420
Fort Beaufort	208	27	1	15	251	2,553
Glen Grey	27	65	-	8	100	15
Herschel	120	141	4	391	656	—
Indwe	32	52	134	62	280	46
Keiskamma Hoek	595	47	12	27	681	7,093
King W'ms Town	1,382	218	284	61	1,945	11,269
Komgha	45	23	55	7	135	3,535
Lady Grey	5	27	3	65	100	-
Maclear	482	163	1,593	206	2,449	127
Middledrift	236	127	33	32	428	4,327
Molteno	10	21	-	56	87	-
Peddie	24	11	29	-	64	3,585
Queenstown	88	53	24	41	206	233
Sterkstroom	43	29	-	51	123	5
Stockenstrom	675	135	30	80	920	3.405
Stutterheim	4,292	393	916	264	5,865	4,972
Tarka	13	5	2	103	123	-
Victoria East	235	8	47	64	354	3,190
Wodehouse	130	58	1	245	434	-
Tsolo	2,064	359	1,309	86	3,818	5,169
Elliotdale	2	22	281	-	305	4,535
Mqanduli	105	38	221	50	414	1,215
Engcobo	677	107	584	14	1,382	6,028
St. Mark's	726	182	467	21	1,396	3,731
Umtata	621	93	656	44	1,414	867
Xalanga	42	117	154	2	315	190
Butterworth	212	138	346	38	734	714
Idutywa	-	28	318	4	350	97
Kentani	161	114	328	11	614	4,888
Nqamakwe	12	5	14	1	32	130
Tsomo	6	68	160	--	234	841
Willowvale	56	24	92	2	174	6,310
Libode	22	48	458	11	539	1,194
Ngqeleni	3	39	555	22	619	12,366
Port St. John's	-	2	4	-	6	7,192
TOTAL:	13,787	3,680	10,687	2,578	30,732	107,679

Source: Union of South Africa: Bureau of Census and Statistics: Agricultural Census No. 24 for the Census Year 1949-1950.

Table A.17

Cape Government Railways : Eastern System

Revenue Earned in Each Calendar Year from 1877 to 1909

Year Ended 31st December	Goods, Minerals and Coal	Passengers	Livestock, Parcels and Other	Total
	£	£	£	£
1877	2,221	9,750	-	11,971
1878	23,293	16,523	88	39,904
1879	38,289	18,897	1,078	58,264
1880	69,374	29,372	547	99,293
1881	116,854	45,281	2,451	164,586
1882	138,876	41,339	2,331	182,546
1883	101,678	35,722	2,308	139,708
1884	109,569	28,990	2,879	141,438
1885	89,511	26,345	2,177	118,033
1886	71,052	23,175	1,829	96,056
1887	85,007	20,945	4,846	110,798
1888	88,221	22,413	4,808	115,442
1889	119,855	31,880	5,181	156,916
1890	134,414	37,984	5,137	177,535
1891	138,193	42,512	5,115	185,820
1892	182,055	58,126	6,608	246,789
1893	254,301	58,113	6,275	318,689
1894	294,511	61,583	6,634	362,728
1895	355,417	75,692	10,872	441,981
1896	372,969	98,900	12,069	483,938
1897	351,803	96,793	19,167	467,763
1898	408,271	105,640	12,259	526,170
1899	306,131	106,713	12,204	425,048
1900	373,328	105,985	14,835	494,148
1901	552,080	110,682	25,452	688,214
1902	705,232	171,455	17,636	894,323
1903	784,056	187,060	15,057	986,173
1904	601,773	173,787	20,490	796,050
1905	554,875	193,764	27,081	775,720
1906	464,065	198,064	24,031	686,160
1907	437,419	199,826	28,375	665,620
1908	330,549	175,071	27,340	532,960
1909	- - - - - - - - No Figures Available - - - - -			- - - - - -

SOURCE: Annual Reports of the General Manager of the Cape Government Railways.

Table A.18

South African Railways : Cape Eastern System

Revenue Earned in Each Calendar Year from 1910 to 1915 and in Each Financial Year 1922-23 to 1955-56

Year Ended	Goods, Minerals and Coal	Passengers	Livestock, Parcels and Other	Total
	£	£	£	£
31.12.1910	457,896	219,853	62,258	740,007
31.12.1911	451,429	238,595	65,574	755,598
31.12.1912	473,624	259,278	55,577	788,479
31.12.1913	520,316	263,011	41,098	824,425
31.12.1914	545,444	279,322	47,266	872,032
31.12.1915	790,675	320,775	61,175	1,172,625
31.12.1916) to 31. 3.1922)	- - - - - - - - No Figures Available - - -			- - - - - - - -
31. 3.1923	733,195	420,651	108,320	1,262,166
31. 3.1924	812,753	382,241	102,376	1,297,370
31. 3.1925	816,333	380,469	90,313	1,287,115
31. 3.1926	930,975	372,924	90,169	1,394,068
31. 3.1927	986,400	358,702	91,810	1,436,912
31. 3.1928	1,046,817	384,442	127,858	1,559,117
31. 3.1929	1,061,662	373,801	123,648	1,559,111
31. 3.1930	1,152,841	359,483	115,453	1,627,777
31. 3.1931	1,064,379	342,613	90,530	1,497,522
31. 3.1932	959,296	318,597	89,990	1,367,883
31. 3.1933	896,352	315,737	68,201	1,280,290
31. 3.1934	1,003,794	331,984	103,809	1,439,587
31. 3.1935	1,098,083	359,144	88,411	1,545,638
31. 3.1936	1,266,855	392,450	86,479	1,745,784
31. 3.1937	1,444,207	392,655	95,628	1,932,490
31. 3.1938	1,463,232	393,561	99,346	1,956,139
31. 3.1939	1,457,050	392,955	106,986	1,956,991
31. 3.1940	1,449,743	419,294	94,610	1,963,647
31. 3.1941	1,275,947	443,729	109,798	1,829,474
31. 3.1942	1,460,736	508,960	109,655	2,079,351
31. 3.1943	1,131,242	602,427	150,468	1,884,137
31. 3.1944	1,022,567	672,444	127,654	1,822,665
31. 3.1945	1,044,839	795,741	135,737	1,976,317
31. 3.1946	1,333,126	797,566	182,252	2,312,944
31. 3.1947	1,907,705	701,648	213,012	2,822,365
31. 3.1948	2,279,072	666,088	196,516	3,141,676
31. 3.1949	3,011,177	674,395	216,230	3,901,802
31. 3.1950	2,987,510	710,263	211,800	3,909,573
31. 3.1951	3,386,122	625,427	248,304	4,259,853
31. 3.1952	4,009,289	765,577	299,011	5,073,877
31. 3.1953	4,184,729	770,224	372,384	5,327,337
31. 3.1954	4,142,853	813,231	330,856	5,286,940
31. 3.1955	4,489,488	932,720	392,889	5,815,097
31. 3.1956	4,628,593	962,146	424,595	6,015,334

SOURCES: Unpublished Annual Reports of the Divisional Superintendent, S.A.R., East London (1910 to 1926-27) and of the System Manager, Cape Eastern System, S.A.R. (1927-28 onwards).

Table A.19

Cape Government Railways : Eastern System

Goods Traffic Frowarded from East London and Buffalo Harbour, King William's Town, Queenstown and all Other Eastern System Stations, together with the Total Forwarded Traffic for the Whole System and the Total Goods Traffic Carried over the System, in each Calendar Year from 1877 to 1908

Year Ended 31st Dec.	East London and Buffalo Harbour	King William's Town	Queenstown	Other Eastern System Stations	Eastern System : Total Forwarded Goods	Eastern System : Total Goods Traffic Carried
	Tons	Tons	Tons	Tons	Tons	Tons
1877	*	*	*	*	*	4,248
1878	*	*	*	*	*	37,124
1879	*	*	*	*	*	70,024
1880	*	*	*	*	*	72,303
1881	*	*	*	*	*	98,518
1882	*	*	*	*	*	123,085
1883	*	*	*	*	*	95,878
1884	*	*	*	*	*	108,709
1885	*	*	*	*	*	91,371
1886	*	*	*	*	*	64,292
1887	*	*	*	*	*	81,444
1888	*	*	*	*	*	85,942
1889	*	*	*	*	*	111,168
1890	*	*	*	*	*	122,927
1891	*	*	*	*	*	136,414
1892	*	*	*	*	*	157,865
1893	134,806	14,883	10,338	55,215	215,242	225,630
1894	153,356	15,427	9,413	79,443	257,639	288,758
1895	184,077	18,981	12,189	81,785	297,032	325,343
1896	183,562	18,171	8,743	64,881	275,357	311,298
1897	135,447	19,178	7,897	74,459	236,981	265,986
1898	186,686	26,072	7,878	81,492	302,128	316,840
1899	129,723	16,911	8,573	55,825	211,032	225,312
1900	120,712	14,500	9,364	67,573	212,149	228,276
1901	131,909	24,407	11,678	139,344	307,338	318,529
1902	220,328	26,774	18,308	187,450	452,860	472,145
1903	392,243	25,654	20,418	146,380	584,695	603,554
1904	314,397	28,862	16,873	83,641	443,773	472,185
1905	267,925	27,616	14,580	109,369	419,490	456,219
1906	*	*	*	*	320,589	345,116
1907	*	*	*	*	305,276	332,964
1908	*	*	*	*	219,541	259,550
1909	*	*	*	*	*	*

* = No Figures Available

SOURCE: Annual Reports of the General Manager of the Cape Government Railways.

Table A.20

South African Railways : Cape Eastern System

Goods Traffic forwarded from East London and Buffalo Harbour, King William's Town, Queenstown and all other Cape Eastern System Stations, together with the Total forwarded Traffic for the whole System, in each Financial Year from 1927-28 to 1955-56

Year Ended	East London and Buffalo Harbour	King William's Town	Queenstown	Other Cape Eastern Stations	Total: Cape Eastern System
	Tons	Tons	Tons	Tons	Tons
31.3.1928	184,234	25,243	16,349	146,291	372,117
31.3.1929	182,921	24,065	15,236	144,728	366,950
31.3.1930	209,934	20,616	19,201	153,616	403,367
31.3.1931	184,573	20,048	20,531	149,348	374,500
31.3.1932	174,583	17,427	17,958	156,787	366,755
31.3.1933	158,074	16,561	16,896	148,681	340,212
31.3.1934	189,026	17,014	18,490	157,237	381,767
31.3.1935	211,116	16,307	20,482	141,063	388,968
31.3.1936	244,137	15,410	21,494	173,862	454,903
31.3.1937	295,758	16,350	24,895	194,521	531,524
31.3.1938	331,160	*	*	*	601,433
31.3.1939	350,053	14,276	30,025	239,965	634,319
31.3.1940	347,228	13,290	29,823	192,765	583,106
31.3.1941	281,404	12,435	27,852	192,046	513,737
31.3.1942	286,792	19,369	28,246	249,436	583,843
31.3.1943	259,009	19,219	26,652	248,165	553,045
31.3.1944	215,705	20,763	25,805	264,065	526,338
31.3.1945	222,155	32,051	30,050	246,795	531,051
31.3.1946	252,116	31,428	33,473	275,746	592,763
31.3.1947	373,201	29,947	35,668	270,180	708,996
31.3.1948	380,676	30,428	47,566	273,108	731,778
31.3.1949	526,074	25,510	53,812	260,611	866,007
31.3.1950	516,249	22,374	53,736	253,128	845,487
31.3.1951	554,418	22,565	56,096	275,230	908,309
31.3.1952	581,766	30,296	77,101	256,797	945,960
31.3.1953	681,711	35,506	98,471	216,552	1,032,240
31.3.1954	631,750	33,104	109,339	227,481	1,001,674
31.3.1955	627,742	32,906	104,561	209,408	974,617
31.3.1956	636,217	29,676	115,844	199,132	980,869

* = Figures not available

SOURCE : Unpublished Annual Reports of the System Manager, Cape Eastern System, South African Railways.

Table A.21

Cape Government Railways : Eastern System
(1)
Passenger Ticket Statistics for Each Calendar Year from 1877 to 1909
(Excluding Season Tickets)

Year Ended 31st December	Passenger Ticket Statistics			
	First Class	Second Class	Third Class	Total
1877	*	*	*	44,333
1878	*	*	*	81,280
1879	*	*	*	68,582
1880	*	*	*	88,624
1881	28,981	41,924	48,815	119,720
1882	29,386	44,283	41,039	114,708
1883	19,325	31,039	35,075	85,439
1884	18,261	34,822	25,796	78,879
1885	18,087	30,968	20,297	69,352
1886	13,539	26,951	13,735	54,225
1887	14,704	29,011	24,138	67,853
1888	15,797	33,054	30,041	78,892
1889	22,306	43,108	48,870	114,284
1890	24,555	51,347	72,907	148,809
1891	26,952	62,572	97,193	186,717
1892	22,877	73,434	112,736	209,047
1893	19,738	74,732	136,311	230,781
1894	19,146	86,530	154,837	260,513
1895	18,824	93,837	176,650	289,311
1896	21,978	108,380	201,721	332,079
1897	23,653	128,349	244,715	396,717
1898	25,477	141,243	273,533	440,253
1899	27,141	138,693	241,127	406,961
1900	32,232	142,955	271,038	446,225
1901	40,209	156,877	260,308	457,394
1902	49,935	218,634	386,073	654,642
1903	72,061	256,330	364,751	693,142
1904	103,147	298,506	450,007	851,660
1905	111,198	296,473	485,030	892,701
1906	119,944	308,080	496,032	924,056
1907	121,733	305,540	483,788	911,061
1908	104,637	283,508	395,255	783,400
1909	*	*	*	*

* = Figures not Available

(1) Up to and including 1902 the figures in this table were computed by taking the total number of single tickets issued at each station on the System and adding to this number double the number of return tickets issued at Eastern System stations; from 1903 onwards return tickets were counted once by the issuing station and once by the station from which the return journey was commenced.

SOURCE: Annual Reports of the General Manager of the Cape Government Railways.

Table A.22

South African Railways : Cape Eastern System

Railway Passenger Tickets issued (1) in each Calendar Year from 1910 to 1913 and in each Financial Year from 1923-24 to 1955-56. (Excluding Season Tickets

Year Ended	Railway Passenger Tickets Issued				
	First Class	Second Class	Third Class	Native	Total
31.12.1910	44,992	152,100	297,229(2)	*	494,321
31.12.1911	61,599	185,821	335,401(2)	*	582,821
31.12.1912	74,518	199,890	351,551(2)	*	625,959
31.12.1913	84,737	246,879	361,849(2)	*	693,465
31. 3.1924	129,211	222,834	219,042	78,243	649,330
31. 3.1925	131,001	237,128	244,560	84,560	697,249
31. 3.1926	143,097	255,249	264,741	76,521	739,608
31. 3.1927	147,776	249,647	281,476	69,069	747,968
31. 3.1928	148,321	246,956	299,844	81,197	776,318
31. 3.1929	122,374	226,876	294,986	75,335	719,571
31. 3.1930	112,015	211,337	306,485	76,473	706,310
31. 3.1931	90,184	200,221	290,112	74,406	654,923
31. 3.1932	75,654	189,645	247,171	65,150	577,620
31. 3.1933	61,320	172,068	198,258	79,345	510,991
31. 3.1934	65,351	195,790	208,029	82,475	551,645
31. 3.1935	62,920	202,912	232,965	89,214	588,011
31. 3.1936	52,930	209,305	275,510	102,893	640,638
31. 3.1937	50,131	214,849	344,678	93,313	702,971
31. 3.1938	49,942	201,665	429,657	93,730	774,994
31. 3.1939	51,412	204,898	510,719	95,205	862,234
31. 3.1940	49,740	208,277	561,081	99,115	918,213
31. 3.1941	49,625	220,760	556,804	101,419	928,608
31. 3.1942	59,485	250,193	633,846	100,322	1,043,846
31. 3.1943	89,504	288,107	720,739	95,309	1,193,659
31. 3.1944	146,338	342,659	879,145	86,522	1,454,664
31. 3.1945	192,511	369,527	1,050,169	91,700	1,703,907
31. 3.1946	178,655	356,946	1,150,232	89,611	1,775,444
31. 3.1947	146,770	321,410	1,172,657	73,697	1,714,534
31. 3.1948	115,715	298,474	1,232,819	68,898	1,715,906
31. 3.1949	103,722	285,254	1,293,692	70,774	1,753,442
31. 3.1950	77,263	256,165	1,210,903	79,769	1,624,100
31. 3.1951	57,275	229,258	1,166,350	72,548	1,525,431
31. 3.1952	55,094	235,782	1,431,253	74,864	1,796,993
31. 3.1953	48,372	247,310	1,444,046	70,859	1,810,587
31. 3.1954	40,674	234,019	1,311,583	71,175	1,657,451
31. 3.1955	34,458	225,079	1,164,403	77,941	1,501,881
31. 3.1956	33,224	211,384	1,141,718	80,769	1,467,095

* = Figures not Available

(1) In this table each ticket issued has been counted once only, irrespective of whether it was a single or a return ticket.

(2) Includes "Native" tickets.

SOURCE: Unpublished Annual Reports of the Divisional Superintendent, S.A.R., East London (1910 to 1926-27) and of the System Manager, Cape Eastern System, S.A.R., (1927-28 onwards).

Table A.23

Cape Government Railways : Eastern System

Train Mileage Run in Each Calendar Year from 1877 to 1909

Year Ended 31st December	Train Mileage	Year Ended 31st December	Train Mileage
1877	51,990	1893	1,021,201
1878	123,670	1894	981,581
1879	200,187	1895	1,222,818
1880	347,941	1896	1,226,263
1881	459,470	1897	1,283,013
1882	596,902	1898	1,534,959
1883	405,016	1899	1,134,142
1884	409,466	1900	1,462,601
1885	305,011	1901	1,955,387
1886	299,095	1902	2,187,969
1887	317,292	1903	2,289,825
1888	380,286	1904	1,908,524
1889	509,880	1905	1,784,211
1890	593,410	1906	1,662,152
1891	747,842	1907	1,567,743
1892	1,207,607	1908	1,304,044
		1909	*

* = No figures available

NOTE: Train mileage was not sub-divided into passenger, mixed and goods train mileage.

SOURCE: Annual Reports of the General Manager of the Cape Government Railways.

Table A.24

South African Railways : Cape Eastern System

Mileage Run by Passenger, Mixed and Goods Trains in Various Calendar or Financial Years from 1910 to 1955-56

Year Ended	Mileage Run By			Total Train Miles
	Passenger Trains	Mixed Trains	Goods Trains	
31.12.1910	428,803	413,438	857,300	1,699,541
31.12.1911	460,274	488,657	883,852	1,832,783
31.12.1912	511,146	487,135	1,065,019	2,063,300
31.12.1913	579,872	469,069	1,185,607	2,234,548
31.12.1914	455,157	489,355	1,140,857	2,085,369
31.12.1915	284,511	467,755	1,123,035	1,875,301
31.12.1916	399,264	665,747	1,087,492	2,152,503
31.12.1917) to 31. 3.1919)	- - - No Figures Available - - -			
31. 3.1920	413,144	529,042	1,611,871	2,554,057
31. 3.1921	543,769	444,212	1,545,960	2,533,941
31. 3.1922	446,028	500,864	1,191,857	2,138,749
31. 3.1923	441,643	494,415	1,161,572	2,097,630
31. 3.1924	452,220	488,742	1,422,214	2,363,176
31. 3.1925	454,988	491,920	1,515,617	2,462,525
31. 3.1926	474,243	531,338	1,761,671	2,767,252
31. 3.1927	475,477	590,995	1,589,623	2,656,095
31. 3.1928	569,844	607,309	1,630,888	2,808,041
31. 3.1929	488,272	650,276	1,817,657	2,956,205
31. 3.1930) to 31. 3.1933)	- - - No Figures Available - - -			
31. 3.1934	503,090	482,303	1,651,144	2,636,537
31. 3.1935	637,257	459,560	1,603,358	2,700,175
31. 3.1936	667,485	523,663	1,884,618	3,075,766
31. 3.1937	631,266	661,635	2,189,244	3,482,145
31. 3.1938	603,161	779,727	2,264,497	3,647,385
31. 3.1939) 31. 3.1940)	- - - No Figures Available - - -			
31. 3.1941	628,663	744,546	2,323,238	3,696,447
31. 3.1942	641,549	746,924	2,342,243	3,730,716
31. 3.1943	602,444	757,541	2,374,092	3,734,077
31. 3.1944	610,729	755,331	2,418,513	3,784,573
31. 3.1945	620,002	776,402	2,477,247	3,873,651
31. 3.1946	625,255	762,629	2,700,575	4,088,459
31. 3.1947	629,610	758,413	2,782,702	4,170,725
31. 3.1948	645,905	753,135	2,911,747	4,310,787
31. 3.1949	641,766	745,893	2,990,634	4,378,293
31. 3.1950	594,475	755,080	3,356,227	4,705,782
31. 3.1951	613,735	711,913	3,032,288	4,357,936
31. 3.1952	660,788	630,985	3,242,545	4,534,318
31. 3.1953	668,422	631,162	3,235,930	4,535,514
31. 3.1954	673,111	659,830	3,289,089	4,622,030
31. 3.1955	666,749	697,859	3,351,138	4,715,746
31. 3.1956	684,285	731,789	3,242,584	4,658,658

SOURCE: Unpublished Annual Reports of the Divisional Superintendent, S.A.R., East London (1910 to 1926-27) and of the System Manager, Cape Eastern System, S.A.R., (1927-28 onwards.)

TABLE A.35

Railage Rates per 100lb. per mile at Various Distances

Rate	Pence per 100lb per mile at						
	100	200	300	400	500	600	1,000
	miles						
1	.6	.6	.6	.5	.5	.4	.3
2	.6	.5	.5	.5	.4	.4	.3
3	.5	.5	.4	.4	.3	.3	.2
4	.4	.4	.4	.3	.3	.3	.2
5	.4	.3	.3	.3	.3	.2	.2
6	.3	.3	.3	.2	.2	.2	.2
7	.3	.2	.2	.2	.2	.2	.1
8	.2	.2	.2	.1	.1	.1	.1
9	.1	.1	.1	.1	.1	.1	.06
10	.1	.1	.1	.1	.1	.1	.05
11	.1	.1	.05	.05	.05	.04	.03
12	.1	.1	.05	.05	.05	.04	.03
13	.1	.05	.04	.04	.03	.03	.02
14	.1	.05	.04	.03	.03	.03	.02

Note: Whole numbers of pence are shown to the nearest whole number.

Source: Official Railway Tariff Book, No. 26.

TABLE A.26

South African Railways Goods Rates for Various Mileages as from 1st January, 1956.

RATE	Pence per 100lb for conveyance over a distance of								
	50	100	200	300	400	500	600	800	1,000
	miles								
1	34	64	124	172	208	238	266	306	341
2	30	56	109	151	182	208	233	268	298
3	25	47	91	126	152	174	194	223	249
4	22	41	79	110	133	152	170	196	218
5	19	35	68	95	114	131	146	168	188
6	17	30	58	79	96	109	122	141	157
7	14	25	46	64	77	88	98	113	126
8	11	19	35	48	58	67	74	86	95
9	8	14	26	34	41	46	52	59	66
10	8	12	21	28	33	38	42	48	53
11	6	9	13	17	21	25	27	31	34
12	6	8	12	16	20	23	24	26	28
13	6	7	10	13	15	16	17	20	22
14	4	6	9	11	13	14	15	16	17
Wattle bark	6	9	11	12	13	14	15	16	17
Fresh or dried fruit, export	8	12	14	16	20	23	24	26	28
Crude, untreated ores, full truck loads, up to value of £12.10.0 per ton*	5	7	9	12	13	15	16	18	20
Coal, in full truck loads, S to S, O.R.	4	6	8	10	12	13	15	17	18
Cement, ordinary building	8	10	16	22	26	28	28	31	34

*: Crude untreated ores are charged on an ad valorem basis, the rate shown in the table being the basic rate for certain ores for export or consigned directly to factories or foundries for use for foundry or manufacturing purposes. Otherwise, ores in full truck loads are charged basically at Rate 13. The basic rate in each case increases as follows:

Value of ore per ton	Percentage increase
Over £12.10.0 up to £25.0.0	10
Over £25.0.0 up to £50.0.0	25
Over £50.0.0 up to £75.0.0	50
Over £75.0.0 up to £100.0.0	75
Over £100.0.0	100

Less than truck-load quantities are charged at rate7, O.R.

Source: South African Railways Official Tariff Book No. 26.

TABLE A.27

Rates from the Ports to Johannesburg prior to 1st September, 1954.

Port	Miles	Pence per 100lb.						
		1	2	3	4	5	6	Petrol
Durban*	486	175	128	97	80	65	47	99
East London	666	175	128	97	80	65	47	99
Port Elizabeth	713	180	131	101	84	69	52	102
Cape Town *	951	246	182	135	112	91	67	141

*: These are schedule rates

TABLE A.28

Rates from the Ports to Johannesburg after the 1st September, 1954.

Port	Miles.	Pence per 100lb.									
		1	2	3	4	5	6	7	8	9	10
Durban*	486	235	206	172	150	129	109	87	66	46	37
East London	666	238	209	175	153	132	111	90	69	49	40
Port Elizabeth	713	241	212	178	156	135	114	93	72	52	43
Cape Town *	951	335	293	245	214	184	154	124	94	65	52

* : These are schedule rates

TABLE A.29

Comparison of the Port Rates between East London or Port Elizabeth and Johannesburg with the schedule mileage rate for the same distance.

Tariff Class	East London		Port Elizabeth	
	Port rate	Schedule rate	Port rate	Schedule rate
	pence per 100lb.		pence per 100lb.	
1	238	282	241	290
2	209	247	212	254
3	175	206	178	212
4	153	180	156	186
5	132	155	135	160
6	111	130	114	133
7	90	104	93	107
8	69	79	72	81
9	49	55	52	56
10	40	44	43	46

Sources: Table A.27: Official Railway Tariff Book (Port Rates Supplement) No. 24.
Tables A.28 and A.29: Official Railway Tariff Book (including Port Rates Supplement), No. 26.

TABLE A.30

SUMMARY, BY DESTINATION, OF THE COMMERCIAL GOODS TRAFFIC FORWARDED FROM EAST LONDON, BUFFALO HARBOUR AND CAMBRIDGE IN THE PERIOD FROM 1st APRIL, 1953 TO 31st MARCH, 1956

Destination	Year ended 31st March						AVERAGE	
	1956		1955		1953			
	tons	%	tons	%	tons	%	tons	%
The Border Region:								
Main line, from Arnoldton to Queenstown incl Tarkastad	109,532	17.8	96,281	17.5	84,262	16.4	96,692	17.2
Main line, from Bowker's Park to Knapdaar	8,037	1.3	7,934	1.4	7,823	1.5	7,932	1.4
Transkei, incl. Komgha	55,376	8.9	46,763	8.5	46,767	9.1	49,635	8.9
King W'ms Town to Adelaide, incl the Seymour spur	40,930	6.5	32,992	6.5	32,809	6.9	35,577	6.3
Maclear branch and Jamestown	12,570	2.1	11,599	2.1	10,446	2.0	11,538	2.1
Barkly East branch	13,139	2.2	11,018	2.0	10,595	2.0	11,584	2.1
Total:	239,584	38.8	206,587	38.0	192,702	37.9	212,958	38.0
Other Areas:								
Western and South-Western Cape	6,240	1.0	7,154	1.3	9,756	1.9	7,717	1.4
North-western and Northern Cape	7,005	1.1	7,373	1.4	6,567	1.2	6,982	1.2
Cape Midlands	34,945	5.6	32,776	5.5	36,800	6.7	34,840	6.2
Orange Free State	147,350	24.0	120,312	21.9	103,171	20.1	123,611	22.1
Transvaal	166,430	27.0	162,522	29.6	151,993	29.5	160,315	28.7
Natal	5,045	0.8	4,140	0.8	6,556	1.2	5,247	0.9
South West Africa	1,366	0.2	530	0.1	597	0.1	831	0.1
Bechuanaland Prot.	127	-	252	-	206	-	195	-
Rhodesia	8,818	1.5	8,024	1.4	7,071	1.4	7,971	1.4
TOTAL:	616.910	100.0	549.670	100.0	515.419	100.0	560.667	100.0

Note: Stores forwarded "on railway service", second hand furniture (household removals) and motor cars accompanying tourists have been excluded from this table.

Source: Unpublished records in the Office of the Port Goods Superintendent, South African Railways, East London.

An Analysis of the Commercial Traffic forwarded from East London, Buffalo Harbour and Cambridge in the Year ended 31st March 1956

Commodity	To Border Region							To Other Areas								Grand Total
	Main line south of Queens-town & Tarka-stad	Main Line north of Queens-Town	King Williams Town to Adelaide	Trans-kei incl. Komgha	Mac-lear Branch and James-Town	Barkly East Branch	Total	Western & South Western Cape	North-West & Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A	Rhodesia and B.P.	
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Agricultural Products																
Cotton			691				691									691
Flour	856	114	3,818	984	14		5,786		204	442		888	923			8,243
Fresh Fruit	118	47	39	112	44	25	385	244	86	11,477	452	927	127	16		13,714
Fresh Vegetables	203	117	184	242	95	48	889		350	273	610	58		26		2,206
Maize	554	157	952	798	132	43	2,636		17	544	194	45	10			3,446
Maize Meal	604	230	1,045	1,342	225	88	3,534		135	607						4,276
Wheat	7,104					3,844	10,948	1,559			20,492	31,575				64,574
Wattle Bark								8					137			145
Animal Products																
Dairy Produce	28		33	80			141	57		230						428
Fresh Fish	388	121	241	253	81	126	1,210	16		37	123	740	555			2,681
Hides and Skins			72				72			252						324
Leather			19				19									19
Wool and Mohair	2,175		38				2,213	360		3,135	45	29	8			5,790
Construction Material																
Bricks, sand and stone	54		1,310	144			1,508			19						1,527
Cement	589	60	75	165	364	58	1,311			63	39	83				1,496
Fencing Material	581	197	248	483	433	351	2,293	119	390	503	251	562	18	58	89	4,283
Timber	1,404	551	1,040	1,098	518	652	5,263	11	2,354	417	8,333	27,539	10		976	44,903
Merchandise																
Alcoholic Beverages	1,657	336	871	1,633	405	519	5,421			143						5,564
Batteries	19	13	9	18	12	24	95	21	141	80	232	726	55	80	18	1,448
Confectionery	213	52	168	256	75	59	823	93	333	853	887	2,707	8	69	829	6,602
Paints and Distemper	30	28	79	34	28	14	213	23	72	75	56	431	14	4		888
Salt	68	26	21	16	17	12	160	12		65	55	115	12		22	441
Soap	514	118	517	736	176	131	2,192	276	94	291	381	1,059	4	30	211	4,538
Sugar	4,232	944	6,261	12,122	1,255	1,049	25,803			257	2,313					28,373
Metals. Metal Manufactures and Machinery																
Brass, Bronze, Copper, Lead, Tin											152					152
Iron and Steelware	694	117	544	572	198	65	2,190	80	25	281	810	5,545	10		636	9,577
Machinery: Agricultural	138	32	48	58	170	66	512	15	154	116	1,129	1,446	27	14	117	3,530
General	8		70				78			21	94	1,286	3		122	1,604
Motor and Self Propelled Vehicles including parts	38	2	18	28	7	19	112	1,066	78	177	626	3,881	381	101	1,902	8,324
Scrap Metal										108		3,506				3,614
Oil and Liquid Fuel																
Crude Fuel Oil	6,929	518	1,473	2,119	759	647	12,445		92	213	10,159					22,909
Lubricating Oil and Grease	1,816	43	347	452	74	78	2,810		229	64	2,732	1,220			28	7,083
Paraffin	8,214	28	1,514	4,024	36	68	13,884		156	38	5,808			55		19,941
Petrol	28,115	210	4,507	10,713	714	1,157	45,416		357	255	34,576					80,604
Power Paraffin	9,132	395	1,224	704	304	275	12,034			21	19,165			374		31,594
Miscellaneous:																
Animal Foodstuffs	5,429	1,851	2,029	2,849	3,558	1,499	17,215		128	7,443	651					25,437
Empty Containers	16,516	367	2,066	3,967	498	601	24,015	476	286	1,874	23,012	1,560	424	167	53	51,867
Fertilizer and Manure	16		106	15			137			667		21				825
Paper	61		22	13			96	17		14	4,168	13,235	10		28	17,568
Road Making Material	654	41	272	153	12	36	1,168		75	30	250	91		20	41	1,675
Shooks			789				789									789
Tanning Extracts			18				18									18
Other Commodities	10,381	1,322	8,212	9,193	2,366	1,585	33,059	1,787	1,249	3,860	9,555	67,155	2,309	352	3,873	123,199
Grand Total	109,532	8,037	40,930	55,376	12,570	13,139	239,584	6,840	7,005	34,945	147,350	166,430	5,045	1,366	8,945	616,910

Commodity	To Border Region							To Other Areas								
	Main Line South of Queenstown, incl. Tarkastad	Main Line North of Queenstown	King William's Town to Adelaide	Transkei incl. Komgha	Maclear Branch and Jamestown	Barkly East Branch	Total	Western and South-Western Cape	North-West and Northern Cape	Cape Midland Region	O. F. S.	Transvaal	Natal	S.W.A	Rhodesia	Grand Total
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Agricultural Products:																
Cotton			629				629									629
Flour	729	214	3,827	1,874	18		6,662		125	516	179	558	116		50	8,206
Fresh fruit	70	30	50	123	26	25	324	564	59	11,801	208	660	57			13,673
Fresh vegetables	171	70	98	196	55	52	642		194	228	431	127		20		1,642
Maize	414	85	332	483	37	44	1,395			272			12			1,679
Maize meal	737	361	368	1,209	224	31	2,930		124	601						3,655
Wheat	6,720	11				3,292	10,023	13			6,455	39,482				55,973
Wattle bark																
Animal Products:																
Dairy Produce	23			31			54	67		304						425
Fresh fish	343	99	167	131	30	136	906	18		20	113	633	357		13	2,060
Hides and skins			513				513	35		473	43		22			1,086
Leather			11				11									11
Wool and Mohair	2,903						2,903	263		2,627	35	18	34			5,880
Construction Material:																
Bricks, sand and stone	17		1,082	234	21		1,354								18	1,372
Cement	635	124	202	128	271	76	1,436			101	27	66				1,630
Fencing Material	629	219	230	379	497	266	2,220	23	250	525	543	588	10		85	4,244
Timber	1,482	619	915	1,037	524	718	5,295	38	2,379	275	6,141	34,510	25	35	915	49,613
Mercandise:																
Alchoholic beverages	1,498	285	599	1,678	522	482	5,064			48						5,112
Batteries	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Confectionery	186	52	140	190	80	60	708	594	339	724	835	1,804	296	77	649	6,026
Paints and distemper	78	31	76	40	19	24	268	26	81	123	41	364	30	9	49	991
Salt	123	59	11	34	46	29	302	18	17	204	52	93	12			698
Soap	431	177	410	860	178	139	2,195	298	115	430	446	1,176	179	24	199	5,062
Sugar	4,495	796	5,466	11,319	1,219	1,054	24,349		17	233	2,383					26,982
Metals, Metal Manufactures and Machinery:																
Brass, Bronze, Copper, Lead, Tin												1,091				1,091
Iron and steelware	605	89	409	302	88	88	1,581		22	203	607	2,312	13		142	4,880
Machinery: Agricultural	210	57	43	154	163	117	744	15	100	90	1,180	3,124	106	12	259	5,630
: General	42		83	61	8	7	201	25	42	110	1,054	6,655	67	13	592	8,759
Motor and Self propelled vehicles incl. parts	31		4	24	18	13	90	718	74	101	390	2,636	275	56	898	5,238
Scrap Metal							-			129		2,771				2,900
Oil and Liquid Fuel:																
Crude fuel oil	3,778	416	860	1,513	863	467	7,897		410	300	6,792					15,399
Lubricating oil & grease	1,362	68	230	270	62	51	2,043		363	16	2,292	879				5,593
Paraffin	5,142	14	1,262	2,441	118	52	9,029		343	142	2,989					12,503
Petrol	29,954	218	4,649	9,885	761	508	45,975		203	849	35,497					82,524
Power paraffin	9,531	429	1,229	936	459	319	12,903		258	120	21,012	124				34,417
Miscellaneous:																
Animal foodstuffs	4,526	1,794	1,278	2,164	3,029	1,150	13,941			6,896	795					21,632
Empty containers	13,621	415	1,765	3,185	456	319	19,761	2,640	349	1,238	18,815	1,619	356	11	52	44,841
Fertilizer and manure	16		64	27			107			217	52	66				442
Paper	63		25	7			95				3,089	15,505	8		39	18,736
Road making material	115	18	209				342		194	54	113					703
Shooks			451				451									451
Tanning extracts			25				25									25
Other commodities	5,601	1,184	5,280	5,848	1,807	1,499	21,219	1,799	1,315	2,806	7,703	45,661	2,165	273	4,316	87,257
Grand Total	96,281	7,934	32,992	46,763	11,599	11,018	206,587	7,154	7,373	32,776	120,312	162,522	4,140	530	8,276	549,670

x = no figures available

An Analysis of the Commercial Traffic from East London, Buffalo Harbour and Cambridge in the Year Ended 31st March, 1954

Commodity	To Border Region							To Other Areas								Grand Total
	Main Line, South of Queenstown incl. Tarkastad	Main Line North of Queenstown	King William's Town to Adelaide	Transkei incl. Komgha	Maclear Branch and Jamestown	Barkly East Branch	Total	Western & South-western Cape	North-west & Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A	Rhodesia & B.P.	
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Agricultural Products:																
Cotton			827				827									827
Flour	800	72	3,688	1,277	16		5,853		16	360		296	20		23	6,568
Fresh fruit	29	13	12	48	13	10	125	387	51	10,315	141	748	75			11,842
Fresh vegetables	83	39	47	153	33	29	384		64	235	223					906
Maize	869	77	589	569	130	396	2,630	31		1,223	5,548	4,588				14,020
Maize meal	493	197	289	1,742	102	55	2,878	76	203	837		21				4,015
Wheat	6,447			53		3,606	10,106				2,616	28,283				41,005
Wattle bark													32			32
Animal Products:																
Dairy Produce	16				17		33	64		159	29					285
Fresh fish	345	96	135	348	36	136	1,096	20		21	100	392	273			1,902
Hides and skins			104				104	33		418	35		34			624
Leather																
Wool and mohair	1,795						1,795	977		2,629	49	55	17			5,522
Construction Material:																
Bricks, sand and stone	41	20	1,751	212	16		2,040					18				2,058
Cement	232	39	109	32	80	56	548			50		74				672
Fencing material	546	177	250	253	364	425	2,015		146	492	241	420	9	24	58	3,405
Timber	1,069	564	931	889	595	707	4,755		1,751	263	4,692	28,536	26	24	1,069	41,116
Merchandise:																
Alcoholic Beverages	1,561	351	637	1,903	594	489	5,535			79						5,614
Batteries	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Confectionery	146	45	151	120	58	58	578	1,317	312	714	877	1,994	1,217	104	707	7,820
Paints and distemper	18	27	28	50	25	22	170	26	63	129	54	314	5	12	16	789
Salt	99	24	34	27	31	9	224	22	22	96	44	26	9			443
Soap	341	141	352	847	166	117	1,964	279	185	571	288	1,123	388	21	136	4,955
Sugar	3,675	831	5,366	9,991	1,217	892	21,972		135	247	2,116	612				25,082
Metals, Metal manufactures and Machinery:																
Brass, Bronze, Copper, Lead, Tin							-				66					66
Iron and steelware	271	54	249	292		43	909	12		117	200	1,072			68	2,378
Machinery: Agricultural	56	5	117	92	45		315	17	41	60	811	1,949	242		239	3,674
: General	51	13	123	53	28	47	315	7	134	40	1,861	7,991	14	12	596	10,970
Motor & self-propelled vehicles incl. parts	50	15	37	71	11	15	199	603	64	184	260	2,217	189	46	738	4,500
Scrap metal							-					5,823				5,823
Oil and Liquid Fuel:																
Crude Fuel oil	3,129	535	1,223	1,339	579	255	7,060		136	311	4,534					12,041
Lubricating oil and grease	982	48	158	160	44	37	1,429		266	24	2,078	954				4,751
Paraffin	3,836	13	1,125	2,046	188	20	7,228		41	31	2,674					9,974
Petrol	27,352	370	3,571	8,835	552	265	40,945		371	724	28,386					70,426
Power Paraffin	8,615	497	1,342	643	350	325	11,772			116	18,052					29,940
Miscellaneous:																
Animal foodstuffs	4,070	1,511	1,045	1,540	2,379	1,079	11,624			10,996	766					23,386
Empty containers	10,751	352	1,576	2,588	353	196	15,816	3,517	263	1,136	12,697	1,149	1,078	39	21	35,716
Fertiliser and manure	34		10	14			58	24	48	13						143
Paper	43		24	5			72		18		3,422	19,057	11			22,580
Road making material	27						27		19		67	24				137
Shooks																
Tanning extracts			14				14									14
Other commodities	6,390	1,697	6,895	10,575	2,424	1,306	29,287	2,344	2,218	4,210	10,244	44,257	2,917	315	3,606	99,398
Grand Total	84,262	7,823	32,809	46,767	10,446	10,595	192,702	9,756	6,567	36,800	103,171	151,993	6,556	597	7,277	515,419

TABLE A.34

Analysis by commodities of the Traffic conveyed from East London by the Railway Administration's Road Transport Service

Commodity	Year ended 31st March										AVER-AGE
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	
	TONS										
General traffic	8,273	9,000	9,638	7,418	8,017	8,486	8,725	9,395	10,286	8,106	8,734
Maize meal	110	134	-	197	233	303	515	441	301	264	250
Maize	372	606	216	224	661	800	958	696	934	1,374	684
Animal foodstuffs, incl.lucerne	900	996	1,096	812	1,070	1,155	1,309	1,187	729	666	992
Fertilizer and manure	973	940	1,056	1,075	1,317	1,129	839	766	1,105	1,573	1,077
Agricultural lime	373	356	285	144	54	132	-	-	-	-	134
Pineapple plants	40	1,310	55	5	25	217	55	-	-	-	171
Chicory roots	168	170	38	154	-	-	-	-	-	-	53
Other commodities	80	3	-	-	8	2	5	9	14	15	14
TOTAL:	11,289	13,515	12,384	10,029	11,385	12,224	12,406	12,494	13,369	11,998	12,109

Source: Unpublished records (File R.M.T. 3159) in the Road Transportation Sectiono of the System Manager's Office, South African Railways, East London.

Table A.36

Tonnage of Goods Forwarded to Rhodesia from Cape Town, Port Elizabeth, East London and Durban in each Financial Year from 1950-51 to 1955-56

Year Ended 31st March	Cape Town		Port Elizabeth		East London		Durban		Total	
	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage
1951	13,108	5.4	128,444	52.4	14,309	5.9	89,176	36.3	245,037	100.0
1952	12,694	5.9	131,644	61.1	17,270	8.0	53,398	25.0	215,006	100.0
1953	17,725	6.6	147,747	56.0	21,209	8.2	77,682	29.2	264,363	100.0
1954	16,999	14.5	70,123	59.1	7,015	5.9	24,171	20.5	118,308	100.0
1955	16,419	10.5	98,838	63.6	7,761	5.0	32,496	20.9	155,514	100.0
1956	17,786	12.8	79,062	56.7	8,453	6.1	34,057	24.4	139,358	100.0

SOURCE: Unpublished Records of the Chief Accountant, South African Railways, Johannesburg.

Table A.35

Tonnage of Goods Forwarded to the Orange Free State Goldfields(1) from Cape Town, Port Elizabeth, East London and Durban in each Financial Year from 1953-54 to 1955-56

Year Ended 31st March	Cape Town		Port Elizabeth		East London		Durban		Total	
	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage of Total	Tons	Percentage
1954	1,798	5.9	4,373	14.4	4,157	13.7	19,998	66.0	30,326	100.0
1955	2,339	5.5	4,356	10.3	3,426	8.2	32,032	76.0	42,153	100.0
1956	3,404	7.7	3,282	7.3	4,108	9.2	33,726	75.8	44,520	100.0

(1) The following stations have been taken by the compiler as comprising the Orange Free State Goldfields: Virginia, Kalkvlakte, Whites, Henneman, Glen Harmony, Welkom, Friedesheim, Odendalsrus and Allanridge.

SOURCE: Compiled from unpublished Records in the office of the Chief Accountant, South African Railways, Johannesburg.

TABLE A.37

SUMMARY, BY ORIGIN, OF THE COMMERCIAL GOODS TRAFFIC RECEIVED AT EAST LONDON, THE BUFFALO HARBOUR AND CAMBRIDGE IN THE PERIOD FROM 1st APRIL, 1953 TO 31st MARCH 1956

Destination	Year ended 31st March						AVERAGE	
	1956		1955		1954			
	tons	%	tons	%	tons	%	tons	%
The Border Region:								
Main line from Arnoldton to Queenstown, incl Tarkastad	13,618	2.5	13,442	2.4	17,072	3.7	14,711	2.9
Main line from Bowker's Park to Knapdaar	4,206	0.8	4,409	0.8	4,457	1.0	4,357	0.9
Transkei, incl. Komgha	6,640	1.2	6,748	1.2	9,821	2.2	7,736	1.5
King W'ms Town to Adelaide, incl. Seymour Spur	15,088	2.8	9,906	1.8	10,639	2.4	11,878	2.3
Maclear branch and Jamestown	8,699	1.5	8,737	1.5	10,112	2.3	9,183	1.8
Barkly East branch	3,984	0.7	4,993	0.9	4,112	0.9	4,363	0.8
Total	52,235	9.5	48,235	8.6	56,213	12.5	52,228	10.2
Other Areas:								
Western and South-western Cape	19,058	3.5	27,227	4.9	25,432	5.7	23,906	4.6
North and north-western Cape	5,046	0.9	17,972	3.2	13,831	3.2	12,283	2.3
Cape Midlands	54,933	10.0	39,668	7.0	34,269	7.7	42,957	8.1
Orange Free State	124,372	22.8	122,164	21.7	54,261	12.2	100,266	19.3
Transvaal	218,777	39.8	230,612	41.0	211,921	47.4	220,437	42.6
Natal	71,922	13.1	73,008	13.0	47,509	10.6	64,146	12.3
South West Africa	716	0.1	986	0.1	546	0.1	749	0.1
Rhodesia	1,546	0.3	2,554	0.5	2,737	0.6	2,278	0.5
TOTAL:	548.605	100.0	562.426	100.0	446.719	100.0	519.250	100.0

Note: Stores forwarded "on railway service", second hand furniture (household removals) and motor cars accompanying tourists have been excluded from this table.

Source: Unpublished records in the Office of the Chief Accountant, South African Railways, Johannesburg.

Commodity	From Border Region							From other Areas							
	Main Line South of Queens-Town incl. Tarka-Stad	Main Line North of Queens-town	King William's Town to Adelaide	Trans-Kei incl. Komgha	Mac-lear Branch and James-town	Barkly East Branch	Total	Western and South Western Cape	North-West and Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A	Grand Total
Agricultural Products	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Chicory Root										31					31
Cotton - Raw and Ginned									447				86		533
Dried beans and peas											26	1,648	15		1,689
Dried Fruit								176							176
Flour						68	68	10		2,695	15	795			3,783
Fresh Fruit:															
Citrus - Local Consumption			497				497			716		983			2,196
Other - " "	25		139				164	565		5,710	15	499	306		7,259
Citrus - For Export			10,001				10,001					10,741			20,742
Other - " "			268				268					707			975
All Kinds - For Export															
Fresh Vegetables	273	83	49	29	208	22	664	265	358	1,213	454	3,772			6,726
Grain:															
Maize - Local Consumption	162		70	208	492		932	101	429	18	36,430	12,492	49		50,451
" - For Export											63,305	292			63,597
Wheat					1,021		1,021	6,949	203	368	188				8,729
Other	112		53	146	158		469	744	88	44	73	650			1,988
Ground-nuts									8			249			257
Maize-meal - Local consumption	17	23	72	57			172			6	6,266	6,093			12,537
" - For Export			74				74				731	2,448			3,253
Oatmeal and Rolled Oats								237							237
Rice								607				87			694
Tobacco										14		378			392
Treacle, Crude												299	1,648		1,947
Vegetable Oil											171	754			925
Wattle Bark	373						373								373
Animal Products															
Butter	112			443	66	78	699		6	43	72				820
Cheese			289		23	83	395			44	112				551
Eggs	268	57	118	58	94	11	606			137	695				1,438
Fresh Fish															
Hides and Skins	301	154	139	678	188	166	1,666			18	317				2,001
Leather			5				5			16			5		26
Wool and Mohair	5,988	3,499	787	2,465	5,746	2,761	21,646		56	751	13,372	142	335	238	36,540
Minerals and Ores															
Coal												123,413	56,854		180,267
Lime and Limestone								487	375	38		170			1,070
Salt									636	704		23		370	1,733
Other												196	240		436
Construction Material															
Asbestos cement products, including roofing sheets								213		108		678			999
Boards, (Woodboard, Hardboard, mill board, strawboard or compostion board)										134			553		687
Bricks	74		19	231			324	169		724		4,737			5,954
Brass, Bronze, Copper, Lead, Tinplate												909			909
Cement								37	890	22,450	81	5,175			28,633
Fencing Material, incl.wire	178		20				198	15		277		1,567	125		2,182
Granite and Stone										172		362	182		716
Iron and Steelware								20		75	52	5,463	2,686		8,296
Pipes - Concrete, cement, earthern								1,185				621			1,806
Tiles - Roofing and Paving								12			61	1,859	1,489		3,421
Timber - South African	745		264	169	146		1,324	177		90		162	1,007		2,769
Carried Forward	8,628	3,816	12,917	4,864	8,142	3,179	41,566	11,969	3,416	36,805	129,436	188,364	65,580	608	470,744

	From Border Region							From other Areas							
	Main Line South of Queenstown incl. Tarkastad	Main line north of Queenstown	King William's Town to Adelaide	Transkei incl. Komgha	Maclear Branch and Jamestown	Barkly East Branch	Total	Western and South Western Cape	North-West and Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A.	Grand Total
Brought Forward	8,628	3,816	12,917	4,884	8,142	3,179	41,566	11,969	3,416	36,805	122,436	188,364	5,580	608	470,744
Machinery															
Agricultural								64		161	26	663	102		1,016
General								44		17		40	53		154
Merchandise															
Alcoholic Beverages								297		3,335		23		8	3,663
Batteries										263		69	44		376
Candles			125				125								125
Canned Fruit & Vegetables								179		577		151			907
Confectionery			25				25	5		148		73	33		284
Condensed Milk								28		258	651	547	259		1,743
Motor and Other self-propelled Vehicles								321		657		163	9		1,150
Paint and Distemper										40		58	16		114
Paper and Cardboard										103		381	7		491
Soap			96				96					210	8		314
Tyres and Tubes										587			335		922
Miscellaneous															
Animal Foodstuffs, including Lucerne. Forage, and meal								215	1,226	1,773	110	2,670	36		6,030
Empty Containers	2,039	236	1,027	1,039	383	272	5,046	252	10	4,804	205	3,010	762		14,089
Fertilizer and Manure			165				165	1,726		102			67		2,060
Other Commodities	2,951	154	733	667	174	533	5,212	3,958	394	5,303	944	22,355	4,611	100	42,877
	13,618	4,206	15,088	640	8,699	3,984	52,235	19,058	5,046	54,933	124,372	218,777	11,922	716	547,059

Add Rhodesia (No details of Commodities Available) 1,546

548,605

Table A. 39

An Analysis of the Commercial Traffic Forwarded to East London, The Buffalo Harbour and Cambridge in the Year Ended 31st March, 1955

Commodity	From Border Region							From Other Areas							Grand Total
	Main Line South of Queenstown incl. Tarkastad	Main Line North of Queenstown	King William's Town to Adelaide	Transkei incl. Komgha	Maclear Branch and Jamestown	Barkly East Branch	Total	Western & South-western Cape	North-west & Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A.	
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Agricultural Products:															
Chicory root												1			3
Cotton - raw and ginned									65			149	25		239
Dried beans and peas				17			17				36	1,369			1,422
Dried fruit	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Flour	94					124	218	108		2,737	11	211			3,285
Fresh fruit:															
Citrus - local consumption			461				461			448		1,927	16		2,852
Other - " "	38		92				130	406		2,349	48	320	379		3,632
Citrus - for export	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Other - " "	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
All kinds - for export			5,297				5,297					18,252			23,549
Fresh vegetables	79	26	27	18	149	120	419	283	372	1,556	1,167	3,495			7,292
Grain:															
Maize - local consumption	122		169	64	1,242		1,597		963	61	36,695	17,913			57,229
" - for export									894		53,521	9,756			64,171
Wheat					646		646	7,373	3,134	31	426				11,610
Other	28	55	17	196	256		552	402	162	100	520	475			2,211
Ground-nuts									12			251			263
Maize meal - local consumption			90			26	116			20	5,197	9,342	10		14,685
" " - export											3,799	8,123			11,922
Oatmeal and rolled oats								298							298
Rice								447				39			486
Tobacco										13		285			298
Treacle, crude													1,219		1,219
Vegetable oil										13		1,275	136		1,424
Wattle bark	12						12								12
Animal Products:															
Butter	84		23	507	134	85	833		26	43	84				986
Cheese	16	14	314		73	136	553	11	25	44	88				721
Eggs	321	58	97	37	121	21	655			106	248	15			1,024
Fresh fish								714							714
Hides and skins	249	135	190	584	134	94	1,386		9	20	377	277		17	2,086
Leatner			24				24			16			9		49
Wool and Mohair	6,327	3,634	704	2,437	5,397	3,150	21,649		36	849	13,735	97	220		36,586
Minerals and Ores:															
Coal												101,740	56,467		158,207
Lime and limestone								970	85		131	146	47		1,379
Salt									911	662		11		932	2,516
Other										108		176	208		492
Carried Forward	7,370	3,922	7,505	3,860	8,152	3,756	34,565	11,012	6,694	9,176	116,083	175,644	58,736	949	412,859

Table A. 40

An Analysis of the Commercial Traffic forwarded to East London, The Buffalo Harbour and Cambridge in the Year ended 31st March 1954

Commodity	From Border Region							From Other areas							
	Main Line South of Queenstown incl. Tarkastad	Main Line north of Queenstown	King William's Town to Adelaide	Transkei incl. Komgha	Maclear Branch incl, Jamestown	Barkly East Branch	Total	Western and South West Cape	North-West and northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A	Grand Total
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Agricultural Products															
Chicory Root															
Cotton - raw and Ginned									34				51		85
Dried beans and peas			61	25			86	15	10		64	1,302			1,477
Dried Fruit	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Flour						107	107	125		2,337	58	295			2,922
Fresh Fruit:															
Citrus - Local Consumption			285				285			440		679			1,404
Other - Local Consumption	48		77	40			165	557	55	1,596	77	681	270		3,401
Citrus - For Export	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Other - " "	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
All Kinds - For Export			5,954				5,954					16,912			22,866
Fresh Vegetables	125		65	19	311	39	559	310	357	1,264	730	3,773			6,993
Grain															
Maize - local consumption	460	73	314	2,600	510	15	3,972		51		23,213	4,350	13		31,599
" - for export											9,790				9,790
Wheat		45	112		2,539		2,696	1,287	3,819	12					7,814
Other	53			120	312		485	370	30	15	942	380			2,222
Ground Nuts										6		58	47		111
Maize-meal - local consumtion			513			23	536	38			2,568	7,884	36		11,062
" " - for export															
Oatmeal and Rolled oats								97							97
Rice															
Tobacco										39		281			320
Treacle, crude													1,304		1,304
Vegetable Oil								40		32	64	257	222		615
Wattle Bark															
Animal Products															
Butter	114		20	468	281	10	893		8	38	43				982
Cheese			272			72	344			14	109				467
Eggs	409	56	113	48	126	19	771			87	131				989
Fresh Fish								826		40					866
Hides and Skins	260	171	169	983	206	191	1,980		9	29	667	24	11	32	2,752
Leather			65				65			20		7	5		97
Wool and Mohair	5,515	3,678	680	2,302	5,160	3,135	20,470		48	984	12,387	45	110	18	34,062
Minerals and Ores															
Coal												108,784	25,815		134,599
Lime and Limstone								666	688			158			1,512
Salt									754	635			39	468	1,896
Other									11	53		60	221		345
Carried Forward	6,984	4,023	8,700	6,605	9,445	3,611	39,368	4,331	5,874	7,641	50,843	145,930	28,144	518	282,640

Commodities	From Border Region							From Other Areas							
	Main line South of Queens-town incl. Tarka-stad	Main Line north of Queens-Town	King William's town to Adelaide	Trans-kei inc. Komgha	Mac-lear Branch and James-Town	Barkly East Branch	Total	Western and South West Cape	North and Northern Cape	Cape Midland Region	O.F.S.	Transvaal	Natal	S.W.A.	Grand total
	Tons	Tons	tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Brought Forward	6,984	4,023	8,700	6,605	9,445	3,611	39,368	4,331	5,874	7,641	50,843	145,930	28,144	518	282,649
Construction Material															
Asbestos cement products incl. roofing sheets	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Boards (woodboard, hardboard, millboard, strawboard or composition board								455					853		1,308
Bricks								165	38	280	665	4,650	267		6,065
Brass, bronze, copper, lead, tinplate												58			58
Cement									5,581	9,634	436	7,439			23,090
Fencing material, incl. wire	454				15		469	91	84	410		1,151	126		2,331
Granite and Stone								26		1,033		130			1,189
Iron and Steelware								25		56		6,010	274		6,365
Pipes - Concrete, cement, earthern	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Tiles - Roofing and paving		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Timber - South African	790		226	78	28		1,122			98		31	943		2,194
Machinery															
Agriculture								43		93		377	248		761
General								129		288		378	38		833
Merchandise															
Alcoholic Bevera ges								8,253		4,147			1,255	17	13,672
Batteries	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Candles			129				129								129
Canned fruit and Vegetables								1,210		480		157	38		1,885
Confectionery			41				41	67		71		88	86		353
Condensed Milk								33		182		655	702		1,572
Motor & other self-propelled Vehicles								152		560		162	174		1,048
Paint and Distemper								57		30		26	366		479
Paper and Cardboard								36		71		208			315
Soap			59				59	180				46	215		500
Tyres and Tubes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Miscellaneous															
Animal Foodstuffs, incl. lucerne, forage and meal								1,031	1,859	665	147	3,289	225		7,216
Empty containers	4,207	333	695	2,193	488	361	8,271	154	16	1,829	210	3,800	1,025		15,305
Fertilizer and Manure			33	21			54	1,697		75		125			1,951
Other Commodities	4,637	101	756	924	148	140	6,700	7,297	379	6,626	1,960	37,211	12,530	11	72,714
	17,072	4,457	10,639	9,821	10,112	4,112	56,213	25,432	13,831	34,269	54,261	211,921	47,509	546	443,982
Add Rhodesia (No details of Commodities Available)															2,737
															446,719

x - No figures available.

TABLE A41

ANALYSIS BY COMMODITIES OF THE TRAFFIC CARRIED INTO EAST LONDON BY THE RAILWAY ADMINISTRATION'S ROAD TRANSPORT SERVICE.

COMMODITY	YEAR ENDED 31ST MARCH										
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	AVERAGE
	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS
GENERAL TRAFFIC	1,587	1,030	1,400	1,434	1,637	2,061	2,127	2,823	3,362	2,258	1,972
CITRUS FRUIT	634	679	537	446	553	535	329	426	509	153	480
PINEAPPLES	2,848	977	1,249	194	151	172	7	5	18	-	562
KAFFIR CORN	9	41	121	98	41	41	116	145	125	31	77
MAIZE	758	352	2,537	1,692	711	1,412	845	1,139	1,129	868	1,144
WOOL	264	207	245	173	148	315	270	213	269	253	236
FRUIT AND VEGETABLES	299	258	260	260	220	207	113	120	227	311	227
PINEAPPLE PLANTS	985	1,580	1,480	15	-	98	-	-	-	-	416
CHICORY ROOT	153	142	43	164	42	58	-	-	-	-	60
OTHER	10	2	20	37	-	-	30	19	27	21	17
TOTAL	7,547	5,268	7,892	4,513	3,503	4,899	3,837	4,890	5,666	3,895	5,191

Table A.42

South African Railways - Cape Eastern System

Goods Traffic Forwarded from, and received into, East London and Buffalo Harbour in Each Financial Year from 1921-22 to 1955-56

Year Ended 31st March	Forwarded Traffic Tons	Received Traffic Tons
1922	91,760	155,682
1923	97,963	110,677
1924	121,118	195,874
1925	134,902	126,796
1926	157,491	257,368
1927	160,687	145,693
1928	184,234	185,224
1929	182,921	176,036
1930	209,934	184,365
1931	184,573	156,146
1932	174,583	147,270
1933	158,074	152,040
1934	189,026	155,426
1935	211,116	154,451
1936	244,137	157,814
1937	295,758	180,438
1938	331,160	180,664
1939	350,053	191,736
1940	347,228	197,488
1941	281,404	201,850
1942	286,792	214,807
1943	259,009	229,830
1944	215,705	248,029
1945	222,155	249,116
1946	252,116	259,479
1947	373,201	290,291
1948	380,676	279,697
1949	526,074	313,955
1950	516,249	304,555
1951	554,418	363,213
1952	581,766	391,024
1953	681,711	369,561
1954	631,750	398,135
1955	627,742	554,217
1956	636,217	531,274

SOURCES: Annual Reports of the Divisional Superintendent, South African Railways, East London, (1921-22 to 1926-27) or the System Manager, Cape Eastern System, South African Railways, (1927-28 onwards).

South African Railways - Cape Eastern System - Road Transport Services
Route Mileage in Operation at 31st March in each Financial Year from 1932-33 to 1955-56

Year Ended 31.3.	East London	King Wm's Town	Munyu	Ade-laide	Dord-recht	Bed-ford	Qamata	Barkly East	Mac-lear	Aliwal North	Vied-ges-ville	Alice; Cath-cart	Steyns-burg	Bityi	Idut-ywa	Ngq-eleni	Tarka-stad	Qns-town	
	Area 401	Area 402	Area 403	Area 404	Area 405	Area 406	Area 407	Area 408	Area 409	Area 410	Area 411	Area 412	Area 413	Area 414	Area 415	Area 416	Area 417	Area 418	Total all Areas
1933)																			566
1934)																			592
1935)	---------- No Area Figures Available ----------																		620
1936)																			620
1937)																			634
1938	215	111	37	56	62	75	28	91	-	62	50	-	-	-	-	-	-	-	787
1939	215	111	37	70	62	82	109	111	139	94	50	186	-	-	-	-	-	-	1,266
1940	237	147	42	70	62	74	109	111	139	94	50	205	113	48	29	-	-	-	1,530
1941	240	147	42	70	80	74	140	111	168	101	50	214	168	48	72	-	-	-	1,725
1942	240	165	42	70	80	74	140	111	168	101	50	222	138	48	72	-	-	-	1,721
1943	240	161	a	70	80	74	182	111	168	101	50	222	138	48	72	-	-	-	1,717
1944	244	174	-	70	80	74	182	111	168	101	50	222	b	48	72	-	-	-	1,596
1945	249	174	-	70	80	106	182	111	168	101	50	222	-	48	93	-	-	-	1,654
1946	249	181	-	70	86	106	182	150	168	101	50	238	-	69	93	16	-	-	1,759
1947	369	199	-	70	86	111	226	164	168	151	71	238	-	69	93	16	125	-	2,156
1948	379	199	-	70	86	90	267	164	168	179	71	218	-	69	93	c	134	-	2,187
1949	379	199	-	70	80	49	267	162	91	153	71	222	-	69	99	-	148	-	2,059
1950	379	190	-	70	80	49	267	162	91	153	71	222	-	48	141	-	148	-	2,071
1951	379	190	-	70	80	49	267	162	91	124	60	222	-	48	141	-	127	67	2,077
1952	384	187	-	70	80	49	267	162	91	124	60	222	-	48	147	-	127	d	2,018
1953	388	187	-	70	80	49	261	162	91	101	60	222	-	48	169	-	127	-	2,015
1954	388	170	-	70	80	e	265	162	91	101	60	222	-	48	169	-	176	-	2,002
1955	375	159	-	70	80	-	265	169	47	101	60	222	-	48	169	-	185	-	1,950
1956	375	159	-	70	80	-	267	169	49	101	60	222	-	49	144	-	185	-	1,930

a. Area 403 was merged with area 407 with effect from 1.4.1942
b. Services withdrawn with effect from 1.4.1943
c. Service withdrawn with effect from 14.5.1947
d. Service withdrawn
e. Area 406 was merged with area 417 with effect from 2.11.1953

SOURCE: Records of the Road Transportation Section, Office of the System Manager, Cape Eastern System, South African Railways.

Table A.44

South African Railways : Cape Eastern System : Road Transport Services

Revenue under Various Heads, Expenditure and Profit or Loss in Each Financial Year from 1932-33 to 1955-56

Year Ended	Revenue				Expenditure	Profit	Loss
	Passengers	Goods	Other	Total			
	£	£	£	£	£	£	£
31.3.1933	5,694	11,765	3,410	20,869	20,796	73	-
31.3.1934	6,650	16,000	3,790	26,440	24,763	1,677	-
31.3.1935	6,860	15,379	3,666	25,905	22,580	3,325	-
31.3.1936	6,878	18,773	3,789	29,440	29,205	235	-
31.3.1937	6,903	21,579	4,041	32,523	31,059	1,464	-
31.3.1938	7,883	19,878	4,025	31,786	32,674	-	888
31.3.1939	10,611	25,178	5,092	40,881	40,489	392	-
31.3.1940	15,077	31,733	6,740	53,550	53,081	469	-
31.3.1941	17,479	37,861	2,918	58,258	63,454	-	5,196
31.3.1942	21,608	42,204	3,007	66,819	71,573	-	4,754
31.3.1943	30,818	44,386	3,036	78,240	87,337	-	9,097
31.3.1944	37,397	44,821	3,090	85,308	98,719	-	13,411
31,3,1945	44,109	49,428	3,176	97,213	121,832	-	24,619
31.3.1946	49,336	80,253	3,415	133,004	164,736	-	31,732
31.3.1947	55,826	81,129	5,208	142,163	186,631	-	44,468
31.3.1948	64,331	83,225	5,095	152,651	203,703	-	51,052
31.3.1949	67,453	73,293	5,290	146,036	186,550	-	40,514
31.3.1950	65,927	85,779	4,396	156,102	189,067	-	32,965
31.3.1951	88,115	85,799	4,147	178,061	197,204	-	19,143
31.3.1952	107,062	87,629	5,823	200,514	233,240	-	31,726
31.3.1953	115,179	87,059	8,160	210,398	254,260	-	43,862
31.3.1954	120,352	106,150	13,031	239,533	264,256	-	24,723
31.3.1955	125,350	127,688	12,673	265,711	272,937	-	7,226
31.3.1956	125,144	123,076	15,717	263,937	296,486	-	32,549

SOURCE: Unpublished Records of the Road Transportation Section of the Office of the System Manager, Cape Eastern System, South African Railways.

Table A.43

South African Railways : Cape Eastern System : Road Transportation Services

Passenger and Goods Traffic Carried, and Vehicle Miles and Trailer miles run, in each Financial Year from 1932-33 to 1955-56

Year Ended	Passenger Traffic			Goods Traffic			Vehicle Miles	Trailer Miles	Vehicle and Trailer Miles (Total)
	First Class	Third Class	Total	Goods	Cream	Total			
	Units	Units	Units	Tons	Tons	Tons	Miles	Miles	Miles
31.3.1933	4,229	45,694	49,923	12,563	168	12,731	257,266	-	257,266
31.3.1934	4,251	58,008	62,259	17,060	167	17,227	326,948	-	326,948
31.3.1935	3,411	61,858	65,269	16,492	195	16,687	319,633	13,860	333,493
31.3.1936	3,774	59,701	63,475	31,017	239	31,256	431,691	17,112	448,803
31.3.1937	4,493	61,672	66,165	38,769	231	39,000	517,987	14,966	532,953
31.3.1938	4,736	73,773	78,509	37,172	199	37,371	509,922	13,182	523,104
31.3.1939	9,487	93,020	102,507	45,694	396	46,090	603,012	24,899	627,911
31.3.1940	9,552	119,297	128,849	59,300	584	59,884	769,978	79,836	849,814
31.3.1941	10,892	138,991	149,883	78,675	833	79,508	900,915	127,169	1,028,084
31.3.1942	12,129	168,729	180,858	86,807	633	87,440	1,006,546	80,809	1,087,355
31.3.1943	19,353	232,434	251,787	91,849	740	92,589	1,087,917	85,721	1,173,638
31.3.1944	28,499	270,550	299,049	94,679	626	95,305	1,112,508	89,126	1,201,634
31.3.1945	28,461	293,502	321,963	100,569	544	101,113	1,220,638	85,311	1,305,949
31.3.1946	27,810	313,893	341,703	182,372	471	182,843	2,455,892	33,531	2,489,423
31.3.1947	34,814	357,444	392,258	150,691	540	151,231	2,535,841	131,997	2,667,838
31.3.1948	35,217	393,166	428,383	141,788	670	142,458	2,361,607	177,022	2,538,629
31.3.1949	27,242	426,708	453,950	114,999	643	115,642	1,781,729	262,338	2,044,067
31.3.1950	22,265	383,167	405,432	132,252	518	132,770	1,579,526	341,397	1,920,923
31.3.1951	18,660	433,977	452,637	108,521	791	109,312	1,466,872	394,958	1,861,830
31.3.1952	17,099	526,023	543,122	108,039	724	108,763	1,424,091	379,581	1,803,672
31.3.1953	18,372	560,666	579,038	107,833	806	108,639	1,359,406	494,351	1,853,757
31.3.1954	13,832	544,858	558,690	115,033	796	115,829	1,335,835	577,941	1,913,776
31.3.1955	11,208	503,228	514,436	118,551	831	119,382	1,336,915	572,822	1,909,737
31.3.1956	9,160	476,720	485,880	110,607	821	111,428	1,256,243	562,795	1,819,038

SOURCE: Unpublished records of the Road Transportation Section of the Office of the System Manager, Cape Eastern System, South African Railways.

TABLE A.46

Principal Commodities Conveyed over the Cape Eastern System Routes of the South African Railways Administration's Road Transport Service between 1st April, 1953 and 31st March, 1956.

Commodity	Year ended 31st March			AVERAGE.
	1956	1955	1954	
	Tons			
Grain	22,333	17,830	15,995	18,719
Wool	6,113	6,092	5,820	6,008
Fertilizer	6,364	5,771	5,497	5,877
Lucerne	2,520	5,481	4,603	4,201
Pineapples	3,467	2,178	2,422	2,689
Cement	2,897	2,475	1,569	2,314
Fresh fruit	2,200	1,996	2,253	2,150
Pineapple plants	1,025	2,890	1,535	1,817
Cotton	1,834	1,199	651	1,228
Coal	721	778	895	798
Fresh vegetables	578	518	423	506
Mohair, hides and skins	322	432	643	466
Salt	233	563	553	450
Bricks	270	453	408	377
Chicory	321	312	81	238
Cheese	65	84	128	92
Other commodities	59,344	69,499	71,557	66,800
TOTAL:	110,607	118,551	115,033	114,730

Source: Unpublished records of the Road Transport Section of the System Manager's Office, South African Railways, East London.

TABLE A.14

COMPARISON OF THE NUMBER OF MOTOR VEHICLES LICENSED IN EACH MAGISTERIAL DISTRICT IN THE BORDER REGION IN 1935 AND 1956.

MAGISTERIAL DISTRICT	YEAR ENDED 31ST DECEMBER, 1935.				YEAR ENDED 31ST DECEMBER, 1956.				INCREASE
	CARS	BUSES	COMMERCIAL VEHICLES	TOTAL	CARS	BUSES	COMMERCIAL VEHICLES	TOTAL	
ADELAIDE	354	-	21	375	433	-	184	617	242
ALBERT	510	-	36	546	782	2	288	1,072	526
ALIWAL NORTH	499	1	55	555	1,179	1	329	1,509	954
BARKLY EAST	393	3	19	415	611	1	319	931	516
CATHCART	379	-	38	417	429	1	221	651	234
EAST LONDON	5,059	39	657	5,755	11,813	116	2,326	14,255	8,500
ELLIOTT	260	-	13	273	359	-	225	584	311
FORT BEAUFORT	339	-	45	384	440	1	184	625	241
GLEN GREY	84	-	19	103	124	8	67	199	96
HERSCHEL	46	-	20	66	93	6	52	151	85
INDWE	178	-	11	189	309	-	94	403	214
KEISKAMMA HOEK	*	*	*	*	113	-	53	166	166
KING WM'S. TOWN	1,072	11	158	1,241	1,596	20	660	2,276	1,035
KOMGHA	230	-	23	253	348	-	230	578	325
LADY GREY	211	-	33	244	261	-	149	410	166
MACLEAR	160	-	10	170	412	-	192	604	434
MIDDLEDRIFT	*	*	*	*	48	-	50	98	98
MOLTENO	331	-	31	362	405	1	175	581	219
PEDDIE	171	-	12	183	255	-	157	412	229
QUEENSTOWN	1,191	7	132	1,330	2,388	12	645	3,045	1,715
STERKSTROOM	179	-	14	193	287	-	109	396	203
STOCKENSTROM	131	-	33	164	262	-	122	384	220
STUTTERHEIM	406	-	30	436	660	2	344	1,006	570
TARKA	360	-	45	405	380	-	211	591	186
VICTORIA EAST	205	-	9	214	332	-	142	474	260
WODEHOUSE	435	5	39	479	577	1	242	820	341
TSOLO	77	-	13	90	116	5	49	170	80
ELLIOTDALE	51	-	14	65	62	2	39	103	38
ENGCOBO	114	-	15	129	179	3	84	266	137
MQANDULI	63	-	21	84	68	-	35	103	19
ST. MARK'S	66	-	12	78	106	4	49	159	81
UMTATA	460	-	89	549	947	22	310	1,279	730
XALANGA	64	-	12	76	102	4	31	137	61
BUTTERWORTH	156	-	36	192	261	5	81	347	155
IDUTYWA	126	-	25	151	163	7	66	236	85
KENTANI	67	-	12	79	86	3	64	153	74
NQAMAKWE	57	-	13	70	78	2	41	121	51
TSOMO	46	1	16	63	67	-	30	97	34
WILLOWVALE	80	2	10	92	87	7	60	154	62
LIBODE	39	-	6	45	60	-	36	96	51
NGQELENI	53	-	13	66	88	5	53	146	80
FORT ST. JOHN'S	53	-	11	64	95	-	67	162	98
TOTAL	14,755	69	1,821	16,645	27,461	241	8,865	36,567	19,922

* Magisterial District not in existence.

SOURCE: BUREAU OF CENSUS AND STATISTICS SPECIAL REPORT NO. 97 : MOTOR VEHICLE STATISTICS FOR THE YEAR 1935; AND BUREAU OF CENSUS AND STATISTICS SPECIAL REPORT NO. 216 : MOTOR VEHICLE STATISTICS FOR THE YEAR 1956.

TABLE A.48

Motor Carrier Certificates Issued in Each Financial Year from 1st April 1948 to 31st March 1956, by the East London and Umtata Local Road Transportation Boards.

Year ended 31st March	Applications		Certificates Issued		
	Received	Withdrawn, Refused or Carried over	Annual	Temporary	TOTAL
	number of vehicles				
1949	3,475	224	1,415	1,857	3,272
1950	3,230	228	1,384	1,586	2,970
1951	3,125	263	1,306	1,543	2,849
1952	3,031	217	1,308	1,576	2,884
1953	3,160	143	1,479	1,548	3,027
1954	3,826	350	2,246	1,154	3,400
1955	2,266	249*	1,456	606	2,062
1956	2,153	476*	1,397	448	1,845

*: 110 and 122 applications were refused in the years ended 31st March. 1955 and 31st March, 1956, respectively.

TABLE A.49

Exemptions From the Obligation to Obtain a Motor Carrier Certificate Granted in Each Financial Year from 1st April 1948 to 31st March 1956 By the East London and Umtata Local Road Transportation Boards.

Year ended 31st March	Applications		Exemptions granted.		
	Received	Withdrawn, Refused or Carried over	Annual	Temporary	TOTAL
	number of vehicles				
1949	5,715	400	4,643	605	5,248
1950	5,885	126	5,378	380	5,758
1951	5,542	156	4,974	398	5,372
1952	5,729	111	5,218	458	5,676
1953	5,449	73	4,938	482	5,420
1954	2,420	252	1,753	422	2,175@
1955	2,502	267*	2,000	611	2,611
1956	1,951	331*	1,149	603	1,752

@: The decrease in applications and exemptions granted is due to a change in procedure as a result of which it is no longer necessary for certain types of exemption holders to renew their exemption annually.

*: The number of exemptions refused in the years ended 31st March, 1955 and 31st March, 1956 was 154 and 59, respectively.

NOTES:

1. The jurisdiction of these local boards was defined by Proclamation No 334 of 1948. The Umtata Board was abolished with effect from 31.12.1953, and the area formerly under its control transferred to the jurisdiction of the East London Board.
2. The "Total" figure will not balance with the "applications received" less the applications withdrawn, etc., because the total includes certificates or exemptions granted in respect of applications carried over from the previous financial year.
3. Sources: for the financial years 1948-49 to 1953-54: Annual Reports of the National Transport Commission; for the 1954-55 and 1955-56 financial years: Annual Reports (unpublished) of the East London Local Road Transportation Board.

APPENDIX B.

SOME STATISTICAL DIFFICULTIES.

In the compilation of the statistical data upon which a considerable portion of this thesis is based, certain statistical difficulties were encountered. The principal difficulties are enumerated below.

1. With regard to harbour statistics, the first difficulty encountered was that of obtaining figures for imports and exports through the Cape Ports and Durban. This difficulty was not that figures were not available, but that, before 1905, Durban's figures were compiled on a different basis from those of the Cape Ports. Between 1905 and 1909, figures were compiled by the South African Customs Statistical Bureau in Cape Town but no figures were given for the individual Cape Ports. After 1910, figures of exports and imports were compiled by the South African Railways and the Department of Customs and Excise, but the two sets cannot be used to supplement each other owing to a second major difficulty: the South African Railways use "harbour tons" as their unit and data are published for the financial year ending on the 31st March; the Department of Customs uses harbour tons to record total imports and exports, but records some imports and exports in tons avoirdupois, but not all are so recorded; and their accounting period is the calendar year. No figures are available for the greater part of the second world war years.

2. In the case of the figures relating to the Cape Eastern System, the change from Cape Government Railways to South African Railways control has created some difficulties owing to the different methods employed by the two Administrations to compile or publish data.

3. Although the matter mentioned in (2) above creates certain difficulties, by far the most significant difficulty in regard to the statistics of the Cape Eastern System arises from the fact that, after 1910, individual statistics were not published for the Cape Eastern System. The published statistics related to the South African Railways as a whole, and in many cases statistics relating to the individual Systems of the South African Railways are neither compiled nor recorded.

   To obtain statistics for the Cape Eastern System, in isolation from the South African Railways as a whole, it has been necessary to rely mainly on the annual reports of the System Manager or Divisional Superintendent. A complete series of these reports from 1910 onwards, is available in the General Manager of Railways Reference Library in Johannesburg, but despite this two difficulties have arisen. Firstly, the various statistics given in the annual System Report vary with the views of the particular incumbent of the office of System Manager or Divisional Superintendent as to what should be included in

his annual report. Secondly, in checking the basic data (where this was available) it was found that certain errors had been made in compiling the data in the report. For instance, a common error found was that where the Station Masters submitted goods and passenger traffic figures for the current and the previous financial years, the previous year's figures were included in the statistics for the current year, thus giving an incorrect total figure. Where possible the compiler of this thesis has attempted to rectify such errors and this will explain why the figures given in this thesis do not always agree with those given in the annual System Report.

4. The statistics which were available in fairly complete form for the Cape Eastern System in isolation were:
   a. the revenue of the System;
   b. the forwarded goods, coal and mineral traffic;
   c. passenger ticket issues; and
   d. train mileage.

5. With regard to the commodity classification of goods traffic forwarded from East London certain major difficulties were encountered. In some instances obviously impossible figures were included, of which the following examples will suffice:

   6,000 tons of explosives to Viedgesville in one month;
   7,000 tons of coffee to Cathcart in one month;
   500 tons of margarine to Burgersdorp in one month.

   These obviously arose from an incorrect punching of the hollerith machine card and in all such cases it was considered that the lesser error was to delete the item completely, as the compiler of this thesis could not establish what the correct item should have been. In one instance all the high rated traffic to Queenstown in one month was omitted; in another month there were no entries for traffic to the Orange Free State Gold Fields stations.

APPENDIX C.

CAPE PROVINCIAL REGIONS

To assist in analysing the railway traffic forwarded from and received at East London and forwarded from King William's Town, Queenstown and the remaining Cape Eastern System stations, the Union has been divided into seven regions. This division has been made by the writer of this thesis and is made on the basis of Magisterial Districts and it has no validity outside the context of this thesis. With the exception of the Cape Province, the Regions are co-extensive with the areas of the Provinces of the Orange Free State, the Transvaal and Natal. The Cape Province, however, has been divided into five regions, four of which are independent regions, while the fifth - Griqualand East - has been attached to Natal.

The Cape Provincial Regions are:

a. Western and South-western Cape:

Belville, Bredasdorp, Caledon, Ceres, Heidelberg, Hopefield, The Cape, Ladismith, Laingsburg, Malmesbury, Montagu, Mossel Bay, Paarl, Piketberg, Riversdale, Robertson, Simonstown, Somerset West, Stellenbosch, Sutherland, Swellendam, Tulbagh, Worcester, Wynberg, Wellington.

b. North and North-western Cape:

Barkly West, Britstown, Calvinia, Carnarvon, Clanwilliam, De Aar, Fraserburg, Gordonia, Hay, Herbert, Hopetown, Kenhardt, Kimberley, Kuruman, Namaqualand, Philipstown, Postmasburg, Prieska, Taung, Vanrhynsdorp, Vryburg, Warrenton, Williston, Mafeking.

c. Cape Midland Region:

Aberdeen, Albany, Alexandria, Bathurst, Beaufort West, Bedford, Calitzdorp, Colesberg, Cradock, George, Graaf-Reinet, Hanover, Humansdorp, Jansenville, Knysna, Maraisburg, Middelburg, Murraysburg Oudtshoorn, Pearston, Port Elizabeth, Prince Albert, Richmond, Somerset East, Steynsburg, Steytlerville, Uitenhage, Uniondale, Venterstad, Victoria West, Willowmore.

d. The Border Region:

Adelaide, Albert, Aliwal North, Barkly East, Cathcart, Elliot, Fort Beaufort, Glen Grey, Herschel, Indwe, Keiskamma Hoek, King William's Town, Komgha, Lady Grey, Maclear, Middledrift, Molteno, East London, Peddie, Queenstown, Sterkstroom, Stockenstrom, Stutterheim, Tarka, Victoria East, Wodehouse, Tsolo, Elliotdale, Engcobo, Mqanduli, St. Mark's, Umtata, Xalanga, Butterworth, Idutywa, Kentani, Nqamakwe, Tsomo, Willowvale, Libode, Ngqeleni, Port St. John's.

e. Griqualand East: (linked with Natal)

Matatiele, Mount Ayliff, Mount Currie, Mount Fletcher, Mount Frere, Qumbu, Umzimkulu, Bizana, Flagstaff, Lusikisiki, Tabankulu.

APPENDIX D

SELECT LIST OF COMMODITIES ARRANGED ACCORDING TO THE SOUTH AFRICAN RAILWAYS COMMODITY CLASSIFICATION

RATE 1.

Ammunition
Beads
Blankets
Boots and shoes
Brushware
Cardboard containers EOHP
Chemicals, EOHP
China
Cigarettes and cigars
Clothes pegs
Crockery
Cycle and motor-cycle accessories, EOHP
Dyes
Electric fittings and sundries EOHP
Ether and ethyl ether
Felt and flooring felt EOHP
Fireworks
Fruit, preserved flavoured with liqueurs
Glass articles, EOHP
Globes, electric O.R.
Hardware EOHP
Lace
Leather goods EOHP
Machinery, office
Millinery
Mirrors
Ostrich feathers
Paper, EOHP
Pianos
Radiators, electric
Satin
Skins, karakul, rabbit, wild animal and seal
Talc powder EOHP
Toys
Wool, dyed
Apothecaryware
Bed irons, angles and brackets
Bolts, tower or sliding
Brooms
Cane-work
Cardboard trade containers: boxes or cartons, not packed flat
Clocks
Cotton and thread
Cutlery
Cycles, motor, packed securely
Drapery
Earthernware
Enamelled ware EOHP
Essences, flavouring
Explosives, EOHP
Firearms
Flowers, cut
Furniture, EOHP
Geysers
Glass silvered, EOHP
Haberdashery
Instruments
Lamps and lampware
Linoleum O.R.
Matches, O.R.
Mineral waters, medicated
Mohair, dyed
Paintings
Perfumery
Potteryware
Refrigerators, complete
Silverware
Stationery
Stoves, EOHP
Tinware, EOHP, O.R.
Whisky
Yarn, cotton and woollen

RATE 2

Acetic acid, EOHP
Nitric acid
Bottles, plastic
Boric acid
Sulphuric Acid
Petrol outfits, kerbside

RATE 3

Aluminium foil
Anvils
Bark extract, EOHP
Batteries, electric
Biscuits
Blue, washing
Brandy, not exceeding 22% overproof
Chalks and crayons
Aluminium, road, EOHP and tubes
Axe-heads
Baths, concrete O.R.
Bird-seed, sub-divided
Blackboards
Books
Cakes and Christmas puddings
Candied peel
Cocoa

RATE 3 (Continued)

Coconut, dessicated
Confectionery, ordinary
Explosives, F.T.L.
Flypaper
Fruit, crystallised
Glass, safety, consigned direct to motor plants for incorporation in motor vehicles
Liqueurs, O.R.
Margarine, EOHP
Motor vehicles, minimum weight 1,5001b. per vehicle
Sheep shears
Tea
Tools, garden and tradesman's, EOHP
Coffee
Copper foil
Fish meal, E.O.H.P.
Foodstuffs EOHP
Garage tools
Grease and oil, lubricating
Groceries, mixed
Ladders
Lamps, blow
Macaroni
Mebos
Oil, coconut
Crepe paper
Rusks
Shaving soap
Tinfoil
Tyres and tubes

RATE 4

Arc welding electrodes
Boards, enammel
Brass bars, plates, sheets, rods or tubes
Cardboard trade containers: boxes and cartons, packed flat
Motor vehicles, minimum weight 4,0001b. per vehicle
Winchargers
Bags, paper EOHP
Borax, consigned to factories for manfg. purposes
Bronze bars and rods
Copper bars, plates, sheets, rods or tubes, O.R.
Glass, plate or sheet, O.R.
Lead piping, O.R.
Plywood and laminated wood
Sheet aluminium, plain unworked
Zinc sheets, plates and rods.

RATE 5

Acetic acid, F.T.L.
Benzine
Chicory
Cocoa beans
Concrete, cement or terrazzo articles, F.O.R. value exceeding £35 per ton, O.R.
Leather
Motor vehicles, minimum weight 6,0001b per vehicle
Rope, other than wire rope
Carbolic acid
Buildings in sections
Chutney
Coffee beans, not roasted
Distempers, O.R.
Doors, glazed, O.R.
Hops
Ingots, aluminium, antimony, bismuth, duralumin, magnesium, nickel or tin.
Oil, linseed
Paint, O.R.
Windows, glazed O.R.

RATE 6

Acids, fatty, EOHP, in bulk consigned direct to factories for manfg purposes, O.R.
Barrows, O.R.
Biscuits, dog
Bread
bulldozers, O.R.
Candles, O.R.
Concrete, cement or terrazzo articles, F.O.R. value from £20 to £34 per ton, O.R.
Arc welding sets, O.R.
Arrowroot, unmanufactured
Asbestos cement products
Bacon, tinned or cooked
Beer, O.R.
Bolts and nuts
Bricks, glazed
Cable, electric
Cereals, breakfast, EOHP
Doors, unglazed, O.R.
Dynamos, O.R.
Fencing material, EOHP
Fish, tinned

RATE 6 (Continued)

Fish, EOHP
Harrows and Harvesters, OR
Iron (worked) angle, bar or bulb, channel, H, rod or T, EOHP
Machinery, industrial, EOHP, OR
Mohair, raw
Pipes and tubes, iron or steel, O.R.
Road Rollers, O.R.
Rubber, raw
Soap
Spaghetti, tinned
Timber, planed, grooved, or tongued, incl ceiling and flooring boards, EOHP, OR
Wool, raw
Fuses, electrical
Ingots, brass or bronze
Iron or steel, structural, fabricated, EOHP
Machinery and implements, agricultural, EOHP. OR
Milk, condensed
Motors, electric O.R.
Ploughs, O.R.
Reapers, O.R.
Rope, wire
Skins, dry
Spades
Tiles, EOHP, OR
Tractors
Windows, unglazed, OR
Wine, EOHP
Yeast.

RATE 7

Ammonium nitrate, in bulk
Arsenic in bulk
Batteries, export
Carbon, black, O.R., in bulk
Copper sulphate, in bulk, OR
Dips, sheep or cattle EOHP
Fertilizers and manure, sub-divided
Hides (dry) raw, O.R.
Insecticides, EOHP
Jellies, fruit, preserved or bottled
Oil (edible) export, O.R.
Skins (wet), raw, O.R.
Syrup, golden
Tobacco extracts
Tomatoes, tinned
Vegetables, tinned
Ant poison
Asbestos, crude, L.T.L., O.R.
Cane, rattan, for manufacturing purposes
Fruit cordials
Explosives, export
Fruit, tinned or bottled
Fruit juices
Honey
Jams
Mineral waters
Motor spirit and petrol, EOHP
Prickly pear destroyer
Sulphur, EOHP, O.R.
Tanning extracts
Tobacco leaf, in bulk, unmanufactured
Vinegar

RATE 8

Bacon, not tinned or cooked
Bulbs for planting
Cement, building, white or coloured
Chicory root in bags
Chutney, export
Citrus pulp, export
Confectionery, export
Fruit cordials, export
Ginned cotton, pressed in bales
Fruit tinned, or bottled, export
Hides, wet, raw, O.R.
Horns, raw
Ingots, copper, lead, zinc
Meat extract, export
Mine props, timber, LTL, OR
Power paraffin (Rate 8 minus 15%)
Spaghetti, export
Blocks and bricks for building
Butter, export O.R. (Rate 8 minus 25%)
Cheese, export, O.R. (Rate 8 minus 25%)
Cigarettes, export
Coconut, etc. oil to factories, for use in manfg of soap, candles and lubricating grease
Eggs, export, securely packed, R.R.
Fruit juices, export
Glucose, consigned direct to a factory for manfg purposes other than the manf. of pharmaceutical products.
Meat, tinned, export
Crude fuel oil, O.R. (Rate 8 minus 15%)
Asbestos cement roofing sheets, corrugated, O.R.

RATE 8 (Continued)

Tanning salts, chrome
Woodpulp, consigned direct to factories for manufacture of paper
Timber:
a. planed, grooved or tongued, railed from the precincts of the forest or direct from the forest;
b. rough, sawn longitudinally, EOHP, O.R.

RATE 9

Fish, fresh, dried, salted or smoked, not cooked
Iron (unworked) angle, bar, bulb, channel, H, rod or T
Table Margarine
Pea-nuts (in shells)
Plates, iron or steel
Sugar, brown (Rate 9 minus 10%)
Hoop iron and steel, unworked
Ingots, iron or steel
Iron, pig, LTL
Iron (sheet) unworked, corrugated, plain, galvanized or ungalvanized
Sugar, ordinary, white
Tinplate, sheet, strip or tape, plain (not prepared)

RATE 10

Bark extract, consigned direct to tanneries for tanning purposes O.R.
Barley, sub-divided
Pipes, concrete O.R.
Fruit, fresh or dried
Salt, common, sub-divided

RATE 11

Barley, pearl, bulk
biscuits, export
Oil cakes and oil cake meal, for cattle feeding
Cotton, raw, O.R.
Empty containers, which have been sent full by rail, returned to original sender
Iron, pig, F.T.L., S to S OR
Lucerne meal
Mine props, timber, F.T.L., S to S, O.R.
Oatmeal
Pumpkins
Rusks, exports
Tobacco, export
Vegetables, fresh
Wire, fencing, plain, barbed or netting in coils or rolls
Beans, dried, bulk
Bricks, common S to S, OR, LTL
Cattle meal in bulk, EOHP
Cereal breakfast foods, export
Eggs, export, O.R.
Fencing Material (non-ornamental) O.R. -(fencing poles, standards, droppers, struts, eye bolt strainers, wooden palings, straining posts and fittings for above.)
Pea-nuts, shelled
Rolled oats
Rice
Salt, common, in bags, O.R.
Timber:
a. rough, sawn longitudinally, F.T.L., S to S, O.R.; railed direct from the forest or its immediate precincts
b. rough, not sawn longitudinally, EOHP, O.R.

RATE 12

Bloodmeal, O.R.
Bonemeal, O.R.
Bran
Buckwheat
Flour, wheaten
Kaffir corn
Maize and maize meal
Oatmeal for cattle feeding
Oats
Rye
Samp
Treacle, crude in bulk, in qties of not less than 40 gallons, for cattle feeding or manfg.
Wheat.

RATE 13

Bricks, common, S to S, O.R., F.T.L.
Cakes, oil in 11 ton lots, for export, S to S, O.R.
Concrete or cement blocks, not polished, S to S, O.R.,FTL
Firewood, chopped or rough, not sawn longitudinally, S to S O.R., F.T.L.
Granite, polished, F.T.L., export, S to S, O.R.
Scrap iron, consigned to foundries within the Union, for use thereat for foundry purposes, S to S, O.R.
Lime, E.O.H.P., S to S, O.R.
Peanuts, shelled, export, S to S, O.R.
Road making material, crushed stone and bitumen of tar, ready mixed, for road-making, F.T.L., S to S, O.R.
Salt common, export, F.T.L., S to S, O.R.
Tiles, roofing, EOHP, F.T.L., S to S, O.R.

RATE 14

Bone ash, S to S, in bags for fertilizing
Bones, S to S, O.R.
Fertilizers and manure, artificial and natural, EOHP, for use as fertilizers only, in bulk packings of not less than 25lb., S to S, O.R.
Guano, EOHP, S to S, O.R.
Lime, agricultural, S to S, O.R., consigned to bona fide farmers for fertilizing purposes.
Limestone, crude, untreated, consigned direct to factories or foundries for manufacturing purposes, S to S, O.R., F.T.L.
Sugar cane, S to S, O.R., F.T.L.

NOTES.

E.O.H.P.:	Except as otherwise provided in the South African Railway's General Classification of Commodities.
F.O.R.:	Free on rail
F.T.L.:	Full truck loads
L.T.L.:	Less than truck load quantities
O.R.:	Owner's risk
R.R.:	Railway risk
S to S:	Station to Station traffic.

APPENDIX E

THE CONTROL OF MOTOR TRANSPORT IN SOUTH AFRICA.

The control of motor transport in South Africa is exercised in terms of the Motor Carrier Transportation Act, number 39 of 1930. This Act has been amended several times, and the following summary gives the principal relevant provisions relating to the control of motor transport as at 1st January, 1958.

1. Definition of motor transport:

Before any person or firm may carry on motor transportation in South Africa, it is necessary to obtain either a motor carrier certificate or an exemption from the obligation to take out a motor carrier certificate. Under the Act motor carrier transportation is defined as:

"the conveyance:

i. of persons or goods by means of a motor vehicle for reward or in the course of any industry, trade or business; or

ii. of goods by means of a hired motor vehicle,

on a public road."

The following are not regarded as motor carrier transportation for the purposes of the Act:

a. the conveyance of farm products (otherwise than from a place where the business of selling such products is conducted by a person who holds or is required by law to hold a licence authorizing such sale) by their producer by means of a motor vehicle belonging to him;

b. the conveyance by a farmer by means of a motor vehicle belonging solely to him, of his own farming requisites to a place where he intends using them, or of his own farm labourers--

i. from any place where they have been recruited to any place where he may require them in his farming operations; or

ii. from any place where they are, or have been, employed in his farming operations to any other place where he may require them in his farming operations, or where another farmer may require them in his farming operations, or to the place where they have been recruited; or

iii. between any place where they have been or are to be so employed and the railway station most convenient for their conveyance to any other place to which they are to be conveyed by rail or to the place where they are to be so employed; or

iv. between any place where they have been recruited and the railway station most convenient for their conveyance to any other place to which they are to be conveyed by rail;

and, for the purposes of this paragraph, any partnership or company carrying on farming operations is regarded as a farmer; and labourers employed by a registered co-operative association of which the farmer is a member, or convicts as defined by section 2 of the Prisons and Reformatories Act, 1911, who are or have been or are to be employed by a farmer in his farming operations, shall be deemed to be a farmer's own labourers;

c. any conveyance (other than the conveyance of persons or goods for reward) by a local authority by means of a motor vehicle belonging to such local authority within the area of its jurisdiction and between such area and any other area controlled by such local authority or in which it provides any public service or carries on any undertaking;

d. the conveyance by means of a motor vehicle of a patient to any place where he is to receive treatment or from any place where treatment was received;

e. the conveyance by means of a motor vehicle of another vehicle which has become defective to a place for its repair or storage, or of persons or goods which were being conveyed by such motor vehicle at the time when it became defective, to the place where it is to be repaired or stored, or to any other place;

f. the conveyance by a person by means of his own motor vehicle of persons for the benefit of another person, or of goods belonging to another person, as a consideration for similar reciprocal conveyance, performed or to be performed by the other person, where the conveyance, if done by either party by means of his own motor vehicle, for his own benefit and in respect of his own goods, would not constitute motor carrier transportation;

g. the conveyance in the course of any industry, trade or business of not more than seven persons (including the driver) and their personal effects, by means of a motor vehicle designed primarily for the conveyance of not more than seven persons (including the driver) and their personal effects, if no reward is received for such conveyance;

h. the conveyance by a person in the course of his profession, trade or occupation of documents, books, plans, instruments, tools, materials or other goods appertaining to that profession, trade or occupation, by means of a motor vehicle, if the goods so conveyed are not for sale or delivery in pursuance of sale or for exhibition with a view to sale, but are needed for use by the conveyor in the carrying out of the functions or work in respect of which the

journey is undertaken and if the motor vehicle used is designed primarily for the conveyance of not more than seven persons (including the driver) and their personal effects;

i. the conveyance, in connection with the performance of his duties, by an employee of the Government or a State-aided body or a local authority, by means of a motor vehicle belonging to such employee and used by him in the performance of those duties, of any person in respect of whose conveyance that employee is entitled to receive any reward from the Government or such State-aided body or local authority;

j. the conveyance of school children between their residence and the school which they attend;

k. the conveyance for reward, on an organized motor tour, of bona fide tourists from any State or Territory in Africa, by means of a motor vehicle designed for the conveyance of passengers and their personal effects and registered and used in accordance with the relevant law in force in the State or Territory concerned for the conveyance of passengers for reward in such State or Territory, if such conveyance is undertaken in accordance with an agreement which has been entered into between the Government of the Union and the Government of such State or Territory;

l. the conveyance of any coffin or corpse; or

m. the conveyance of any person who must necessarily be conveyed in connection with any conveyance, whether of persons or of goods, which in terms of the preceding paragraphs does not constitute motor carrier transportation.

2. Controlling Authorities:

Application for a motor carrier certificate, or for the exemption from the obligation to take out a motor carrier certificate, is normally made to the Local Road Transportation Board having jurisdiction over the area in which the transport is to be carried on.(1) In certain cases, application has to be made to the National Transport Commission, in which is also vested the functions of a review tribunal. The Local Boards consist of a Chairman and two members, all appointed by the Minister of Transport. One member is appointed by the Minister after consultation with the Administrator of the Province in which the local transportation area, or the greater part of it, is situated. The other member is appointed by the Minister after consultation with the Councils of such municipalities within the transportation area as have populations of not less than twenty thousand persons. If there is no such municipality within the area, the Minister selects a person from among those who, in his opinion, possess a thorough

(1) The area under the jurisdiction of the East London Local Road Transportation Board is given at the end of this Appendix.

knowledge of the transportation requirements of the area. All three members of the Local Boards "shall be persons who possess wide experience of and have shewn ability in transport, industrial, commercial or financial matters or in the conduct of public affairs". Persons possessing "special knowledge of road transportation, road construction, or road traffic regulations" may be appointed advisory members of a local board, but they have no right to vote.

3. Motor Carrier Certificates:

Motor Carrier Certificates must be obtained by all persons or firms who wish to carry on motor carrier transportation of persons or goods for reward: i.e., by public carriers.(2) In determining whether or not to grant a certificate, the boards are required to take into consideration:

a. the extent to which the transportation to be provided is necessary or desirable in the general public interest;

b. the requirements of the public for transportation within the area or along the route in or over which the applicant proposes to operate;

c. the existing transportation facilities available to the public on the route or in the area for which application is made;

d. the co-ordination of all forms of transportation, including transportation by rail, or on an economically sound basis and with due regard to the public interest;

e. whether the public interest requires provision of transportation services at less than cost;

f. the ability of the applicant to provide in a satisfactory manner the transportation for which a certificate is sought;

g. any prohibitions, limitations or restrictions imposed by law on the use of motor vehicles in any area or on any street or road on which the applicant proposes to operate;

h. any previous failure by the applicant as a transport operator;

i. any representations by a local authority or by the Department of Native Affairs;

j. the class of persons to which the applicant belongs and the class of persons to be served by the transportation service for which a certificate is sought; and

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(2) This term is not used in the Act, but has been employed here to indicate more clearly the type of transport for which a motor carrier certificate is required.

k. any other factors which, in the opinion of the National Transport Commission or the local boards, might affect the question whether it is desirable to grant the application or to attach or vary any condition or regulation.

In granting any application for a motor carrier certificate or for the renewal of any such certificate, the National Transport Commission or a local board may give preference to an applicant who belongs to the same class as the majority of the persons to be served by the transportation service for which a certificate is sought.

Whenever any transportation facilities in existence within any area or over any route are, in the opinion of the National Transport Commission or a local transportation board, satisfactory and sufficient to meet at a reasonable charge the transportation requirements of the public within that area or along that route, the Commission or local board shall not grant any motor carrier certificate in respect of any motor carrier transportation within substantially the same area or over substantially the same route in competition with the existing transportation facilities, unless in the opinion of the Commission or local board concerned, the grant of such a certificate will, having regard to the circumstances, be expedient in the public interest. The Act further provides, however, that if the transportation, in respect of which the certificate is required, can be co-ordinated with an existing transportation service, whether railway, tramway, trolley-bus or or motor vehicle service, operated by the Railway Administration, or a local authority, or a person to whom the Minister, by notice in the Gazette, has declared this proviso to be applicable, the Railway Administration, or the local authority concerned, or the person concerned, may at any stage of the proceedings, in addition to, or as an alternative, and without prejudice to any objection which may be, or may have been lodged against the said application by it or him, apply for a certificate to provide that transportation for which a motor carrier certificate is being requested ... and no application for such certificate shall be granted until the Railway Administration, local authority or person concerned has been given a reasonable opportunity to apply.

Relaxations:

a. Since 1952, cartage contractors have been permitted wider areas of operation; e.g.: those operating in the East London area are allowed to operate within a radius of 15 miles from the General Post Office. Where a cartage contractor is engaged exclusively in conveying the goods of one particular firm, he is permitted to undertake such conveyance within the same area as that for which the firm would be granted an exemption if it were conveying goods by its own vehicles.

b. Since September, 1954, Local Road Transportation Boards have issued, with due regard to the services provided by existing road transport operators, motor carrier certificates on an unrestricted basis for the conveyance of:

fresh fruit, vegetables and flowers,(3) livestock, coal, coke, cement, sand, stone, crushed granite, earth, gravel, bricks, earthern tiles, roofing materials, limestone and lime, crude and untreated ores and minerals, mine props, firewood, rough unsawn timber, grain and milled grain products, sugar cane, fertilizers and manures, bones and bonemeal, fodder and forage, tombstones and monuments, agricultural machinery and tools direct to farmers for farming purposes, and empty returned containers.

Insofar as fresh fruit, vegetables, flowers, and livestock are concerned, public carriers are not automatically considered, but are required to apply in the prescribed manner for permission to carry these commodities, and each application is considered on its merits by the local boards.

4. Exemption from the obligation to obtain a motor carrier Certificate:

An exemption from the obligation to obtain a motor carrier certificate must be obtained by all persons or firms who desire to use their own motor transport in the course of their industry, trade or business.(4) The Act provides for two kinds of exemptions: compulsory and optional.

Compulsory exemptions:

In the cases detailed below, the National Transport Commission or the local board concerned must grant an exemption from the obligation to take out a motor carrier certificate:

A: For the conveyance of goods within any area defined by regulation--

i. by their seller for delivery to their purchaser, or by their owner to a place where he intends to sell them or to store them for sale, by means of a motor vehicle belonging to the owner of the goods, if the Commission or the local board concerned is satisfied that the major portion of the price charged, or to be charged, for such goods is not attributable to the conveyance of those goods; or

ii. by their purchaser on their removal from the place where he purchased them, by means of a motor vehicle belonging to the purchaser, except where in the case of goods which have been resold or are intended for the reale, the Commission or the local board con-

(3) Flowers were added with effect from 8th November, 1956.
(4) This is called "ancillary" transport.

cerned is satisfied that the major portion of the price charged or to be charged for such goods is not attributable to the conveyance of those goods; or

iii. by their owner to any place where he intends to use them or to store them otherwise than for the purpose of sale, by means of a motor vehicle belonging to the owner of such goods; or

iv. by any person to any place where he or some other person intends to exhibit them, by means of a motor vehicle belonging to the owner of the goods or to the person conveying them if such goods are not intended for sale or for delivery in pursuance of sale.

The following are the areas defined by regulation.

i. Unless otherwise specified, within a radius of 30 miles from the exemption holder's bona fide place of business.

ii. If the exemption holder's place of business is within one of certain areas defined by Government Notice, the exemption holder is entitled to operate within such an area, except where for specific goods, detailed below, a limited area of operation is prescribed. Where the exemption applies to an exempted area, the holder is not entitled to carry on motor transportation within any other exempted area, except when the radius of 30 miles from his bona fide place of business includes any portion of another area. In the area under the jurisdiction of the East London Local Road Transportation Board, the following exempted areas have been proclaimed:

The Magisterial Districts of East London, King William's Town and Komgha;

The Magisterial Districts of Queenstown, Glen Grey and Tarka.

iii. For the conveyance of a newspaper, by means of a motor vehicle belonging to the publishers of the newspaper: a radius of 200 miles from the place where it is published is allowed.

iv. For the conveyance by a building contractor or by a tradesman directly associated with the construction, alteration, or renovation of buildings of his own scaffolding, building plant and tools of his trade, by means of a motor vehicle belonging to himself: a radius of 100 miles from his place of business is allowed.

v. For the conveyance by an oil company of petrol or other motor fuel in bulk, by means of a vehicle belonging to such company and designed or intended for the conveyance of petrol or other motor fuel in bulk: a radius of 30 miles from any depôt of an oil company is allowed.

B: The following relaxations have been introduced since 1952:

i. within a radius of 300 miles from the exemption holder's place of business:

furniture and household appliances (radios, electric stoves, refrigerators, enamelled articles, electric heaters, sewing machines, pianos, chandeliers, glass mirrors, glass and porcelain articles, antiques, framed paintings and photographs, and glass display cabinets and electrical switchgear and switches;

provided that the conveyance of these articles may be authorized over longer distances when the South African Railways are unable to provide mobile containers;

ii. within a radius of 150 miles from the exemption holder's place of business:

builders' and plumbers' requisites (asbestos and cement guttering, asbestos sheets, sheet glass, glass shop fittings and shop fronts, wooden beadings, wooden lattice work, picture frame mouldings, asbestos and fibre boards, cornices, marble sheets, guttering, down pipes, porcelain and enamelled sanitary ware, earthernware pipes and pre-fabricated buildings; terazzo ware;

electrical requirements (battery charging plant, batteries, fluorescent lighting fittings, fragile electrical components and transformers);

cash registers, typewriters, accounting and duplicating machines, dictaphones, counter scales, exhibition display stands, X-ray plants and scientific instruments;

goods for installation by the supplier (windmills, winchargers and electric lighting plant, heaters, geysers and venetian blinds;

perishable goods (fresh meat and fish, cold meats, cooked or smoked fish, cream, cheese, ice cream, poultry, eggs, butter, fresh milk, sterilized flavoured skimmed milk;

fibre suitcases;

iii. within a radius of 50 miles from the exemption holder's place of business:

mineral waters and cool drinks;

iv. within an indefinite radius from the exemption holder's place of business:

goods required for bona fide engineering maintenance and repairs, such as spare parts.

C: The same goods as may be carried on an unrestricted basis by public carriers, may be carried on an unrestricted basis by exemption holders.

D: Owners of goods may convey their goods from or to any place to or from the nearest railway station, siding or halt, or to or from the railway station, siding or halt which the Commission or local board concerned considers the most suitable, provided the motor vehicle belongs solely to the owner of the goods.

E: Goods may be conveyed within an area defined by regulation from any place which may be convenient to the owner of the goods to any place where they are to be cleaned, dyed, repaired, altered or otherwise dealt with; and from the latter place to any place at which the owner of those goods wishes them to be delivered to him after they have been so dealt with, by means of a motor vehicle belonging to the person who dealt with the goods as aforesaid.

Optional exemptions:

The National Transport Commission, or the local boards, may at their option, and subject to such conditions as they lay down, grant exemptions from the obligation to take out a motor carrier certificate in the conveyance of:

a. goods within the area of jurisdiction of a city council, town council, borough council, town board, village council, village management board, health committee or health board with a population of not more than 20,000 persons;

b. goods by means of any motor vehicle the use whereof for such conveyance has been acquired by a local authority for reward within the area of jurisdiction of such body;

c. farm products from any place to the nearest town or village or to the most suitable market for such produce or to the nearest (or most suitable) railway station, siding or stopping place or to the nearest or most suitable stopping place of motor buses operated in accordance with a certificate or an exemption under the Act, or any goods to a farm from the aforesaid town, village, market, station, etc.,

if no reasonable facilities are available for their conveyance by railway or by means of a motor vehicle in respect of which a certificate or exemption has been issued;

d. a party of scholars or students from any educational institution, or boy scouts, voortrekkers or members of any similar organization travelling together or attending a camp, picnic or other gathering, or a party of persons visiting any place for the purpose of--

i. attending any religious gathering; or
ii. taking part in a picnic, concert or other form of amusement; or
iii. jointly taking part in any competition or game,

if no reasonable facilities are available for their conveyance by railway or by means of a motor vehicle in respect whereof a motor carrier certificate has been issued, over the greater portion of the most practicable route between the place where the majority of them board the vehicle in question and first mentioned place;

e. employees by their employer in the course of their employment by means of a motor vehicle belonging to such employer, if no charge is made for such conveyance and no reasonable facilities are available for their conveyance by railway, tramway or trolley bus service or by means of a motor vehicle in respect whereof such a certificate as aforesaid has been issued; or

f. under certain stated conditions of persons and their personal effects between a boarding house or hotel and the nearest or most convenient road, rail, air or sea transport terminal or stopping place.

5. The Railways Administration's Road Transport Service:

The provisions of the Motor Carrier Transportation Act, as amended, apply in respect of any motor carrier transportation operated by the Railways Administration, other than the conveyance of goods wholly within an urban area.

6. The Jurisdiction of the East London Local Road Transportation Board covers the following area:

The Magisterial Districts of Adelaide, Albert, Aliwal North, Barkly East, Bizana, Butterworth, Cathcart, East London, Elliot, Elliotdale, Engcobo, Flagstaff, Fort Beaufort, Glen Grey, Idutywa, Indwe, Keiskamma Hoek, Kentani, King William's Town, Komgha, Lady Grey, Libode, Lusikisiki, Maclear, Matatiele, Middledrift, Molteno, Mount Ayliff, Mount Currie, Mount Fletcher, Mount Frere, Mqanduli, Ngqeleni, Nqamakwe, Peddie, Port St. John's, Queenstown, Qumbu, Sterkstroom, Steynsburg, St. Mark's, Stockenstrom, Stutterheim, Tabankulu, Tarka, Tsolo, Tsomo, Umtata, Umzimkulu, Victoria East, Willowvale, Wodehouse and Xalanga.

APPENDIX F

THE DIVISIONAL COUNCILS OF THE CAPE OF GOOD HOPE.

Divisional Councils were created in the Cape of Good Hope by Act 5 of 1855 of the Cape Parliament, the section of the Act relevant to roads reading:

> "The powers and functions now vested in the divisional road boards by Ordinance 8 of 1843, shall, ..., cease and determine, and all such functions shall be vested in the Divisional Councils ... provided that all liabilities lawfully existing against any divisional road board shall survive against the Divisional Council of the same division."

(The Divisional Road Boards referred to in the quotation were required to superintend and improve the branch roads of the Cape Colony and they had been given power to value property and assess rates, to levy tolls and to borrow money upon the security of tolls and rating assessments.)

In 1858, Act 9 of 1858, effective from 1st January, 1859, provided that Divisional Councils with the funds placed at their disposal for the purpose, should be charged with the superintendence, construction, improvement and preservation of all the divisional or branch roads within their respective divisions, it being specified that "all roads which have at any time been proclaimed as branch roads should be deemed ... to be divisional roads". By giving six weeks notice in the Government Gazette, and subject to the consent of the Governor in a Proclamation in the Gazette, any divisional Council could establish a toll at such places as they deemed fit. The divisional councils were re-empowered to value the immovable property, with certain exceptions, and to levy a rate upon such property. The Act laid down the items, in order of priority, upon which divisional councils might expend their income.

By Act 10 of 1864, Divisional Councils were made responsible for the maintenance of main roads, the construction of which, however, remained the responsibility of the Central Government. Act 22 of 1873 provided firstly for periodic inspections of main roads and bridges and established machinery to ensure that these roads and bridges would be maintained at an acceptable standard. Secondly, the Act provided for grants being made to the divisional councils in certain cases. The Divisional Councils Act, number 40 of 1889, consolidated the foregoing provisions, charging the Councils with the power and duty of making all divisional roads and of superintending, maintaining and improving main and divisional roads, subject to Government inspection in the case of main roads. Main roads and main road bridges had to be taken over by divisional councils after they had been constructed by the Central Government. Act number 33 of 1909 made provision for the maintenance by rural councils and municipalities of the roads within their respective localities.

After Union, in 1910, the Divisional Council System was maintained in the Cape of Good Hope. In 1945, the Road Motor Transportation Commission said:

> "The divisional council system is of ancient origin, and in earlier days when roads were a matter of purely local concern it was not inequitable that the inhabitants of a division should be charged with the cost of making and maintaining the roads in that division, for it was they who used the roads. But the advent and development of the motor-vehicle has made a profound change, and roads are no longer a matter of purely local concern. Some attempt has been made to meet the altered situation by a system of provincial subsidies, but as these are calculated rather in direct ratio to the divisional council's own contribution when, at least in many cases, calculation in inverse ratio would seem more appropriate, the resultant position is far from satisfactory. Divisional councils may rate not only the rural land in their divisions but also the urban land though, at least as regards roads, their responsibilities are restricted to extra-municipal areas. Consequently, when a division includes a large urban centre and has, as is almost invariably the case, a comparatively small rural area, it has resources much larger in relation to its responsibilities than has the council of a large rural division with only a small town or two in which land values are low.
>
> The great merit of the divisional council system is that it imbues the local community with a sense of responsibility for meeting its own needs, at least in part, and ensures that a vigilant watch is kept over divisional expenditure; but it has the complementary disadvantage that councils are naturally loth to incur expenditure which does not directly serve the interests of the division, and feel agrieved if they are compelled to incure such expenditure. ... There are many cases in which a road runs for a long distance along but within the boundary of a division. Although such a road serves the population of the adjoining division no less, perhaps even more, than that of the division in which it lies, its upkeep is charged wholly on the latter. It is not surprising if, in such case the road is neglected." (paras. 762-763.)

For some time it has been clear that the smaller divisional councils were not strong enough financially to employ suitably trained staff or to discharge adequately their duties, and there was considerable publicity given to a proposal by the Cape of Good Hope Executive Committee to merge the smaller and financially weaker divisional councils into larger units. This proposal generated a very great amount of opposition and, in November 1958, the Administrator of the Cape of Good Hope announced that the Executive Committee had decided to abandon this plan. It is clear that the question of the divisional council system's existence requires early and careful examination.

APPENDIX G.

THE EXPANSION AND MANAGEMENT OF THE CAPE EASTERN SYSTEM.

1. Expansion:

Under the Cape Government Railways, the following lines were grouped administratively to form the Eastern System:

a. the main line from the Buffalo Harbour to the Orange River;
b. the Blaney-Cookhouse junction line;
c. the Amabele-Butterworth branch line;
d. the Bowker's Park-Tarkastad branch line;
e. the Sterkstroom-Maclear branch line; and
f. the Dreunberg-Lady Grey branch line.

These lines covered 784 route miles. When the Union of South Africa was formed in 1910, these lines became Division Four of the South African Railways, and the 28 mile long section from the Orange River to Springfontein was added, making the total mileage of the Division 812. Subsequently, the following lines were added:

a. The Stormberg-Rosmead junction line and its spurs to Hofmeyr and to the Cape Collieries; (1)
b. the Fort Beaufort-Seymour spur to the Blaney-Cookhouse line;
c. the Butterworth-Umtata section;
d. the deviation of the Sterkstroom-Maclear branch line to take it through Dordrecht;
e. the Lady Grey-Barkly East section;
f. the Molteno-Jamestown branch line; and
g. the Imvani-Qamata branch line.

The addition of these lines brought the total route mileage of the Cape Eastern System on June 3rd, 1931, (2) to 1,186. (3) Subsequently, the route mileage of the System was reduced by 10 miles as a result of the reconstruction of the main line south of Queenstown, making the total route mileage of the System at 31st March, 1956, 1,190.

2. Management:

Under the Cape Government Railways, the Eastern System, in common with the Midland and the Western Systems, was administered by three co-equal officers: the Traffic Manager, the Locomotive Superintendent and the Resident Engineer. These three officers were responsible, respectively, to the Chief Traffic Manager, the Chief Locomotive Superintendent and the Engineer-in-Chief. The Traffic Manager, the Locomotive Superintendent and the Resident Engineer each had their

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(1) These lines were transferred from the control of the Cape Midland System; the remaining lines were constructed after 31st May, 1910.
(2) This was the date of the last mileage increment to the Cape Eastern System.
(3) This figure takes into account the deduction of 16 miles, resulting from the uplifting of the Bamboo Junction-Cape Collieries spur, completed in 1917.

own office staffs and the System was divided into districts, each being under the control of an Assistant Traffic Manager, an Assistant Locomotive Superintendent and an Assistant Engineer. These latter officers also each had a complete office staff. The three separate offices were responsible for:

a. Traffic Manager: the running of trains, the conveyance of passengers and merchandise and the procurement and development of traffic;

b. Locomotive Superintendent: the supply, running and upkeep of engines and rolling stock, the control of locomotive staff, and the managing of railway workshops; and

c. Resident Engineer: the maintenance of the permanent way and works and the construction of new lines and works.

The three separate offices in each system all combined, as separate units under their own departmental heads, towards the movement of traffic. In 1913 the General Manager of the South African Railways commented thus on the Cape Government Railways system of management:

> "Under such conditions the main concern of the traffic department is to expedite the transit of traffic and experience has shown that it is sometimes ready to strain a point beyond the regulations when arranging engine loads. It has no interest in the engine beyond utilizing it to the best advantage for the purpose of transporting the traffic.
>
> The Locomotive department, being responsible for the engines, is more concerned with their upkeep than with the movement of traffic. Delays to traffic - other than delays in running, do not affect the locomotive department, by which matters of this kind are sometimes subordinated to other considerations such as engine working and engine mileage.
>
> The engineering department is responsible for the maintenance of the line, and is more interested in its own sphere of operations and in economical upkeep than in the handling of traffic, which, however, could frequently be facilitated by the employment of more powerful engines. This, of course, would entail increased maintenance expenditure, which, though justified by the results, is not always readily acquiesed in by the engineering department.
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> A large proportion of the work of any one department cannot be performed entirely by that department, consequently complete co-operation by the different departments is essential to secure efficiency. But with each department looking after its own interests first, discord is bound to, and does, occur, and with such circumlocution through the various offices necessitating each local head reporting the circumstances to his departmental head, who in turn communicates with another and, possibly, a third department, opportunity for removing difficulties with any degree of promptitude is remote. Officers at a distance from headquarters, rather than take responsibility and settle a matter on the spot, invariably prefer to communicate their own

opinion to headquarters. The matter then passes from, say, the Chief Traffic Manager to the Chief Locomotive Superintendent to the Engineer-in-Chief. Not infrequently there is an absence of agreement between the chief officers themselves and the matter has then to be referred to the General Manager, who in turn may find it necessary to call for further information from the departments concerned.

The interests of the three main departments are divergent and a lack of harmony is inevitable as there is no master mind to enforce control. Each separate department endeavours to obtain the results best suited to its interests rather than to the interests of the railways as a whole, and while this may not be done either deliberately or intentionally, it is the inevitable outcome of a system under which the railways as a public carrier is subordinated to departmental exigencies.

The conclusion arrived at is that the only means of securing united effort on the part of responsible officers and of avoiding friction caused through the clashing of departmental interests, is to make one officer the supreme head of the division and to place the other officers under his jurisdiction. ..."(4)

The system which has been in force since the inception of the South African Railways, places each System under the control of a System Manager who is responsible to the General Manager of Railways for all matters affecting the transportation of goods and passengers in the area under his jurisdiction.(5) The System Manager is assisted by a number of Senior Officers, in the case of the Cape Eastern System, the System Engineer, the System Electrical Engineer, the System Harbour Engineer, the Superintendent (Operating), the Superintendent (Commercial and Staff), the Locomotive Superintendent, the Port Goods Superintendent and the Port Captain. Under these Senior Officers there are various Assistant Superintendents, Chief Clerks and Principal Clerks, responsible for various departments. All are responsible, either directly, or through their immediate superiors, to the System Manager. Each System also has certain Senior Officers who are not responsible to the System Manager, but directly to their Superior in Johannesbur or Pretoria; in the case of the Cape Eastern System there are the Local Accountant, the Mechanical Engineer and the Stores Superintendent.

The best method of organization of any railway undertaking is that which produces the most efficient service, commensurate with reasonable working costs. In a country of vast distances like South Africa there must be a considerable decentralization of authority and under such circumstances the organisation of the South African Railways is better suited to the country's needs than was the departmental method of organization employed by the Cape Government Railways.

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(4) U.G.38-1914: Report of the General Manager of Railways and Harbours for the year ended 31st December, 1913; pages 125-130.

(5) This method of organization was also employed when the South African Railways were divided into the Divisions which preceded the 8 Systems at present existing.

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