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Congress Golden Jubilee Brochure No. 10

INDIAN TRANSPORT

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PUBLISHED BY
ALL INDIA CONGRESS COMMITTEE
SWARAJ BHAWAN, ALLAHABAD

1935

Printed by Surju Lal at the Raja Press,
Attarsuiya Allahabad.

All India Congress Committee

SWARAJ BHAWAN,
ALLAHABAD

NOTE

The Congress Jubilee Brochures written in popular style are meant to educate the general public and furnish them with a working knowledge of the current Indian political and cultural problems. The Congress as an organisation may be said to be in general agreement with the conclusions of the different authors, although it may not be possible for it to subscribe to every detail of what has been written. There may be minor points of difference here and there for which we as publishers, or the Congress as an organisation, can take no responsibility.

J. B. KRIPALANI,
General Secretary.

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INDIAN TRANSPORT

I. Introductory

Social and Economic Importance of Transport

It is a well-known fact that the process of production is not complete till the commodity is in the hands of the consumer. Thus transport is a part of production in the sense that unless commodities can be brought to the consumer their production cannot be justified. It is obvious that means of transport assume greater importance with centralized production and regional specialization: indeed, centralized production and regional specialization are themselves rendered possible only after the provision of transport facilities, and the extent of centralization and specialization depends upon the adequacy of transport facilities available. But in forming an estimate of the bearing of transport on production, and consequently the well-being of a nation, we must also take into account its effects on the mobility of capital and labour which shape productive organization and consequently production itself. Again, the provision of adequate transport facilities mitigates the effects of such natural calamities as floods, earthquakes, droughts and consequent famines and pestilences. Further, the provision of transport facilities encourages travel and so breaks down conservatism and spreads tolerance and enlightenment among the people. And lastly, an efficient system of transport is always a great political and military asset: it breaks down isolation and brings about unification; it is an essential requisite for the conduct of military operations.

The requisites of an efficient System of Transport

Under the system of specialization and centralization of production, all sorts of commodities have to be carried from place to place: there are perishable and non-perishable goods; there are heavy goods and light goods; there are, relatively to their bulk, more valuable goods and less valuable goods. The system of transport that has to carry all these different varieties of goods must obviously satisfy different kinds of requirements; but there is one rule which covers the requirements of all transportable goods, and it is this that the system of transport taken as a whole must be adequate and efficient. And in order to be efficient the system of transport must ensure cheapness, quickness and safety. In studying the transport problems of India, therefore, we will have to see how far the existing means of transport are adequate to meet the requirements of trade, industry and agriculture, how far they conform to the recognized standard of efficiency, and how improvements may be affected.

Different means of transport and their co-ordination

There are four possible means of transport: roads, railways, inland waterways and coastal and oceanic shipping.* All these when taken together form a country's transport system as a whole, though individually they may serve different purposes. The railways are essentially a vehicle for long distance traffic, and they serve as feeders to ports (oceanic and coastal shipping) as well as roads, and are themselves fed by roads and ports. Roads are meant primarily for short distance traffic and they feed and are themselves fed by railways and inland waterways. Inland waterways

* There is also aerial transport, but as at present it is not of any economic importance, we have left it out of account.

may be used both for long and short distance traffic, and may serve as feeders to, and may in turn be fed by, roads. Thus it will be seen that railways, roads, shipping and inland waterways are closely inter-connected and inter-dependent; from which it follows that in developing the transport system of a country the co-ordination of activities in these various fields is of the utmost importance. We shall now proceed to see how far these different means of transport have been developed in India and what their position in the general scheme of economic organization is at the present time.

II. Roads and Road Transport

The Development of roads in India: A historical survey

Before the advent of the British, and long afterwards, little attention was paid in India to the problem of transport. In the plains of the north the great perennial rivers were the natural highways for the transport of goods, and the rulers of the country seem to have been satisfied with these facilities. The Moghals no doubt built some roads in the north-western provinces; but these roads were constructed chiefly for strategic purposes, and as such were far from adequate to make any impression upon the economic organization of the country. Thus for long distance traffic and to a minor extent for short distance traffic the river transport was utilized, while the bulk of the short distance traffic was conducted along unsurfaced roads on pack animals and carts. In the south, on the other hand, there were no perennial rivers and metalled roads of any description so that for the entire short-distance traffic in goods pack animals were used, while for long distance traffic partly the sea and partly land transport agencies were utilized. Thus when the British assumed the control of India, they found that the development of roads in the country had hardly yet begun.

Nor did the new rulers of India make any serious efforts to make up the deficiency during the earlier stages of their rule. It was not till after the first quarter of the nineteenth century that the construction of metalled and bridged trunk roads connecting the more important military centres (which also happened to connect some commercial centres) was started under the supervision of military engineers. Thus it would appear that the object underlying these early developments was military security; and if the newly constructed roads also helped commerce, this change must be regarded only as a bye-product. However, Lord Dalhousie (1848-55) suppressed the Military Board which was supposed to look after public works, and handed over its duties to a newly constituted Department of Public Works. "The expenditure on public works, which had been on the most niggardly scale, was enormously increased, and works of great magnitude, were undertaken."*

The Government was faced with an entirely new set of problems when the programme of railway construction was inaugurated during the fifties of the last century. These railways had to "earn a living" as far as possible, and this they could do only if the countryside was opened up simultaneously to enable them to draw upon outlying areas for traffic in goods and passengers. This again could be done only by the construction of feeder roads. Furthermore, with the construction of railways the necessity of constructing and maintaining strategic roads connecting different parts of the country no longer existed. So with the advent of railways "attention was concentrated on the construction of feeder roads at right angles to them, and the trunk roads, especially where parallel to the railways, were in some cases allowed to go out of repair. There was a great increase in

* "The Oxford History of India", by V. A. Smith, p. 707, quoted by the Indian Road Development Committee.

metalled feeder roads and roads of local importance. Sir Richard Temple in his "India in 1880" estimates that there were in that year not less than 20,000 miles of metalled and partially bridged roads in India."*

Indian roads at present

The policy of road construction which was adopted with the advent of railways has been followed up to the present days, so that the construction of new railway lines has been followed by the construction of new metalled and unmetalled roads. In 1931-32, the latest year for which statistics are available, there were 264, 512 miles of roads in British India, of which 74,541 miles were metalled and 189,971 miles were unmetalled. Of this total 27,634 miles of metalled and 21,044 miles of unmetalled roads were maintained by the Public Works Department; 37,377 miles of metalled and 162,027 miles of unmetalled roads were maintained by district and local boards; 9,530 miles of metalled and 6,900 miles of unmetalled roads were maintained by municipalities (including cantonments, notified areas and townships). As in 1913-14 there were about 50,000 miles of surfaced roads in British India, it follows that during the last 20 years metalled roads have increased by about 50 per cent.

How inadequate the roads in India are to meet the requirements of the country will become apparent when it is remembered that the area of British territory alone amounts to 1,096,171 miles, and its population according to the 1931 census stood at 271.5 millions. It will be seen that on the basis of the above figures British India has only 6.8 miles of surfaced roads and 24.19 miles of both surfaced and unsurfaced roads per 100 square miles of area. Compare with this the road mileage in a vast and sparsely populated coun-

* See Report of the Indian Road Development Committee, p. 9

try like the United States. There, according to the Indian Agricultural Commission, surfaced roads and roads as a whole showed the fine average of 12.05 miles and 80 miles respectively per 100 square miles of area.

The quality of even such roads as are available is far from satisfactory. Most of the metalled roads, excepting some of the trunk roads, are in a hopeless condition—so much so that motoring on them is universally regarded as an extremely perilous occupation. As regards unsurfaced roads the less said the better. They are generally undrained and unbridged tracks; and while in the dry season they are difficult to negotiate on account of heavily ploughed, uneven surface, during the rainy season they are converted into veritable lakes of mud and are thus altogether unsatisfactory.

Road transport

The means of road transport are in keeping with the condition of roads in the country. From times immemorial the bullock cart has been used for transport purposes in India, and even today it is by far the most important means of transport in the country. Even the form or external appearance and construction of the vehicle do not appear to have undergone any appreciable change during the countless centuries. Motor transport has no doubt invaded Indian roads since the war, but its activities are confined to the large cities of industry and commerce; and as even there it finds in the bullock cart a formidable competitor, we would not be far wrong in concluding that more than 99 per cent of transportation by road is effected by means of bullock carts. Transportation by bullock carts is much cheaper than mechanical transport—a recent estimate puts it at about one-sixth of the latter; for the carriage of ordinary raw materials and agricultural products it is as safe as machanical transport during the dry season, and it is in the dry season that most

of the marketing operations are performed by the agriculturist. The bullock cart, however, does not satisfy the third condition of efficient transport, viz., quickness. But in the case of rural marketing time is seldom at a premium, and when it is (as in the case of marketing fruits and vegetables) steps are always taken to overcome this handicap as far as possible. However, the cheapness of bullock cart transport is so pronounced and the users of road transport are so poor that it is not possible to take any serious notice of its various drawbacks.

Consequences of the inadequacy of roads

The inadequacy of roads of all kinds in general and of metalled roads in particular has far-reaching effects on the economic condition of the masses in India. Agriculture is India's premier industry, and nearly eighty per cent of the population of the country is directly or indirectly dependent upon agriculture. In the absence of good and adequate roads, the cost of transporting the agricultural produce to the marketing centres and from there to the railways (for export and consumption in towns) increases, and as the price of staple products is governed by world prices, the price realized by the agriculturist for his products goes down in proportion to the rise in transportation costs, which naturally multiply in the absence of a good system of roads. These facts give us a fairly good idea regarding the extent to which the inadequacy of good roads must be responsible for cutting down the purchasing power (which even with good roads would be extremely low) of the agriculturist still further. But the evil does not stop here. The rural population has to obtain the supply of a large number of commodities, which are not locally produced, from towns, and in the absence of good roads the cost of transporting these articles (many of which are used in productive operations) goes up, so that serious

inroads are made into the slender means of the villager. The cumulative effect of all this is a fall in productive efficiency, which means the deterioration of the agriculturist's economic condition. Again, when roads are bad and inadequate, the manufacturing industries, dependent as they must be ultimately upon the rural population, cannot make much headway. And lastly the inadequacy of good roads discourages travel as effectively as it discourages the exchange of commodities, partly owing to the discomfort involved and partly by reacting upon the economic condition of the people and thus putting travel beyond their reach. Thus the nud for more and better roads becomes manifest.

Road construction policy during recent years

The bearing of road development upon the general economic development of the country was not fully appreciated until recently. Since the war both the provincial and central Governments have been more appreciative of the needs of the country in the matter of road development, with the result that they are now committed to the policy of providing more and better roads. In pursuance of this policy the provincial Governments have been allocating larger amounts to the construction and maintenance of roads. As far as the Government of India is concerned, the change in policy dates from the year 1927 when, in accordance with the Resolution adopted by the Council of State, a Committee was appointed—(1) to examine the desirability of developing the road system of the country and, in particular, the means by which such development could most suitably be financed; and (2) to consider, with due regard to the distribution of central and provincial functions, whether it was desirable that steps should be taken for the co-ordination of road development and research in road construction by the formation of a Central Road Board or otherwise. It is on

the recommendations of the Committee that the road construction policy of the central and provincial Governments is supposed to be based at the present time.

The Recommendations of Road Development Committee

The Committee gave it as their opinion that the development of roads in India was desirable for the better marketing of agricultural produce, for the social and political progress of the rural population, and as a complement to railway development. Finding that the inadequacy of the financial resources of provincial Governments and local bodies was the root cause of the undeveloped state of roads, the Committee recommended that an additional duty of 2 annas per gallon should be imposed on motor spirit, and the proceeds of this additional duty should be distributed among the various provinces according to their petrol consuming capacity after a deduction of 10 per cent. by the Central Government for its own purposes. Further, they recommended that the possibility of obtaining additional revenue for road construction purposes by enhancing vehicle tax and licensing fees should be explored by provincial Governments. The funds for the above sources were to be spent on the construction and maintenance of main roads chiefly for the benefit of motor transport. As regards the all-important village roads, the Committee merely expressed the pious hope that they "should benefit indirectly by the release of provincial revenues and local funds which are now being spent on main roads to meet the requirements of motor transport," and that "in view of the importance of village roads in the general scheme of communications, it is hoped that they will receive more attention and larger grants from local Governments and local bodies in future." The Committee did not consider the appointment of a Central Road Board with

executive powers for administering a separate road fund as desirable, and instead recommended that a periodical Road Conference, consisting of the Member of the Governor General's Executive Council in Charge as Chairman, the members of the standing Committee of the Indian Legislature for Roads, representatives of the Departments of the Government of India concerned with roads, representatives of the local Governments and, if so desired by them, of Indian States, should meet from time to time to discuss subjects of common interest, and might appoint sub-committees to examine questions of a technical character and report to the Conference.

Results of new road policy

As has been pointed out above, these recommendations of the Road Development Committee were accepted by the Government of India, and they now form the basis of the central and provincial Governments' road policy. Accordingly, in April 1929, the duty on petrol was increased from 4 annas to 6 annas per gallon, which has ever since been yielding an additional revenue of nearly Rs. 1 crore a year. This amount has been distributed among the various provinces and the Central Government according to the principle laid down by the Road Development Committee. Further, the first Road Conference was called in April 1930, and a Road Congress comprising delegates from British India and Indian States (who were mainly road engineers) held its first meeting at New Delhi in the spring of 1934 to deal with various technical matters in connection with road construction in various parts of India.

But in spite of all these activities singularly little has been achieved in the realm of actual road construction over and above what might have been done without those extraordinary measures. In 1928-29 there were 67,424 miles of metalled roads and 178,472 miles of unmetalled roads in

British India. By 1929-30 the mileage had increased to 70,721 and 183,406 respectively—a rate of progress which had been maintained during the previous four or five years. In 1930-31, the first year when funds from the enhanced petrol duty were available for road construction, there were 74,048 miles of metalled roads and 179,089 miles of unmetalled roads, which shows (1) that the attention of the authorities was concentrated upon metalling the existing unmetalled roads, and (2) that while progress in the direction of metalling was just maintained, operations in connection with the extension of unmetalled roads actually came to a standstill. In the following year (1931-32), the latest year for which official data are available, the extension of unmetalled roads was undertaken but at the expense of metalling operations, as we find that the length of metalled roads in that year stood at 74,541 miles and of unmetalled roads at 18,971 miles. The quality of road surface, however, is claimed to have undergone some improvement during these years. From these facts we must draw the obvious conclusions that the proceeds of the extra duty on petrol have been spent on improving the existing surfaced roads for the benefit of the petrol driven road vehicle, that contrary to the expectations of the Road Development Committee, the diversion of provincial funds from main roads to local roads has not taken place, and that, in consequence, as far as the extension of metalled and unmetalled roads for the benefit of the rural population is concerned, no progress was made during the first three years of the adoption of the new scheme.

We have seen in connection with handicrafts that, as a counterblast to Mahatma Gandhi's village uplift movement, the Government of India distributed Rs. 1 crore in 1935 among the various provinces for rural uplift. The provincial Governments have already announced their intention of spending a part of this grant on the improvement of village

roads. But the magnitude of the rural transport problem is so enormous and the amounts doled out by the provincial Government to road construction are so small that we need not wait for the results of the Central Government's philanthropy.

The Problem and its solution

We have seen that India is inadequately supplied with roads of all descriptions and that the quality of the existing roads is far from satisfactory. If India is to advance economically, and if the condition of the masses is to be improved, the problem of road extension and improvement will have to be tackled more seriously and systematically. Moreover, if the railways are to be maintained as a profit earning proposition by the State, more and better roads will have to be constructed to feed them. It is not difficult to see that at the present rate of progress more than half a century will be required to metal the existing unmetalled roads. But the problem of transport in India would not be solved until the road length is increased by at least 400 per cent, and possibly much more. That means that, as things are moving at the moment, India will have to wait till doomsday for the solution of her transport problem When seen from this angle of view it would appear that the Road Development Committee, on whose recommendations the road policy of the Central and provincial Governments appears to have been based were pursuing the ideal of building roads for the special benefit of the motorists, and were woefully lacking in constructive ideas in connection with the more urgent problem of rural transport.

The difficulties in the way of road development are essentially financial in character. To put it in a nut-shell, the administrative machinery of both the central and provincial Governments is, as will be shown in a latter chapter, so

top heavy that, in spite of the fact that all the available sources of revenue are already being exploited to the full, little is available for nation-building activities. As the country is already being taxed to the limit bringing in the maximum amount of revenue without bringing production to a standstill, it follows that no appreciable progress in the direction of road construction would be possible without a drastic pruning of administrative expenditure. The capitalization of revenues allocated to road construction and consequently the financing of road development by means of borrowed capital may at first sight appear to be a suitable alternative to financing road construction with ordinary revenues; but on closer examination it would appear that even this method is likely to go very far towards meeting the enormous requirements of the country. There is no doubt that the development of roads would indirectly lead to an improvement in the revenue earning capacity of the State, and additional revenues may well be utilized for developing roads further; but as roads are not a profit-yielding concern, the extent of initial expenditure by borrowed capital will ultimately depend upon the amount the State is willing to spend on road maintenance and to meet interest and sinking fund charges, which cannot be very large so long as the whole financial, and consequently the administrative, machinery of the Government is not thoroughly overhauled.

But as other nation-building activities will have equally strong claims upon the revenues of the State, it may very seriously be doubted if even the suggested changes in the administrative system of the country would solve the problem of roads within a measurable length of time. But as the improvement of the economic condition of the country in general and of the rural population in particular hinges

largely on the development of communications, something which is likely to yield results more quickly and surely will have to be done. To our mind the suggestion of the Agricultural Commission, that the ancient system of mobilizing the corporate labour of the village community should be revived, is full of possibilities, and should have immediately received the attention it really deserved from the Government. According to this system each village would provide labour for the construction of roads which connect that village with a main road, while the materials and skilled labour (such as road engineers) would be provided by the State; and each village would be responsible for the maintenance of its own part of the road As the agricultural population is idle for more than six months in a year, the offer of labour for road construction would not entail any serious hardships Besides, there is no reason why the country as a whole or a province should be entirely responsible for financing the construction of roads which are to be used only by the people living in a particular area. However, if this scheme is adopted, nearly three-quarters of the roads needed in India could be constructed at a cost well within the financial means of the central and provincial Governments. Under this system the provincial Governments could concentrate their attention upon main arterial roads (with which the country is already well provided), while local boards could develop and maintain roads of local importance with their own resources supplemented, if need be, by provincial subsidies. But even this quasi-voluntary system would show tangible results if larger amounts are allocated by the Governments concerned for maintenance charges and charges on interest and sinking fund accounts; which can be done only by drastic retrenchment of unproductive expenditure both by the central and provincial Governments.

Improvements in the means of road transport

In spite of its enormous importance, nothing has so far been done by the Government or any other agency to introduce improvements in the means of road transport. As we have seen, the bulk of road transport in India is effected be means of bullock carts, and it is only in the larger centrys of industry and commerce that the motor lorry has displaced to a certain extent the bullock cart. But damage done to roads by this primitive form of cart is enormous. The narrow rim of these carts pulverizes a macamadized road, and thus the cost of road maintenance is increased enormously which is beyond the means of a poor country like India. But on the other hand for a very long time to come the bullock cart will remain the principal means of transport in India; in fact the Agricultural Commission expressed doubt whether mechanical transport will ever completely displace the bullock cart for short distance traffic in rural areas. In this connection we must take into account the fact that the bullock is not only useful for transport, but also pulls the plough and draws water from the well. For these among other reasons the bullock cart is bound to survive for a long time yet. In these circumstances there is no other alternative but to devise means of improving the inevitable country cart in the interests of the roads of the country.

A most satisfactory solution of this difficult problem was offered recently by the fitting of pneumatic rubber tyres to ordinary bullock carts, and for this device some claims of far reaching character have been made. Tests carried out in various parts of the country have proved the large loading capacity of the new types of carts as compared with the old, which means that apart from the preservation of road surface, the adoption of pneumatic tyres would be a boon to the degenerated draught animals of the country. As far as the

effects of this innovation on the roads of the country are concerned, we may relate the results of experiments on two identical roads in the North-West Frontier Province which are typical of those conducted in other parts of the country. On one track two country carts were placed with loads of 4,727 lbs. and 4,851 lbs; on the other two rubber tyred carts with 6,258 lbs. and 6,763 lbs. loads were placed. (These figures also indicate the relative load drawing capacity of the animals in the two varieties of bullock carts). The track on which the country carts plied was worn into pot-holes in four days while the other road showed no signs of wear. Again the average pace of pneumatic tyred carts was 3.12 miles per hour in spite of their heavier loads, while that of the iron tyred carts was only 2.6 miles per hour. Thus it will be seen that not only the interests of economy in road maintenance costs demand the adoption of improved types of cart wheels, but this change is also necessary in the interests of the cart-owner himself on account of increased pay load, easier draught and increased speed which the mere adoption of the new type of wheel is calculated to bring about.

But the owners of bullock carts are generally so poor that the initial cost of fitting pneumatic wheels is likely to be a stumbling block in the way of the desired change. This difficulty, however, can be easily overcome by the introduction of the hire-purchase system of which the bullock-cart owners would be induced to avail themselves by the substantial advantages of the improved fittings—provided, of course, that the terms of the hire-purchase are not too rigid and exorbitant. During the initial stages a small subsidy from the Government may be necessary which may be given from the general revenues or by means of borrowed money by the provincial Governments. Anyhow, if direct and indirect encouragement is given by the State, it would not be difficult for the Government to make the fitting of rubber tyred wheels

obligatory in course of time. This, to our mind, is the only practicable way of preserving the roads of the country and bringing down the maintenance costs to reasonable proportions.

III. Railway

Pre-war railway development in India

By the beginning of the forties of the last century the principles of industrial technique had undergone a complete change in England; railways in Britain had proved to be a success and their value as an agency for the economic development of the country had been clearly demonstrated; Britain had consolidated her political power in India. Thus the political interest of the East India Company and the economic interests of England (by way of finding new sources of raw products as well as new markets for the industrial products) demanded the opening up of the interior of India and the linking up of the various parts of the country by the development of communications. And this could obviously be done most efficaciously by the construction of railways whose technical and commercial success had already been demonstrated in England.

But the new rulers of India were by no means certain that conditions in India were suitable to render railway construction a financially profitable proposition. Therefore as a purely experimental measure, the construction. of three lines (Calcutta to Raniganj, Bombay to Kalyan and Madras to Arkonam) was sanctioned in 1845. There being scarcity of capital in India and British capital being unwilling to embark upon enterprises whose potentialities had yet to be proved, the East India Company had to accomplish these early constructions by guaranteeing a fixed rate of interest on the capital invested by British companies on these railway

lines. It was in 1853, when Lord Dalhousie sent his minute recommending on social, political and economic grounds the construction of trunk lines, that a more definite policy in regard to railway development was adopted by the Government. Lord Dalhousie discouraged State enterprise, and recommended that railway construction should be entrusted to companies which, as had been the case heretofore, should be offered by the Government a guarantee of interest on the capital invested. These proposals were accepted by the Secretary of State, and railway construction was started from different points by various guaranteed companies. The contracts with these companies laid down the following conditions: (1) a free grant of land was to be made by the Government to the companies for purposes of railway construction; (2) interest between 4½ and 5 per cent. was guaranteed by the Government on the capital invested by the companies; (3) the companies were to share half the surplus profits with the Government in order to repay the amounts which have been previously paid to them in lieu of the guaranteed interest; (4) the Government was empowered to exercise control over the railways in the matter of finance and general working; and (5) the railways could be acquired by the Government after twenty-five or fifty years on certain terms.

It will be seen that the Government had no means of controlling expenditure by railway companies. Naturally the result was that the companies had no incentive to economize especially when five per cent interest on the capital invested had been guaranteed to them. For these very reasons the companies were not very anxions to economize in the actual working of railways. The result was that the railways failed to earn the stipulated five per cent on the invested capital and the deficit had to be made good from the general revenues.

Being convinced of the wastefulness of the guarantee system, the Government decided during the later sixties to use its own credit for the construction of railways. From 1869 onwards railway construction was undertaken directly by the Government, who decided to borrow up to £ 2 millions annually for the purpose in London. But soon afterwards the difficulties consequent upon the depreciation of the rupee, the famines (during 1874-79) and the Afghan war intervened and rendered progress extremely difficult. On the top of all this the Famine Commission of 1880 recommended that at least 5,000 miles of railway lines should be immediately added and that in order to safeguard the country against famines the aggregate of railway mileage should be pushed up to 20,000. Being unduly cautious and pessimistic about their borrowing power to undertake a programme of railway construction on an extensive scale, the Government once again resorted to the guarantee system in the early eighties. But the terms of agreement were now altered in favour of Government, the most important changes being that interest was guaranteed on an average at about 3½ per cent., and the Government was now entitled to obtain 60 per cent of the profits of the railways. However, great progress was made in railway construction after the introduction of the new guarantee system. Indian States were at this stage encouraged by the Government of India to construct railways in their territories. Again, the construction of branch lines was encouraged by offering rebates on the earning of through traffic with main lines. This system of branch line construction was not abandoned till 1925, when, following the recommendations of the Acworth Committee, the Government itself undertook the financing of branch lines. From the early years of the present century the Government embarked upon a programme of more intensive railway development, with the result that between 1900 and 1914 nearly 10,000 miles of new lines were opened up.

Some idea of the progress of railway construction in India may be had from the following figures. Between 1844 and 1870 only 4,255 miles of railway line were opened to traffic; during the next ten years another 4,239 miles were added, thus bringing the total to 8,494 miles in 1880. Between 1880 and 1900, which was the period of the new guarantee system, 16,258 miles were opened up, while during the next fourteen years 9,904 miles were added, thus bringing the total to 34,656 miles in 1914.

Railways during and after the war

Between 1914 and 1918 not only capital expenditure on railway ceased almost completely on account of the financial exigencies of war, but it also became impossible to effect the necessary renewals, and therefore to maintain the railways in a state of efficiency, on account of the cessation of the supplies of railway materials from abroad. The result was that the entire railway system broke down completely; and the resulting chaos gave rise to the demand that State itself should assume the management of railways. However, the Government sought a solution of its difficulties by appointing in 1920 a Committee under the Chairmanship of Sir William Acworth, who were entrusted, among other things, with the task of advising the Government on its railway construction and maintenance policy. As a result of the deliberations of this Committee, the Government embarked upon a programme of rehabilitation and improvement involving an expenditure of 150 crores during the years 1921-26. At the end of this period the railways of India had become even more efficient than they had been before the war; but as far as the construction of new lines was concerned, the Government did not show the same amount of enthusiasm. In 1932-33 there were 42,950 miles of railway line open to traffic; which shows that only 8,294 miles of new lines have been added since the war. The

most important feature of post-war railway development has been that, the construction of trunk lines having been almost completed, attention was concentrated mainly upon the construction of branch or feeder lines with the double object of opening up new territories and developing the traffic on main lines. As, however, owing to trade depression the railways in India have been run at a loss since 1930-31, schemes of expansion involving new capital expenditure have been abandoned, and railway authorities have confined their attention to completing the schemes on which work had already been started before the beginning of the present period of heavy losses.

Investments and returns on capital

By the year 1900 the capital investment on railways in India had touched the Rs. 329.53 crore level; in 1913-14 it amounted to Rs. 495.09 crores; and in 1931-32 it stood at Rs. 876.34 crores. But it must not be supposed that railways in India have been a profit earning proposition all through their career. Up to the year 1898 they were a charge upon the Indian exchequer, and the deficits which the Government had to meet from its ordinary revenues amounted to over 51.5 million sterling. These early losses were mainly due to the fact that a fairly high rate of interest on their capital had been guaranteed to the companies by the Government, which encouraged them to adopt highly wasteful methods of construction and management without fear of consequences. Further, the construction of highly expensive strategic lines was undertaken which had to be run at heavy losses. And lastly, there was inadequacy of traffic in goods and passenger owing to the undeveloped state of the country as a whole. The construction of canals in the Punjab and Sind turned the purely strategic lines of the north-west into profit-earning concerns, and the gradual development of other parts of the

country tended to bring about the same result. Moreover the renewal of original contracts with the guaranteed companies on terms less favourable to them in the matter of returns on capital and the division of surpluses was to no mean extent responsible for turning losses into profits. These profits, while showing wide variation from year to year according to changes in the fortunes of agriculture, continued up till 1930-31 when, owing to trade depression, heavy deficits appeared in the railway budget,deficits which have continued upto the present day and which have been temporarily made up by raising the reserve and depreciation funds.

The consequences of railway development

But although the railways were run at a loss for nearly half a century, and the tax-payer had to make good all those losses, the country from even a purely economic point of view gained considerably on the balance. We might first study the consequences of railway development from the point of view of agriculture, industry and commerce. As far as the agriculturist is concerned there is no doubt that the development of railways has benefited him by bringing about regional specialization aud extending the market for his products. Again, improvements in agricultural technique have been effected to a certain extent which have tended to improve the economic condition of the agriculturist. The establishment of various manufacturing industries in India has been rendered possible by the opening up of internal markets and the provision of facilities for collection and transportation of raw materials by railways. Again, the development and exploitation of the forest and mineral resources of the country is the direct consequence of the development of railways. But these advantages in the field of production have been offset to a certain extent by the decline of our handicrafts as a result of railway developments. As regards commerce, we

have to note the fact that both the internal and external trade of the country has expanded enormously as a result of railway construction. Among the socio-economic advantages the ability to render relief to famine-stricken areas by railways and the saving of men and cattle from starvation and death deserves special attention. Indeed, we may say that even from a purely economic point of view the gains to the community as a whole from famine relief measures have more than covered the losses suffered by the country in consequence of railway development during the early stages.

But in order to form an idea of the value of railways we must also take into account their various purely social and political advantages. The various social changes which we have already noted in an earlier chapter are as much the result of the spread of education as of the development of communications, particularly railways. Again, if in spite of the barriers of language the people of India have come to have consciousness of political unity, this miracle has been wrought by the linking up of various parts of the country by means of railways. And lastly, the efficiency of administration, both civil and military, has vastly increased as a result of railway development.

Scope for further development

The question at this stage naturally arises: Is the country adequately supplied with railways, and is there any scope for further development? In order to be able to answer this question we must be clear on three points (*a*) whether facilities for long and medium distance transport are still lacking in certain parts of the country, (*b*) whether new lines will become self-supporting after some time or alternatively the losses consequent upon the extension of railways will be counter-balanced by the development of the areas hitherto not

served by railways, and (c) whether any other means of transport can be utilized to meet the requirements of those areas. A glance at the railway map of India would show that extensive areas still remain untouched by railways. The comparative inferiority of India in the matter of railway mileage may be illustrated by pointing out that as against India's 2·2 miles of railway line per 100 square miles and 7,894 inhabitants per mile of railway line, the United States, which is a vast agricultural country like India, has 8·42 miles of line per 100 square miles and 469 inhabitants per mile of railway line. Again, Canada, Argentine, the Union of South Africa, Australia and New Zealand have an average of only about 300 inhabitants per mile of railway line. But the shortage of route mileage per unit of area or number of inhabitants does not indicate the extent of the requirements of the country. Railways live on traffic in goods and passengers; in other words, the extent of railway development depends upon the general economic condition of the people. The people in India are so poor that they cannot afford to travel, and their requirements are so few that the movement of goods on a large scale cannot be expected. In these circumstances comparison with other countries cannot lead us definitely to the conculusion that India is as much under supplied with railways as is indicated by the above figures. On the other hand, if production could some how be increased without bringing about a corresponding increase in population, the volume of traffic in goods and passengers would automatically increase, and the case for further development of railways would be established. There cannot, however, be any doubt that the extension of railways would lead to the development of certain areas, but the needs of the country as a whole under the prevailing condition can never be so great as to warrant the development of railways on a scale anywhere approaching the standard of other countries.

These new developments must obviously aim at cutting down the distance between the various undeveloped parts of the country and the existing railway lines to more reasonable proportions. The ideal before the State should be to develop railways in such a manner as to bring every habitable part of the country within "motorable distance" from the railway line. In other words, the roads should serve as the feeders and not the branch lines when the construction of these lines is likely to involve the Government in losses for a long time. The choice between railways and roads, however, will depend upon a number of factors, the examination of which we propose to take up in a later section.

Railway management and control

The question of railway management and control is directly connected with the questions of contracts and ownership. We have seen that under the old guarantee system the Government exercised little control over the construction and management of railways, with the result that the railways constructed under this system were hopeless financial failures. But when the Government was compelled to resort to an improved form of guarantee system during the nineties, it exercised to the full its right to supervise and control capital expenditure and general management. This was done through the Railway Branch of the Public Works Department. In 1905 these functions were entrusted to the newly constituted Railway Board which was put directly under the Government of India, and which moreover was entrusted with the task of exercising control over general railway policy. Subject to these disabilities and control, the various companies enjoyed a sort of autonomy in matters relating to management, while on the other hand the State-owned and managed railways had their separate managing organization though their ultimate control rested in the hands of the Government of

India and was exercised via the Department of Industry and Commerce. Immediately after the war, when the contracts with some of the companies were due to expire, the question arose as to whether the Government should exercise its right of acquiring those railways and managing them. This question was referred to the Acworth Committee in 1920, the majority of which reported in favour of State management. Accordingly the Government purchased certain lines and put them under State management while in other cases after acquiring certain lines it entered into new contracts with old companies in regard to their management. Thus most of the trunk lines have been acquired by the State. At the present time, the East Indian, Eastern Bengal, North Western and Indian Peninsular systems are managed by the State, while the Assam-Bengal, Bombay-Baroda and Central India, Madras and Southern Mahratta and South Indian railway systems are Government owned but managed by companies which have their Boards of Directors in London and are represented in India by an Agent. But the policy of acquiring control over railways has received a set back during recent years as we find that contracts with the companies controlling the Bengal and North-Western and the Rohilkhand and Kumaon Railways have been renewed for different periods.

But it must not be supposed that the companies managing various State owned railways are independent in all matters concerning those railways. These managing companies are a sort of managing agency firms from whom all control and initiative in matters relating to general policy and economy have been taken away by the Government. The real control is in the hands of the Governor-General-in-Council and is exercised through the Railway Board. This Board as we have seen, was originally constituted in 1905; but between that date and 1920 its functions were slightly enlarged. The Acworth Committee, in view of its recommendations regarding

management and policy in general, suggested that the Board should be reorganised so as to enable to supervise the railway system of the country in a more efficient manner. This reorganisation took place in 1924, and the Board now consists of a Chief Commissioner, a financial commissioner and three members. These five look after railway policy relating to different subjects. The Board as a whole is assisted by five Directors who are experts in different branches of railway management and organisation. It is worth noting that the Board itself as well as its directors are appointed by the Central Executive. The Board as constituted at present is the statutory authority over all railways in India in matters relating to actual administration and policy. It is, like other departments of the Central Government, immune from interference by the legislature, so that the country at large does not even indirectly exercise the slightest control over railway management and policy. But as the control of railways lies in the hands of the Central Executive, which is also responsible for controlling the agricultural, industrial, and commercial policy of the country, it is possible at least in theory for the Central Government to shape its railway policy in the interests of agriculture, industry and commerce of the country.

Administration of Railway Finance

Up to 1924-25 the finances of Indian railways were blended with the general finance of the country. According to this arrangement the railways were treated as a sort of department of the Central Government much in the same manner as Irrigation Departments are treated by the several Provincial Governments. Consequently the railway surplus was utilized as ordinary revenue, while the deficits were treated as an ordinary part of governmental expenditure. As the earnings of railways in any year would depend upon

the amount of goods and the number of passengers to be carried, which would vary according to rainfall and the condition of crops, this arrangement gave rise to uncertainties in regard to the Central Government's budgetary position. Another result of this merging of finances was that the railways were never conducted on strictly commercial lines. The Acworth Committee after examining the problem recommended the immediate separation of the finances. Accordingly, the Railway budget was separated from the general budget in 1924-25. As a result of this settlement the railways were to contribute annually to the general revenues 1 per cent on the capital at charge plus one-fifth of surplus profits, and if after the payment of this contribution the amount available for transfer to Railway Reserves exceeded Rs. 3 crores, one-third of the excess was to be appropriated to the general revenues. These contributions to the general revenues are based on the idea that just as losses during the nineteenth century were paid by the tax-payer, so the gains of prosperous times should be used in lightening his burden. Apart from these contributions, which are more or less in the nature of fixed charges, the railways have to find, from their gross profits, interest charges on capital cost account (which is another fixed item) as well as to make contributions to the Depreciation Fund (yet another fixed charge) and, if a surplus is available after meeting all these fixed charges, to the reserve fund. The main object of the reserve fund appears to be to provide for the fluctuations in the normal contributions by the railways to various fixed charges during lean years, as well as to write down capital—functions which it could hardly be expected to perform in view of the appropriation of large surpluses by the Government on various accounts.

Recent Tendencies in Railway Finance

We have seen that up to the year 1898 the railways in India were run at a loss, and that the total losses aggregated

Rs. 57.80 crores up to that year. The railways, however, experienced a change in their fortune in 1899, and from that year up to 1929-30 (except in 1908 and 1921) they were able to show substantial profits. From 1930-31 onwards, however, the railways have been running at a loss. During the seven years 1924-31, the railways contributed to general revenues the sum of Rs. 41.65 crores or an average of nearly Rs. 6 crores per annum. Further, they had accumulated between 1924-25 and 1928-29 Rs. 18.71 crores in the Reserve Fund, and had contributed on an average nearly Rs. 12.5 crores a year to the Depreciation Fund between 1924-25 and 1934-35.

As a result of trade depression the tide once again turned against the railways in 1930-31 when, after making contributions to the general revenues, depreciation fund and interest charges on capital cost account there was a deficit of Rs. 6.24 crores. In 1931-32 the contributions to the general revenues were held in abeyance, and the deficit amounted to Rs. 9.86 crores. In 1932-33 the losses amounted to Rs. 10.80 crores, in 1933-34 they stood at Rs. 7.96 crores and the revised estimates for 1934-35 have put the losses at Rs. 4.24 crores.

The question arises: how have these enormous losses been made up? In the first place practically the whole of the Reserve Fund has been eaten up by these deficits. Again, nearly Rs. 29 crores have been borrowed from the depreciation fund. Have the railways done anything to reduce their losses? It may be pointed out in this connection that there are five main items of expenditure in the railway budget: (*a*) interest charges, (*b*) depreciation charges, (*c*) contributions to general revenues, (*d*) contributions to Reserve Fund, and (*e*) operating charges. The first two items are more or less fixed, so that there is no room for economy there; contributions to general revenues have been suspended since 1931-32;

the Reserve Fund has ceased to exist since 1931-32. In these circumstances the railways could cut down their losses only by reducing their operating charges, and in this direction they have not been very successful. Salaries and wages account for the bulk of the expenditure under this head; but while the loss of traffic has necessitated the reduction of the staff, practically nothing has been done to reduce expenditure under this head to more reasonable dimensions. Notwithstanding the heavy losses of the past six years even the salary cuts, which were imposed in 1932, have been restored, which means that contrary to the claims of our rulers the railways of India are not being run on business lines. No business concern in the world has left the wages of its employees intacts ince the depression started in 1929; and Indian railways by being an exception only prove the accuracy of the above contention. However, as the Depreciation Fund cannot go on lending money for ever, the railways will have to cut down their over-head expenditure drastically in order to avoid becoming a charge upon general revenues, which they can do only by reducing the salary bill so as to bring it in conformity with their means and resources.

The Rates Policy

As railway rates in India have always been fixed according to "what the traffic will bear" principle, regardless of the interests of Indian industries, agriculture and commerce, and therefore to the detriment of their own ultimate interests, it is highly problematical if a change of rate policy would immediately alter the budgetary position of the railways. The peculiarities of the present rate policy of Indian railways may be summed up by saying that rates between ports and inland centres are much lower than inland rates, that the maxima and minima of the rates for various

classifications of goods are fixed by the Government, and that the present rate policy is not in the ultimate interests of Indian agriculture and industry and therefore of the rail waysthemselves. Until recently the evils associated with the rate policy appeared in a more glaring form; they have been remedied to a certain extent during recent years as a result of the recommendations of the Industrial, Fiscal and Agricultural Commissions; nevertheless they are still there and are hampering the economic progress of the country and consequently of railways themselves. When the movement of goods to and from the ports is subject to reduced rates, this concession reacts upon industries in inland centres by reducing their ability to compete with foreign countries owing to higher transportation charges on raw material and finished goods. Again, when the transportation of productive materials is subject to heavy charges, agricultural improvements are retarded. Both these adversely affect production and therefore the purchasing power of the people at large; and thus the railways themselves are adversely affected in the long run. It would thus appear that the present rate policy is devoid of all foresight in regard to the interests of railways themselves, and is certainly against the economic interests of the country as a whole. In revising the rates schedule the railways will have to take into account the fact that their own prosperity is linked up with the prosperity of producers and consumers in the country, and that the reduction of rates will hurt the railways but temporarily. At any rate the present tendency of manipulating the rates with a view to meeting heavy deficit will in the long run prove to be suicidal.

State versus company management

In the circumstances that the railways have certain fixed charges to meet and that their income cannot be increased

immediately, the only alternative to ruin and bankruptcy appears to be the reorganization of railways, the first step towards which would be the improvement of general management and the reduction of working expenses. In this connection the question arises: Are the State-managed or the Company-managed railways more likely to introduce these improvements, and which form of management would ultimately be in the best interests of the country? In order to arrive at a conclusion we might study the results of the working of State railways under the two systems during recent years. The capital at charge on March 31, 1931 of State-owned railways was 783.32 crores, of which 497.91 crores was accounted for by the State-managed lines and 281.97 crores by the lines worked by companies, the balance being made up by miscellaneous items. This distribution has been in operation roughly since 1925. But in spite of the fact that the capital at charge of company-managed State railways has been only about three-fifths of the capital of State-managed railways, the former have consistently shown higher net returns than the latter. The following table explains the position clearly.*

Net gain or loss to Government:	1928-29	1929-30	1930-31	1931-32	1932-33.
State Railways (lakhs of Rs)	260	-80	-653	-765	-776
Net gain or loss to Government: Company Railways (lakhs of Rs.)	383	325	32	-215	-287

"These figures are somewhat remarkable considering that, while the State-managed railways meet from capital all the extra cost of replacing an asset, the company railways meet such expenditure from revenue. The State-Worked lines include the strategic lines of the Frontier, but even after making an allowance for the loss on these lines, the Company lines show better results."† It is also evident that had

* See Indian Finance Year Book, 1935, p 278.

† Ibid. p. 279.

it not been for the financial results shown by Company lines, the losses upon railways would have to be enormously increased as to render heavy contributions from general revenues necessary. Since the maxima and minima of rates are fixed by the Government itself and are common to all State-owned railways, it would be wrong to suggest that in showing better financial results the Companies have fleeced the consumer. On the contrary the dice are loaded definitely in favour of State-managed lines, seeing that they all serve the most densely populated and prosperous areas in the country. The conclusion in these circumstances is obvious: the Company-managed railways have been able to show better financial results merely on account of their more efficient and elastic organisation, so that from the point of view of efficiency of organisation there is nothing to recommend the management of State-owned railways by the State itself.

It is certainly true that the Government is responsible for controlling the policy of Company-managed railways: it controls appointments, rates, extensions and the general conduct of railways; but the fact that the companies can show better financial results in spite of these restrictions goes vastly in their favour. Of course there is nothing inherently wrong in Government enterprise, especially in the field of public utility undertakings; and if company-management has shown better results it is probably due to the fact that the administrative machinery of Government-managed railways in India is too inelastic to show the same degree of efficiency as we have come to associate with company management. Red-tapeism in purely commercial matters has always a baneful influence upon the effieicncy of management, and so long as the Government regards State enterprise in general with suspicion and distrust, the conditions of complete monopoly can never be satisfactory. Until therefore the socialization of primary economic services becomes an accomplished

fact (which can be done only if the general economic policy of the Government undergoes a complete somersault), it would be better if the Government acts upon the recommendations of the Minority of the Acworth Committee, and entrusts the management of railways to Indian domiciled companies. This arrangement would not deprive the country of the various advantages associated with State enterprise: for the Government as the owner of railways would, as at present, be in a position to guide the working of railways according to its own policy—a policy which may be shaped not according to the momentary interests of the Goverment and the tax payer but according to the ultimate economic interests of the country as a whole.

Railways under the new Constitution

But the Government of India Act, 1935, provides that "the executive authority of the Federation in respect of the regulation and the construction, maintenance and operation of railways shall be exercised by a Federal Railway Authority", and that this Authority shall be free from all interference by the Legislature. As the Legislature will have no control over the members of the Authority, and as this Authority will be directly under the Governor-General, it is obvious that the railways of the country will not under the new constitution, be even indirectly controlled by the people in the interest of the country at large; and that as agriculture, industry, forests and commerce are supposed to come uuder popular control (subject of course to a number of restrictions and reservations), it would not be possible for the reformed executive to co-ordinate its policy relating to general economic development with railway policy; in fact, it may be taken as certain that the railways will never be allowed to play a part in the general economic development of the country. And we are told by the authors of the new Government of India Act

that this fundamental maladjustment would ensure the working of railways on sound commercial lines!

Road-Rail Co-ordination

Since the war the introduction of motor transport has created new problems for Indian railways: it has fed the railways with traffic in goods and passengers when it has been operating on roads converging on railway lines, and it has deprived them of traffic when it has been operating on roads that run parallel to the railway lines. The problem is: how to coordinate the activities of the two in such a manner as to avoid the wastes of competition and to yield results beneficial to the country at large?

As far as the feeding of railways by roads is concerned, the problem does not present many difficulties. It may be taken as an established fact that road transport is cheaper than rail transport over short and medium distances, and that the intervention of diesel motor is lengthening the distance over which the railways would never be able to compete with road transport. In view of these technical improvements it seems highly problematical if there is now much room for further railway development in India; at any rate before it is decided to construct a new railway line, it would be necessary to enquire if it would not be more economical as well as beneficial to the areas concerned and the existing railways themselves if a road is constructed instead and more modern means of transport are introduced thereon. Who should undertake this task? Of course roads will have to be constructed by local or provincial Governments; but as far as the actual provision of the means of transport is concerned, it may be done either by local or provincial Governments, or by private individuals, or by railways themselves. The handing over of transport monopoly to a system of railways whose conduct is in no way

allowed to be influenced by the will of the nation cannot be countenanced. Private enterprise, as has been shown during recent years all over India, often degenerates into uneconomic competition, and besides the service it provides is not always very efficient. On the other hand all these defects are absent in the case of enterprise conducted by local or provincial Governments. In any case, road-rail co-ordination in this particular sphere will be confined to the definition of the scope of the two in various undeveloped localities.

But coordination would assume a somewhat different aspect when the case of roads running parallel to the existing railway lines is taken into account. In this case the two systems compete, and as road transport is cheaper, railways lose in consequence; and this competition is likely to become the keener with further technical developments in the construction of motor vehicles. Should this competition be encouraged or should it be suppressed by regulating road traffic and by allowing railways to put their vehicles on roads and to capture the traffic? The aim of road-rail coordination in this case appears to be to make things easy and comfortable for the railways, which can be done either by allowing the competing roads to be destroyed for want of repairs or by allowing railways to appear with all their unlimited resources on the roads for traffic; and it means the establishment of monopoly in both cases. There would be no objection against such a monopoly only if railways were controlled and run by Indians themselves in the interests of the country. In the absence of such control, roads offer the only means of escape from the selfish policy of the railways which they are likely to adopt under a system of foreign control. So long, therefore, as India's railways remain under the control of foreigners (whose economic interests will always clash with our own) coordination by eliminating competition would not be in the best interests of the country.

Inland Waterways

Varieties and advantages of inland waterway transport

As compared with rail and road transport, water transport is much cheaper owing chiefly to the fact that the actual cost of labour and power per unit of article carried is much smaller, and because (except in the case of artificial waterways) the initial and maintenance costs are comparatively negligible. There are three possible varieties of inland waterways; (*a*) navigable rivers, (*b*) purely navigation canals, and (*c*) irrigation *cum* navigation canals. The possibilities of inland waterway transport as a whole as well as of each of these three main varieties would obviously differ from country to country according to the physical characteristics of the country and the presence of navigable rivers. We shall examine the possibilities of all these three varieties in various parts of India.

Possibilities of inland waterways

As far as the problem of using ordinary irrigation and specially constructed navigation canals in India is concerned, we may dismiss the whole subject with the remark that while the use of the former is impracticable owing to the unevenness of water flow in irrigation canals and the fragility of their embankments, the construction of navigation canals can never be a financially sound proposition in a country where densely-populated centres of commerce and industry are few and far between. River navigation has distinctly better possibilities but even in this field we must not expect spectacular developments. The country south of the Vindhyas is completely devoid of possibilities, except in the lower deltic regions, owing to the ruggedness of its surface and the seasonal character of its rivers. In the north, on the

other hand, the prospects are more encouraging. The Indus, the Ganges and the Brahamputra are all navigable over considerable distance and are already being used by small crafts to a certain extent. But the competition of railways, lack of organisation and the absence of interest on the part of the State have prevented the use of inland waterways in the north from being used for transport purposes to the same extent as they might have been used by a more enterprising people ruled by a more sympathetic government. The Industrial Commission and even the Acworth (Railway) Committee deplored the existing state of affairs, and recommended the adoption of a policy designed to encourage the use of inland waterways for transport purposes and to keep the annihilating competition of railways within reasonable limits. But nothing has so far been done, and is not likely to be done so long as the Government regards the prosperity of railways, and not the prosperity of the country as a whole, as an end in itself. Cheap transport is a necessary condition for the prosperity of agriculture and industry, and, as has been pointed out above, water transport is always cheaper than both railway and road transport.

Irrigation Versus Navigation

But the navigability of the rivers of upper India, especially of the Indus and the Ganges, may suffer to a certain extent as a result of the diversion of their waters into new canals. As irrigation is more important than cheaper transport, no consideration should stand in the way of the water of various rivers for purely productive purposes. But as the flow of water in the rivers and their tributaries cannot, for various technical reasons, be reduced below a certain fixed minimum, it follows that even if the irrigation system is developed to the highest pitch, the navigability of the main streams would be only reduced, but never completely

destroyed. The ideal, in these circumstances, before the nation should be first to use the waters of the rivers for irrigation purposes to the greatest possible extent and to develop inland water transport facilities as then available, but not at the expense of irrigation.

Coastal and Oceanic Shipping

The present position of Indian shipping and its possibilities

In the absence of reliable data it is extremely difficult to form an idea of the present position of Indian coastal and oceanic shipping. Various estimates have been offered with regard to coastal trade, but taking all the various relevant factors into consideration it seems that in normal times at least 4 million tons of merchandise is annually carried from one part of the country to another by the sea route. Of this, according to the estimates offered by Indian shipping interests, only about 15 per cent is carried by Indian-owned vessels at the present time. As regards the share of Indian shipping in India's sea borne trade, the inferiority is even more pronounced than in the case of coastal shipping. In 1928-29, which was the last pre-depression year, nearly 15 million tons of merchandise valued at nearly Rs. 600 crores was carried to and from Indian ports. Of this only about 1.5 per cent. of goods by weight were carried by Indian vessels. Of even this small almost negligible share, more than one-third was carried by small sailing vessels. These figures show that Indian shipping enterprise is practically non-existent, and that almost all the profits of the carrying trade, which according to Mr S. N. Haji average nearly 57 crores a year in normal times, are taken away by foreign shipping concerns.*

* Economics of Shipping, p. 375.

Causes of backwardness

But this backwardness of Indian coastal and oceanic shipping must not be attributed to lack of enterprise on the part of Indians themselves, as we know that during the past forty years a number of shipping companies have been formed and all of them, with one or two exceptions, have gone into liquidation after suffering heavy losses. The causes of these failures are also the causes of the backwardness of Indian shipping; and these failures may be attributed directly to the relentless and unfair competition of strongly entrenched foreign concerns and the apathy of our rulers. Let us take coastal shipping first. The ships operating in Indian water belong to a few British Companies which have found themselves into a "Conference", and which by virtue of their dominating position can charge monopoly prices for the services they render much against the interests of the Indian consumer. High profits under monopolistic conditions have enabled them to launch annihilating rate wars against infant Indian shipping concerns, while their age-long connection with Indian merchants has enabled them to introduce the deferred rebate system to the detriment of Indian shipping interests. The object of the deferred rate system is to prevent the traffic in goods from passing into the hands of the shipping concerns not belonging to the Conference, and this the Conference companies do by means of granting a rebate of about 10 per cent. on the freight provided a shipper has not sent his goods by any other but a Conference ship during a certain period in the past, and provided he continues to use the Conference ships for the despatch of goods for a specified period in the future. This arrangement naturally prevents the shippers from transferring their custom to other concerns which they can do only by forfeiting valuable concessions in the shape of rebates. By these means new Indian shipping concerns have

been starved of custom and forced to go out of business. In addition to this powerful weapon, these Conference Companies have launched rate wars which they were in a position to finance out of their enormous reserves without seriously affecting their dividends, and which infant Indian concerns were not in a position to face. The position of British shipping companies is further strengthened by the grant of contracts for the carriage of mails and Government stores which are denied to Indian shipping concerns on various pretexts by the Government.

The appointment of the Mercantile Marine Committee

The hostility of British shipping concerns towards Indian enterprise naturally gave rise to demand for governmental intervention. As a result the Indian Mercantile Marine Committee was appointed in February, 1923, to examine the possibility and methods of developing the shipping and ship-building industries in India. The Committee found that India possessed all basic facilities for the development of these industries, and made some very sound and practicable recommendations with that end in view. To begin with, finding the country handicapped in the matter of trained navigation officers and marine engineers they recommended that the Government should acquire facilities for training. They further recommended that, as an initial measure, encouragement should be given to the shipping industry by reserving the coastal trade for ships which were eventually to come directly under the ownership and control of the nationals of India if they did not already satisfy that condition. These ships were ultimately to be required to employ only Indian officers and engineers. In order to expedite the projected transformation, the committee recommended that the Government of India should acquire a British line operating on the

Indian coast and gradually transfer its control to an Indian concern. Further, rate-wars, deferred rebates and other practices in restraint of trade were to be declared unlawful, while oceanic shipping was to be encouraged by the grant of bounties to Indian-owned vessels and shipping companies. And, finally, the Committee made some useful suggestions for the establishment of the ship-building industry, such as the grant of bounties on ship construction, the offer of loans on cheap terms for the construction of ship-building yards, the engagement of foreign technical experts, and the provision of facilities for instruction in naval architecture both in India and abroad.

Attitude of the Government

It is obvious that these recommendations implied the gradual elimination of British enterprise in the field of India's coastal and oceanic shipping trade which, apart from the employment of a large number of highly paid men, involved an annual loss of more than 50 million. This kind of arrangement could not naturally be countenanced by the Government of India constituted as it is at the present time. Naturally the whole scheme was thrown overboard, and nothing was done to develop the shipping and ship-building industries except in the matter of the provision of facilities for the training of marine officers and engineers, which was done by providing a small vessel for the purpose.

Bills for the Reservation of Coastal Traffic and the Abolition of Deferred Rebates

It was in the above circumstances that having despaired of Government's attitude, Mr. S. A. Haji introduced his Bill in the Assembly in September, 1928, for the reservation of coastal shipping for Indian-owned vessels. The object of this Bill was to transfer the ownership of the vessels and lines

operating in Indian waters to British Indian national by providing that 75 per cent of the stock should belong to the latter, and that representation on the directorate as well as voting power should be in proportion to the percentage of stock held by Indians. The principles underlying this bill were by no means new and untried. They had already been successfully applied by various foreign countries including some member States of the British Empire and England itself. But in spite of this fact the Government and the European community opposed the measure on ground of racial discrimination and impracticability. In February, 1929, Mr. Haji introduced another Bill for the abolition of the deferred rebate system with a view to breaking the monopoly of the existing shipping combines and enabling new concerns to enter the fold as well as preventing the establishment of a monopoly in the future.

It is obvious that without such extraordinary measures as suggested by the Mercantile Marine Committee or provided for in Mr. Haji's two Bills it would never be possible to develop the shipping industry in India in the face of the planned hostility of foreign vested interests. However, these Bills never became Law, with the result that the shipping trade of India is still controlled by foreigners, and what is worse, there is now no prospect of its being shared by Indians on a large scale in the near future. For the new Government of India Act provides that legislation aiming at discrimination against British commercial interests, regardless of the aims of such discrimination, is not to be permitted under the new constitution. So the monopoly of British shipping in Indian waters has been put on a more stable basis by the constitution of the country itself—at any rate for the time being.

LIST OF CONGRESS PUBLICATIONS

		Rs.	a.	p.
1.	Constitution of the Indian National Congress (1935)	0	2	0
2.	Congress Bulletin No. 1 (1935) ...	0	1	0
	Congress Bulletin No. 2 (1924-35) ...	0	4	0
	No. 3 „ ...	0	3	0
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