PART IV

FUTURE
CHAPTER 11

SCHEME FOR INCREASING RAILWAY FACILITIES

Need for a Scheme

Persistence of Transport Gap

In spite of developments made so far by the railways it has been observed that there is a persistent gap between indices of economic growth and index of transport sector - especially rail transport - in Assam area. The railway facilities left after meeting defence requirements appear to be limited.  

The investment on railway development in Assam was not substantial during the First Five Year Plan: the emphasis was mainly on stabilisation of the Assam Rail Link route. In the Second Plan also although the emphasis was on improvement and expansion of railway facilities, perhaps no sizeable investment would have been made had there been no defence problem of 1962 and the closure of water route via the then Pakistan. However, the N.F.Railway's expenditure during the Third Plan was (Rs.139.10 crores) about three times the amount invested during the Second Plan (Rs.46.5 crores): the expenditure on roads and road transport in Assam during the

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1 On various occasions the State Government pointed out that movement of wagon east of Siliguri was even below 50 per cent of the required level of the area (Appendix XXIV). The volume of outstanding registrations also indicates the extent of shortfall in meeting the current demands over the railway system.
Second and the Third Plan was only Rs.6.44 crores and Rs.8.20 crores.

Regional Variations in Rail Facilities

It has been observed that some districts in Assam have areas with low 'transport accessibility' (Appendix XXV). However, rail density or route length is not always a correct measure of the extent of railway facilities in different civil districts, as the availability of facilities does not depend on the length of a line alone: it depends on a number of factors such as the number of

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When the volume of traffic carried by road and rail transport in Assam area, which stood at about 3 lakh tonnes (1966) and 31 lakh tonnes (1963-64) respectively (as mentioned in the Report of the Regional Transport Survey, N.E. Region, volume I, p.361) is considered the ratio between road and rail traffic appears to be approximately 1:10. If the expenditure on roads and road transport in Assam during the Third Plan and about 60 per cent of the total expenditure on the N.F. Railway, supposed to be on Assam area (on the basis of about 61 per cent of the total route kilometreage being located in Assam area), are taken into account the expenditure ratio between road and rail also turns out to be 1:10. Thus it appears that in Assam area rail and road transport are almost equally productive — when productivity is analysed from the standpoint of traffic carried and total expenditure during the Third Plan period.

3 Explaining 'transport accessibility' to be the opportunity of a region for reaching nearby transport facility, an author has assumed eight miles on either side of a railway line (and four miles on either side of a road) to be 'area of influence'. (Ramanadham, V.V.: The Economy of Andhra Pradesh (1959), p.163)

However, this index ranks districts according to the availability of transport facilities and it does not relate areas (districts) either to the existing level of economic development or to the potential for development. Goalpara district in Assam has large inaccessible areas (from the railway lines) but the intensity with which the roads are utilised by buses and trucks is higher than that in many other districts of the State. The N.C.A.E.R. has also observed that an accessibility index fails to establish the place of inaccessible regions in the regional order of priority and hence it is an inadequate guide. (N.C.A.E.R.: Techno-Economic Survey of Madras: 1961, p.164)

4 Viewed from this angle, the criterion fixed by the Venkatachalam Committee (1960) that districts where the railway and road mileages fall below 50 per cent of the national average might be considered as backward (Prasad, K.: The Economics of a Backward Region: March 1967: volume I, p.46) also appears to be inadequate.
stations, sidings and out-agencies, capacity of the railway and frequency of services etc.

Other Causes of High Transportation Demand

Apart from regional variations in rail facilities there is another reason why extension and improvement of rail transport are necessary in Assam. The rate of transformation of the economy of Assam from an agrarian to a diversified economy has been comparatively slower. The percentage contribution to State Income by 'Agriculture and Allied pursuits' has been 45.2 (Rs.193.4 crores) in 1969-70 as against 56.5 (at 1948-49 prices) in 1950-51. The percentage contributions by 'total mining', 'total commerce', and 'total other services' sectors in 1969-70 were 24.2, 13.1 and 17.5 respectively. Hence, bulky agricultural commodities and raw materials (rather than light manufactured items) are expected to continue to predominate in the traffic pattern. Moreover, as already discussed, in case of Assam origin-destination gaps are quite big and there has been no proper dispersion of varied economic activities within the State.

It has been observed that transport requirement for a unit of output in different sectors is distinctly high in case of the Assam economy. Moreover, the proportion of rail movement to the total production was very high in case of tea and jute. Then the increase in the average lead of traffic (as discussed in the Chapter 10) put strain on the railway system. Passenger traffic also increased with the rising trend of population and State Income.

The N.C.A.E.R. also estimated that additional transport movement (by all modes), necessitated by industrial programmes in

Assam during the Fourth Plan, would be about 14.33 million tonnes. Of all the industry groups mineral-based industries (non-metallurgical) and mining industries would call for additional transport movement of 6.60 and 3.97 million tonnes respectively.

In case of Assam it is expected that in the coming years the rate of increase of road traffic in comparison to rail traffic will be less than that in other parts of India as it has been found that under the existing nature of the economy railways are bound to play a dominating role in interstate traffic. However, if the expected growth of all 39 large-scale industries (agro-, forest-, and mineral-based) and 41 small-scale industries (textile, engineering and agro-, live-stock-, mineral- and forest-based) as suggested on the basis of the Techno-Economic Survey of Assam are taken into account it is anticipated that initially for some time interstate traffic would increase but gradually these may go down; and with the growth and actual beginning of production in all or some of these units in the State, the intrastate traffic may shoot up in greater proportion than the interstate traffic. According to projection made in the Appendix XXVI, rail freight traffic (net tonne kilometres - both intrastate and interstate) in Assam area is expected to increase by about 8 per cent in 1976-77 over 1969-70 level. So far as passenger traffic by railway is concerned, it is


However, the calculation of rail transport requirements from the study of production targets of various industries appears to be an over-simplification - and in major projects caution may be needed so as to see the cost of alternative modes of transport taking into account the nature of traffic and the lead involved.

7 We may, however, visualise that when Assam will be highly developed, producing many exports, then again interstate traffic will begin to grow at a higher rate.
expected to grow at a rate between 2.25 and 3 per cent, assuming that the rate of growth of population in Assam during 1971-81 will be about 3.5 per cent per year.

However, the greatest constraint to change in transportation demand appears to be the level of technology which determines the quantum of transport required to produce a given volume of real output. This quantum of transport input per unit of output varies from country to country and from time to time. Colin Clark observed that during the period 1938-51 transport requirements in the United States were high but decreasing and in Great Britain, low but increasing. In case of Assam lack of adequate and comprehensive data relating to different alternative modes of transport prevents us from coming to any definite conclusion; but the general trend appears to be that owing to low level of technology the rate of transformation or substitution between transport and other inputs of production is extremely low or limited and hence transport requirement to the economy is not only high but increasing (as observed in the Chapter 7). Moreover, planning in mixed economy is conditioned by spare transport capacity and it may not be worthwhile to neglect the standby.

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The past trend as mentioned in the Chapter 7 indicates that the indices of passenger kilometres and passengers originating (as well as passengers carried) increased at a rate of about 3 per cent and 2.5 per cent respectively over the period 1961-62 to 1969-70.


Professor Natesan observed that in terms of goods in circulation the coefficient of elasticity of demand for transport services varied from 1.3 to 1.7 in different countries during the period of economic development. (Natesan, L.A.: Transport: Problems in the Third Plan: Publications Division, Delhi, January 1961, p.160) This coefficient tends to be conditioned by factors such as nature of the commodity, locational pattern of raw materials and units, level of local consumption, marketable surplus and average lead of the traffic by competing mode of transport.
concept of railways. In fact in the context of an area like Assam it may be added that rail transport facilities should be made available before the actual production starts in plants. However, constant planning and follow-up actions are necessary; for when the State economy develops, her local industries and light traffic may begin to preponderate.

All these considerations have led to put forth the following scheme for increasing railway facilities in the State.

Construction of New Lines

A railway line along the south bank of the Brahmaputra from Jogighopa to Gauhati with link to the Garo Hills district (now in Meghalaya) is considered to be the most urgent and this has been pressed by the State Government since 1964. The consideration of this railway extension involves the following projects, which are complementary to each other.

Construction of a Second Bridge over the Brahmaputra:

This involves an expenditure of several crores; yet apart from oft-quoted reasons, the facts that the total number of passengers crossing the Brahmaputra between Pancharatna and Jogighopa is about 3 lakhs a year, and that owing to transhipment difficulties the New Bongaigaon-Jogighopa (broad gauge) route has become almost useless, make it imperative to conceive of the construction of a bridge.

10 The standby concept is based on surplus track capacity with existing train services. (Joy, S.: The Standby Concept on Railways : Journal of Transport Economics and Policy : volume I, No. 3, September 1967 ) The Railway should provide for spare or 'reserve capacity' or 'standby facility' although it cannot fully sell installed capacity to users immediately as in case of lines constructed for strategic reasons.

11 The total cost of the rail-cum-road bridge over the Brahmaputra at Pandu was less than Rs.11 crores in 1962.

12 Compiled from the Directorate of Inland Water Transport, G.O.A.
Construction of a Railway line between Goalpara and Gauhati:

Although the construction of this line (about 140 kilometres) involves an expenditure of about Rs. 11 crores, some of the arguments for this line are saving of huge amount of freight now paid annually to road services and the existence of high volume of passenger traffic and bulky goods traffic in the area traversed.

Construction of a Railway line between Goalpara and Garo Hills:

This line is expected to help tapping natural resources of a vast area.

However, taking a comprehensive view of the requirements of the State, the following scheme composed of the three main complementary projects, the order of priority and the details of which are mentioned below, appears to be appropriate.

1 Broad Gauge Line Between New Bongaigaon and New Gauhati:

So far as the broad gauge line (about 160 kilometres) between New Bongaigaon and New Gauhati the Railway sources indicate

A reconnaissance survey for a railway line round the western end of the Garo Hills was made in 1877-78. In 1910 also a survey for a line to exploit the Darangiri coalfield was completed. The A.B. Railway also made a survey in 1927. Then in 1945-46 a survey from Jharia-Jhanjail to Siju via Baghmara was carried out for tapping the Darangiri coalfields. It is now felt that had in 1948 Sir Cyril Fox been allowed to exploit coal in this area, the railway line would have come into being long before. The Railway Board Report for 1954-55 (volume I, p.47) shows that surveys for Darangiri-Amjanga-Pandu route (160 kilometres), Darangiri-Dudhnai-Goalpara route (150 kilometres), and Darangiri to a point on the Brahmaputra river by direct route were sanctioned. By 1962 a second traffic survey was completed for the line between Pandu and Darangiri. There is justification for construction of the line as coal (about 76 million tonnes) and gypsum are available near Darangiri and scope for jute, paper and cement industry appears to be tremendous. A railway line is expected to have annual traffic of not less than 5 lakh tonnes if constructed from Siju to Goalpara (river bank) via Dudhnai (250 kilometres). In order that there is consumption of local coal a metre gauge steam traction seems more appropriate.
that the prospects of traffic from new industries in Assam are not very encouraging. However, the construction of a broad gauge line within this length, without disturbing the existing metre gauge line, appears to be quite logical as the all-metre gauge railway route from Uttar Pradesh and Bihar areas should connect metre gauge lines in Assam for workshop facilities and for facilitating various project works in Assam area. In fact the existing all-metre gauge route handles about 31 per cent of the total traffic to Assam as mentioned before.

The past record also shows that we cannot depend too much on the C.T.C. System as the peak movement (up to 1971) was only about 14 trains each way per day (showing only 58 per cent utilisation of line capacity) and any effort at increasing movement may produce adverse effect (such as cracks in track) as was experienced sometime in the past. Moreover, increase in capacity owing to the C.T.C. technique may not be more than 15 to 20 per cent. On the other hand a double line (a broad gauge line in addition to the existing metre gauge line) will help in case of failure of the C.T.C. equipment and avoid any traffic jam or congestion. The existence of double line

14 Letter No. 67/W4/CNL/NF/2 dated May 29, 1970 from Government of India, Ministry of Railways (Railway Board) to the Gauhati University, Gauhati, p.2 of Note

It has also been pointed out that the C.T.C. System has capacity to move 24 trains each way per day, and as such the new broad gauge line may be helpful only in reducing transhipment cost.

15 Postponement of the extension of broad gauge line to New Gauhati till the Baramul-Katihar section is converted to broad gauge is not advantageous to the State Economy. For, with the opening of the Farakka Barrage the State has already had a broad gauge link with other Railway zones. So in our scheme if the existing metre gauge line is kept intact all-metre gauge traffic will flow in and out conveniently. And at the same time the extension of broad gauge line from New Bongaigaon on a different alignment will facilitate the movement of all-broad gauge traffic to and from Assam (over the Farakka and without any transhipment at New Bongaigaon).
will also help in diverting traffic to other line when needed, more particularly in any emergency. Moreover, double line will not involve foreign exchange requirement and displacement of labour as in case of the C.T.C. System. In fact, although the cost will be higher a broad gauge line in addition to the existing metre gauge line will have many advantages.

It has been already pointed out that the section New Bongaigaon-New Gauhati has appeared to be a congested trunk route with very high density of traffic: in fact all traffic to and from four states and two Union Territories pass over it. Hence the principle that the Railways should concentrate greater amount of new investment than currently scheduled to alleviate conditions on congested routes and should intensify efforts to promote speed and efficiency on existing trunk lines may be well-applied in the present scheme.

The broad gauge line to Gauhati starting from or near Abhayapuri, on the Jogighopa branch line, may follow an alignment to the south of the present metre gauge line touching important trade centres like Lengtisingha, Langla, Barpeta, Mukalmua and Hajo. This will not only open up new areas rich in jute, mustard, paddy etc. (as the distance of the new line from the metre gauge one may be about 32 kilometres for a considerable length) but will also shorten the lead to and from Gauhati area in comparison to the existing metre gauge route. A continuous broad gauge line is also expected to save the cost of transhipment at New Bongaigaon which is about Rs.3.07 per tonne (that is, equivalent to cost of carrying

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17 If the railway is extended according to this alignment the conversion of double line metre gauge over the Brahmaputra Bridge to a single line metre gauge and a single line broad gauge will have to be made: but it will be less costly than constructing a new bridge at a different point.
Apart from saving transhipment cost it will also do away with detentions at transhipment point and marshalling yard which, in turn, may reduce the extent of claims owing to pilferage as well as huge amount of clerical works connected therewith.

It may also be pointed out in support of our contention that metre gauge lines cannot efficiently handle war materials, as was experienced during the Chinese aggression and the Indo-Pak conflicts.

While formulating this scheme it has been kept in mind that unlike double-cropping or the application of chemical fertilisers, a railway system is unlikely to yield its result in a year or two from the date of its construction. The railway investment is generally lumpy. It is rightly said: "you either build the line from say, Chicago to San Francisco or you do not: an incomplete railway line is of limited use, although many other forms of investment - in industry and agriculture - can proceed usefully by small increments". In this scheme it has also been borne in mind

18 During 1968-69 the amount of such cost was about Rs.29 lakhs. (Information collected from N.F.Railway)

The cost of transhipment per tonne in 1962-63 was estimated to be Rs.2.55 (that was about double the cost of line haul movement per tonne kilometre) by the Committee on Transport Policy and Coordination. (G.O.I.: Report of the Committee on Transport Policy and Coordination; January 1966, p.25)

19 Some traders even go to the extent of stating that the recurring cost incurred on transporting goods by (private) trucks from New Bongaigaon to Gauhati may also be saved.

20 Moreover road transport cannot help as much as railways. History shows that it was the Jacobite rising of 1745-46 and the difficulty of moving troops to suppress it that first revealed the serious deficiencies of road transport in Britain.

It may also be noted that at the very beginning of the American Civil War, railways played a key role. During the Second World War also the United States railways carried almost 98 per cent of all military personnel moving in organised groups and more than 90 per cent of military freight handled by inland transportation. (Encyclopaedia Britannica, volume XXII, 1962)

that a railway should as far as practicable connect areas of different characteristics. For instance, it should join agricultural and manufacturing, or lumber and fruit, or steel- and cotton-producing districts, and should not allow itself to be confined within an area where economics, products, and conditions are uniform.  

2 Broad Gauge Line Between Gauhati (Jalukbari) and Goalpara Town:

This would mean linking about 140 kilometres at a cost of Rs.7 to 8 crores. Ordinarily it may be a sort of branch line and may have to supplement road transport as a trunk road is already existing. But if this line is extended to connect with the Jogighopa-New Bongaigaon section, initially with suitable ferry arrangements and later on with a bridge over the Brahmaputra, this line will assume the importance of a trunk line. In fact there is a strong


23 The construction of a line within this region was discussed in 1930 to facilitate extraction of sillimanite; but it was later on abandoned as position in regard to sillimanite was found to be obscure. (Proceedings of the P.W.D., Assam: G.O.A.: September 1930, p.12). The ex-B.ARailway also made an investigation in 1946 for a metre gauge line between Singhjani-Pandu and Bongaigaon-Goalpara with a bridge at Jogighopa. In 1946 Pandu-Singhjani line was desired to be the alternative to the costly (Lumding-Silchar) Hill Section and both the Government of Assam and the Government of Bengal wanted it. But nothing fruitful came out because both a good roadway and waterway ran parallel between Pandu and Goalpara. The Government of Assam was very keen on this project on the ground that feeder roads to the steamer stations were not of much help as stations had to be shifted owing to shifting river bank. The steamer companies, however, did not favour the construction of this line. The Railway, of course, calculated that rail fares would be much lower (about one-third) than the bus fares between Gauhati and Goalpara although the cost of Pandu-Goalpara railway line was estimated to be about Rs.1.6 crores and the Jogighopa bridge about Rs.7.3 crores. (B.A.Railway: Pandu-Singhjani Railway Project: 1946, pp.175-201) Ultimately the Railway concluded that Pandu-Goalpara line was not justified on traffic consideration! (Ibid., p.203)

24 In case this alignment is given more importance the project listed as 1 in a preceding page may appear to be redundant.
ease for a line between Jalukbari and Goalpara mainly in view of recurrent floods in the existing north bank (metre gauge) alignment. In the south bank alignment there is no need of costly bridge and there is no possibility of huge annual repair cost. Another argument is that the cost of land acquisition would not be much on the south bank. The cost of earth filling will also be lower as there is no water-logged basin area.

It may also be noted here that essential commodities like sugar, dal, mustard oil, wheat products, corrugated iron sheets, iron materials etc. came from places outside Assam to Goalpara via Gauhati, taking a circuitous route, if these commodities were not in full wagon load. Only those in full wagon load came directly to the Goalpara out-agency. Then again freight by roadways from Calcutta to South Goalpara area is about Rs.15 per quintal : by railways it is about Rs.6 per quintal from Calcutta to Gauhati to which is added about Rs.2 as road freight from Gauhati to Goalpara if anything happens to move to Goalpara via Gauhati. But if the railway is extended to Goalpara Town (from Jalukbari or Gauhati) it is expected

25 This was emphasised by Bradshaw and Stephens in 1944. The Chopra Committee stated that "in this length of about 88 miles, the average annual expenditure on repairing breaches etc., and extending waterways comes to about Rs.8 lakhs per year since its construction". This, in terms of current price level, means an expenditure of about Rs.20 lakhs per year. (Goalpara College : Memorandum Presented to the Prime Minister of India on October 3, 1970, p.8)

26 In the south bank rivers are smaller and the largest river the Kukurmara "does not carry more than a maximum discharge of 25,000 cusecs and there have been no mishaps to the P.W.D. road bridges constructed about 20 years back". (Goalpara College : Ibid., p.8)

27 As Acworth noted long before, 'the capital cost of the line is normally less and less per mile as it recedes from the centre of a city'.

28 Although little traffic came by railway to Goalpara (by the shorter route via Jogighopa) claims were not rare. The amount of annual average claim on account of shortage of sugar and cloth consignments alone was about Rs. 10,000. (Information collected at Merchants' Association, Goalpara)
that the freight (from Calcutta area to Goalpara by railway) will not be more than Rs.6 per quintal. This would facilitate not only import of essential items but also movement of local exports.

Another important point is that this line will not only facilitate movement of existing traffic but also may create new traffic and vitalise the New Bongaigaon-Jogighopa section which is now almost useless. Today the 33 kilometre New Bongaigaon-Jogighopa (broad gauge) line has lost its utility. Apart from transhipment difficulties and absence of adequate facilities of river services, which hinders long distance and through traffic to and from the Upper Assam areas, there are other reasons which go against presence (and creation) of sufficient local traffic along this line. It appears that the stations are not conveniently located. The Railway may also examine if the line can be extended towards the ferry point or some other innovation may be made so as to reduce the present gap of about 3 kilometres (between the Jogighopa railway terminus and the river bank) which discourages flow of traffic by railways. It is

29 Informed at Merchants' Association, Goalpara
30 It may be pointed out here that although jute production per acre in the Goalpara region is the highest in India (being about 1,254 lb.), it was reported that jute exports declined from about 14 lakh quintals in 1958-59 to about 6 lakh quintals in 1960-61. Similarly, lac exports have also declined. (Goalpara College: Memorandum submitted to the Prime Minister of India: October 3, 1970, p.13)

31 Although the Railway's earnings from outward goods traffic at Jogighopa station have increased from a modest figure of Rs.1.8 lakhs to Rs.3.5 lakhs, the earnings from inward goods traffic have sharply declined from Rs.1.5 lakhs to Rs. 0.12 lakh during the period 1966-67 and 1969-70. In some months there were no inward traffic at all. During 1969-70, in case of Tura out-agency also (which is an important out-agency in the Lower Brahmaputra Valley) inward traffic was less (about one-fifth of the outward traffic). (Information collected at Jogighopa Railway station)

32 It appears from experience that Majgaon instead of Sokapara, Deohati instead of North Salmara and Abhayapuri, Kerkhasari instead of Salentapara, and Kabaitari in place of Jogighopa would have better served the existing and potential traffic. A flag station at North Salmara near the National Highway and synchronisation of railway timings with ferry timings would have helped much in the initial years.
distressing to note that while the ferry services between Jogighopa and Pancharatna handled about 2.7 lakh passengers, 3.7 thousand vehicles, 300 tonnes of goods and 3.3 thousand animals during 1969-70, the railway's share of traffic at the Jogighopa station was only a small part of this traffic.

Although opened in 1965 the New Bongaigaon-Jogighopa broad gauge section had only one passenger train each way per day even in the early part of 1971. Although the rail fare was lower, passenger traffic was attracted to the road transport. So far as goods traffic was concerned, the distance of the railway station from the ferry point and necessity of trucking of goods involving extra cost were problems. And as such although the C.I.W.T.C. had big steamers with an average capacity of about 700 tonnes, the Corporation did not get much traffic to act as feeder to the railways and consequently their operation became uneconomic.

In fact the prospect of rail traffic to and from river services at Jogighopa under the existing conditions is not bright. It appears that the utility of this broad gauge line will increase provided a railway line is extended from Gauhati to Goalpara area. The extension of railways between Gauhati and Goalpara - touching Chaygaon, Boko, Dhupdhara, Rangjuli, Dudhnai, Krishnai and Agia - will not only attract traffic which were previously moved by other

33 Compiled from the Directorate of Inland Water Transport, G.O.A., Gauhati

34 The departure time of passenger train from Jogighopa was in the morning; the fare was between 50 paise and 75 paise whereas by road transport it varied between Rs.1.35 and Rs.1.80.

35 According to the C.I.W.T.C. sources, one steamer with two flats of the C.I.W.T.C. could carry about 1,500 tonnes. In this connection it may be noted that in 1967 it was pointed out by the Member Secretary of the Study Group for the Assam River Services that unless about 2 lakh tonnes of cargo per year move in upward direction and at least 50,000 tonnes of tea per year move in the downward direction the river services would never be viable in Assam.
modes of transport but is expected to generate additional traffic. Initially this line may be a feeder line to the Jogighopa-New Bongaigaon section and may help making its working profitable even in the absence of a bridge in the immediate future, if suitable ferry crossings are arranged. And in course of time, with generation of more and more traffic this line may turn out to be a trunk line.

3 Railway Line from Goalpara to Garo Hills:

A railway line in this region appears to be urgent in view of high cost of road transport and the existence of huge volume of bulky (low-rated) mineral and agricultural traffic. Some of the arguments for construction of this line run as follows.

1. When a line is extended the Garo Hills coal (biggest reserve being near Rewak) may be available at Gauhati market at about Rs.65 per ton as against Rs.120 in case of imported coal. This coal is not only suitable for metallurgical works and cement industry but it also contains rare substances like scandium, gallium and germanium.

ii. Moreover, there is scope for production of coal-based fertiliser to the tune of about 4 lakh tonnes per year in the Garo Hills region (near Siju) in addition to production of various other items like ammonia, phenol,

36 It was informed at Goalpara that during 1958 only three ghats east of Dhubri handled about 1 lakh tonnes of exports (about one-third of Assam's total) and 26,000 tonnes of imports (about one-sixteenth of Assam's total) which moved by riverways.

37 This district may be compared with Bastar district of Madhya Pradesh from the point of transport facilities and natural resources.

38 The cost of road transport was stated to be about 35 paise per tonne kilometre as charged by the District Council trucks in Garo Hills in 1971 as against only about 6 paise per tonne kilometre in case of railways (in Assam area) in 1970-71.

With local raw materials about 1.2 lakh tonnes of cement can be produced at Siju. But without an efficient transportation system any cement factory set up here will face similar difficulty like the Cherapunji factory both in importing inputs (especially machinery) as well as in distributing products economically. Nor will any private enterprise come forward to start production in this area without good transport facilities.

There is also scope for coal tar plant with a capacity of about 60,000 tonnes per year and a calcium carbon plant of about 20 tonnes per day.

The proposed railway line will also facilitate efficient exploitation of high grade sillimanite which is nowhere available in India in such a scale. The rate of exploitation in fact depends on efficient distribution or marketing, which in this case is roundabout and wasteful as it involves movement from Sonapahar to Nahim (24 kilometres), then from Nahim to Boko (17 kilometres) and from Boko to Gauhati (64 kilometres).

There is also scope for establishment of refractory plant near Nangal Bibra (and/or at Gauhati) as all raw materials like fireclay, quartzite, sillimanite, chromite, dolomite

It is felt that instead of importing ammonia at the cost of foreign exchange, it is better to develop indigenous sources of supply of coal-based fertiliser.

From the sillimanite mine-head at Nongmaweit to the steampship point at Gauhati the land-haul is about 71 miles long with only 36 miles of good motorable roads. This increases the cost of exporting sillimanite to Europe in raw state. The Assam Sillimanite Company constructed a 33-mile long road at a cost of Rs.16 lakhs and spends annually over Rs.70,000 for its maintenance. Truck transportation cost of sillimanite to Gauhati, with transhipment at Boko, is about Rs.40 per ton. (N.C.A.E.R.: Techno-Economic Survey of Assam: September 1962, p.72)
etc., in addition to coal and water, which are available in adjacent areas may be moved without difficulty through better transportation arrangements.

vii About 40,000 tonnes of bamboo moves to West Bengal areas from Assam annually owing to absence of local paper mill; a railway line may be of great use to the projected paper mill (with a daily capacity of 100 tonnes) at Domohini for transporting about 80,000 tonnes of bamboo locally available.

viii The proposed railway line may also help movement of about 40,000 maunds of cotton export per year from Garo Hills. At present ginned cotton moves from Phulbari to Gauhati by truck and then to Calcutta by rail thus following a roundabout way, which is costly and time consuming.

42 In the context of refractory plant in Assam the Techno-Economic Survey emphasised the need for better transportation arrangements between Khasi Hills and Gauhati also and noted that "Assam can easily support one of India's refractory units ... Khasi coal costs about Rs. 40 per ton to reach Gauhati, whereas it costs only about Rs. 29 per ton of Raniganj-Jharia coal to reach Ranchi ... if improvement in coal transport is achieved (by ropeway) Gauhati's claim to have a refractory plant will be even stronger than that of Ranchi. In so far as the finished sillimanite is used in Calcutta or shipped abroad, the overall position will be more in favour of Gauhati, for Ranchi will have to bear an additional cost of importing raw sillimanite which Gauhati will not have to bear". (N.C.A.E.R.: Techno-Economic Survey of Assam (1962) : p.76)

The Regional Transport Survey (1967) calculated that a ropeway (from Sheila to Pandu) with a capacity of 30 ton-hour in the 'down' direction and 20 ton-hour in the 'up' direction working for 16 hours a day would cost 20 paise per ton-mile, resulting in a saving of Rs. 2,720 per day or about Rs. 9 lakhs annually. Added to this is the exorbitant cost of improving roadways (about Rs. 60 lakhs annually) and the cost of trucks to the tune of about Rs. 64 lakhs to do the same work in the absence of ropeways. (G.O.A.: Regional Transport Survey : N.E.Region : volume I, pp.365-366). The downward traffic would be coal, cement, fruits, vegetables and upward traffic would be gypsum, consumer goods etc.

43 It may be noted that even in 1874-75 the total outturn of cotton in Garo Hills was about 35,000 maunds. (Hunter, W.W.: A Statistical Account of Assam : 1879, volume I, p.152)
Consuming.

ix By facilitating quicker and cheaper transportation of fruits - such as, pineapple, orange etc. - to the quantum of about 78,000 tonnes per year the new railway line may also help setting up canning factories in the region and ensure economic price to varieties of local produce.

x Possibilities of better extraction of timber from this area, which registered about 50 per cent of the total timber outturn of Assam in 1966-67, is also another important point. There is also expectation of better utilisation of other forest products like cane, lemon grass etc. as soon as a railway line gets into the region.

In addition to these, there are a number of projects in this region under the Plans. All these would increase pressure on the transportation system as indicated by the already existing trend of traffic.

It was observed that jute, limestone, timber, bamboo were

44 In 1971 ginger was sold at Rs.28 per maund at Tura which was half the price at Guwahati market and similarly wholesome pineapples grown in Garo Hills was sold at an abnormally low price of 10 paise per piece owing to absence of scope for large scale utilisation.

45 Some of the projects are: lime making plant, fruit preservation plant, starch-manufacturing plant, creation of industrial estates, intensive development of jute cultivation, introduction of high yielding variety of paddy.

46 The following figures indicate the volume and pattern of traffic movement in the Lower Brahmaputra Valley area, which includes south Kamrup, south Goalpara, Garo Hills and north-west Khasi-Jaintia Hills, in 1968.

<table>
<thead>
<tr>
<th>Direction</th>
<th>Within the Region</th>
<th>Outside the Region</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export</td>
<td>440</td>
<td>57,714.5</td>
<td>2,03,004.7</td>
</tr>
<tr>
<td></td>
<td>(0.20%)</td>
<td>(30.40%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Import</td>
<td>46,625</td>
<td>2,75,620</td>
<td>3,47,233</td>
</tr>
<tr>
<td></td>
<td>(13.43%)</td>
<td>(79.37%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

major exports and about 50 per cent of the export moved via Dhubri and Jogighopa: the rest moved via Gauhati involving a circuitous and costly route. Imports were more than exports and of the total imports about 86 per cent was food items. The total volume of traffic was found to be about 5.5 lakh tonnes in 1968. It has been expected that by 1981 the total volume of trade would be about 17 lakh tonnes (exports 11.8 lakh tonnes and imports 5.2 lakh tonnes). 47

This region, covering an area of about 15,780 square kilometres with a population of about 11.5 lakhs (in 1969), has considerable traffic potential - both export and import - which the road transport alone will not be able to serve efficiently and economically both in short as well as long run. In the interior hilly areas also there are only few forest roads of poor standard. It appears to be a paradox that the area most rich in bulky natural resources has a poorer transportation system even in the 1970's.

In view of all these a railway line from Pancharatna (Goalpara) to Siju (Garo Hills) has been found to be essential. In


If it is accepted that rail transportation is justified for underdeveloped areas where traffic exceeds 5 lakh tons annually (because the unit cost per ton-mile is less than that for alternative modes of transport), then there is a strong case for investment on railway construction in this area. Even if the traffic load is less than one-half million tons annually but a large passenger potential exists, it may be considered advantageous to have rail facilities. (United States Papers Prepared for United Nations Conference : Transportation - 1967 : volume V, p.56 )

48 It was found that on market days the region experienced heavy congestion of traffic. The road transport provided by existing means appears to be satisfactory only in regard to frequency of service and not in regard to capacity for handling bulky traffic. The road transport fares are also much higher despite poor service as characterised by overloading and overcrowding in old vehicles. 49

49 As regards facilities of river transport it was observed that most of the rivers are not navigable. Moreover, in 1971 boat charge, say, from Baghmara to Siju (40 kilometres) was about Rs.40 despite slow speed. The porter charge is also uneconomical, being about Rs.5 for carrying 30 kilograms over 10 to 15 miles in a day.
the initial years suitable arrangements for linking Jogighopa (broad gauge terminus) on the north bank may be made with the help of ferryboats if this leads to saving of capital cost involved in constructing a bridge, and if the amount so saved can be diverted for extension of railways in the area. The main point is that the problem of 'huge' cost of constructing a bridge over the Brahmaputra need not necessarily lead to delay or postponement of construction of this essential railway route.

If a railway line is not considered immediately, a ropeway (or cable railway or suspension tramway) appears to be an appropriate alternative. The line may touch Pancharatna, Goalpara Town, Mendhipara (an area with scope for pottery industry and rich in paddy and cotton), Phulbari (paddy and cotton growing area), Garobadha (an area rich in mustard, potato, jute and paddy), Rongrum (ginger, turmeric, short-staple cotton, orange and pineapple growing area), Simsangiri (famous for paddy, orange and pineapple), Nangal Bibra (rich in coal with low ash but more sulphur content), Siju (which has scope for saw mill and tinned fish industry), Baghmara (rich in orange and pineapple) and Mahadeo (famous for limestone and pineapple). Rongjdji or Nangal Bibra will be the highest point in this alignment but the height will not be above an altitude of 2,000 feet. This project may also be logical in the context of

50 There are many suspension lines in the Alps, particularly in Germany, Australia, France and Italy. It is interesting to note that the suspension tramway at Wuppertal (in West Germany, well-known for textile manufacture) follows the course of the Wupper River, a branch of the Rhine. This tramway has carried huge traffic since 1903 and there has been only one fatal accident. The idea of such a tramway following the course of the river may also be considered in the Garo Hills region.

51 It may be pointed out that the highest altitudes reached by railways are in South America. Both the Antofagasta-Bolivia and Peruvian Central lines reach points over 15,500 feet above sea level.

(Encyclopaedia Americana : 1965 : volume XXIII, p.138)
recent emphasis of the Government of India on road construction programmes in the region.52

The next important projects in order of priority may be outlined as follows.

1 Extension of Broad Gauge Railway to Tinsukia or Dibrugarh:

As it has been mentioned in the preceding pages, in the first phase broad gauge should be extended up to Gauhati and thereafter further extension to the Upper Assam areas should follow automatically. Till a broad gauge line is extended beyond Gauhati towards the Upper Assam the capacity of the existing (single) metre gauge line may have to be increased and devices like 'speedbox' containers and 'piggy-backs' may be introduced to facilitate

52 It has been decided by the Central Government that "considering the resource position of the State and the importance of the road from the view point of economic development, the Border Roads Development Board should finance and construct the road" namely, Dudhnai-Damra-Rongjen-Nangal Bibra-Baghmara (a distance of 168 kilometres). (Information collected at Subdivisonal Engineer's Office, Baghmara, Garo Hills)

The road is under progress and hence a cable railway or a ropeway on the alignment suggested may be adequate. The project also appears to be logical in the context of the general view that at the moment bus transport is quite sufficient for handling passenger traffic to and from Garo Hills, and that in the existing pattern of the economy export of goods is less than imports (mainly grocery). Furthermore, as the houses in the villages in Garo Hills and south Goalpara areas are situated wide apart and the density is low with population unevenly scattered, road transport seems to be more convenient for passenger traffic and less-bulky short distance goods traffic.

The density of population in the Garo Hills district, according to the 1961 Census, was 97 persons per square mile. In 1960-61 its per capita income was only Rs.192, which was the lowest of all the districts of the State.

53 A 'speedbox' is a small aluminium container. It is estimated that there is saving of handling time to the extent of about 60 per cent when speedboxes are used, as compared with handling time needed when less than car-load shipments are forwarded in the customary way. (Traffic World: January 20, 1951: pp.79-84). Containers can be used for storage also. Another advantage may be simplification of rates by providing a tariff per kilometre per container, regardless of contents.
movement of outward traffic (mainly, tea and jute exports) and inward traffic (especially high rated essential consumer goods) over different gauges as well as over rail-road routes in different regions of the State.

However, taking a comprehensive picture of the whole scheme it appears that a metre gauge line from New Gauhati to Dibrugarh, touching all district and subdivisional headquarters in Assam, is more economical. This will reduce the present railway distance between Gauhati and Dibrugarh from about 586 kilometres to about 435 kilometres. Moreover, the alignment suggested will not necessitate new construction on a large scale but will require only linking up of certain gaps in the existing branch lines - such as from Jakhalabandha to Badulipara, Jorhat Town to Sibsagar Town and Khowang to Dibrugarh. And it may be better if "the philosophy of connecting as many towns and cities as can be conveniently accomplished without undue construction costs" may be followed. In fact the proposed line should pass through Chaparmukh, Nowgong, Jakhalabandha, Barua-Bamungaon, Golaghat, Jorhat, Sibsagar, Moran and Dibrugarh. This will also avoid the 'disturbed area' between Lumding and Sahekhati.

2 Railway line between Dhubri and Cooch Behar area:

There has been another demand that Dhubri should be linked up with Gossaigaon or New Cooch Behar or Fakiragram by a broad gauge line as Dhubri area has been stated to be losing about Rs. 1 crore.

54 The proposed section Khowang-Dibrugarh (about 24 kilometres) was surveyed by the ex-B.A. Railway as early as in 1946 but it was strongly opposed by the steamer companies operating in this area.

It has been expected that such a link would revive the former position of Dhubri, which served the need of a big area comprising North Bengal, Bhutan, Sikkim and the Lower Assam, exporting about 1.1 lakh tonnes and importing 1 lakh tonnes annually through its ghat. But the Railway Board opined that the present capacity of the metre gauge line to Dhubri is adequate to meet the traffic demand. Moreover, the cost of conversion to broad gauge was estimated to be about Rs.4 crores. However, such a conversion may be justified when broad gauge is extended up to Gauhati so that a continuous broad gauge connection starts between Gauhati and Dhubri area without any transhipment.

The revival of Dhubri as the second biggest inland port in Assam (next only to Neamatighat) does not depend only on railways but may depend also on the prospect of traffic over the river route to and from Calcutta, which in turn depends on international political climate. It may be better for revival of Dhubri area in particular and for the whole of Assam in general if Dhubri is connected with Cooch Behar area in a straight alignment by a broad gauge line. It will not only remove the present circuitous movement of traffic to and from this area but will also act as a second line.

56 It was calculated that till 1965 the total volume of outward traffic at Dhubri ghat - mainly agricultural commodities from the district of Goalpara and the neighbouring Garo Hills - was about 1.1 lakh tonnes (about 30 lakh maunds). It was stated that after the closure of river route the cost of transportation increased. The cost of transport by trucks from Dhubri to nearby broad gauge stations was about Rs.1.50 per maund, and the railway freight rate to Calcutta was about Rs.3.25 per maund: thus there was a total cost of Rs.4.75 per maund as against Rs.2.50 per maund by steamer. Thus it was estimated that for the freight differential of Rs.2.25 per maund the total yearly 'loss' in exporting 30 lakh maunds of traffic was about Rs. 70 lakhs.

Similarly, inward traffic (from outside Assam) to Dhubri area was about 25 lakh maunds a year. The additional cost of transporting these, after the closure of river route, was about Rs.40 lakhs a year. Thus it was calculated that the total loss was about Rs.1 crore. (Memorandum Submitted to the Railway Minister by the People of Goalpara District on August 18, 1970)

57 The Assam Tribune : Gauhati : November 18, 1970
3 Railway line between Gauhati and Burnihat:

There is also demand for construction of a railway line to Burnihat. In fact as early as in 1913 the urgency of a railway line from Gauhati to Borapani (proposed to be constructed by the A. B. Railway or the E.B. State Railway) was felt on the ground that cultivation in the Khasi Hills was affected by the limited transport capacity and the very high cost of carriage. Today it has been calculated that even this 24 kilometre (metre gauge line) from Gauhati to Burnihat would cost about Rs. 3 crores. In view of the topography, cost of construction and the volume of existing and potential traffic it may be examined if truck-trailer combination may be a better alternative.

There are also other regional demands such as construction of railway lines from Tezpur to Bhomoraguri (on the north bank of the Brahmaputra), from Silchar to Jiribam, from Silchar to Sairang (in Mizo Hills), from Lalaghat to Katlicherra and from Katlicherra to Dullavcherra in the southern Assam area. All these demands are

58 It may be recalled that the need for re-siting of the railway line or constructing an alternative line connecting Siliguri with Dhubri over a terrain less liable to periodic damage by floods was already stressed by the Tea Board. (N.C.A.E.R.: Techno-Economic Survey of Assam : 1962 : p.134)

In 1956 the State Government also suggested the Railway Board that a second and more stable link line to the south of the present line should be constructed.

59 For example, the cost of carrying potato to the foot of the hills was about Rs. 2 per maund. As such the Assam Administration even agreed to provide for fund, if needed, for the survey of this line. (G.O.I.: N.A.I.: Calcutta Records : Railway Board : Proceedings January 1913, Nos. 175-176)

60 If the Railway hands over traffic in hilly areas to road transport it may also help in widening the market for petroleum products in Assam and neighbouring areas, and a wide market may support the logic of setting up a big size refinery in Assam, which may further accelerate the pace of industrialisation.
worth giving attention after completing the more important projects already outlined.

Review of Railway Standpoint

Commenting on the proposed railway extension from Jogighopa to Gauhati (via the south bank of the Brahmaputra), the Railway Board stated in January 1971 that 'as this link will involve huge investment and is not likely to be financially viable, it would be difficult to consider it for implementation in the near future'. Although the new bridge at Jogighopa is expected to have a traffic of about 1 million tonne, the Railway considers that this level of traffic - mostly low-rated traffic - is no justification for a 'costly' bridge. Moreover, according to the Railway, some of the expected traffic is dependent on materialisation of a 4 lakh tonne fertiliser factory at Siju, which is stated as an uncertain project.

If, in an area with poor transportation facilities, the Railway wants that production should start first then it might amount to putting the cart before the horse. In fact railway line, especially in a remote backward area like south Goalpara and Garo Hills, should come into existence much before the actual production in the plants start. It may be, therefore, neither logical nor

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61 The Assam Tribune : Gauhati : January 10, 1971
63 It was stated that the width of the crossing between permanent banks at bridge site would be about 9,600 feet.
64 Here the argument of the N.C.A.E.R. made with reference to Himachal Pradesh, which have similar topography as in Garo Hills, seems to hold good : "... its expansion in potentially attractive regions should precede actual regional development and even demand for the services, i.e. that is, transport should lead development and not merely follow it". (N.C.A.E.R.: Techno-Economic Survey of Himachal Pradesh : 1961 : p.76)
essential to make it clear before the Railway whether the expected industries of this region are included in the industrial programme of the State in the immediate future.

Moreover, the Railway, while expressing doubts on the utility of a fertiliser and cement plant in the area, appears to have taken a static view of economic growth in Assam and neighbouring areas. It may not be difficult to visualise that with the changing political scene, a rising tempo of construction activities in the whole of north eastern region has been emerging necessitating the demand for more and more of these products. In fact, demand for cement in Assam area itself may multiply and a consumption level of 5 lakh tonnes per year will be quite normal within a short period.

As against Railway's reliance on the C.T.C. system, it has already been pointed out that there are certain technical limitations, and the effective C.T.C. capacity cannot be said to be adequate for handling the present traffic - not to mention of handling increasing volume of traffic in future.

The utility of road transport in carrying bulky goods or heavy traffic is also limited, except in hilly areas where cost of railway construction appears to be comparatively higher. Owing to higher freight and longer transit time as compared to that of the railways the State Inland Water Transport Corporation (for handling

65 The Railway doubts the utility of a 4 lakh tonne fertiliser factory at Garo Hills at a cost of about Rs. 70 crores. Assam consumes about 24.5 thousand tonnes (approximately 9 per cent) out of the present production of about 3 lakh tones of fertiliser and the rest goes outside the State - to Bihar and West Bengal. The Railway feels that the aspect of marketing the Garo Hills fertiliser is to be carefully studied before any railway investment is made. The Railway also apprehends that there may be problem of finding market for cement outside Assam when a cement factory with an annual capacity of 1.2 lakh tonnes is established at Siju. Assam area consumes about 3 lakh tonnes of cement annually and the total production of cement at Cherapunji and Bokajan factory is expected to be about 4 lakh tonnes a year, which according to the Railway, is much more than what is required in Assam, Mizo Hills, Nagaland, Manipur, Arunachal and Tripura.
intrastate traffic) and the C.I.W.T.C. (for interstate traffic between Assam and the rest of India) will also be of limited help for meeting the needs of the economy. Hence the emphasis is bound to be on expansion of railway capacity both by extension of lines as well as improvement of existing services.

The construction of a broad gauge line from New Bongaigaon to Gauhati should not be postponed on the simple calculation of foreign and local outward traffic and revenue earnings therefrom. In fact, this distance should be considered as a critical passage or corridor which bears the heavy pressure of traffic (as indicated by the Table 10.2 and the Appendix XVII). Too much reliance on the traditional way of forecasting traffic over this passage may simply lead to confusing conclusion. The originating traffic here may not simply consist of agricultural produce.

The volume of investment needed for the projects outlined

66 To cite an example: In the early part of 1972 when efforts were made at the highest level to move some cement by steamer through Bangladesh, the C.I.W.T.C. charged a freight which was double that of the Railway. Later on the C.I.W.T.C. was unable to place the vessels in time and the suppliers also backed out. (The Assam Tribune: Gauhati: April 10, 1972)

67 As regards the New Bongaigaon-Gauhati extension, the Railway Board's view is based on the calculation that the outward (originating) and inward (terminating) traffic would be 2 per cent and 3 per cent per annum: this is a calculation which rests on many assumptions.

So far as passenger traffic on new line through undeveloped areas are concerned, the observations made by the A.B. Railway as early as in 1898 may be a pointer: "... All experience shows that some considerable time must elapse after the first introduction of railways before the population fully appreciates the value of rapid transit ..." (Stated by Sir Richard Strachey at the General Meeting of the A.B. Railway Company on December 13, 1898)

68 If it is accepted that about 60 per cent of a railway's expenses are independent of the volume of traffic, then how would a 10 per cent increase in traffic affect the railway's net income? or how would a 10 per cent decrease in traffic affect the railway's net income?
is an important consideration. Yet any discussion of cost recedes into background if it is remembered that investment on railways can be advocated "not because of its direct effect on final output, but because it permits and, in fact invites directly productive activities to come in". In fact investments on railways may affect a far greater number of people and 'in a more intimate fashion' than does a fertiliser (or any other) factory. Moreover, as Wilfred Owen has observed:

"... the need for transport is influenced by many social, cultural and political factors and not merely by economic considerations. These non-economic factors have to be taken into account in arriving at an estimate of physical requirements".

Although the initial investment outlays required for one kilometre of track in case of water, road and rail (broad gauge in plain areas) are about Rs.1.25 lakhs, Rs.1.50 lakhs and Rs. 8 lakhs,

69 In its First Phase the Gauhati University Survey did not take account of investments needed for new railway extension. (There are various estimates of cost of new broad gauge extensions. According to a Government estimate in 1953 a new broad gauge railway line costing about Rs.5 lakhs per kilometre is required to earn Rs.1.50 lakhs per kilometre per annum merely to pay for its keep. — G.O.I.: Report of the Study Group : Transport Planning: December 1953, p.35)

At the moment the approximate cost of implementing the most important projects mentioned in the preceding pages will be as follows:

1 New Bongaigaon-Gauhati (160 kilometres - broad gauge) line =Rs.12.80 crores approximately (at the rate of Rs.8 lakhs per kilometre)
2 Gauhati-Goalpara (140 kilometres - broad gauge) line =Rs.11.20 crores
3 Goalpara-Siju (or Mahadeo) (250 kilometres - metre gauge) line =Rs.12 crores
4 Bridge over the Brahmaputra = Rs.30 crores (According to the Railway Board's estimate in 1970, the Siju-Jogighopa broad gauge line (110 kilometres in straight alignment) including the bridge would cost about Rs.36 crores and the Jogighopa-Gauhati line via Dudhnai including the bridge would cost about Rs.38 to 40 crores. Letter No.67/W4/CNL/NF/2 to the Gauhati University dated New Delhi May 29, 1970, from the Railway Board)

Thus the total investment needed for important projects is estimated to be about Rs.66 crores. In case of financial stringency only project 1 and 2 may be started initially. Moreover, a ropeway against project 3 may cost only 50 per cent (Rs.6 crores) of the estimated cost of a railway line.

70 Hirschman, A.O. : Strategy of Economic Development : 1958 : p.84
71 Owen, W. : Strategy For Mobility : 1964 : p.55
and maintenance costs per kilometre of track per year are about Rs.1,000, Rs.4,500 and Rs.9,600 respectively, yet it has been observed that in some parts, as in Garo Hills and south Goalpara, where transport facilities are urgently needed, water routes in the interior are absent or useless, and roadways are inconvenient for movement of considerable volume of bulky traffic over long distances. Hence, in spite of heavier investments involved, railways (or in their absence ropeways) appear to be the better alternative. Although a less durable investment provides more room for maneuver or adaptation, yet in an area like Assam where there is little possibility of substantial improvements in transportation technology in near future, the proposed investment may not be unjustified. What is more important is not the money cost but the ultimate real cost to the economy. A rational planner may act like a rational doctor, who cannot correct the effects of ill-health and stunted growth in a child by prescribing a particular vitamin instead of a balanced diet because the vitamin costs less.

Snags in Cost-Benefit Analysis

There are certain arguments which may not justify new

73 One argument is that railway's capital output ratio in the Second Plan was 2.30:1 but it would be 3.72:1 and 4:1 in the Fifth and the Sixth Plan respectively, implying that more and more investment would have to be made to secure a unit of rail transport capacity. (The Economic Times: Bombay: January 14, 1969) It has been said that a road can carry double the traffic of a railway line at one-third cost of a rail track. The cost of vehicles for moving the same volume of traffic by road is also calculated to be about half the cost of rail rolling stock. Then the cost of carriage per tonne kilometre is found to be lower by road when vehicles or trailer combination of over 20 tonnes are used. It has been argued that the truck travels three to six times faster than rail, and that road transport generates seven times more employment and three times more revenue to the exchequer than the railway. (Journal of the Indian Roads & Transport Development Association Limited, Bombay: December 16, 1969: volume XXXVIII, No.23, p.5)
investments in railways. Some of these arguments are generalisations of all-India trend based on a series of assumptions and will surely be different (or invalid) while the facts of road transport in Assam with wide topographical variations are taken into consideration.

Similarly, while the Inland Water Transport Committee (1970) compared cost by railway with road transport and river transport, it neglected the real cost in terms of loss of time, slow speed, transhipment etc. in case of river transport. In fact all cost-calculations are dependent on the type of assumptions one makes. For example, Keller has shown that unit cost per ton mile by rail is lower than by road and air, if oil or electricity is used and if traffic exceeds 5 lakh tons annually. The World Bank Study Team also concluded with reference to movement of bulky goods that trucks of even higher capacity on good roads show a higher cost than rail except when the haul is less than 200 kilometres. It has also been observed that if the road transport was to be as generous as the railways in providing facilities both

74 The Regional Transport Survey rightly observed that heavy trucks (9,000 kilograms and above) are yet to make their impact in Assam due to varying quality of road surfaces, bridges and culverts. (G.O.A.: Regional Transport Survey : North Eastern Region : December 1967 : volume I, p.313)

75 According to the Committee, cost per tonne kilometre by railway was 5.32 paise in broad gauge, 13.8 paise in case of metre gauge, 10 paise by road transport and 2.50 to 5 paise by river transport. (G.O.I.: Report of the Inland Water Transport Committee : October 1970 : New Delhi, p.24)


77 The Study Team observed: "However, the favourable trucking costs below 200 kilometres cannot be attained until there is a vast improvement in the condition of the highways ... and until trucks of far greater capacity than those now in use in India are produced. Moreover, the trucking costs do not include any capital charges for improvement in highways. For the foreseeable future, therefore, it is indicated that the costs of the rail movement ... ... will be well below those by highways". (G.O.I.: Planning Commission : Committee on Transport Policy and Coordination : Final Report : January 1966, p.27)
to its staff as well as the passengers, the road rates would not be able to compete with the railways.

Apart from comparison with alternative modes of transport another point that may be emphasised is that the Railway need not postpone or reject any project on the sole ground of return on investment. The basis of deciding remunerativeness by railway was itself open to doubts. The line to Murkong Selek in Assam may be compared with the North Western Railway, which was strategic line and which had to incur financial losses every year till the Punjab area served by it developed economically. As in case of the N. W. Railway, we may expect that with agricultural and other developments traffic will increase in due course and the Murkong Selek line will start earning profits to the Railway. In fact, what is non-remunerative or developmental line today may become a remunerative line after some time. In vast undeveloped and virgin areas construction ahead of demand appears to be reasonable.

The present scheme for new extensions seems to be fit in the context of the requirements of the economy and not for meeting mere local or regional demands. A strict cost-benefit study of

78 The Estimates Committee in its Twenty-sixth Report observed: "... the new lines are required to yield a net return of 5 per cent in the 6th year after opening, and if the calculations for this purpose are based on obsolete formula and out-of-date instructions, the progress in the opening of new lines is likely to be unnecessarily retarded". (Lok Sabha Secretariat: Estimates Committee Twenty-sixth Report 1955-56, p.67)

79 In Australia, for example, mere operating cost and return on investment was not the deciding factor in opening up area of good pasture land; there the railway line was built through desert country and operated at a loss, but there was an important gain to the community in the shape of the pastoral industry.

The Uganda railway was also built primarily as a strategic railway, and the Government expected to face an annual deficit. (Knowles, L.C.A.: The Economic Development of the British Overseas Empire: volume I; 1938, p.148)
railway extensions are not only difficult but also less helpful under the existing circumstances. Moreover, a strict comparison of cost-benefit aspect of railways with other alternative modes of transport may be equally futile as conditions differ from place to place and from time to time.

Improvement of Existing Facilities

Apart from new railway extensions certain improvements in existing facilities, as noted below, are worth considering for having better impact of railways on the economy.

1 Assam's transport need can be met not merely by increasing the route kilometreage and rolling stock but also by improving operational efficiency. The Kunzru Committee aptly observed:

"wagon shortage is a symptom of disease; it is not a disease in itself... it does not mean that the other wagons are physically non-existent; it indicates that there is a hold-up somewhere or that the wagons are not moving smoothly and swiftly up to their loading points". 80

It has been already observed that the turn-round of covered and open wagons has increased (Table 10.14). The finding of the Plantation Enquiry Commission (1956) that wagon shortage is the only problem appears to be not entirely correct. The Railway may, therefore, try to increase the capacity of the existing lines (with the help of loop-lines, new crossings and flag stations etc.), terminal, marshalling yard and loco shed facilities and workshop capacity for various kinds of repairs.

The operational efficiency - especially of the Hill Section may be maximised with yard remodelling, better signalling

80 Roy, A.: Planning in India (1965), p.278
and telecommunication facilities, as the railways in Cachar serve a vast underdeveloped region comprising the Mizo Hills, Tripura and Manipur in addition to Cachar district and the newly created North Cachar Hills district. However, it is no planning if wagons simply move to say, Tripura and other areas surrounding Assam keeping the demands and requirements of Assam State unfulfilled on account of limited railway capacity. A rational distribution and movement of wagons seems to be urgent as Assam area is full of bulky forest and mineral resources which would start to move in larger volume with the setting up of more and more new industries.

ii The wagon allotment to the Trade Adviser, Government of Assam, should be increased in proportion to basic requirements. And the movement sponsored by the Trade Adviser may be accorded the same priority (that is, 'B') as that for the Food Corporation of India.

iii It may be easy to manipulate freight rate but it would not be easy to reduce transit time to and from Assam until the speed of train is improved. Owing to remoteness of the State from other parts of the country it may be imperative to rely more on faster trains to and from Assam area (as in the German Federal Railways) even though it may entail a reduction in loads.

81 The businessmen in various parts of Assam also need definite quotas of wagons in 'trade account' from Northern, South Eastern, Central and Western Railway directly up to their own places.

82 The 'validity period' of programme sponsored by the Government should also be extended, when necessary, to compensate for the loss in time owing to railway's operational restrictions.

83 As early as in 1913 the leading railway systems in the United States operated on the principle that it is not economical to have the locomotive haul the maximum load at the minimum speed. Delays caused by 'loading' equal to the locomotive capacity frequently result in greater loss than gain. The same number of cars and locomotives when loaded lightly so as to make speed may handle considerably more freight in a given period of time than when 'held up' at stations and division points awaiting a full load. Moreover, there is the probability of locomotive break-downs. (Sakolski, A. M.: American Railroad Economics: 1913: p.161)
In view of the great physical distance to Assam from other parts of the country the question of linking up freights with transit time in a due manner is also worth considering. The Kunzru Committee's suggestion that customers who pay the normal rate should have the opportunity of having their goods transported within a period not exceeding one and a half times of the scheduled time - and that if this is not done, the Railway should have to pay a penalty for each day of delay - appears to be quite appropriate in the context of this State.

Amongst other measures, it may be stated that as in the European and the Soviet Railways goods train should be run, as far as practicable, on fixed schedule like passenger train. And like the Italian Railways attempt may be made to link the schedules for the incoming and the outgoing trains relating to each marshalling yard so that detention in yard is minimised.

As regards passenger services, in most of the branch lines the average speed per hour varies between 11 and 20 kilometres (Table 6.4). On the Furkating-Jorhat-Mariani branch line "there are two reverses between Jorhat and Mariani which is an anachronism to good train service anywhere". The road transport is comparatively quicker for short distance traffic. The Railway may try rail (or tram) cars, as in many European countries, for more

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85 The Assam Tribune: Guwahati: April 11, 1970. (However, this alignment has traversed through a large area famous for tea plantation.)
86 An autorail car is a combination of bus and train: there are only a few hundred miles of railways in Madagascar but almost 3 times as many miles of autorails, which provide quick and pleasant transportation between towns.

It has been the experience of the researcher in some of the western countries that rail cars are quite attractive to passenger traffic. At the same time there is no leakage of railway revenue in a rail car as in case of a big train in this country.
economical and faster passenger service in various branch lines such as Chaparmukh-Silghat, Furfating-Jorhat-Mariani, Naginimara-Moranhat, Tinsukia-Dangari and in the proposed route between Gauhati and Dibrugarh. There is also need for long distance (through) faster passenger trains between Murkong Selek and Kanpur/Delhi, Dibrugarh and Lucknow, Silchar and Calcutta/Delhi and between New Bongaigaon and Delhi (via Farakka by all-broad gauge route).

iv Unremunerative railway services or branch lines should not be withdrawn mainly on financial ground, without reference to economic and social effects as their value to the community may outweigh the accounting cost to the Railway. In Britain, under powers granted by the Transport Act 1968, the Minister of Transport made grants to the railways for helping over 200 socially desirable unremunerative services. The element of consumers’ surplus cannot be neglected while measuring the gross benefit or total output flowing from investment on railways. The Railway may also consider the question of taking over the company-owned branch lines if the Companies do not provide certain basic amenities to create traffic.

v Some of the stations in Assam which have now become important were built in the pre-independence era to meet the needs of limited volume of traffic. As such most of these today require remodelling. In many stations certain basic amenities for loading and unloading of goods (such as godown accommodation, sheded platform etc.) are to be adequately provided. The Railway may also think of providing adequate number of sidings for handling diverse

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Commodities as is done in the Central Railway, where in a distance of 56 kilometres between Bombay (Victoria Terminus) and Kalyan, a total of about 30 sidings, taking off from the railway line, have come into existence during the last few years.

While considering measures for improvement of existing facilities the question of Divisional Headquarters and reorganisation of administrative unit may also be stated. There has been much demand for establishment of Divisional Headquarters at Rangiya and this may be justified when it is observed that Alipurduar division includes unusually high route kilometreage amongst all divisions of the N.F. Railway. In fact, if a division at Rangiya is created it will come out of the present Alipurduar division. Although certain experienced railwaymen opine that a railway division is justified mostly when the density of traffic is very high, yet if the proposed reorganisation or change helps in increasing railway facilities or improving railway services the setting up of a division may be given due importance. The fact that Rangiya handles 16 to 18 trains a day each way indicates that the volume of traffic over the railways is quite high. The Railway themselves stated that in 1968-69 the inward through traffic to east of Rangiya on the less developed north bank was about 1.5 lakh tonnes, while the quantum of traffic via Rangiya to the south bank (excluding Gauhati) was 9.5 lakh tonnes.

88 That the size of the present Alipurduar division is comparatively larger becomes clear from the following division-wise figures of route kilometreage as in April 1972:

- Alipurduar - metre gauge 1,129 and broad gauge 258 kilometres;
- Lumding - metre gauge 872 kilometres;
- Katihar - metre gauge 409 and broad gauge 381 kilometres;
- Dibrugarh - metre gauge 485 kilometres.

(Compiled from N. F. Railway Headquarters, Gauhati)

89 It has been opined in certain quarters that the amount of Rs.4 crores (approximately) required for setting up a division may be diverted for extension of the broad gauge line within the State. Moreover, it has been apprehended that in a small division everything may be controlled from the Head Office which may not be in the interest of the regional economy.
The Railway Board may also consider if the N.F. Railway can be reorganised to embrace the State of Assam, Nagaland, Meghalaya, Manipur, Tripura and the Union Territory of Arunachal and Mizo Hills in view of similar topography and homogeneity in the nature of economies. Such a readjustment may also conform to the Government directive to the sub-committee of the Railway Board on regrouping that it should give adequate weight to the economic unity of the contiguous regions and to the natural flow of traffic, ... to produce a scheme which would clearly help the level of economic prosperity. With the growth of new States and Union Territories in this region such a zone may be more convenient for better transportation planning and better coordination with other modes of transport, especially road transport, as road policies are in the hands of the State Governments. It will also have a psychological feeling that railways belong to these States and not only to the Central Government.

Measures To Reduce Strain On Railways

In addition to construction of new lines and improvement of existing railway facilities it has become necessary to examine certain measures which might help in reducing strain on the railway system.

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90 Lok Sabha Secretariate : Budget Speech of the Railway Minister, February 22, 1951

Another author opines that in India each railway unit tends itself to doctrinaire conditions of organisation ... (p.114). The regrouping does not precisely satisfy many criteria (p.116) ... and that such reorganisation on the basis of state boundaries may be justified if the present regrouping is not based on scientific enquiry, that is, on administrative convenience and operational efficiency. (Matthew, M.O.: Rail and Road Transport in India : 1964 : p.121)

An alternative rail-cum-river-cum-road route to Assam was suggested sometime back in order to reduce pressure of interstate traffic on the limited railway capacity. It was argued that goods moving by this route would reach Siliguri from Howrah/Sealdah in 10 days as against 35 days by the rail Link. But on close examination the cost of transportation was found to be much more than that by the rail route. Moreover, it appears that this route is also dependent on ferry facilities and road conditions besides involving the problem of transhipments. Thus it seems that the suggested route is not much conducive to efficient movement of essential imports and sophisticated export like tea. A river canal from Siliguri to the Ganges as suggested also appears to be not of much help as the main bottle-neck is confined to the region east of Siliguri, and the problem of the over-burdened yet vulnerable corridor between Siliguri and Assam still remains.

Another important measure to relieve pressure of interstate traffic on the railways may be to link the Ganges with the Brahmaputra by a canal. An investment of about Rs.37 crores for the proposed Ganga-Brahmaputra canal (about 440 kilometres in

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91 It was suggested that direct link between Assam and Bihar-West Bengal area should be - (a) by rail from Calcutta to Colgong (Bihar) on the Ganges river, (b) by boat from Colgong to Karagola ghat, (c) by road from Karagola to Siliguri (involving ferry crossing of the Mahananda river at two points) and then (d) by rail from Siliguri to Assam. (Rao, U.S.: Transport Needs of Assam : Commerce : December 16, 1950, p.1068)

92 G.O.A.: Memorandum Submitted to the Union Minister of Economic and Defence Coordination by the State Government on January 10, 1963

A scheme was also mentioned which aimed at linking the Teesta with the Farakka (by a barrage at Sivok above Siliguri) and then joining the Teesta with the Brahmaputra near Dhubri to provide a direct all-India navigational route between Calcutta, North Bengal and Assam.

length) may not be considered as ambitious if an investment of Rs. 46 crores can be made on pipelines (in 1964) for carrying crude oil alone from Naharkatiya to the refineries at Gauhati and Barauni. However, although such an interstate river route is of tremendous importance to north east India, comprising Assam and other states, it will connect Assam with West Bengal and Bihar areas only and not with other parts of India.

With the recent resumption of the river services between Assam and Calcutta (via Bangladesh through a distance of about 1,500 kilometres), the pressure of traffic on the railways is expected to be reduced. However, the future of the reopened river route appears to be uncertain and its continuance will depend on the political situations of the neighbouring nations. Therefore, it appears that in the ultimate analysis Assam's dependence on railways  

93 On November 19, 1972 two cargo vessels of the C.I.W.T.C. sailed out from the Outram ghat jetty at Calcutta; of these one steamer sailed off for Gauhati (via Narayanganj in Bangladesh). The services from Assam to Calcutta were resumed at the Pandu port after about seven years when a steamer carrying 5,055 chests of tea set sails off to Calcutta on November 20, 1972.

The transit time by riverways turns out to be about 11 days as the first vessel of the C.I.W.T.C. which sailed for Gauhati from Calcutta via Bangladesh on November 19, 1972, carrying commodities like cement, and wheat, reached the Pandu port on November 30, 1972.

94 The pressure of intrastate traffic on the railways in Assam may not be very high in future years. Yet, for efficient handling and easy movement of traffic construction of bridges over the Brahmaputra at various points, more particularly near Silghat and Murkong Selek, to connect both banks has been suggested. A bridge between Jonai (Murkong Selek area) and Gijjan (near Tinsukia), depending on technical feasibility, will definitely shorten the (rail) distance between the Upper Assam area and New Bongaigaon (the present broad gauge terminus). As regards the volume of traffic, in 1969-70 the ferry services of the State Inland Water Transport Department, in its 13 ghats, handled about 15 lakh passengers, 10,000 vehicles, 70,000 bi-cycles, 2 lakh maunds of goods and 12,000 animals. Linking of north bank and south bank of the Brahmaputra at various points would ease the pressure on transportation system by reducing the lead and will also save time and other factors of cost. At some points the cost of inter-bank transportation is quite high. In 1971 the freight by road from Murkong Selek to Tin-mile ghat (4 kilometres) was about Rs. 2.50 per quintal. Then the charge by steamboat from Tin-mile ghat to Dibrugarh ghat was about Rs. 6 per quintal for goods and Rs. 7 per passenger.
is bound to continue especially in case of interstate traffic.

Role of Government and Business Community

While discussing a scheme for increasing railway capacity and facilities the role of the Government and the business community may not be ignored. It has been already noted that the freight subsidy scheme introduced by the Government affects primarily the industrial sector and does not appear to be of much help in reducing the cost of importing consumer goods into Assam. Manipulation of freight rates cannot affect the transit time or overcome the physical distance of Assam from the more developed parts of India. Yet, to tide over the difficulty in movement of essential commodities to Assam the Central Government may come to help by directing the Railway Administration to give special facilities to the State Government for transporting goods (by desired route/routes) which are necessary in the public interest and under such circumstances the Railway is bound to move the specified commodity in due manner. However, this alone cannot solve the transport requirements of Assam.

Hence emphasis is also placed on the role of the State for increasing local production of as many goods as possible. If more industrialised areas in the country continue to be distribution centres or sources of supply of various items to Assam the economy of the State is bound to have certain adverse effects. With more and more local production load on the internal (or intrastate) transport system may initially increase but there may not be

95 under Section 27-A of the Indian Railways Act the Central Government has such power to direct
96 It appears that some of the industrialists and the businessmen are inclined to give different interpretations as to the nature of the problem of transportation to and from Assam as most of them are very little interested in investing capital for setting up manufacturing industries in this State. Moreover, another noticeable point is that most of the large enterprises in Assam prefer to purchase their requisites from sources outside Assam owing to low rate of sales tax.
proportionate increase in traffic over the interstate railway system for a considerable period. Owing to transport difficulty it has been a problem for producers and consumers in Assam to have timely supply of bulky goods such as rods, bars etc. from sources outside the State. If only raw materials (say, billets) are imported and final products are made within the State the strain on railways may be reduced to a great extent. As regards exports, it is distressing to state here that Assam's minerals do not move to outside market in processed form.

If the Government attracts industrialists or entrepreneurs for manufacturing diverse commodities (such as paper, cement, sugar etc.) within the State by offering various facilities (such as land at nominal cost, liberal licensing policy, low-priced power etc.) an industrial climate would be created and the transport sector may follow the pattern of industrial change. A more clear policy for dispersal of industrial units within the State may result in more efficient movement of traffic and may reduce the volume of

Moreover, the cost of locally produced items goes down. To illustrate, when a cylinder of oxygen (which is absolutely necessary for steel fabrication) came from Calcutta to Tinsukia (an important trade centre in the Upper Assam) it would cost about Rs.200, but now with local refilling at Gauhati its cost at Tinsukia has gone down to Rs.30. Besides, the gas cylinder reaches there regularly and within a day instead of a month. As regards pressure on the railways, the production of ply-wood is around 40 million square feet only as against the total demand for about 70 million square feet (G.O.A. Regional Transport Survey: Op.Cit.: volume I: p.96); and hence import of empty tea chests from West Bengal increases the pressure on the transport system. With local production of news-print (about 30,000 tonnes per day) and pulp and paper the strain on railways may go down to some extent.

The future pattern of transport development in Assam may closely follow the pattern of industry. If the units can produce real output with lesser proportion of transport input by adopting better technology and with reduction in the length of the haul, it is still better.

Soviet industries do not practise cross hauls and in location planning a deliberate effort is made to reduce the length of haul needed. As the industrial location is based on the principle of making the entire economy consist of a series of more or less self-contained major geographic regions, it helps in reducing overall transport requirement.
cross-traffic and empty movements. It may be mistake to assume that if railway facilities are increased or improved development of the economy will automatically quicken up. Professor Nurkse has rightly observed:

"Social*overhead capital means a social overhead charge; it does not pay for itself. It cannot be an economic success unless the more specialised activities which it is meant to serve do come into being. It provides a skeleton structure into which the economy must be encouraged to grow through less lumpy and more widely diffused investments of capital, and, above all, through the endeavour and enterprise of individuals". 100

The State may also perform an important role by making proper assessment of transport needs from time to time. It can make it compulsory for each new and existing enterprise in Assam - big or small - to submit to its Transport Department a detailed schedule of transport requirements at periodic intervals for movement of input and output. It may also be better if the Transport Advisory Committee of the State maintains close liaison with the Railway and takes timely step to satisfy the transport needs of different sectors of the economy. A more equitable representation to various committees of the Railway - such as Zonal Railway Users' Consultative Committee, Divisional Committee, Time Table Committee, Spot Checking Committee - from different areas or Chambers of Commerce of Assam, coupled with close cooperation of the business community may also help in achieving better impact of railways on the economy of the State.

To sum up, a scheme for expansion and improvement of railway facilities in Assam area is desirable in the context of the gap between the existing capacity (and performance) and the need of

the area as discussed in the preceding Chapters. This gap has been persisting since the beginning of the post-independence era despite increasing expenditure on railways. Moreover, railway facilities differ from district to district, and the State has to depend on supply from various places outside the State for a large number of goods. The economy of the area is still heavily dependent on agriculture and allied pursuits - sectors which are bound to depend more on railway transport. It has been anticipated that the economy of the State will continue to depend more on rail transport and tonne kilometre as well as tonnes carried by the railway system in Assam will increase in coming years. Besides, in view of the low level of technology, the transport requirement of Assam economy will not only be high but increasing for a considerable period. Apart from this, the railways should have standby facility to meet any unforeseen and abrupt transportation demand in the event of emergency.

The railway capacity and facilities in Assam may be increased both by new extensions as well as operational improvement. As regards new extensions, construction of broad gauge line from New Bongaigaon to Gauhati and a line (or at least a ropeway) from Goalpara to Garo Hills are found to be reasonable in view of the potentiality and needs of the area. Extension of a line from Gauhati to Goalpara is also desirable. At a later phase extension of railway from Gauhati (or New Gauhati) to Dibrugarh or Tinsukia through important towns, which are at present not at all touched by the existing railway system, is found to be desirable in view of the expected volume of rail traffic in future years. Some of the regional demands - such as linking Dhubri with Jossaingaon or Pakiragram or Cooch Behar, a line between Gauhati and Burninat and line from Silchar to Jiribam - if fulfilled, will certainly
facilitate economic development of the region and a strict cost-benefit analysis in all such projects may not be very much helpful in view of the inherent weaknesses of this technique in the context of underdeveloped areas.

Apart from increasing railway capacity with new extensions, improvement of existing railway facilities—such as improvement in wagon availability, speed, services in branch lines, loading and unloading facilities at important stations—also needs due attention. It may also be better to reorganise the N.F. Railway Zone as a unit serving the portion of the north-east India comprising the four States and two newly created Union Territories in view of the economic unity of the contiguous regions.

It is also desirable to reduce strain on the railway system by improving intrastate transport facilities at various selected points inside the State. The need for increasing local production of various kinds of goods now imported and lesser use of transport-intensive technique of production are also factors which may not be ignored. For, the utility of river transport for short-distance traffic appears to be limited and the interstate river services also may not be very certain and safe means of transport at all times. The long-distance (interstate) road transport too is costlier than railway transport. The role of the State and cooperation of entrepreneurs and the business community are equally important for attaining the desired impact of railways on the economy of the State.