

ESTIMATES COMMITTEE

1956-57

SIXTIETH REPORT

MINISTRY OF TRANSPORT
MOTOR TRANSPORT AND MISCELLANEOUS



LOK SABHA SECRETARIAT
NEW DELHI
March, 1957

C_O_R_R_I_G_E_N_D_A

Sixtieth Report of the Estimates Committee on
the Ministry of Transport.

Page (iv), Introduction, Line 7, Read 'them'
for 'then'

Page 17, Para 45, Line 7, Add ',' after
'therefore'

Page 20, Para 60, Line 4, Add '1948' below
'1947'

Page 30, Para 102, Line 6, Delete 'made design'

Page 54, App. V, Heading, Road '(Roads Wing)'
for '(Road Wing)'

Page 56, App. VI, Para 9, Line 15, Road
'conducted' for 'conducted'

Page 57, App. VI, Para 12, Line 4, Read
'Mercantile' for 'Merchantile'

Page 75, App. IX, Line 28, Read 'as' for 'a'

Page 80, App. X (B), Col. 10(i), Read
'100-2,500' for '100-626'

Page 80, App. X (B), Col. 10(ii), Read
'25-625' for '25'

Page 82, App. XI, S. No. 2, Line 5, Add 'of'
after 'chances'

Page 84, App. XI, S. No. 14, Lines 3 & 4, Read
'Government' for 'Govorment'

Page 84, App. XI, S. No. 14, Lines 4 & 5, Read
'automobile' for 'autnmobile'

Page 84, App. XI, S. No. 16, Line 5, Add '..'
after 'reconstituted'

CONTENTS

	PAGES
COMPOSITION OF THE COMMITTEE	(iii)
INTRODUCTION	(iv)
I. INTRODUCTORY	1—6
A. Introduction	1-2
B. Need for a national transportation policy	2-3
C. Inter-State Transport Commission	4
D. Role of Motor Transport in country's developing economy	4-6
II. PROBLEMS OF MOTOR TRANSPORT	7—19
A. Introduction	7
B. Taxation of motor vehicles in different States	7—10
C. Regulation of motor transport and the existing restrictions	10—14
D. Nationalisation of Motor transport	14—17
(a) Progress and policy	14—15
(b) Provision in Second Plan	15—16
(c) Road Transport Corporations	16—17
(d) Future policy	17
E. Automobile industry and its problems	17—19
III. CENTRAL BOARD OF TRANSPORT AND TRANSPORT ADVISORY COUNCIL	20—22
A. Central Board of Transport	20-21
B. Transport Advisory Council	21
C. Amalgamation of the Central Board of Transport and the Transport Advisory Council	21-22
IV. ORGANISATIONAL SET UP AND FUNCTIONS ETC. OF THE MINISTRY OF TRANSPORT	23—26
A. Introduction	23
B. Organisational set up and functions of the Ministry	23—25
(a) Transport Wing	24
(b) Roads Wing	24—25
C. Setting up of the Central Transport Board	26
V. MISCELLANEOUS	27—40
A. Regulation of conditions of work of transport workers	27
B. Use of trailers	27-28
C. Engineer Liaison Organisation	28-29
D. Banibal Tunnel Project	29—31
E. Diesel <i>versus</i> Petrol Operation	31-32
F. Co-operative Transport Societies	32—34
G. Bullock Cart Transport	34—38
H. Origin and destination surveys of road traffic	38-39
I. Tolls or other imposts on national highways	39-40
APPENDICES	41—48
I. Statements showing number of trucks/buses and the current rate of motor vehicle tax per truck/bus in each State (A & B)	41-42

	PAGES
II. Constitution of the Transport Advisory Council	43—45
III. Summary of conclusions arrived at the Fifteenth meeting of the Transport Advisory Council held at New Delhi on the 6th and 7th February, 1956	46—52
IV. Chart showing the distribution of work in the Transport Wing of the Ministry of Transport on 1-4-1956	53
V. Organisational set up of the Ministry of Transport (Roads Wing)	54
VI. Nature of Work handled in the Transport Wing of the Ministry of Transport	55—58
VII. Establishment and functions of the Roads Wing of the Ministry of Transport	59—66
VIII. Duties and responsibilities of Engineer Liaison Officers	67
IX. Copy of a memorandum on the Economics of Diesel Operation versus petrol Operation by Shri N. Balkrishna	68—78
X. Statements showing the details of grants sanctioned to various States and Community Project Areas for the purpose of meeting the cost of steel flats required for wider tyres for bullock cart wheels (A & B)	79—80
XI. Statement showing the summary of conclusions/recommendations	81—83

MEMBERS OF THE ESTIMATES COMMITTEE 1956-57

1. Shri Balvantray Gopaljee Mehta — *Chairman*
2. Shri B. S. Murthy
3. Shrimati B. Khongmen
4. Shri Nageshwar Prasad Sinha
5. Shri B. L. Chandak
6. Shri Amarnath Vidyalankar*
7. Shri Venkatesh Narayan Tivary
8. Shri Satis Chandra Samanta
9. Shri Raghavendarao Srinivasrao Diwan
10. Shri M. R. Krishna
11. Shri Jethalal Harikrishna Joshi
12. Shri Bhawani Singh**
13. Shri P. Subba Rao
14. Shri P. N. Rajabhoj
15. Shri Vishnu Ghanashyam Deshpande
16. Shri Satyendra Narayan Sinha
17. Pandit Dwarka Nath Tiwary
18. Shri C. R. Narasimhan
19. Shri Raghubir Sahai
20. Pandit Algu Rai Shastri†
21. Shri Abdus Sattar
22. Shri Lakshman Singh Charak
23. Shri N Rachiah
24. Shri Radheshyam Ramkumar Morarka
25. Shri Mangalagiri Nanadas
26. Shri T. B. Vittal Rao
27. Shri Y. Gadilingana Gowd
28. Shri Jaswantraj Mehta
29. Shri A.E.T. Barrow
30. Shri Choithram Partabrai Gidwani

SECRETARIAT

Shri S. L. Shakdher — *Joint Secretary.*
Shri H. N. Trivedi — *Deputy Secretary.*
Shri R. P. Kaushik — *Under Secretary.*

*Resigned with effect from the 20th November, 1956.

**Died on the 6th October, 1956.

†Ceased to be a member upon his election to Rajya Sabha on the 13th December, 1956.

INTRODUCTION

I, the Chairman, Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present this Sixtieth Report on the Ministry of Transport on the subject 'Motor Transport & Miscellaneous'.

2. The Committee wish to express their thanks to the Secretary and other officers of the Ministry of Transport for placing before them the material and information that they wanted in connection with the examination of the estimates. They also wish to express their thanks to Sarvashri E. A. Nadir-shah, ex-President, Indian Roads and Transport Development Association, Bombay, S. R. Mehra, Director, Central Road Research Institute, New Delhi, P.L. Verma and J. Subrahmanyam, President and Secretary respectively, Indian Roads Congress, New Delhi for giving their evidence and making valuable suggestions to the Committee.

BALVANTRAY G. MEHTA,

NEW DELHI

The 27th March, 1957.

*Chairman,
Estimates Committee.*

I. INTRODUCTORY.

A. Introduction

During the last hundred years or so, the main brunt of meeting the transport requirements of the country has been borne by the Railways. They have no doubt done this job remarkably well. The part played by the other modes of transport, namely, shipping, inland navigation and motor transport, has been comparatively a minor one. The detailed examination of the estimates of the Ministry of Railways has, however, clearly indicated that the Railways are unable to cope with the additional demands of traffic that are being made due to the rapidly developing economy of the country. It is, therefore, essential that all the means of transport are allowed to develop as rapidly as possible.

2. In the past, great care was being taken while developing motor transport to see that it did not enter into unhealthy competition with rail transport. The Wedgewood Committee in 1937 had observed that the loss of revenues to the Railways, due to road competition, was to the tune of Rs. $4\frac{1}{2}$ crores per annum.

3. The Technical Sub-Committee of the Subject Committee on Transport on "The future of road transport and road-rail relations" in their report submitted in November, 1948, had observed as under:—

"In the past, overloading and financial bankruptcy enabled motor transport to compete uneconomically with railways for long distance goods traffic and impelled railways to resort to wasteful cutting. The recurrence of this should be prevented, except where long distance traffic by road is in the public interest, by a system of regulation combining expert judgement of the merits of each case on the basis of public and economic need and scientific zoning".

4. In order to safeguard the interest of the railways, against unhealthy competition by motor transport, various restrictions had been imposed on the development of road traffic *vide* The Motor Vehicles Act, 1939. These were elaborated and amplified by the 'Code of Principles and Practices for the regulation of motor transport' prepared by the Transport Advisory Council in consultation with the State Governments.

5. The Motor Vehicle Taxation Enquiry Committee which submitted its report in 1950, rightly observed that the railways were not able to accept all the traffic offered in recent years and that there was little or no railroad competition. It, therefore, became obvious that the restrictions imposed by the Motor Vehicles Act, 1939, and

the Code of Principles and Practices for the regulation of motor transport needed considerable relaxation if motor transport was to be developed properly and play its rightful role in meeting the pressing transport requirements of the country.

6. The Committee are glad to note that the necessity of such relaxation has at last been recognised and that the necessary relaxations have been incorporated in the Motor Vehicles (Amendment) Act, 1956. The Committee hope that prompt administrative measures will be taken by the Central and State Governments to ensure that the benefits accruing from the relaxations incorporated in the Motor Vehicles (Amendment) Act, 1956, are made available without any time lag.

B. Need for national transportation policy

7. It is a recognised fact that all the means of transport available in India at present are inadequate to meet the rapidly increasing requirements of the country due to the rising tempo of agricultural and industrial production during the five year plans. Roads, inland waterways, coastal shipping and railways have, therefore, to be developed simultaneously as complimentary means of communication in the country. In India, so far the railways have overshadowed the three other means by expanding considerably as a result of the encouragement given to them by official policies adopted for over a hundred years. The revival of interest in other means of transport has still to acquire momentum. There is, therefore, an urgent need for enunciating a national transportation policy. The necessity of such a policy is clearly brought out in the following words in the report of the Study Group (Transport Planning) submitted as recently as in 1955:—

"Though some measures have been taken and policy statements made from time to time regarding the importance of developing other means of transport, no definite policy giving due recognition to the part to be played by road transport, inland navigation and coastal shipping has been finally adopted by Government. In the absence of such recognition, the public as well as official circles primarily think in terms of railways whenever transport capacity is discussed. There have been instances in which Government Departments have arrived at decisions having only the railways in mind and which incidentally had an adverse effect particularly on inland navigation and coastal shipping".

8. The Committee, therefore, recommend that the Government should announce formally their policy in regard to the development of different means of transport.

9. The following principles of inland transport co-ordination were recommended by the International Chamber of Commerce to all nations for adoption:—

- “(1) Production and distribution are dependent upon efficient and economical transport, and transport in turn depends upon flourishing production and distribution. The problem is thus two-fold and should not be considered only from the stand-point of transport.
- (2) To ensure the application of this principle there should be arrangements in each country for consultation of the various forms of transport with their users (agriculture, industry, trade), on rates, charges, services, conditions of carriage and all other economic aspects of the problem.
- (3) The user should enjoy unrestricted freedom of choice among the means of transport.
- (4) Transport “for own account” should be unrestricted.
- (5) The user should enjoy unrestricted freedom of choice with a view to determining all the elements of the cost of each form of transport in each country.
- (6) Whether the different forms of transport are either separately administered or centrally controlled by a statutory body, they should be free to compete. Healthy but not wasteful competition should be encouraged and for this purpose the different forms of “professional transport” should be placed on a comparable competitive basis by revising and easing statutory obligations, keeping also in view the interests of transport for “own account”. Structure of charges should reflect the cost of providing the services and should be framed so as to obtain the maximum economic efficiency of each form of transport.
- (7) Nothing should be done which would hinder the development of any particular form of transport or disguise the advantages it could offer or which would discourage its use in order to provide artificial support for any alternative form of transport. The basis of co-ordination must be dynamic, not static.
- (8) In the interests of defence or the general national welfare, it may be necessary, in very exceptional cases, to maintain certain forms of transport at a minimum level. The losses on such operations should not throw additional charges on transport users as such; they should be nationally borne”.

10. The Committee suggest that the above mentioned principles might be adopted by the Government with as few modifications as absolutely necessary, as their national transportation policy.

C. Inter-State Transport Commission

11. The Committee are glad to observe that a provision has been made in the Motor Vehicles (Amendment) Act, 1956, to constitute an Inter-State Transport Commission for the purpose of developing, co-ordinating and regulating the operation of transport vehicles in respect of any area or route common to two or more States. *Vide* Section 57 (ii) of the Motor Vehicles (Amendment) Act, 1956, the Commission will be required to perform throughout the inter-state region all or such of the following functions as it may be authorised to do by the Central Government by notification in the official gazette, namely:—

- (a) to prepare schemes for the development, co-ordination or regulation of the operation of transport vehicles and in particular of goods vehicles in an inter-State region;
- (b) to settle all disputes and decide all matters on which differences of opinion arise in connection with the development, co-ordination or regulation of the operation of transport vehicles in an inter-State region;
- (c) to issue directions to the State transport authorities or regional transport authorities interested regarding the grant, revocation and suspension of permits and of counter-signatures of permits for the operation of transport vehicles in respect of any route or area common to two or more States;
- (d) to grant, revoke or suspend any permit or countersign any permit for the operation of any transport vehicle in respect of such route or area common to two or more States as may be specified in this behalf by the Central Government; and
- (e) to perform such other functions as may be prescribed by the Central Government under Section 63 (c).

12. The Committee recommend that prompt steps should be taken for the setting up of the Inter-State Transport Commission so that it may start playing a useful role in developing motor transport in the country to relieve the existing transport bottleneck.

D. Role of motor transport in country's developing economy

13. Motor transport, has under certain circumstances, considerable economic advantages (over other modes of transport) which it would not be wise to ignore. It is very flexible in that a more individual type of service can be given than with any other type of transport. Railways, waterways, and ships can only provide facilities at special points along their line of route and there is, therefore, a certain degree of rigidity. With road transport, on the other hand, door to door service can be provided and traffic can be picked up and delivered under more diverse conditions and more easily than is possible with any other type of transport. The motor vehicle is

free to go to any part of country where traffic need requires. If one route does not pay, another may be tried. With a railway or a canal it is not possible as the capital sunk is incapable of movement. Further, terminal and transhipment delays can be eliminated by using road transport which has less transit risks due to reduced handling and absence of the risk of pilferage. Road transport service can be started with comparatively little capital as the vehicles can be had even on hire-purchase basis. Here the unit of operation is a single vehicle and not a whole system as is the case with rail transport.

14. Coastal shipping and inland river navigation are limited by geographical factors; whereas rail transport is pre-eminently suited for bulk cargo and long hauls. Motor transport has, however, a very useful role to play, particularly in a vast country like India, where large tracts of land remain untraversed by rail. In India there are 5,50,000 villages and if they are inter-connected by roads, motor transport can render valuable assistance in rapidly developing the rural economy. In this connection, the Committee are in entire agreement with the following observations of the Technical Sub-Committee of the Subject Committee on Transport in its report on 'The future of road transport and road-rail relations' which was issued in November, 1943:—

"Our picture of the future of rural India is one in which motor transport will penetrate to the remotest villages connecting them with the main transport system, and will play a gradually increasing part in marketing between village and town and villages. Thus the villager will have at his disposal modern means of transport, readier communication with the outside world, medical attention and other social services to no less a proportionate degree than the town dweller. To attain this result, active development of roads and constructive development of road transport are necessary".

15. It is worth noting here that assigning the above role to motor transport will in no way affect adversely the revenues of the Railways. On the contrary, it will bring more traffic to the Railways from the interior, for despatch over long distances.

16. In U.S.A. similar advantages have been gained by the development of motor transport as will be evident from the following quotation from "Principles of Transportation" by Johnson Huebuer and Wilson:—

"The motor truck, bus and private passenger car have made a rich contribution to the economic and social welfare of the United States. Farm production has been increased. Isolation has been taken out of country life. The producers of raw material have been assisted in bringing the products of remote sections to market or to rail road

or steamship depots. The motor has aided mining and manufacturing, expedited the delivery of raw materials, the moving of goods within the industries and the distribution of products. Local deliveries from retailer to consumer have been quickened. The whole process of production and distribution has been facilitated".

"The private motor passenger vehicle has extended the social and business activities of millions of people, while the passenger bus has become a part of the transportation system of virtually every city and town".

II. PROBLEMS OF MOTOR TRANSPORT

A. Introduction

17. The problems facing the motor transport industry have been examined by a number of committees in the past few years. The conclusions of all these committees point out the following salient features:—

- (i) That taxation rates are generally very high.
- (ii) That there are too many restrictions on the movement of vehicles both within the States and on inter-State routes and that the States are following restrictive licensing policy.
- (iii) That the pace of nationalisation should be slow.
- (iv) That the automobile industry should be properly organised and placed on a sound footing.

The Committee propose to deal with each of these problems.

B. Taxation of motor vehicles in different States

18. The rates of taxes for motor vehicles and the basis for taxation are specified in or fixed under the Motor Vehicles Taxation Acts of States. The rates of taxes vary widely from State to State. The latest information in regard to the rates and taxes on motor vehicles in some States is as shown in Appendix I. But some States have subsequently increased the rates and accurate and up-to-date information in regard to the increases is not, surprisingly enough, readily available with the Ministry of Transport.

Uniformity in Taxation.

19. The problems facing the motor transport industry were first considered in detail by the Motor Vehicles Taxation Enquiry Committee in 1950. The main recommendations of this Committee in regard to taxation were that the rates of motor vehicle taxes should ultimately be uniform throughout the country and should conform to the ceilings recommended by them. These ceilings roughly approximate to 75 percent of the rates of taxes prevailing in Madras. Ever since this Committee submitted its report in December, 1950, the Ministry of Transport has been trying to check the tendency on the part of the States to increase taxes on motor vehicles within the frame-work of the Constitution and with the consent of the State Governments.

20. Taxes on motor vehicles, direct or indirect, vary so widely from State to State that it was subsequently considered that it would be unrealistic to expect the States to agree to any uniform rate throughout the country. It was originally the intention of the Ministry of Transport to lay down the principles of motor vehicle taxation and a ceiling for all such taxes under Entry 35 of the Concurrent list in the Seventh Schedule to the Constitution. The Law Ministry, however, advised that the constitutional provision for laying down the principles of taxation did not include the power to fix ceilings. It was, therefore, proposed to persuade the States, through the forum of the Transport Advisory Council to agree to restrict their taxation to 75 percent of the prevailing Madras rates. The representatives of the States, however, desired to be given more time to consider the proposal.

21. The matter will again be brought up for discussion at the next meeting of the Transport Advisory Council. But the prospects of the States agreeing to the proposal appeared to be slender. The only course, therefore, left open would be to pursue the matter in the Inter-State Taxation Council, the setting up of which has been recommended by the Taxation Enquiry Committee. The following table shows the average tax per vehicle in India as compared with certain other countries excluding customs and excise duties wherever these are not known:—

Country	Total Motor vehicle tax (in crores) Rs.	No. of motor vehicles (Excluding Motor Cycles)	Taxation per vehicle
Great Britain (1948-49)	132.00	3,169,119	417
France (1947)	55.17	1,466,000	377
Union of South Africa (1947)	13.15	455,000	289
United States of America (1948)	16.39	41,151,000	598
India (1948-49)	28.43	230,000	1232

22. It will be clear from the above statement that the level of taxation in India is much higher than that in the other countries named.

23. In addition to these, certain tolls and terminal taxes were also levied by the States which were not uniform. Mysore State sometime ago introduced a tax called boundary tax which has now been abolished.

24. The representative of the Ministry stated that there were three aspects involved in motor taxation. One related to taxation of vehicles which were registered in one State but plied in another State. The second was the question of octroi and transit dues and the third the incidence of taxation itself. As far as double taxation was concerned, there has been satisfactory response from the States and it was agreed that double taxation should be avoided. When there was a difference in taxation between one State and the other, the levy would be at the higher rate and the difference would be split between the two States in the ratio of proportional distance covered within the jurisdiction of each State. On the question of octroi and transit dues the position became somewhat complicated as the Taxation Enquiry Committee did not favour the abolition of these measures. A method had been evolved to which the State Governments were agreeable. The State was to provide a person to accompany the vehicle which carried through goods to see that goods were not unloaded on way. The State Government also agreed to charge only a nominal sum of Rs. 1/- in case of goods vehicles and no charge in the case of passenger vehicles. That had also been accepted.

25. On the question of having a ceiling on the total taxation of vehicles the matter was taken up last year in the Transport Advisory Council. Attempts were made to draft a Bill in which the ceiling itself would be laid down but the Ministry was advised that laying down the ceiling by a concurrent legislation would be unconstitutional. It was, therefore, suggested to the State Governments that as a matter of convention they should freeze taxation at 75 percent of the Madras figures which were the highest. The 75 percent of Madras figure would be regarded as the ceiling and in case of States where the taxation was less than that in Madras there should be no attempt to increase the taxes for a period of five years. The State Governments wanted time to consider the proposal. Many of them stated that until the states re-organisation had been completed they would not be in a position to give any final view in the matter. The Ministry proposed to deal with this question in the same way as for the sales tax.

26. The proposal had been accepted in the last meeting of the National Development Council that the Central Government should levy an excise duty which would be shared between the different States in a certain ratio. It was now proposed to address State Governments on that basis and put before them the proposal that one Central tax should be levied by the Centre in lieu of the various taxes which the State Governments were levying in the same manner as in the case of inter-State sales tax. It may be collected centrally and some basis would be found for the distribution of the proceeds of central duty. The reactions of the States a couple of years ago were very discouraging but now the decision about inter-State sales tax had given some hope that if an approach was made now it might lead to some beneficial results.

27. To a question of the Committee whether it would be desirable to authorise the Inter-State Commission under the Motor Vehicles Amendment Act, 1956 to fix taxes leviable on vehicles plying on routes under their control in order to avoid levy of multiple taxes by different States on inter-state routes, the representative of the Ministry informed the Committee that since motor taxation was a State subject, the Centre could not interfere. Further, the Inter-State Commission had not been given powers to levy taxes. Moreover, it was considered that the proposal to collect it through a single levy would be a more satisfactory way in which the question could be solved.

28. Shri E. A. Nadirshah, ex-President of the Indian Roads and Transport Development Association, Bombay in his evidence before the Committee informed that in the opinion of his Association all taxes including sales-tax should be on a uniform scale in all the States and there should not be any difficulty in having a uniform system of taxation. In addition, it should be stressed that a vehicle should be able to go through all the States without fresh taxation or without fresh permit. Further, he opined that the setting up of Inter-State Transport Commission under the new Motor Vehicles Amendment Act, 1956 to develop inter-state road transport rendered uniformity of taxation absolutely essential.

29. The Committee understand that there are, broadly speaking three types of taxes levied on motor vehicles (i) Central tax— which consists of customs and excise duties on motor vehicles, tyres, tubes and accessories and on motor spirit, (ii) State taxes which consist of a large variety of taxes such as the vehicles tax, tax on passengers and goods, the permit fees, cesses on routes, sales tax on motor spirit, motor vehicles, their parts and accessories, and (iii) local taxes which consist of wheel tax, tolls and terminal taxes etc. The general level of all the taxes is said to amount to about 20 percent of the cost of operation and rises upto about 35% in one or two States. The Committee recommend that efforts should be made to import uniformity in taxes levied by the States and to bring down the incidence of taxation on motor vehicles. Now that the States have been reorganised into bigger units there are more chances of their agreeing to a uniform rate of motor taxation and its realisation by the Centre through a single levy and its distribution to the States in agreed ratio as in the case of inter-State sales tax. This proposal should be pursued with vigour by the Ministry with the different State Governments.

C. Regulation of Motor Transport and the existing restrictions

30. The operation of transport vehicles in India is regulated under Chapter IV of the Motor Vehicles Act, 1939 and the 'Code of Principles and Practices in the regulation of Motor Transport'. Under Section 42 of the Motor Vehicles Act, 1939, every transport

vehicle is required to take a permit. The permits are granted by Regional and State Transport Authorities appointed by the State Governments. According to Section 63 of the Motor Vehicles Act, a permit granted by a Regional Transport Authority of any one region is not valid in any other region, unless it has been countersigned by the Regional Transport Authority of the other region and a permit granted in any one State is not valid in any other State, unless it is countersigned by the State Transport Authority of the other State or by the Regional Transport Authority concerned.

31. Within a few years of the enactment of the Motor Vehicles Act, need was felt for the adoption of some recognised principles to regulate motor transport to eliminate wasteful duplication of transport capacity over sections served by the Railways. It was generally recognised that road transport was essentially suited for short distance haulage and that long distance goods traffic should be reserved for Railways. After a series of discussions with the States, the principles agreed upon were embodied in a 'Code of Principles and Practice in the regulation of motor transport'.

32. Clause 7 of the Code, which relates to area and route control of goods vehicles, restricts the operation of such vehicles to zones within a radius of 75 miles from their headquarters. If any vehicle is required to ply beyond this zone, it can do so on specified routes rather than in specified areas. This clause places a general embargo on the carriage of goods by road over a distance of 150 miles on routes parallel to the Railways. To facilitate the quick growth of motor transport in India, the Study Group (Transport Planning) recommended in 1955 the following relaxations :

- (i) Private carriers should be given far greater freedom of movement than what had been permitted so far.
- (ii) Public carriers operating in areas not served by railways should be free from restrictions relating to compact area imposed under the Code. They should be permitted to move freely over the entire area, or if such area covers different zones, over all such zones.
- (iii) Public carriers operating in rural areas and on feeder roads to rail-heads should also be permitted to move freely without the necessity of countersignature if the route or routes fall within more than one zone. The distance limits imposed under the Code should not be applied in such cases.
- (iv) Passenger buses operating over distances not exceeding 150 miles on routes served by railways should be freely allowed to do so without the necessity of countersignature, if the route falls within two or more regions.

- (v) Goods lorries, particularly those carrying smalls, should be permitted to ply more freely than now on routes served by railways subject to the following procedure:—
 - (a) For routes not exceeding a distance of 100 miles, between places served by railways, the Regional Transport Authority should be free to issue permits under the Motor Vehicles Act, 1939.
 - (b) For routes exceeding 100 miles and not exceeding 150 miles between places served by railways the Regional Transport Authority may issue permits under the Motor Vehicles Act, 1939, in accordance with the general or specific instructions of the State Transport Authority.
 - (c) A permit issued as in (a) and (b) shall be valid for the entire distance of 100 or 150 miles, as the case may be, without the necessity for countersignature by another Regional Transport Authority if the route falls within more than one region.
- (vi) Applications for permits for distance exceeding 150 miles should be directly received and disposed of by the State Transport Authority subject to the principles of the Code except that in regard to fragile goods and vegetables permits should be given liberally irrespective of distance within a State after giving an opportunity to the railways to show that they have made adequate arrangements for the carriage of such commodities.

33. The above recommendations of the Study Group were accepted at the fourteenth meeting of the Transport Advisory Council held in November, 1954. As the liberalised distance limits adopted in that year were also not considered adequate, the question of making further relaxations in the Code was considered at the fifteenth meeting of the Transport Advisory Council held in February, 1956. The Council agreed that relaxations of the Code should be considered in relation to specified routes or areas and recommended that the States should send proposals for relaxations in respect of such routes /areas to the Ministry of Transport, who in consultation with the Ministry of Railways, would decide the matter. No such proposal has been received from any State Government so far.

34. At present there is no proper regulation of inter-State operation of transport vehicles though some State Governments have entered into mutual agreements, permitting the operation of a specified number of vehicles on inter-State routes. There are several routes relating to which no agreement exists. On many such inter-State routes, passengers and goods have to be transferred to other vehicles at inter-State borders. The Ministry of Transport has been trying for a long time to induce the States to negotiate reci-

procal arrangements in this regard. At the fifteenth meeting of the Transport Advisory Council, certain model principles were approved for drawing up reciprocal arrangements. The acceptance by the States of the model principles will, it is hoped, facilitate the conclusion of agreements, where these do not already exist. Nevertheless, it has been considered desirable in the public interest that the Centre should have permissive powers to regulate the movement of transport vehicles on inter-State routes. A provision has, therefore, been made in clause 57 of the Motor Vehicles (Amendment) Act, 1956, empowering the Central Government to set up an inter-State Transport Commission for regulating the inter-state movement of transport vehicles to which reference has been made earlier. The Committee were informed that it was proposed to use these powers only where there were no prospects of the States concerned coming to an agreement without the intervention of the Central Government. The Committee are, however, of the opinion that the setting up of the Inter-State Transport Commission for preparing and implementing scheinues for the development of motor transport in inter-state regions should not be delayed.

35. Under Section 58 of the Motor Vehicles Act, 1939 permits for transport vehicles are to be issued for a period ranging from 3 to 5 years. Some States who have nationalised transport services or intend to do so, have amended that Section to take power with a view to grant permits for less than the minimum period specified therein, and in exercise of this power, permits are being granted for very short periods by some States. The object obviously is to take over the routes for nationalised operation on the expiry of the current permits without paying any compensation to the displaced operators. The practice of issuing short term permits was strongly criticised by the Study Group (Transport Planning) who observed that, if such a policy was pursued, the private operators would have no stake in the business. The question of the validity of permits was examined in detail by the Transport Ministry in the light of the views of the State Governments on the one hand and those of the private transport operators on the other. It was finally decided that the original position under the 1939 Act should be re-affirmed. In the Motor Vehicles (Amendment) Act, 1956 a provision has, therefore, been included re-enacting Section 58 so as to supersede the amendments made by the States to that section. It has also been laid down in the Act that in cases where regular permits should ordinarily be granted under Section 58, temporary permits should not be granted under Section 62 of the Act.

36. As a measure of security to the private operators, it has been stipulated in the circular letter issued by the Planning Commission to the States in September 1954 on the subject 'Basic Policy for Development of Road Transport under the Plan' that permits for stage carriages for areas that would be left outside the approved nationalisation scheme and permits for goods vehicles should be granted freely for periods of not less than 3 years, as required under the Motor Vehicles Act, 1939.

37. A certain amount of regulation and control over motor transport is, no doubt, necessary with a view to ensuring safe, reliable and efficient service, as is clearly brought out in the following quotation from an American writer on the economics of transportation:—

“Regulation is needed first to assure safe, dependable and adequate service. Unrestrained competition drives earnings below cost and impairs credit, thereby preventing the carriers from maintaining equipment and service of the required standard. Regulation is desired, secondly, to stabilise rates where unregulated rates are not published and may change overnight. Private interest may at times run counter to the public welfare. Competition may lead to an unwise expansion, duplication or elaboration of service causing waste of capital and high rates. The carriers may be unwilling to maintain or extend relatively unprofitable but necessary service.”

38. Care should, however, be exercised to see that such regulation and control does not become so excessive as to hamper the growth of the industry itself. The Committee, therefore, hope that the Inter-State Transport Commission contemplated in the Motor Vehicles (Amendment) Act, 1956 will not act as a restrictive force, but as a wise counsel for the proper and well co-ordinated growth of motor transport, to supplement effectively the transport requirements of the country.

D. Nationalisation of motor transport

(a) Progress and Policy

39. Complaints have been voiced that the fear of nationalisation has had a restrictive effect on the rapid and substantial growth of road transport in India. The present position is that while 22 States have already nationalised passenger transport services freight transport has been nationalised by only six States. Except for Himachal Pradesh, Kutch and Bombay, where nationalisation of passenger transport is practically complete and in Uttar Pradesh and Hyderabad, where the progress of nationalisation has been substantial, in all other States nationalised services represent only a small part of the road transport services as a whole. Freight transport is left more or less completely to private operators in all States except Himachal Pradesh, where complete nationalisation has been achieved. However, in view of the increasing trend to nationalise road transport, the motor transport interests in the country asked for a clear statement of policy by the Central and the State Governments on this issue. The outlines of such policy were decided upon by the

Planning Commission, in consultation with the Ministry of Transport, and communicated to the State Governments in September, 1954. The main features of the policy decided upon are:

Goods Transport

- (i) the schemes for nationalisation of road freight services will not be considered for inclusion in the plan until 1961, i.e. the end of the Second Five Year Plan.
- (ii) permits should be granted freely for periods of not less than three years in accordance with the provisions of Motor Vehicles Act, 1939, and
- (iii) special incentive should be given to viable units by granting them permits for a maximum period of five years under the provisions of the Motor Vehicles Act.

Passenger Services

- (i) The State Governments desiring to nationalise road passenger services should be required to prepare phased programmes of their schemes upto 1960-61 i.e. the end of the Second Five Year Plan for consideration by the Planning Commission for inclusion in the Plan provided (ii) and (iii) below are accepted by the State Governments.
- (ii) In the areas that would be left outside the approved nationalised schemes, permits would be granted freely for periods of not less than three years in accordance with the provisions of the Motor Vehicles Act, 1939.
- (iii) Within the areas which are included in the approved nationalisation schemes permits would be granted for the longest period permissible under the expansion schedule, but within the maximum limit set by the Motor Vehicles Act.
- (iv) Where Government participation is contemplated, a tripartite organisation in which State Governments, Railways and private operators will participate should be set up under the Road Transport Corporation Act, 1950. In areas to be left entirely to private operators, special encouragement should be given to the formation of viable units.

(b) Provision in the Second Plan

40. In the First Five Year Plan about Rs. 12 crores were provided for nationalised road transport programmes in the States. Out of this amount, approximately Rs. 10 crores have been spent in the Plan period. In the Second Five Year Plan a provision of Rs. 13.5 crores has been accepted. State Governments have been advised to

set up corporations under the Road Transport Corporation Act, 1950 and a provision of Rs. 10 crores has been made in the Railway plan to enable the Railways to participate in the corporations. In addition, a programme of Rs. 2.81 crores has been approved for the Delhi Transport Service. Thus the total investment on nationalised transport during Second Plan period is estimated at about Rs. 27 crores. It is reckoned that the programme as a whole will provide for the addition of about 5,000 stage carriers and for construction of the workshops needed.

(c) *Road Transport Corporations.*

41. The Road Transport Corporations Act was passed as early as 1950. It specified that the State Government having regard to:—

- (a) the advantages offered to the public, trade and industry by the development of road transport;
- (b) the desirability of co-ordinating any form of road transport with any other form of transport;
- (c) the desirability of extending and improving the facilities for road transport in any area and of providing an efficient and economical system of road transport service therein; may, by notification in the Official Gazette, establish a Road Transport Corporation for the whole or any part of the State under such name as may be specified in the notification.

42. The Act also makes a provision for constituting one or more Advisory Councils for the purpose of advising the Corporation. It has further been laid down that it shall be the general duty of a corporation to exercise its powers as progressively to provide or secure or promote the provision of an efficient, adequate, economical and properly co-ordinated system of road transport services in the State or part of the State for which it is established and in any extended area. A corporation shall have power:

- (a) to operate road transport services in the State and in any extended area;
- (b) to provide for any ancillary service;
- (c) to provide for its employees suitable conditions of service including fair wages, establishment of provident fund, living accommodation, places for rest and recreation and other amenities.

43. The Committee are sorry to note that the response from the States to the question of forming Road Transport Corporations has been poor. At present Road Transport Corporations have been established only in four States namely Bombay, Pepsu, Saurashtra and Kutch. The Governments of Madhya Bharat, Bihar and Himachal Pradesh propose to set up Road Transport Corporations.

The Planning Commission recently advised the Govts. of Assam, Orissa, Punjab, Uttar Pradesh, Hyderabad, Mysore and Travancore-Cochin, whose schemes for expansion of nationalised services have been included in the Second Five Year Plan, to set up Road Transport Corporations.

44. The Committee were informed that the Central Government have issued a directive in consultation with the Planning Commission that no allocation of funds would be made for nationalisation or expansion of existing services unless the State Governments set up Transport Corporations under the Transport Corporations Act. The Committee hope that this will expedite the formation of Corporations in all the remaining States.

(d) *Future Policy*

45. The Committee very much appreciate the enunciation of the policy by the Planning Commission regarding the nationalisation of road transport. They, however, wonder if it could not be carried a step further. The progress of the setting up of the Transport Corporations has been extremely slow. Considerable ground has yet to be covered regarding the nationalisation of passenger transport. It is, therefore, doubtful whether the States will be in a position to take the added responsibility of nationalising goods transport in the Third Plan period also. If, therefore, after consultation with the State Governments, the policy in regard to the nationalisation of goods transport is chalked out upto the end of the Third Plan period, it will act as a great fillip to private enterprise. It has to be remembered that the life of a goods vehicle is about 8 to 10 years. If, therefore, the private enterprise is given a clear indication of the policy till 1965-66 considerable expansion of goods transport can take place in the private sector. This will materially assist in relieving the transport bottleneck in the country.

E. Automobile Industry and its Problems

46. The present demand for commercial vehicles in the country is estimated at about 13,000 a year. The Government of India have permitted the following firms to undertake the manufacture of commercial vehicles and chassis in progressive stages. The present installed capacities are shown against their names.

(a) *Light and Medium Vehicles*

Name of Firm	Capacity per year (Nos.)
(i) M/s Premier Automobiles Bombay, for petrol vehicles.	5,000
(ii) M/s. Hindustan Motors Ltd., Calcutta, for petrol vehicles.	9,000
(iii) M/s. Tata Locomotive & Engg. Co. Ltd., Jamshedpur, for diesel vehicles.	6,000

(b) *Heavy vehicles*

(i) M/s. Ashoka Leyland Ltd., Madras, for diesel vehicles. 3,000

47. The production of commercial vehicles (including buses) during the years 1951 to 1956 (upto April 56) was as follows:—

1951	1952	1953	1954	1955	1956 (upto April)
9,894	8,339	8,990	9,027	12,818	5,594

48. The demand for all types of commercial vehicles towards the close of the Second Five Year Plan period had been estimated to be about 40,000 vehicles per year.

49. The anticipated requirements of new buses for nationalised road services during the Second Five Year Plan and their annual replacement requirements are likely to be as under:—

Year	Annual requirements of new buses	Annual requirements of buses for replacement
1956-57	1,147	986
1957-58	920	946
1958-59	747	1,112
1959-60	890	909
1960-61	629	1,091

(The above figures do not include the requirements of the erstwhile State of Madhya Bharat in respect of which information was not available).

50. The Government of India have permitted certain firms to undertake the manufacture of commercial vehicle chassis in progressive stages. The production of buses in the country during the years 1955 and 1956 has been as follows:—

Year	Petrol	Diesel	Total
1955	433	2,604	3,037
1956*	94	906	1,000

* (Upto April)

51. The representative of the Ministry further informed the Committee that the production for 1956 (upto 30th November) was 28,485 motor vehicles which included 12,495 cars, 12,286 trucks, and 3,702 jeep type vehicles manufactured in India. Steps were being taken to expand the capacity further. There was an abnormal demand in the case of diesel driven vehicles and about 75 per cent. of the total demand for commercial vehicles was for diesel type. About 80 to 85 per cent. of this demand was being met at present. The Planning Commission had assessed the demand at the end of the Second Five Year Plan to be 65,000 vehicles per annum, comprising of 40,000

commercial vehicles, 20,000 cars and 5,000 jeeps. The representative of the Ministry stated that by the end of the Second Plan, the target of production to be achieved was expected to meet the requirements.

52. The Committee understand that the question of fixation of fair prices for motor vehicles, reasonable margin for dealers, the steps to be taken by the industry to meet the requirements of the country, import duty etc., have been duly considered by the Tariff Commission and their recommendations as accepted by the Government have been published in their Resolution dated the 23rd January, 1957.

53. The Committee note that the following main recommendations of the Tariff Commission have been accepted in principle by the Government:—

- (i) The automobile industry should be given protection for a period of 10 years.
- (ii) The automobile manufacturers will be free to revise their prices from time to time according to changes in costs but subject to certain conditions.
- (iii) The dealers' commission should be fixed at 10 per cent. of the *ex-factory* price for passenger cars and jeeps and 7.5 per cent. of the *ex-factory* price for trucks, buses and other commercial vehicles but without the monetary ceiling of Rs. 1,000 per vehicle as recommended by the Tariff Commission.
- (iv) Priority should be given to the manufacture of commercial vehicles rather than passenger cars.
- (v) The trend towards the use of diesel commercial vehicles should be encouraged.
- (vi) No more passenger cars should be introduced for manufacture in the country.
- (vii) Additional capacity for commercial vehicles should be installed in existing units rather than new ones.

54. In the grant of import licences for components the Government intend to give special weightage to firms which show the maximum progress in indigenous manufacture.

55. The Government also propose to convert the existing revenue duties into protective duties so that the tariffs on the components can be changed at any time when such a course appears to be essential.

56. The Committee hope that the implementation of these decisions will put the automobile industry in the country on a sound footing. They, however, suggest that the annual production figures should be reviewed periodically as against the requirements, and the installed capacity stepped up further if the requirements increase at a more rapid pace. They anticipate that this is likely to occur as a result of the liberalised policy of the development of motor transport.

III. CENTRAL BOARD OF TRANSPORT AND TRANSPORT ADVISORY COUNCIL

A. Central Board of Transport

57. The Central Board of Transport was set up in 1947 to consider major transport problems and policies with a view to arriving at integrated decisions without delay, with the Minister for Transport as Chairman and the Ministers for Commerce and Industry and Communications as Vice-Chairmen. The Chairman, Railway Board, and the Secretaries to the Government of India in the Ministries of Transport, Communications, Commerce and Industry, Production, Defence, Home Affairs and Finance, are members of the Board. A Deputy Secretary of the Ministry of Transport is the Secretary of the Board. The representatives of the State Governments at ministerial level are co-opted whenever necessary.

58. The Board which meets as often as business warrants has two main objectives, namely, (i) the maximum co-ordination of all forms of transport and (ii) the matching of transport planning and execution with agricultural and industrial development plans of the country.

59. The Board is stated to be in a position to come to grips with problems in the field of Central subjects like Major Ports, Railways, Coastal Shipping and Civil Aviation. The Board is competent to take decision where the issue involved is one of adjustment between the Central departments. It functions to some extent as a deciding and in the main, a screening body in respect of subjects falling in the State field.

60. The number of meetings held by the Board during each year since its inception is given below:—

1947	:	:	:	:	:	:	:	:	:	:	:	:	6
	↓												10 (plus 2 special)
1949	:	:	:	:	:	:	:	:	:	:	:	:	8
1950	:	:	:	:	:	:	:	:	:	:	:	:	3
1951	:	:	:	:	:	:	:	:	:	:	:	:	2
1952	:	:	:	:	:	:	:	:	:	:	:	:	2
1953	:	:	:	:	:	:	:	:	:	:	:	:	1
1954	:	:	:	:	:	:	:	:	:	:	:	:	Nil
1955	:	:	:	:	:	:	:	:	:	:	:	:	Nil
1956	:	:	:	:	:	:	:	:	:	:	:	:	Nil

61. The Board has a Standing Committee which meets once a month and reviews the transport position as a whole. The Standing Committee consists of the Secretary, Ministry of Transport as Chairman, representatives of the Ministries of Railways, Production, Com-

merce and Industry, Food and Agriculture as members. The Deputy Secretary in the Ministry of Transport dealing with the subject is its Secretary. The meetings of the Standing Committee are also attended by the Salt Commissioner, Chief Director of Movements in the Ministry of Food and Agriculture, and a representative of the Planning Commission. The members are not appointed to the Committee by name. The functions of this Committee are:—

- (i) To survey the transport needs from time to time and to recommend the best means of meeting them; and
- (ii) To obtain production targets with a view to planning the required transport development.

B. Transport Advisory Council

62. The functions of the Transport Advisory Council are to make recommendations designed to evolve a policy for the development of a co-ordinated transport system and to suggest suitable measures for giving effect to that policy. The Union Minister in-charge of Transport is the Chairman of the Council and an officer appointed by the Government of India acts as a Secretary. The Council consists of:—

- (a) not more than twenty-two officials nominated by the Central Government, who ordinarily include the Ministers in charge of matters relating to Transport and Communications and the members and Secretary of the Central Board of Transport;
- (b) not more than four officials nominated by each of the Part 'A' and 'B' States, who ordinarily include the Minister in charge of matters relating to Transport and/or Communications;
- (c) one official nominated by the Governments of each of the Parts 'C' and 'D' States, excepting Himachal Pradesh and Vindhya Pradesh, who are authorised to nominate two members each.

63. A copy of the constitution of the Council wherein the procedure for drawing up the agenda for meetings and voting etc. at these meetings is also described, is enclosed herewith as Appendix II.

64. So far, fifteen meetings of the Transport Advisory Council have been held. As a matter of interest, the summary of conclusions arrived at at the 15th meeting of the Council held at New Delhi on the 6th and 7th February, 1956 is enclosed herewith as Appendix III.

C. Amalgamation of the Central Board of Transport and the Transport Advisory Council

65. The Committee were rather surprised to note that no meeting of the Central Board of Transport has been held for more than last three years. This indicates that the Central Board of Transport, as at present constituted, is not performing any useful purpose. It is

significant to note that the Central Board of Transport is required to perform the following two functions:

- (i) The maximum co-ordination of all forms of transport; and
- (ii) The matching of transport planning and execution with agricultural and industrial development plans of the country.

66. It may be added that the first function of the Central Board of Transport is similar in nature to that of the Transport Advisory Council. The second function which was originally assigned to the Central Board of Transport, namely, the matching of transport planning and execution with agricultural and industrial development plans, now legitimately belongs to the Planning Commission and the National Development Council. It is also significant to note that the members and Secretary of the Central Board of Transport are also the members of the Transport Advisory Council. The Committee, therefore, suggest that the Central Board of Transport may be amalgamated with the Transport Advisory Council. In view of the reorganisation of the States, the Transport Advisory Council also requires to be reconstituted. The Committee were given to understand that the question of reconstitution of the Council has been under consideration of the Ministry of Transport. The Committee suggest that this question may be finalised without undue delay and that suitable non-official representation may also be provided on the Transport Advisory Council.

67. The Standing Committee of the Central Board of Transport has, however, been performing a useful function. It may, therefore, be allowed to continue and may be re-designated as the Standing Committee of the Transport Advisory Council.

68. Having suggested the amalgamation of the Central Board of Transport in its present form with the Transport Advisory Council, the Committee would, in a subsequent chapter, suggest the setting up of an executive board on the same lines as the Railway Board for this purpose. Reference is invited to Chapter IV of this Report.

IV. ORGANISATIONAL SET-UP AND FUNCTIONS ETC. OF THE MINISTRY OF TRANSPORT

A. Introduction

69. The Ministry of Transport, previously designated as "The Department of War Transport", was formed in July 1942 by the bifurcation of the then Department of Communications into two Departments, *viz.*, the Department of Posts and Air and the Department of War Transport. The subjects assigned to the Department of War Transport included Major Ports, railway priorities, utilisation of road and water transport, petrol rationing and producer gas. Broadly speaking, the functions of the War Transport Department were to co-ordinate the demands for transport in war time, inland and coastal, to take decisions on priorities regarding provision and utilisation of transport covering railways, road transport, inland water transport and coastal shipping and administration and development of major ports. Later, the planning of exports was undertaken as a corollary to the department's control of transport priorities. In view of the need for co-ordination of effort between the authorities concerned with Railway development and those concerned with the development of road communications and transport, the subjects "Central Road Fund" and "Motor Vehicles Legislation", which were originally allotted to the Posts and Air Department, were transferred to the War Transport Department from the 15th July, 1944.

70. Consequent on the passing of section 27-A of the Indian Railway Act, the work pertaining to railway priorities was transferred to the Ministry of Railways with effect from 1st April, 1950. With effect from 1st September, 1951 the subjects maritime shipping and navigation and lighthouses and lightships were transferred from the Ministry of Commerce to the Ministry of Transport.

71. The Ministry is now responsible for general transport co-ordination and the administration and development of minor ports, maritime shipping and lighthouses, roads, road transport, inland water transport, tourist traffic and the administration of the Delhi Road Transport Authority Act.

B. Organisational set-up and functions of the Ministry

72. The Ministry is divided into two Wings, the Transport Wing and the Roads Wing. The Transport Wing deals with all subjects except road development and the Roads Wing deals with the development of roads in all its aspects. A chart showing the distribution of work in the Transport Wing of the Ministry of Transport on 1st

April, 1956 is enclosed as Appendix IV. Similarly the chart referring to the Roads Wing is enclosed as Appendix V.

(a) *Transport Wing*

73. This wing has the following 16 sections:

1. General Section.
2. Establishment Section.
3. Ports I Section.
4. Ports II Section.
5. Ports III Section.
6. Transport Section.
7. Transport (Legislation) Section.
8. T.A.G. Section.
9. Tourist Traffic Section.
10. Tourist Administration Section.
11. Tourist Publicity Section.
12. Mercantile Marine (A) Section.
13. Mercantile Marine (B) Section.
14. Mercantile Marine (T) Section.
15. Mercantile Marine (L) Section.
16. O. & M. Section.

74. Nature of work handled in each of these Sections is indicated in Appendix VI.

(b) *Roads Wing*

75. A brief resume of the establishment and functions of this Wing, furnished by the Ministry, is enclosed herewith as Appendix VII.

76. In order to achieve the aim of the speedy disposal of cases, the Roads Wing contains, within itself, both the technical and administrative staff. Under the system adopted in this Wing all cases are dealt with in their technical and Secretariat aspects in "parallel" at all levels of disposal, from the lowest to the highest level. It has been claimed that by the adoption of this novel procedure, mistakes, misunderstandings and undue delays are avoided and the examination of the cases is thorough.

77. The Committee were given to understand that the Study Group consisting of representatives of the Ministries of Finance and Home Affairs and the O. & M. Division of the Cabinet Secretariat which examined the working of the Roads Wing in detail in the middle of 1955, agreed that the present system had proved very satisfactory. If so, the feasibility of extending the system to other Ministries also under similar circumstances, might be examined by the O. & M. Division.

78. The head of the Roads Wing is the Consulting Engineer (Road Development) who is also *ex-officio* Joint Secretary to the Government of India. The organisation consists of 6 technical sections and 10 non-technical or Secretariat sections.

79. Apart from the combined secretariat and technical organisation at the Centre, the Roads Wing has a Liaison and Inspectorate Organisation consisting of Engineer Liaison Officer attached to the Chief Engineers of various States. The present sanctioned strength of this organisation includes 14 officers of the rank of Divisional Engineer Consultant, with one steno-typist attached to each officer.

80. The Engineer Liaison Officers make frequent inspections of road works in States financed by the Centre and these inspections are supplemented by inspections by Planning Officers of the Roads Wing from time to time. Any difficulty that may arise in the course of execution, *e.g.*, problems requiring technical advice at a high level, difficulties in obtaining materials or plant, are thus brought to the notice of the Roads Wing and this enables the Roads Wing to suggest remedial measures whenever necessary. Such inspections also enable the Centre to ensure that the work is carried out in accordance with the approved standards and specifications. The Engineer Liaison Officers have also been authorised to countersign estimates upto a sum of Rs. 40,000 in order to give relief to the senior technical officers in the Roads Wing in respect of examination of estimates for centrally financed road works.

81. The Roads Wing has no attached or subordinate offices. The subjects dealt with by the Wing are briefly as follows :—

- (i) National Highways.
- (ii) Roads other than National Highways, bridges on such roads, ferries and tolls in the *ex-Part 'C'* and Part 'D' States.
- (iii) Central Road Fund.
- (iv) Road and bridge standards, and road research and co-ordination of road development. Questions affecting roads in the matter of co-ordination of transport.
- (v) Administrative control over the execution of road works financed in whole or in part by the Central Government, including road works in Sikkim and the tribal areas of Assam specified in Part 'A' and Part 'B' of the table appended to para. 20 of the 6th Schedule to the Constitution.
- (vi) Statistics relating to highways and tourist traffic.

82. Nature of work dealt with in each of these sections is indicated in Appendix VII.

C. Setting up of the Central Transport Board.

83. With the increased activities in the country in the agricultural and industrial spheres, transport problems have assumed a very great importance. The existing method of the handling of important problems of shipping etc. by the Secretariat staff cannot be regarded as satisfactory. The Committee were surprised to learn that recently an engineering expert on roads has been put in overall charge of the development of minor ports. The Committee are sorry to record that the development of the various modes of transport in the country such as shipping, roads, inland water navigation, port facilities etc., is not as rapid as they would like it to be. This is, of course, to a considerable extent, due to inadequacy of funds. It is also partly due to inadequate organisation at the Centre to deal with these problems.

84. With the ever increasing complexity of transport problems, the Committee are of the opinion that a stage has now come when we should have a competent Central Executive Board which will function on the same lines as the Railway Board. It may be called the Central Transport Board, consisting of the Chairman and functional members. The Chairman will be the *ex-officio* Secretary of the Ministry, and the members will be of a status of a Joint Secretary. To begin with, the Board should have three members *viz.* Member (Shipping), Member (Roads), Member (Ports). The Chairman, Railway Board and the Chairman, Central Water and Power Commission should be *ex-officio* members of the Central Transport Board. Each functional member should have adequate experience of the subject in his charge. Thus, for instance, an individual who has worked efficiently as a Director General (Shipping) may be selected as a Member (Shipping). Chairman of Port Trusts could provide member incharge of Ports and some senior Chief Engineer might be selected as a member incharge of Roads. Each functional member should be assisted by adequate technical staff as is the case with the Railway Board. The Committee are of the opinion that such an executive board will be the only adequate step to deal expeditiously with many complicated problems of co-ordinating and developing various modes of transport. The Board should have adequate technical organisation at its disposal to ensure that important policy decisions are promptly implemented and that proper guidance and supervision are provided to watch the progress of the various schemes and projects.

85. The Committee would also like to reiterate the recommendation made in para. 42 of their Nineteenth Report that the Transport Ministry should be separated from the Railway Ministry and placed under the charge of a separate Minister for Transport. This is absolutely necessary if the various complicated problems of transport are to receive adequate attention.

V. MISCELLANEOUS

A. Regulation of conditions of work of Transport Workers

86. The Motor Vehicles Act, 1939 contains provisions for the regulation of motor traffic from the point of view of public safety on the roads. Section 65 of the Act lays down the limitations in regard to weekly and daily hours of work and rest periods for drivers of transport vehicles. The maximum working hours prescribed in that section are 54 hours per week and 9 hours per day with rest interval of half an hour after 5 hours of work. The Factories Act, 1948 applies to workers employed in workshops but does not cover traffic personnel. The Minimum Wages Act, 1948 covers employees in public motor transport as a whole. The normal working day fixed under this Act consists of 9 hours for adults and 4½ hours for a child. The normal weekly hours of work have been fixed at 48 hours with provision for a weekly day of rest.

87. The question of promulgation of a comprehensive legislation to regulate the conditions of work of transport workers has been engaging the attention of the Ministry of Labour for some time. The matter was last considered at the Fifteenth Session of the Standing Labour Committee held in April, 1956. That Committee endorsed the proposal to undertake the proposed legislation.

88. The Committee were informed that the Ministry of Labour had since drafted the Bill and circulated it to the State Governments and other interests for their comments and as soon as these were available, a sub-Committee consisting of the representatives of the State Governments' nationalised undertakings and some non-official associations interested in road transport would scrutinise the comments and then the Bill would be put up before Parliament. The Committee suggest that the above process should be expedited and the Bill brought before Parliament at an early date.

B. Use of Trailers

89. The use of trailers in the transportation of goods by road, though a recent development, has become well acknowledged and established in several countries. Employment of such multiple unit vehicles as articulated vehicles, truck-trailer and tractor-trailer combinations has, however, not caught the imagination either of the Government or of the trading community in this country to any appreciable extent. In New Zealand, it has been found that the trailers are particularly economical where large volumes of the same types of goods are being carried and also where there are peak seasonal demands for transport.

90. With the use of trailers, it is possible to carry with the same motive power, larger loads than is possible on one chassis making transportation by trucks more economical and comparable to railway freights.

91. The Committee understand that the Motor Vehicles Act, 1939 provides for the employment of truck-trailer combinations. In 1949 the Indian Roads Congress incorporated in its specification for 'Dimensions & Weights of Road Design Vehicles' Optimum Dimensions and loadings of such combinations for use on roads.

92. Mr. Vagh, Vice-President of the Indian Roads & Transport Development Association, in an article in the I.R.T.D.A. Newsletter of 16th October, 1956 states :

"All the trucks with a payload of from 5 to 7½ tons which are at present produced in this country are capable of carrying a trailer with, in some cases nearly the same load as the truck itself. Trailers of this size are not yet being manufactured in this country but they are simple contraptions easy to produce. When the country can produce railway wagons at the rate of about 25,000 per annum it goes without saying that it can very easily manufacture an equal number of trailers, if necessary. Based on the cost of railway wagons and the cost of trailers in other countries, their cost may work out to between one fourth and one third the cost of a truck and, in regard to operation the experience in other countries is that the cost of operation of a truck-trailer combination may be about 40% higher than that of a truck. On a ton/mile basis, this works out to from about 22 to 33 pies assuming that a trailer carries only 80% of a truck's payload . . . which, in fact, means that you get two vehicles at 1·3 times the cost of one, that is 0·65 or say, two-thirds of the cost per vehicle. Thus the saving in initial cost per vehicle is about one-third, which is substantial".

93. The Committee recommend that in view of the economy inherent in the use of trailers, the Ministry of Transport should encourage the manufacture and use of trailers both by the private and public sectors.

C. Engineer Liaison Organisation

94. The Engineer Liaison Organisation was created in the Ministry of Transport initially in 1946 with the broad objective of strengthening co-operation between the Central and State Governments in the interest of balanced development of roads and in particular of the proper development and maintenance of national highways for which the Central Government had assumed financial responsibility. From the year 1950, the Roads Wing of the Ministry took over control of other roads in the various Part 'C' States etc. which was previously exercised by the Ministries of Works, Housing and Supply, Home, States and External Affairs. Consequently the work of technical scrutiny of estimates, plans and designs for road and bridge works received by the Roads Wing from the various States increased con-

siderably in volume and range. There was a substantial increase subsequently in the tempo of work under the First Five Year Plan.

95. For the proper scrutiny of the estimates etc., it was necessary to have reliable technical data collected at site. Further, it was considered essential that the Centre should have some form of inspecting agency which would see that the work on national highways at least was carried out in accordance with the requirements of the Centre. The main duty of the Engineer Liaison Officers is to undertake independent scrutiny of data collected by States and subsequent follow-up action in respect of both design and construction of the works on national highways and other roads financed by the Centre. Appendix VIII shows fully the duties and responsibilities of Engineer Liaison Officers.

96. The total sanctioned strength of posts of Engineer Liaison Officers is at present 14 and an expenditure of Rs. 1,14,361 was incurred in 1955-56 on the organisation. But 6 posts remained vacant in that year. When all the 14 posts are filled up, the average annual cost of the Organisation will be about Rs. 2.6 lakhs.

97. The Committee understand that a similar organisation called the Inspectorate Organisation has been set up in U.S.A. to watch the progress of federal aid given to States for road development.

98. The Committee are of the opinion that the Engineer Liaison Organisation should be regarded only an experimental measure. Definite criteria should be laid down to judge its success or otherwise, and the position should be reviewed at the end of the Second Plan in the light of these criteria. If the concrete results achieved by this organisation are substantial, then and then only should it be allowed to continue. In the meantime the feasibility of converting this organisation on the same lines as in the U.S.A. should also be examined.

D. Banihal Tunnel Project

99. With a view to providing all weather road communication between Jammu & Kashmir it was decided to construct a new (Banihal) Tunnel through the Pir Panjal range in the Jammu and Kashmir State. Estimated to cost Rs. 3 crores, the Banihal Tunnel was originally designed as a two-way tunnel by the engineering firm entrusted with the work of designing the tunnel. However, in view of the uncertainty about the nature of rock etc., that might be met, it was decided to construct only a pilot heading in the first instance.

100. Accordingly, tenders were invited by the C.P.W.D. for a pilot heading only. These were considered by the Central Works Advisory Board of the Ministry of Works, Housing and Supply. They recommended that the lowest tender of Messrs. Baresel and Kunz might be accepted. The contract was awarded to the firm on the 6th August, 1954 for Rs. 37.03 lakhs against Rs. 38.88 lakhs

quoted by them. The reduction in the amount was due to a slight change in the specifications suggested by Messrs. Baresel and Kunz, which was considered technically sound.

Terms of Agreement

101. The main terms of the agreement entered into with the firm were as follows:

(i) The pilot heading was to be constructed within a period of 18 months from the 6th August, 1954.

(ii) The work would be done under normal contract conditions obtaining in the C.P.W.D.

(iii) The contractors were to get an advance to the extent of 80% of the value of the machinery, equipment and material brought to site for the construction of the pilot heading limited to 40% of the value of the work to be done, the advance being regulated in such a way that, at no time, the advance remaining outstanding would exceed 40% of the value of the work still remaining to be done.

(iv) If the contractors were not successful in securing the contract for the subsequent work of widening the heading to the full tunnel section, the Government would either buy their machinery and installations at a fair price or pay a terminal *ad hoc* compensation of Rs. 2.5 lakhs for the carriage of the machinery to the nearest market and for the structures which would become Government property.

102. The notice inviting tenders also gave the contractors option in the following terms to suggest alternatives if they so desired:—

“Alternatives—alternatives in any of the documents enclosed herewith are not permitted. If the tenderers have, however, any alternatives to suggest, they may do so made design on separate forms. The Government may or may not consider such alternatives.”

103. Though the intention was to invite alternatives for the pilot heading only, the clause being widely worded, the German firm Messrs. Baresel & Kunz gave an alternative quotation of Rs. 1.7 crores for a two-tube tunnel (each for one way traffic), each tube being about half the size of the usual full size two-lane tunnel. They advised that such a tunnel would not need any artificial ventilation and would thus be cheaper not only in initial cost but also in recurring expenses of maintenance. They also agreed to change-over to the construction of a twin bore tunnel if the order for the change-over was given within four months (subsequently increased by them to about eight months) of the acceptance of their tender for the pilot heading.

104. Most of the advantage of a twin-tube tunnel lies in economy in regard to ventilation. As there were no tunnels in India with artificial ventilation, which is one of the most important factors in road tunnels of considerable length, the Consulting Engineer (Road Development) and the Chief Resident Engineer, Banihal Tunnel

Project were deputed to the U.K. and Europe to study the designs of various tunnels there. After this study, the Consulting Engineer recommended the two-tube design with certain modifications and a simplified type of ventilation. He found that even with a two-tube tunnel some artificial ventilation would be necessary but a more economical ventilation system was possible with the design than with a single two-lane tunnel. He also found that his modified design would be cheaper both in initial cost and subsequent maintenance and that its traffic carrying capacity would be greater than that of the single two-lane tunnel originally suggested. It was roughly estimated that a single two-lane tube tunnel would cost about Rs. 4 crores, while a modified two-tube tunnel would cost about Rs. 3 crores including all ventilation and other auxiliary equipment.

105. The Government of India accepted the recommendation of the Consulting Engineer. After negotiations with Messrs. Baresel and Kunz, the original agreement was modified on the 1st April, 1955.

Progress of work

106. The first tube has since been completed and was opened to traffic on 22nd December, 1956 by the Vice-President. Work on the second tube is in progress and 3000 ft. have already been bored. The entire project is expected to be ready by the end of 1959. As a result of the opening of the tunnel the Jammu-Srinagar route has been reduced by 18 miles.

E. Diesel *versus* Petrol Operation

107. The question of the relative economics of diesel *versus* petrol operation was discussed at the first Conference of representatives of State Transport Undertakings held in New Delhi in October, 1952 and it was agreed that the question should be examined by a Committee consisting of:

- (i) Shri N. Balkrishna, Transportation Engineer, Bombay Electric Supply and Transport Undertakings.
- (ii) Shri Mir Vizarat Ali Khan, Superintendent, Road Transport Department, Hyderabad.
- (iii) Shri S. Subramanyam, Mechanical Engineer, Government Bus Service, Madras.

108. A copy of the memorandum prepared by Shri N. Balkrishna on the economics of diesel operation *versus* petrol operation is given as Appendix IX.

109. A perusal of this memorandum would seem to indicate that diesel operation has several advantages over petrol operation. The Committee understand that the Government of India approved a programme submitted by Messrs. Ashok Leyland Ltd., Madras for the progressive manufacture of heavy diesel vehicles in India. The estimated capacity of this firm is 3000 units per annum.

110. Besides M/s Tata Locomotive and Engineering Co. Ltd., Jamshedpur have also an installed capacity of 6000 light and medium diesel vehicles per annum. The Committee suggest that the extent of saving in foreign exchange that would accrue by dieselisation should be worked out, and if it is found to be substantial, efforts should be made by the Ministry of Transport to replace petrol operation by diesel operation upto a reasonable limit.

F. Co-operative Transport Societies

111. 'Motor Vehicles' are covered by Entry 35 in List III—Concurrent List—in the Seventh Schedule to the Constitution of India. Under the Proviso to Article 73(1) thereof, the executive authority in respect of motor transport vests in the State Governments. Co-operative Societies fall under Entry 32 in List II—State List—in the Schedule referred to above. The amalgamation of small private operators into co-operative units, is, therefore, a matter which solely concerns the State Governments.

112. In the First Five Year Plan, the Planning Commission had recommended that it was desirable for the existing private operators' units to amalgamate, wherever possible, into big units to enable them to achieve better returns and maintain better standards of operation. The question of incorporation of some legal provisions in the Motor Vehicles Act, 1939 to encourage formation of viable units of transport operators was considered at the meeting of the State Transport Commissioners/Controllers held in November, 1954. It was recommended that the State Governments should aim, wherever practicable, at the formation, under the existing legislation, of co-operatives of existing operators, the minimum fleet strength of a co-operative being 20 vehicles. A scheme for the formation of transport co-operative societies for running motor transport services with the aid of loans granted by Government is under the consideration of the Planning Commission. A pilot scheme for the utilisation of 500 goods vehicles in selected urban areas had, in fact, been more or less agreed to. This is proposed to be put into operation after ascertaining the views of the State Governments in the matter.

113. The representative of the Transport Ministry informed the Committee that a study group for employment of educated people was set up some time back by the Planning Commission and the Deputy Secretary of the Transport Ministry was asked in his personal capacity to prepare a scheme for setting up transport co-operative units. The special feature of the scheme proposed was that it contemplated setting up of two types of transport co-operative units—(i) intra-State and (ii) inter-State. Intra-State units would be smaller consisting of 5 vehicles each. Inter-State ones would be large comprising of 20 to 25 vehicles each. The idea was to have a pilot project of about 10 inter-State units and 50 intra-State units with the intention of finding employment for the educated classes

primarily and secondarily, to find more transport for the country. The inter-State units would be distributed to certain regions selected for the purpose *viz* Calcutta, Kanpur, Delhi-Amritsar, Delhi-Bhatinda, Trivandrum, Madras, Ahmedabad, Poona, Patna, Indore and Bangalore. The intra-State units would be distributed to the various States according to their willingness to work the scheme. The idea was to select areas where there was greater population and high constructional activity so that the shortage of transport could be met by training a number of people as mechanics, drivers, operators etc. They would be trained in various State workshops and State Transport Undertakings and then they would be selected by State Governments to form co-operative societies. They would be required to contribute 1/6th of the capital required for each unit. In other words, whatever they contributed, five times that money would be provided by the Central Government through the agency of the State Governments for setting up such units. The State Governments would appoint Officers to control and supervise the activities of these units. Ultimately the total non-recoverable expenditure involved would be about 15 lakhs. The initial cost of the scheme would be 144.5 lakhs but much of it would be recoverable.

114. The Planning Commission have approved the scheme and allocated a sum of Rs. 50 lakhs for 1957-58. As the details have yet to be worked out on receipt of the comments of the State Governments, it might not be possible to utilise the whole amount. Only a token provision of 10 lakhs had been asked for the next year's budget which would be utilised for giving stipends etc. to the personnel selected for training at the workshops etc.

115. The representative of the Ministry further added that the scheme was still largely on paper and he had his own misgivings whether the State Governments would succeed in the matter. The co-operative societies required a great deal of nursing. The Committee suggest that special efforts should be made to see that the above scheme is worked out successfully. They also suggest that a paragraph should be added in the annual Report of the Ministry of Transport, indicating the progress of the scheme. The Committee understand that co-operative transport societies are functioning successfully in States like Madras, Punjab and Saurashtra. They, therefore, do not see why the above scheme should not work successfully, if sufficient interest is taken and proper guidance is given at the various stages of its development.

116. Shri E. A. Nadershah, *ex-President of the Indian Roads and Transport Development Association*, informed the Committee that co-operative transport societies could play an effective role in the development of road transport in India. He further added that at present most of the operators were individual owners too small to afford the technical and managerial skill required for the efficient

working of transport services and that given sufficient credit facilities on a long term basis, it would be possible to bring together a large number of individual operators into viable units.

G. Bullock Cart Transport

117. It is estimated that there are about one crore bullock carts in India, out of which about 7 to 10 lakhs ply in, or near, cities.

118. The rural and urban bullock carts present somewhat different problems. The rural cart, *i.e.* the ordinary cart used by the cultivator, does not travel much on regular roads. The cart itself is usually very light and cannot take heavy loads. In fact, in some parts of the country, the wheels do not have iron rims. The cart is used for a few days only in a year by the cultivator to take manure to his field, to bring in firewood and other stores to his home, and to carry his harvest to the threshing floors or store godowns or to the local market. It is also used occasionally to take the cultivator and his family to fairs or markets or on short trips of pilgrimage. It is possible that some rural carts take up haulage during the non-agricultural season but their number is believed to be comparatively very small.

119. The urban carts are generally heavy and strongly built. They carry considerable loads upto 2 tons, and even more in some areas. The narrow iron tyres fitted to such carts do much damage to roads. It has been found that near railway stations or port areas, heavy iron tyred 'thelas' have cut deep ruts even in cement concrete roads.

120. A precise evaluation of the cost of transportation by bullock carts is difficult to make, at any rate in respect of rural carts, because, as mentioned above, the carts are usually idle for a considerable part of the year. Nevertheless, from the point of view of agricultural economy of the country at present, the rural cart is well suited to the needs of the cultivator. It can therefore, be said that, from the national point of view, the rural bullock cart provides an essential service in rural areas and is irreplaceable in the present state of development of the country. Actually, the available statistics indicate that the number of bullock carts in the country has been increasing at a rate of about 2 lakhs a year.

121. The cost of operation of urban carts also depends upon to what extent the carts are kept fully engaged. In some areas, especially in large towns, these carts are said to be in fairly extensive use, although certain statistical data would seem to indicate that bullock cart transport, besides being less efficient than motor transport, is more expensive to operate. The following calculations

furnished by the Ministry indicate roughly the economics of bullock cart transport:

		Estimated urban transport.	cost bullock car	of
Cost of a bullock cart	Rs. 500 (assumed)			
Cost of two bullocks	Rs. 700 (assumed)			
TOTAL	Rs. 1200			
Average life of a bullock cart	6 years (assumed)			
Depreciation per year	Rs. 200, say as. 8½ per day.			
Interest at 3% on average capital outlay of (Rs. 600)	9½ pies approx. per day			
Cost of fodder per day.	Rs. 2 per day (assumed)			
Wages of driver	Rs. 2 per day (assumed)			
Total cost per day	Rs. 4—9—6½ pies, say Rs. 5 in round number.			
Carrying capacity of a bullockcart per day.	8 ton-miles.			
Cost per ton-mile	10 as. approximately.			

122. It would appear that the net cost of transportation in urban areas is not less than 10 annas per ton-mile as against the general level of 40 to 48 pies per ton-mile in the case of lorries (according to the Motor Vehicle Taxation Enquiry Committee).

Improvement of Bullock Carts

123. The narrow iron tyres of bullock carts do considerable damage to roads. This matter has been engaging the attention of the Indian Roads Congress and the Roads Wing of the Ministry of Transport for some time past.

124. The problem was discussed by the Transport Advisory Council at their 5th meeting held in July, 1941. The Council came to the conclusion that damage to hard surfaced roads could be reduced considerably by increasing the width of the iron tyre and improving the hub and axle.

125. The Indian Roads Congress, with financial assistance from the Government of India set up a Bullock-Cart Sub-Committee to conduct experiments for evolving a better type of bullock cart wheel. The sub-Committee considered that, unless an improved design cost practically the same as the existing type of wheel and caused as little dislocation as possible in the village wheel-wright industry, it would be difficult and economically wrong to popularise the new design. Investigations were then carried out at the Road Test Track Majerhat, Calcutta, and the College of Engineering, Poona.

126. From a number of experiments conducted on different kinds of wheels, tyre widths, axle and hub assemblies, etc. the following results were obtained:

- (i) The larger the diameter the less the tractive effort, i.e., the force required to pull the cart.
- (ii) The tractive effort decreases with the increase in tyre width upto 5".
- (iii) With an increase in the tyre width the damage to the road surface decreases.

127. After considering the results obtained, the Indian Roads Congress evolved a new type of wheel. In this wheel the width of the iron tyre was increased from the present average of about 2" to 3 $\frac{1}{2}$ ". As this would have meant a thicker and heavier wheel requiring more timber, the diameter of the wheel was reduced by a few inches so that the weight and cost of the new wheel would be the same as those of the existing type of wheel. While the reduction in the diameter of the wheel meant an increase in the tractive effort, the widening of the iron tyre had the opposite effect and thus the tractive effort for the new wheel did not exceed that for the existing type of wheel. The saving in the wear and tear of road surfaces resulting from the new design proposed was estimated to be about 35%.

128. At their 12th meeting in April, 1951 the Transport Advisory Council discussed the suggestions of the Indian Roads Congress. The Council recommended that the improved type of wheel, with 3 $\frac{1}{2}$ " wide iron tyre, proposed by the Congress should be tested on a field scale. In accordance with this recommendation, the Government of India decided that field scale experiments should be carried out in the various States of India and for this purpose they offered to supply State Governments and the Community Projects Administration, free of charge steel flats for making about 2700 pairs of tyres with a width of 3 $\frac{1}{2}$ ". In addition, in accordance with a recommendation made by the Consulting Engineer (Road Development) that experiments should be carried out with 3" wide wheel also in order to asses the relative merits of the two sizes, the Government of India offered to supply free of charge to States steel flats for the manufacture of 340 pairs of 3" wide tyres.

129. The Bullock Cart sub-Committee of the Indian Roads Congress had also suggested that the destructive effect of the bullock cart wheel on the road would decrease, if properly designed rubber fixtures were provided in the hub assembly of the wheel. These rubber fixtures would reduce the force of the impact and the pounding effect on the road; they would also make the wheels ride square on the road surface and eliminate the cutting effect of the edge of the steel tyre. The Central Road Research Institute is also carrying out experiments on the rubber fixtures proposed by the sub-Committee of the Indian Roads Congress.

130. A total grant of Rs. 1,10,000 was approved from the Central Road Fund (Ordinary) Reserve for expenditure on the bullock cart wheel experiments. Grants aggregating Rs. 64,325 have been given to a number of States and the Community Projects Administration for meeting the cost of steel flats required for the manufacture of 2573 pairs of wheels. Field scale experiments are in progress in the various States. Two statements showing the details of grants sanctioned to various States and Community Project Areas for this purpose are given as Appendix X (A & B). Further plans will depend on the result of these trials.

131. The Committee are of the opinion that a very careful expert examination of the problem of improving the bullock carts and positive steps towards that end are urgently called for, separately, for rural and urban areas.

Pneumatic tyres on Bullock-carts

132. A proposal was made recently that Government should take steps to encourage the conversion of iron tyred bullock carts into pneumatic tyred carts. But a change-over to pneumatic tyred wheels has been practically ruled out in the case of rural carts for three reasons, *viz.*

- (i) if kept unused for a considerable part of the year, the tyres and tubes would rapidly deteriorate leading to heavy loss;
- (ii) service facilities cannot be provided at all rural centres and new problems will be created by the ousting of village blacksmiths who would not be required except for servicing iron tyres; and
- (iii) on rough rural tracks the pneumatic tyre would require greater tractive effort.

133. Apparently the conversion of urban carts into pneumatic tyred carts would be advantageous, because the damage of roads would be cut out almost completely. The Transport Advisory Council have suggested a pilot scheme for the conversion of professional type (public carrier) bullock carts with iron tyres into pneumatic tyred carts. The representative of the Ministry informed the Committee that the change-over from iron to rubber would be profitable only in towns and not in villages. A modest scheme for that purpose was prepared for trial in Delhi, Bihar, Punjab, Andhra Pradesh, Madras and Mysore. About Rs. 1½ lakhs would be spent on the pilot scheme with a view to observe whether large scale conversion of iron tyred carts (in urban areas) into pneumatic tyred carts will be an economic proposition and acceptable to the interests concerned. A larger scheme would be prepared only when its success was assured. It was not really due to the pneumatic tyre but due to better type of axle that the tractive effort was reduced considerably and the Central Road Research Institute were already seized of that problem.

134. The Committee feel that the allocation of Rs. 1½ lakhs is too small for such a vast country. They, therefore, recommend that the amount should be suitably increased so that all the States may get the benefit of the scheme. The State Governments should also be persuaded to allot a certain quota from their own funds before any central assistance is given towards the scheme. In this connection, the Committee would like to draw the attention of the Ministry to their observations in para. 38 of their Forty-Fifth Report.

H. Origin and Destination Surveys of Road Traffic

135. Transport problems play an important role in the matter of speedy industrialisation and advancement of civilization of a country. These transport problems are very pressing in the rapidly growing urban areas demanding immediate solution at the hands of the administrative authorities. In advanced countries of the West considerable progress has been made in conducting scientifically the Origin-Destination Surveys of Road Traffic for examining the traffic problems such as, purposes of journeys, the ebb and flow of traffic on various roads and in the different hours of the day, the types of conveyances etc., for designing schemes for road development and for relieving traffic congestion.

136. Though there are several important towns and cities in India, such surveys have not been carried out anywhere except very recently in some places. The post-war period, in particular, has witnessed a heavy increase in population in most of the cities and towns in India. In consequence, serious problems of transport and traffic congestion have arisen. In order to devise ways and means to remedy them, a beginning in such studies has recently been made by the Ministry of Transport in New Delhi.

137. An expenditure of Rs. 13,000 was incurred from the Central Road Fund (Ordinary) Reserve on the origin and destination survey of road traffic in New Delhi in 1953-54. The Report, though largely technical in nature, also contains factual data about the travel habits of residents in New Delhi. It is expected to be of great utility to the authorities specially for planning Greater Delhi.

138. Prior to 1954, Pilot Surveys on the Origin and Destination of Traffic were conducted in the Bombay State by the State Bureau of Economics and Statistics and the Bombay State Road Transport Corporation (B.S.R.T.C.) and in Madras by the Madras Government. Later, when the full scale Origin-destination survey at New Delhi was started, similar full scale sample surveys were carried out by the State Governments concerned in the cities of Baroda, Vijaywada, Gauhati and Trivandrum.

139. The Committee hope that the State Governments will realise of value of such studies. In particular, they recommend that the Transport Ministry should persuade with grants-in-aid from the Central Government, the respective State Governments to carry

out similar surveys in the cities of Calcutta, Ahmedabad and Kanpur and follow a well devised plan to meet traffic needs in such cities.

1. Tolls or other imposts on National Highways

140. The Ministry of Transport informed the Committee that a policy decision had been reached to the effect that:

- (a) No new tolls should be levied on any National Highways except (in special circumstances and then only) with the concurrence of the Government of India;
- (b) Existing tolls should be gradually abolished unless there are grave objections to this course in which case they should (in each case) be explained to the Government of India; and
- (c) Where payments are required to be made for specific services rendered the existing arrangement should be continued.

141. The representative of the Ministry further informed the Committee that the Ministry of Transport were strongly opposed in principle to the levy of any tolls, octroi or other imposts which would have the effect of slowing down transport. In the new National Highways Act it was stipulated that the only form of charge which could be levied was the charge for services rendered. For instance, if a ferry service was provided and Government spent money for transporting a man from one point of another, than the out of pocket expense could be collected. Similarly in case of an expensive tunnel where special facilities or services were provided, a charge could be levied. The stand of the Ministry of Transport was that an unrestricted levy of tolls on all and sundry would seriously impede the movement of traffic and act as a set-back. Further, the difficulty was that if tolls were levied on National Highways, State Governments could not be asked to abolish such levy on state roads. On the other hand, there was a view that where a bridge was built at a large cost it should be possible for the Government which invested the money to reimburse itself by way of tolls. U.P. Government wanted to charge tolls on all bridges including the small bridges costing less than Rs. 5 lakhs.

142. The representative of the Ministry of Finance stated that his experience was slightly different from that of the Ministry of Transport. In United States of America, a very large mileage of roads, known as turnpike roads, was financed from the tolls. One of the Brooklyn tunnels in New York was also being financed by tolls. A big bridge over the river near New York had also been financed by tolls. He considered that the imposition of tolls should not be discouraged so lightly as it had its own advantages and disadvantages.

143. The Committee suggest that a study be made in consultation with the State Governments of the conditions as existing in different States in India as well as in other foreign countries in this respect and that, as far as possible, a uniform policy should be followed both in regard to National Highways and State Highways. The incidence of tolls should be kept to the barest minimum, and only for certain specific purposes, care being taken to see that it does not, in any way, impede the smooth flow of traffic.

NEW DELHI;

27th March, 1957.

BALVANTRAY G. MEHTA,

*Chairman,
Estimates Committee*

APPENDIX I

(A) Statement showing number of trucks and the current rate of motor vehicle tax per truck in each State

State	No. of trucks	Rate of motor vehicle tax per (14,500 lbs. laden weight) truck	*The adjustment needed for a uniform tax at the maximum rate suggested by M.V.T.E.C.		The resultant revenue (2) \times (4)
			4	5	
I	2	3	4	5	
Madhya Bharat	903	1600	-790	-713370	
Rajasthan	2818	1500	-690	-1944420	
Madras	8356	1440	-630	-5264280	
Mysore	1639	1440	-630	-1032570	
Travancore-Cochin	2131	1440	-630	-1342530	
U. P.	6119	1203	-393	-2404767	
Orissa	2167	1080	-270	-585090	
Bombay	15061	800	+10	+150610	
Madhya Pradesh	3553	650	+160	+552480	
Saurashtra	1561	520	+290	+45,2690	
West Bengal	19295	456	+355	+6849735	
Assam	4759	450	+360	+1713240	
Bihar	3978	375	+435	+1730430	
Hyderabad	3119	214	+596	+1858924	
Punjab	3004	810	Nil	Nil	
Pepsu	1462	200	+610	+891820	
Delhi	1586	200	+610	+967460	
			TOTAL	+1881352	

*The ceiling on the basis recommended by the Motor Vehicle Taxation Enquiry Committee for a truck of 14,500 lbs. laden weight works out to Rs. 810/-.

(B) Statement showing number of buses and the current rate of motor vehicle tax per bus in each State

State	No. of buses	Rate of motor vehicle tax per (30 seater) bus	*The adjustment needed for a uniform maximum rate suggested by M.V.T.E.C.	
			The resultant difference in tax at the maximum rate (2) x (4)	revenue
I	2	3	4	5
Madras	5541	3600	-1320	-7314120
Travancore-Cochin	1612	3600	-1320	-2127840
Mysore	1069	2400	-120	-128280
Orissa	661	2320	-40	-26440
West Bengal	5101	1240	+1040	+5305040
Bombay	4511	875	+1405	+6337955
Madhya Pradesh	1211	850	+1430	+1731730
Bihar	1417	843	+1437	+2036229
Rajasthan	2158	600	+1680	+3625400
U. P.	3975	540	+1740	+6916500
Saurashtra	505	500	+1780	+898900
Assam	1220	375	+1905	+2324100
Madhya Bharat	541	275	+2005	+1084705
Hyderabad	1343	247	+2033	+2730319
Punjab	1413	219	+2061	+2912193
Pepsi	687	219	+2061	+1415907
TOTAL			+ 27722298	

*The ceiling on the basis recommended by Motor Vehicle Taxation Enquiry Committee for a 30 seater bus works out to Rs. 2,880/-.

APPENDIX II

Constitution of the Transport Advisory Council

Functions of the Council.—The functions of the Transport Advisory Council will be to make recommendations designed to evolve a policy for the development of a co-ordinated transport system and recommendations regarding suitable measures for giving effect to that policy.

2. *Effect of Council's recommendations.*—(1) A recommendation of the Council shall not be binding on the Government of India or any Part 'A' or 'B' State Government until it has been accepted by such Government by formal intimation of ratification made to the Secretary to the Council.

(2) In accepting any recommendation, the Government of India or any part 'A' or 'B' State Government may signify that their acceptance is subject to a reservation which should be clearly explained.

(3) Within two months of the receipt of the recommendation of the Council, a Part 'A' or 'B' State Government shall intimate to the Secretary to the Council their acceptance or otherwise of the recommendation. In the absence of such an intimation within the prescribed time-limit, the Part 'A' or 'B' State Government shall be deemed to have given their assent to the recommendation.

(4) The Government of India or any Part 'A' or 'B' State Government may at any time resile from any recommendation accepted by it, or may make a reservation thereto, by formal intimation to the Secretary to the Council.

3. *Constitution of the Council.*—(1) The Council shall consist of—

- (a) not more than twenty two members, being officials nominated by the Central Government, who should ordinarily include the Hon'ble Ministers in-charge of matters relating to Transport and Communications, and the members and Secretary of the Central Board of Transport;
- (b) not more than four members, being officials nominated by the Government of each of the Part 'A' and 'B' States who should ordinarily include the Hon'ble Minister in-charge of matters relating to Transport and/or Communications;
- (c) not more than one member being official nominated by the Government of each of the Parts 'C' and 'D' States excepting Himachal Pradesh and Vindhya Pradesh who will nominate not more than two members each.

(2) The Hon'ble Minister in-charge of Transport at the Centre shall be the Chairman of the Council and an officer appointed by the Government of India shall be the Secretary.

4. Meetings.—(1) The Council will meet once a year at a place and on a date to be appointed by the Chairman.

(2) Additional meetings may be convened by the Chairman at any time or place.

(3) Not less than three months' notice shall be given by the Secretary of every annual meeting. As long notice as may be possible shall be given of additional meetings.

5. Agenda.—(1) The Agenda for a meeting shall contain such matters as the Chairman may direct.

(2) A State Government wishing to have any matter discussed at an ordinary meeting may intimate the fact to the Secretary at any time not later than one month after the date of the meeting has been intimated to the State Government. The inclusion of such matter and the precise form in which it is to be expressed shall be at the discretion of the Chairman.

Explanatory Note.—It is not reasonable to expect State Governments invariably to formulate their proposals for discussion before the date of an ordinary meeting has been announced. Whenever possible, more than the three months' notice required under sub-rule (3) of rule 4 will be given. But it must be recognised that if only three months' notice is possible and State Governments do not forward their proposals until notice has been received, it may not be possible for the Secretary to send out papers covering such proposals as required by sub-rule (3) of rule 5. As far as possible, therefore, important proposals should be sent to the Secretary as soon as they are ready and without waiting for the date of the meeting to be fixed.

(3) The agenda for all annual meetings, together with all relevant memoranda and other papers shall be despatched by the Secretary so as to reach members not less than two months before the meeting.

(4) Nothing in this rule shall prevent the Council from deciding to discuss any matter of which notice as above provided has not been given.

6. Voting.—(1) The decision of the Council shall be by votes.

(2) On matters relating to policy for the development of a co-ordinated system of transport and suitable measures for giving effect to such policy, no recommendation shall be regarded as adopted by the Council unless it is supported by not less than two thirds of votes cast.

(3) On other matters, the decision of the Council shall be by a simple majority of the votes cast, and in the event of the votes being equally divided, the Chairman shall have an additional or casting vote.

(4) The Central Government shall have forty votes, each Part 'A' and 'B' State ten votes, Himachal Pradesh five votes, Vindhya Pradesh five votes and each of the remaining Part 'C' and 'D' States two votes.

7. *Powers of Chairman.*—The Chairman shall have all necessary powers to supplement these rules and to give rulings for the orderly and prompt despatch of the business of the Council.

8. *Minutes.*—(1) The minutes or proceedings of each meeting shall be prepared as soon as may be by the Secretary and shall be authenticated by the Chairman. Copies shall be furnished to all members and State Governments.

(2) The minutes or proceedings of the Council shall be confidential documents, but the Chairman may issue such press communiques in regard thereto as he may think fit.

APPENDIX III

Summary of conclusions arrived at the fifteenth meeting of the Transport Advisory Council held at New Delhi on the 6th and 7th February, 1956.

Item No. 1—PROGRESS MADE IN THE IMPLEMENTATION OF THE RECOMMENDATIONS OF THE 14TH MEETING OF THE TRANSPORT ADVISORY COUNCIL HELD ON THE 3RD AND 4TH NOVEMBER, 1954.

The progress was noted.

Item No. 2—CONSIDERATION OF THE RECOMMENDATIONS MADE BY THE POLICY COMMITTEES OF THE TRANSPORT ADVISORY COUNCIL IN REGARD TO THE ADJUSTMENT OF FREIGHT CHARGES ON PETROL.

The Council agreed with the recommendations made by the Conference of State Transport Commissioners/Controllers and decided to drop the proposals made by the Policy Committee in regard to equalisation of petrol prices.

Item No. 3—CONSIDERATION OF THE RECOMMENDATIONS OF THE COMMITTEE OF THE TRANSPORT ADVISORY COUNCIL REGARDING THE LEVY OF OCTROIS SO AS TO FACILITATE FREE FLOW OF GOODS THROUGH TOWNS.

The Council accepted the recommendations of the Conference of State Transport Commissioners/Controllers held in August, 1955, that the system of issuing transit permits for vehicles on payment of a nominal fee and providing an escort, wherever possible, should be adopted by all States. It was also agreed that the transit fee charged should not be a source of revenue for the municipalities and that no transit fee should be charged from passenger vehicles. The Council, however, recommended that the fee charged should be limited to a maximum of Re. 1 per goods vehicle and not Rs. 2 as suggested by the Conference of State Transport Commissioners/Controllers.

Item No. 4—CONSIDERATION OF THE REPORT OF THE TECHNICAL COMMITTEE OF THE COUNCIL REGARDING MEASURES FOR ENCOURAGING THE OPERATION OF MOTOR TRANSPORT ON ELECTRICITY.

The Council agreed with the recommendations made by its Technical Committee that a survey should be conducted by the Governments of Bombay and Madras with a view to determine whether operation of buses on electricity was cheaper than the operation of buses on diesel oil.

Item No. 5—SETTING UP OF AN AD HOC COMMITTEE TO ADVISE ON THE REORGANISATION OF TRANSPORT ADMINISTRATION IN THE STATES.

The Council recognised the need for re-organisation of Transport Administration in the States and recommended that the Government of India should take early steps to set up *ad hoc* Committee to go into this question.

As regards the terms of reference of the Committee, the Council felt that this Committee should confine itself to the question of re-organisation of Transport Administration and that the question of the review of the working of the State Transport Undertakings, in order to assess whether the departmental operation or management through a Corporation was better, should be examined further in consultation with the Planning Commission and, if necessary, another expert committee should be set up for this purpose.

Item No. 6—MODEL PRINCIPLES FOR DRAWING UP RECIPROCAL ARRANGEMENTS FOR INTER-STATE OPERATION OF TRANSPORT VEHICLES.

The Council approved of the model principles for drawing up reciprocal arrangements for inter-State operation of transport vehicles recommended by the Conference of State Transport Commissioners/Controllers. A copy of the model principles, as approved by the Council, is attached as an Annexure.

Item No. 7—CONSIDERATION OF THE RECOMMENDATIONS OF THE TAXATION ENQUIRY COMMISSION REGARDING TAXES ON MOTOR VEHICLES.

The Council felt that as several recommendations made by the Taxation Enquiry Commission concerned the State Governments, the question of considering and implementing these recommendations should be left to the State Governments who should take early steps to initiate action on these recommendations. So far as the recommendations concerning the Central Government are concerned, the Council recommended that action on these should be initiated by the Ministry of Transport who would, no doubt, consult the State Governments, where necessary.

Item No. 8—PRINCIPLES OF TAXATION OF MOTOR VEHICLES AND FIXATION OF CEILINGS.

The Council agreed that the basis of taxation on motor vehicles should, as far as possible, be uniform as, in fact, it was by and large—and that a ceiling should be fixed for the total incidence thereof. As, however, the representatives of the State Governments desired to be given more time for consideration of this proposal, the Council decided to defer a decision on this item.

Item No. 9—DOUBLE TAXATION OF MOTOR VEHICLES BY DIFFERENT STATES.

The Council accepted the principle of single point taxation and recommended that, keeping in view this principle, the States should try to come to mutual agreement in regard to the operation of motor vehicles on inter-State routes.

Item No. 10—DESIRABILITY OF IMPOSING A SINGLE DIRECT TAX INSTEAD OF SEVERAL TAXES.

On the desirability of imposing a single direct tax in place of several taxes payable to different taxing authorities of the States by the operators and the collection of these taxes by a single authority, the Council felt that this matter should be left to the State Governments to decide.

Item No. 11—DIFFERENCE IN THE COST OF OPERATION OF MOTOR VEHICLES ON DIFFERENT CLASSES OF ROADS AND STUDY OF ECONOMY OF ROAD IMPROVEMENTS.

The Council noted the progress made by the Road Transport Operation Costs Committee in the study of cost of operation of motor vehicles on different classes of roads and the economy of road improvement.

Item No. 12—PROPOSALS FOR LEGISLATION FOR THE PREVENTION AND REMOVAL OF ENCROACHMENTS ON NATIONAL HIGHWAYS.

The Council discussed the draft bill on prevention and removal of encroachments on National Highways and decided that, as the matter required careful consideration by the State Governments, some more time should be given to them to send their views on the Bill.

Item No. 13.—CONVERSION OF PROFESSIONAL TYPE (PUBLIC CARRIER) BULLOCK CARTS WITH IRON TYRES INTO PNEUMATIC TYRED CARTS.

The Council recommended that the Ministry of Transport should work out a pilot scheme for conversion of professional type (public carrier) bullock carts with iron tyres into pneumatic tyred carts. The State Governments agreed that they would consider the question of subsidising the proposed conversion provided the Centre also made some funds available.

Item No. 14.—DEVELOPMENT OF INLAND WATER TRANSPORT.

The Council noted the progress made in the schemes for the development of inland water transport in the country.

Non-agenda items:

15. RELAXATIONS IN THE PROVISIONS OF THE CODE OF PRINCIPLES AND PRACTICE IN THE REGULATION OF MOTOR TRANSPORT.

The question of further relaxations in the Code of Principles and Practice in the regulation of motor transport was considered. Some of the State Governments pointed out that as the Railways were not in a position to lift all the goods offered to them, the restrictions envisaged in the Code were unnecessary. The Council agreed that relaxations of the Code could be considered in relation to specified routes or areas and recommended that the States should send proposals for relaxations in respect of such routes/areas to the Ministry of Transport who in consultation with the Ministry of Railways, would decide the matter.

16. FILLING OF VACANCIES IN THE TECHNICAL COMMITTEE OF THE TRANSPORT ADVISORY COUNCIL

Sarvashri T.C.S. Pillai, Director of Transport, Travancore-Cochin, and N. Lakshman Rau, General Manager, Mysore Government Road Transport Services, were nominated to the Technical Committee of the Transport Advisory Council in the vacancies caused by the transfer of Sarvashri K. P. K. Menon, Transport Commissioner, Madras, and A. Visvanath, General Manager, Mysore Government Road Transport Services.

17. STANDARDISATION OF BUS BODY DESIGNS.

The need for standardisation of bus body designs was recognised. As, however, this matter was already engaging the attention of the Technical Committee of the State Transport Undertakings, it was decided to await its report. It was also agreed that the recommendations of the Technical Committee should be considered both by the conference of the State Transport Undertakings and the conference of the State Transport Commissioners/Controllers. The decisions taken at these conferences should be placed before the Council.

18. REVISION OF THE 7TH SCHEDULE OF THE MOTOR VEHICLES ACT, 1939.

The Council agreed that until the Motor Vehicles (Amendment) Bill becomes law, instead of the Seventh Schedule to the Motor Vehicles Act, 1939, which is proposed to be omitted, a liberalised schedule of loading capacities, worked out in consultation with the tyre companies, should be circulated to the State Governments for their guidance during the interim period.

ANNEXURE

Model principles for drawing up reciprocal arrangements for inter-State operation of transport vehicles.

A. Passengers Transport—General Principles

1. Inter-statal routes for stage carriages carrying passengers shall mean the roads connecting the main nearest traffic points on either side of the border, penetration by passenger transport of either State into the other State being restricted up to the aforesaid traffic point unless otherwise mutually agreed in any particular case or cases.
2. The route mileage on all the inter-statal routes shall be equitably divided between the two States.
3. As far as possible each route shall be exclusively operated by one of the two States.
4. Both the States will make arrangements for booking of through traffic feeding into the traffic points on either side.
5. The number of buses to be operated on any route shall depend upon the volume of traffic available and will be fixed by mutual agreement between the Transport Commissioners of the two States.
6. No tax shall be payable by the permit holders of one State to the other State. (This will be modified in the light of the general decision on the question of double taxation).
7. The maximum fare chargeable for the mileage in the territory of each State shall be calculated at the rate prescribed by the State concerned. Notice of any change in the rates of fare shall be given by either State to the other at least one month in advance.
8. On inter-statal routes in respect of which arrangements have been made nominee of either State may run extra buses after the departure of the last bus on any day if excess of passenger traffic so requires. Such extra buses shall also be exempted from taxation in the other State. The respective State shall decide how much extra buses may be apportioned between its nominees:

Provided that this arrangement under clause 8 shall be reviewed after every six months or such other period as may be mutually agreed.

B. Public Carriers

9. The Transport Commissioners of the two States shall decide the number of public carrier permits to be given on any inter-statal route or a group of such routes, or in a zone comprised of defined areas of the two States having regard to the volume of traffic available. They shall also decide the number of permits to be

allotted to each State having regard to the respective mileage of the two States in the route or zone concerned. The number of vehicles allotted to each State shall be registered in the respective State. Inter-state permits issued under this clause by either of the two States shall not be used for transport of goods between two points in the reciprocating State.

10. The holders of public carrier permits issued to the number specified in accordance with the last preceding clause shall pay the difference in the tax to the State when the taxation is higher. The Transport authorities of the other State shall countersign the permit only after they are satisfied about payment of such difference.

C. Private Carriers

11. Private carrier permits of one State shall be countersigned by the transport authorities of the other State without payment of any tax or fee, provided that such permits should be given only for bonafide private carriage.

D. Temporary Permits

12. In urgent cases temporary permits for period not exceeding fifteen days may be issued by the transport authorities of one State without previous consultation with the corresponding authority of the other State. Information regarding these permits shall be given by the transport authorities of the State issuing the permit to the corresponding authority of the other State. But the first named authority shall ensure that the tax of the other State has been paid in advance. A fresh temporary permit shall not be issued to the same party without the concurrence of the other State transport authority or except in pursuance of general principles settled in this behalf by the two State transport authorities. The maximum period for which a temporary permit may be issued may be fixed after mutual consultation.

13. To encourage tourist traffic the Transport Commissioner may agree to contract carriage permits being issued in respect of prescribed routes on the basis of taxation of only the State issuing the permit. Intimation of every such permit issued shall immediately be given to the corresponding authority of the other State. This arrangement shall be subject to review every six months. The maximum period for which permits may be issued under this clause may be fixed by mutual agreements. The routes need not be fixed by mutual consultation in advance but the particulars of the journey including the places to be visited and the period of the journey shall be specified in each permit, and it will also be mentioned that there will be only one return trip.

14. The Transport Commissioners of the States concerned may prescribe the necessary forms and other details for giving effect to the arrangements in the last two prescribing clauses.

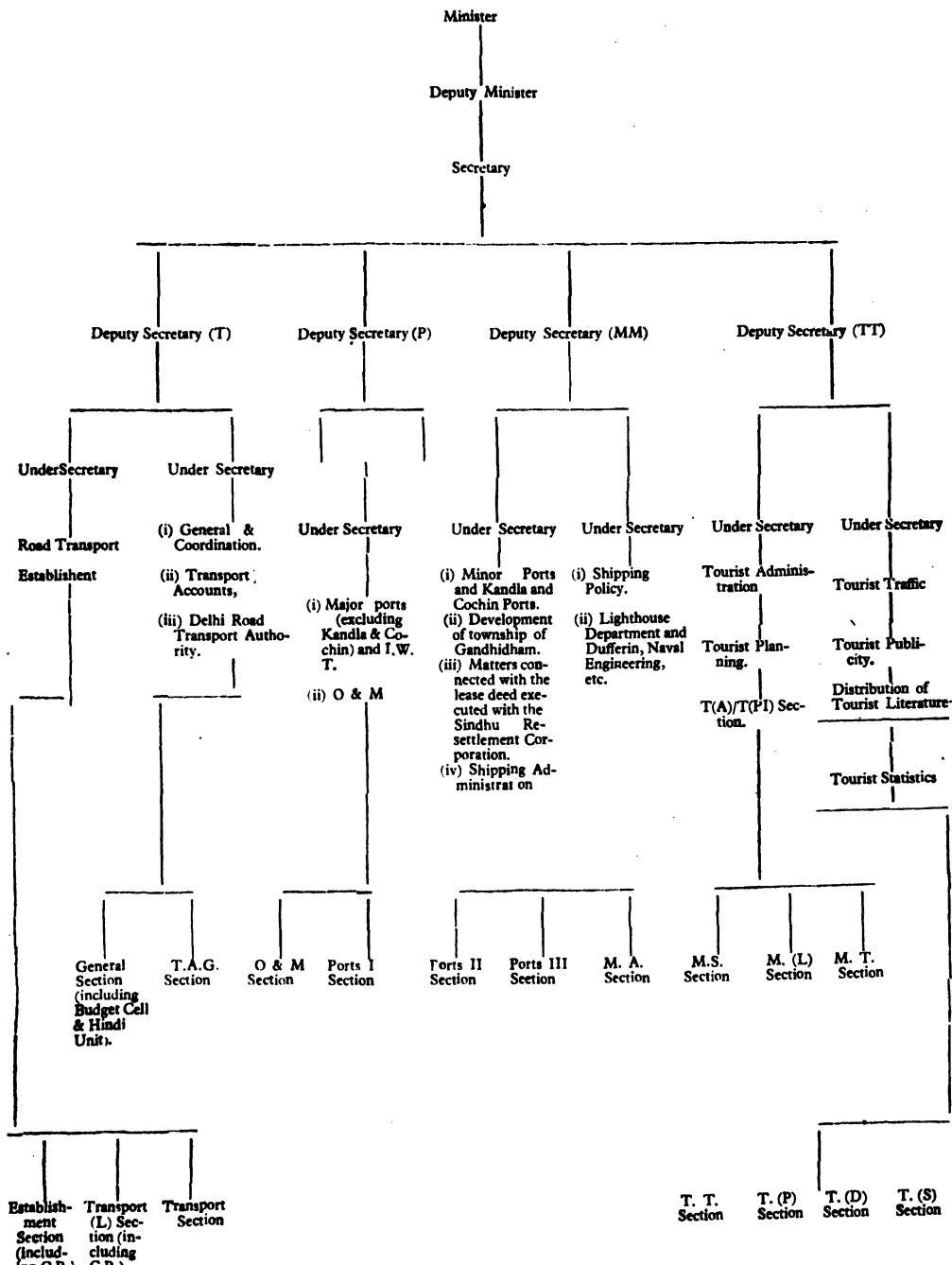
E. General

15. The reciprocating States will accord recognition to tax tokens, registrations, conductors licences, public service vehicle authorisations and certificates of fitness etc. in respect of transport vehicles plying or to be plied on routes operated by the nominees of the States under this arrangement.

16. The nationalised transport of either State shall give to the other facilities in respect of use of depots, workshops, etc., on payment.

APPENDIX IV

Chart showing the distribution of work in the Transport Wing of the Ministry of Transport on 1st April, 1956



APPENDIX V
ORGANISATIONAL SET UP OF THE MINISTRY OF TRANSPORT (ROAD WING)
MINISTER FOR TRANSPORT AND RAILWAYS
DEPUTY MINISTER FOR TRANSPORT AND RAILWAYS
SECRETARY, MINISTRY OF TRANSPORT

CONSULTING ENGINEER TO THE GOVERNMENT OF INDIA (ROAD-DEVELOPMENT) AND JT. SECY. MINISTRY OF TRANSPORT (ROADS WING)

Addl. Consulting Engr. (Roads General)											Deputy Secy.
Deputy Consulting Engr. (Bridges)											Deputy Consulting Engr. (Roads)
Materials & Plant Section (Tech.)	Bridges Section (Tech.)	Road Standards Section (Tech.)	Liaison with States	Planning	General Section (Tech.)	Projects and Works	Economics & Statistics	Budget & Accounts (excluding Head Qrs.)	Admn. (including Head Qrs. Budget & Accounts)	General including Library	Road Legislation, General Administrative Coordination & O & M Work.
Evolution of standards and Designs concerning Road Making Machinery; advice to States on the purchase of Road Making Plant & Machinery; etc.	Evolution of Standards and Code of Practice for Bridge Works ; Siting, Location & Designing of Road Bridges & Hydraulic Structures; advice as consultants on roads, Bridge problems; Check of road Bridge projects etc.	Evolution of Codes of Practice, Standards & Specifications for Road works other than Bridges; preparation of Type Designs & Layouts for Road Junctions etc; Collection of information on modern techniques relating to Oils, Tars, Bitumen, concrete etc. used for road Surfacings, etc.	Central Engineer Liaison Officers posted for Liaison work in States or group of States to assist in Planning & development works on National Highways & other Centrally administered roads, preparation of Designs, Tars, etc. and to perform such other duties as may be assigned by the Central Government.	Planning and Co-ordination of Road Development in the country training of serving Road Engineers; participation in the work of International Organisations connected with High-way problems etc.	Technical work not within the sphere of the Projects, Bridge, Standards and other technical Sections; Maintenance of special Tech. equipment, maps, Drgs, drawing Office stationery, Litho and special printing & reproduction processes.	Projects Section, checking Estimates of roads and culverts; maintenance of progress registers, graphs, diagrams & Schedule of rates registers etc.	Analysis and compilation of Road Statistics & data relating to traffic Surveys; other statistical problems relating to Road Research etc.	Budget Accounts of the Central Road Fund and other Central Grants relating to the Development and maintenance of National Highways, Development of other Roads in Part 'A' & Part 'B' States and development & maintenance of such roads in Part 'C' & 'D' states etc.	Establishment organisation Head Qrs. Budget, Interpretation and application of Rules and Regulations etc.	Administrative co-ordination Office and Residential Accommodation; Library.	Legislation work relating to National Highways, Prevention and removal of encroachments on National Highways, Protection of Ribbon development alongside such Highways and Levy of betterment charges on lands benefiting from their development; Advice to State Govts. in regard to similar Legislation in respect of State Highways General Administrative Coordination and O & M work of the Roads Wing.

APPENDIX VI

Nature of work handled in the Transport Wing of the Ministry of Transport

1. *General Section*.—All general and co-ordination problems. All work relating to the United Nations Transport and Communications Commission. Inland Transport Committee of the Economic Commission of Asia and the Far East. Technical Assistance Schemes. Preparation of the Annual Report of the Ministry of Transport. Residual work relating to the late Railway Priority Organisation. Parliamentary work concerning the Ministry Budget, co-ordination work, Hindi translation.

2. *Establishment Section*.—All establishment and accounts work of the Ministry (H.Q.).

3. *Ports I Section*.—Administration of Ports Acts relating to statutory Port Trusts. Establishment matters relating to the major ports of Madras, Bombay and Calcutta. Finance including budgets of Port Trusts. Appointment of Trustees. Framing and amendment of Port rules and bye-laws. Fixation and revision of port charges. Proposals for floatation of loans. Acquisition and leases of port properties. Miscellaneous references regarding the interpretation of the existing Port Trust Acts. Labour problems concerning Ports of Bombay, Calcutta and Madras.

Sanctions to encroachments on the fore-shore of the River Hooghly and assessment and collection of rent for such encroachments. Provision of steel and cement for port development schemes. Residual work relating to port equipment obtained for use at the major ports during the War. Assistance in the supply of essential materials required by the ports of Bombay, Calcutta and Madras.

4. *Ports II Section*.—Administration of the Indian Ports Act, Madras Outports Landing and Shipping Fees Act as applied to Cochin Port and Bombay Landing Wharfage Fees Act, as applied to the existing port of Kandla. Budget and establishment matters relating to the ports of Cochin and Kandla. Fixation and revision of port dues and charges. National Harbour Board. Annual Conference of heads of major ports. Development of Kandla as a major port and other connected matters. References relating to Vizagapatnam port. Development schemes relating to major ports of Calcutta, Madras, Bombay, Cochin and Kandla. Administration of minor ports in the Part 'C' State of Kutch. Development of minor ports—co-ordination and laying down of policy. Construction of pier at the port of Pondicherry.

5. *Ports III Section*.—Development of the township of Gandhidham and matters connected with the lease deed executed with the Sindhu Resettlement Corporation. Development of inland water transport. Administration of the Ganga-Brahmaputra Water Transport Board.

6. Transport Section.—Administration of the Motor Vehicles Act, 1939; Administration of the Road Transport Corporations Act, 1950; Road-Rail Co-ordination; Insurance of motor vehicles against third party risks; taxation of motor vehicles; International Conventions on Road Traffic; Road Signs and Signals; Formation of Statutory Road Transport Corporations; Financial participation by Railways in road transport undertakings; Working of the State Road Transport Undertakings; Motor Vehicles Statistics; Measures for promoting road safety; Transport Advisory Council; Technical Committee of the Transport Advisory Council; Meetings of the Transport Commissioners/Controllers; Conferences of the State Transport Undertakings; Study Group on Transport Planning; Carriage of mails in stage carriages; Welfare of transport personnel; Code of Principles and Practice in the regulation of motor transport; Development of producer gas as motor fuel; Bus body designs, etc.

7. Transport (Legislation) Section.—Motor Vehicles Legislation and administrative vigilance.

8. T.A.G. Section.—Administration of the Delhi Road Transport Authority Act, 1950. Delhi Road Transport Authority Advisory Council. Budget of the Delhi Road Transport Authority. Rules and Regulations under the D.R.T.A. Act, 1950. Delhi Tramways and Trolley buses. Secretariat work relating to the Central Board of Transport and the Standing Committee of the Central Board of Transport. Winding up of the accounts of the civil transport and petrol rationing schemes. Statistics relating to consumption of motor spirit and motor vehicles imported, assembled and distributed in the country. Co-ordination of civil transport vehicle requirements with the development of automobile industry in India. Import and export of motor vehicles and spare parts, Residual work of the staff car pool.

9. Tourist Traffic Section.—Development of tourist traffic both internal and external. All legislative matters relating to tourism. Five Year Plan. Meetings of Tourist Traffic Advisory Committees and Regional Tourist Traffic Advisory Committees. Recognition of travel agencies. Hotels, dak bungalows and rest houses. Passports, Visas, T.I. Cards, Registration, Customs and health formalities. Shikar Agents. Buddha Jayanti. Monthly reports from R.T.O., T.R.I.O., T.I.O.S. and Government of India Tourist Offices. Tourist traffic statistics. All miscellaneous questions relating to tourism. tourist traffic to Kashmir. International Conferences on tourism and all references relating to U.N.O. and its agencies and all other foreign references. Improvement in train timings and provisions of retiring room facilities. Taxis and road connections etc. Supply of material for inclusion in reports e.g. annual reports of Ministry, and President's Address, etc. conducted tours. Establishment of tourist bureaux. Development of tourist centres. Periodical returns. Training of guides.

10. Tourist Administration Section.—Administration work relating to the Tourist Offices. Appointments in Tourist Offices. Budget Work of the Tourist Traffic Organisation. Delegation of financial and other powers to Tourist Officers. Opening of new Tourist Offices in India and abroad. Reports and returns to be received from Tourist Officers. Periodical inspection of Tourist Offices.

11. **Tourist Publicity Section**.—Preparation of tourist literature such as guide books etc. Issue of advertisements, articles, newsletters bearing on tourist traffic and travel magazine. Participating in exhibitions, fairs etc.

12. **Mercantile Marine (A) Section**.—Directorate General of Shipping, Bombay; Mercantile Marine Department, Bombay; Shipping Office, Bombay; Mercantile Marine Department, Madras; Merchantile Marine Department, Calcutta; Shipping Office, Calcutta; Seamen's Employment Office, Calcutta/Bombay; Recruitment and training of surveyors; General orders circulars etc. relating to Estt.; Miscellaneous matters relating to Mercantile Marine Estt. etc.; Mercantile Marine Administration at Visakhapatnam; Mercantile Marine Administration at Cochin; Budget; Re-appropriation, surrenders and appropriation accounts; Carriage of Goods by Sea Act; Bills of Lading; Territorial Waters; Pilgrim Ships; Recognised Chambers of Commerce etc.; Flags to be flown by ships; Legislation; Exemptions granted by the D.G. Shipping; Indian Ports Act; Inland Steam Vessels Act; Complaints against shipping companies; Commonwealth Shipping Committee; Pocket appointments; Personnel on ships; Magistrates, Assessors, Scientific references and other officers appointed under I.M.S. Act; Statistical tables relating to the working of the unberthed passenger ships at the various ports and number of passengers leaving various ports; Import and export of shipping materials; Wireless Telegraphy; Obstructions in Fairways Act; Wrecks, Salvages, Assistance to vessels in distress; Foreign Shipping; Survey Questions; Load Line; Constructions of ships; Oil Pollution of navigable waterways; Brussels Maritime Conventions; Safety Conventions; International Code of Signals; International Sanitary Convention; International Labour Office, Carriage of Dangerous Goods, Shipment; Life Saving appliances; Approval of Fire Extinguishers' Appliances and other equipment on vessels; signal of distress; consular instructions; Deck Passengers' Traffic; United Nations work relating to shipping; Marine Survey of India; Collision Regulations and Navigation Lights; Grain Cargoes; Tour Notes; Fees; Certificates of Competency for foreign going and home trade ships, examination of Masters, Mates and Engineers; Registration of Vessels, Tonnage measurement, Signal Letters, Transfer of Registry; Detention of Vessels; Fishing; Defensive equipment on ships; Corrections to the code of storm warning signal for use at Indian Maritime Ports; Provision of port facilities; Prize ships; Births and deaths of passengers on board ships.

13. **Mercantile Marine (S) Section**.—Expansion of Indian tonnage in Coastal and Overseas trades; Shipping Corporations; Development of sailing vessels industry; Grant of loans to Indian shipping Companies; Medical examination of Seamen; Recruitment and discharge of Seamen; Travel facilities for Seamen; Fixation of freight rates in the coast; Administration of the Control of Shipping Act, 1947; Operation of Shipping services between Indian and foreign countries; Statistics relating to Shipping; Parliament questions relating to the above.

14. **Mercantile Marine (T) Section**.—Administration of three Ratings Training Establishments at Calcutta, Visakhapatnam and Navlakhi. Administration of the Training Ship 'Dufferin'. Admi-

nistration of the Directorate of Marine Engineering Training at Calcutta and Bombay. Administration of the Nautical and Engineering College, Bombay. Administration of Seamen's Welfare Offices in Bombay, Calcutta, Australia and the U.K. Payment of compensation to seamen who were injured or died by enemy action during the 2nd World War. Light-house Department (a) Administrative control of the Light-house Department at Headquarters and the offices under its control at Bombay, Calcutta, Madras and Jamnagar, (b) Maintenance of accounts of that Department on commercial lines.

15. *Mercantile Marine (L) Section*.—Work connected with the consolidation and revision of laws relating to Indian Merchant Shipping, and the enactment of Indian Merchant Shipping (Amendment) Bill, 1956.

16. *O. & M. Section*.—O. & M. work in the Ministry, Directorate General of Shipping and Lighthouse Department.

APPENDIX VII

Establishment and functions of the Roads Wing of the Ministry of Transport

This Organisation was created as a result of a recommendation made at the conference of Chief Engineers of the then provinces and major States which met at Nagpur in December, 1943 to advise on post-war road development in India. It was to administer the Central Road Fund and other funds approved by the Centre for the development and maintenance of national highways and other State roads and coordinate the road policies of the Centre and the States. On the technical side the organisation was to function also as a Central Designs Office and act as a repository of technical information on roads and bridges.

The Roads Wing consists of 10 Secretariat or non-technical sections including one Central Registry & Issue Section and 6 technical sections. The functions of each of these sections are described below:—

1. **Planning Section (Secretariat).**—This section deals with general questions of planning and co-ordination of road development in India including the Five-Year plans for national highways and other roads in the central sector, i.e., the West Coast Road in Madras and Bombay States, the Passi-Badarpur Road in Assam, the Dhar-Udhampur Road in the J. & K. State (including the fixation of the route alignments of these roads) and roads (other than national highways) under the charge of the Central Public Works Department in Sikkim; Central aid scheme for the development of roads of inter-State or economic importance and of roads serving tourist centres; Requests of States for assistance for development of border roads; References from the Ministry of Defence regarding development and maintenance of roads of military importance; yearly and half yearly progress reports to Planning Commission on national highways and other Centrally aided road schemes; the road aspect of problems of coordination of transport; problems of road finance and taxation of motor vehicles with reference to the need for funds required for road development; proposals for the expansion of the existing national highway system; proposals for legislation relating to national highways i.e., for the declaration and administration of national highways, for the prevention of ribbon development alongside national highways and the levy of betterment fees on land benefiting from their development, land acquisition, etc., proposals of States for legislation regarding roads, e.g., legislation on the lines of the Model Highway Bill circulated by the Centre to States for the prevention of ribbon development alongside roads etc., legislation for the regulation of ferries and tolls at unbridged river crossings, etc.; Regularisation of status of Central Road Fund, including question of converting it into a statutory fund; general question of financial assistance to states for road

development; training of Indian Road Engineers abroad under the U.N. and other various technical assistance programmes, e.g. the Point 4 Programme, the Colombo Plan, etc., and training of foreign highway engineers in India; requests from foreign countries for services of experts in highway and bridge construction; training of State Engineers in standards and designs in the Roads Wing; advice to Community Projects Administration on road construction and maintenance; References from the Ganga-Brahmaputra, Central India, and Northern India River Commissions regarding flood problems in relation to roads; road problems for discussion at meetings of the Transport Advisory Council; Convening of meetings of Chief Engineers of States to discuss questions affecting national highways and other roads, participation in International Organisations connected with highway problems like the International Roads Congress, the Inland Transport Committee and Highway Sub-Committee of ECAFE, etc., question of decking of railway bridges for road traffic; general questions of construction of combined road and rail bridges across rivers and of construction of road over-bridges or under bridges across railway lines and apportionment of cost; grant of loans to State Governments and local bodies to enable them to meet their share of cost of construction of over or under-bridges in place of existing road-rail level crossings; O. & M. work of the Roads Wing.

2. *Works I & Works II Sections (Secretariat).*—These sections deal with projects for the development of national highways including the construction and improvement of bridges over rivers and over or under bridges at rail crossings on national highways. The first section deals with projects in the Northern and Central Zones; while the second section deals with projects in the Southern and Eastern Zones. In addition, the Works I section deals with policy questions relating to the development of national highways, e.g., rate of agency charges payable to State Governments for development and maintenance of national highways, question of liability for links to national highways situated within large cities or towns, levy of tolls or other fees or charges on national highways, preparation of detailed programmes for development of national highways, etc.

Development and maintenance of national highways.

Under the National Highway scheme detailed estimates and plans for the development of national highways, including the construction and improvement of bridges, are to be submitted to the Central Government for their prior technical approval and financial sanction. The term "technical approval" connotes that the particular project is administratively approved and that it is also generally sound from the technical point of view.

In order to give relief to the Senior Technical Officers of the Roads Wing, the Engineer Liaison Officers posted to the various States have been delegated powers to countersign estimates up to a limit of Rs. 40,000/- only. In these cases, if the estimate is countersigned by the Engineer Liaison Officer and has been accepted by the State Chief Engineer, technical approval and financial sanction is given by the Central Government without any detailed check by the Roads Wing. Should the estimate as passed by the Engineer

Liaison Officer be not acceptable to the State Chief Engineer, the estimate as approved by the State Chief Engineer is examined in detail by the Roads Wing before technical approval and financial sanction is given. All other estimates are, of course, subjected to detailed scrutiny in the Roads Wing. For this purpose the Works Sections work in close cooperation with the technical sections concerned, *viz.*, the Projects, Bridges, Road Standards and M.P. Sections.

After scrutiny of the estimates, the concurrence of the Ministry of Finance is obtained in the case of estimates amounting to more than Rs. 2 lakhs. The Ministry of Finance have delegated powers to the Roads Wing to give financial sanction to works estimated to cost up to Rs. 2 lakhs.

After technical approval and financial sanction is accorded to the estimate for a work, the executive agency concerned can invite tenders for the work and accept the selected tender themselves unless the estimated cost of the work at the tender rates exceeds the estimated cost of the work as sanctioned by the Government of India, beyond the permissible limit (*vide* the penultimate subparagraph below) or the tender involves material alterations in the designs and specifications approved by the Centre, in which case the prior approval of the Central Government is required to the acceptance of the tender by the executive agency.

Monthly progress reports on approved works are also required to be submitted to the Roads Wing in the prescribed forms. These are examined in consultation with the technical sections concerned and the Budget Section and action taken to remove any difficulties during execution, *e.g.*, non-availability of materials and plant, shortage of labour, etc.

Where excesses of more than 10% of a sanctioned estimate or more than Rs. 25,000/- in amount are anticipated or occur, revised estimates have to be submitted by the State concerned for the technical approval and financial sanction of the Central Government.

Where a scheme sanctioned by the Central Government is completed, the executive agency is required to submit a completion report. This report, on its receipt, is examined in consultation with the technical sections concerned and the Budget Section.

Question of acceptance of liability for national highway links within large towns or cities

The acceptance of liability by the Central Government for the development and maintenance of national highways did not automatically cover links within large towns and cities (cities and towns having a population of 20,000 or more). The extent to which the Central Government have decided to accept liability for such links is indicated in the Ministry of Transport letter No. PL-13(7)/51, dated the 16th February, 1954, to the States. The Central Government have subsequently informed the States that this liability will be accepted by the Centre with effect from the 1st April, 1956, in respect of any State which is willing to accept the scheme outlined

in the Transport Ministry's letter dated the 16th February, 1954, quoted above. Proposals for the development and maintenance of national highway links within large towns and cities under that scheme will be dealt with in the works sections.

Maintenance of National Highways

Abstract particulars of estimates for the maintenance of national highways are submitted by States every year in the prescribed form and after they are scrutinised in consultation with the projects Section, the annual maintenance grant to the State is determined. Estimates for major special repair or flood damage repair works are also submitted by States, wherever necessary, and if as a result of examination of the estimates any additional maintenance grant is justified, it is sanctioned.

Tolls or other imposts on National Highways

The Works Sections are having under constant review cases of levy of tolls or other imposts on national highways in the light of the policy decision quoted in para 140 of the Report.

3. *Works III Section (Secretariat)*.—This section deals with the Central Road Fund Policy and projects financed from the Central Road Fund and projects relating to selected roads and bridges in States financed entirely by the Central Government i.e. the Passi-Badarpur Road in Assam, the West Coast Road in Madras and Bombay States, and the Dhar-Udhampur Road in the J. & K. State.

4. *Works IV Section (Secretariat)*.—This section deals with plans and projects for (a) the development of roads (other than national highways) in the Part 'C' and Part 'D' States and roads (other than national highways) in the NEFA and (b) projects for the development of roads (other than national highways) under the charge of the Central P.W.D. in Sikkim and roads of inter-State or economic importance in States included in the Central Aid Programme of Rs. 21 crores.

Central Aid Programme for the development of roads of inter-State or economic importance

All estimates for the works included in this programme require the prior technical approval and financial sanction of the Government of India. The procedure for dealing with projects requiring such technical approval and financial sanction is the same as that prescribed for national highway projects.

5. *Budget Section*.—The section deals with the budget and accounts of the Central Road Fund, including the distribution of the annual revenue of the fund between the Allocation Accounts of the various States and the Ordinary Reserve and allotments of funds to States from their allocations for expenditure on approved schemes; the budget and accounts of national highways and allotment of funds for individual major works, minor works, and works of maintenance and special repairs on national highways; the budget and accounts relating to roads other than national highways in Kutch, Manipur, Tripura, the Andamans, Sikkim and N.E.F.A., and allotment of funds for individual major works, minor works, and works of maintenance

and special repairs on these roads; the budget and accounts relating to the development of the Passi-Badarpur Road, the West Coast Road, and the Dhar-Udhampur Road and allotment of funds for individual major and minor works on these roads, the budget and accounts relating to schemes from the special provision approved by the Planning Commission for the development of roads of inter-State or economic importance and allotment of funds for individual major works and minor works on such roads; procedure for the adjustment of the expenditure incurred on the various schemes, etc.; quarterly expenditure reports submitted by various Accountants General or Comptrollers in respect of all these works; maintenance of expenditure and other registers; and the annual appropriation accounts relating to the various demands pertaining to the Roads Wing other than the accounts relating to the establishment (headquarters budget) of the Roads Wing.

The preparation of the budget estimates relating to national highways and other roads with which the Budget Section is concerned, is done in consultation with the various States and the Works Sections in the Roads Wing. After the budget is voted by Parliament, the approval of the Departmental Finance Committee is obtained to the expenditure proposed to be incurred during the financial year on the construction or improvement of national highways and other roads provided for in the budget, other than schemes chargeable to the Central Road Fund. Allotments for individual major works and minor works are made after they are financially sanctioned and these allotments are reviewed from time to time.

Provision for capital expenditure on roads in the Part 'C' States with legislatures is made in the budgets of the States themselves. Financial assistance by way of loan is, however, given by the Central Government to these States for meeting their capital expenditure, including expenditure on roads. Necessary provision for this purpose is made in the Central Budget and the administrative Ministry concerned, *viz.*, the Ministry of Home Affairs, consults the Ministry of Transport in regard to budget provision for roads and the grant of loans to the States with respect to road development. References from the Ministry of Home Affairs on these matters are dealt with in the Budget Section of the Roads Wing.

As regards the Central Road Fund provision is made at present in the Central budget only for expenditure on works financed from the fund in centrally administered areas (*i.e.* Kutch, Manipur, Tripura and the Andamans) and other expenditure incurred by the Central Government direct from the fund. But estimates (revised and budget) of the total anticipated expenditure from the fund are prepared at the time of the annual budget on the basis of information submitted by States, for ways and means purposes of the Centre. The question of providing in the Central budget for all expenditure incurred from the fund is under consideration at present.

Quarterly expenditure reports are required to be submitted by the various Accountants General and Comptrollers in the forms prescribed for the purpose. These reports are examined by the Budget Section in consultation with the Works Sections concerned, wherever necessary, and cases of irregular expenditure or excess over the sanctioned estimates are taken up with the Accountant

General or Comptroller and the State Government or Administration concerned with a view to regularisation. The expenditure is also noted in the various registers maintained for the purpose in the Budget Section.

(6) *Projects Section (Technical).*—This section is responsible for the technical scrutiny of five-year plans for the development of national highways and other roads with which the Roads Wing are concerned; examination of alignments of such roads; technical scrutiny of projects for (new) construction and improvement of such roads; examination of abstract particulars of estimates for maintenance and estimates for special repairs; technical scrutiny of progress and completion reports submitted by States and other executive agencies on approved road works; technical examination of schemes for the construction and development of roads of military importance proposed by States or the Ministry of Defence; technical examination of proposals for additions to the National Highway System; advice on allotments of funds to States or other executive agencies for works in the light of progress made or likely progress in future; technical examination from the 'roads point of view' of proposals for new railway lines or restoration of dismantled railway lines coming up for consideration by the Central Board of Transport; advice to General (Technical) Section regarding modifications to alignments of national highways for bringing the National Highway maps up-to-date; assistance to the Consulting Engineer (Road Development) in preparation and examination of estimates and plans for port and harbour works, road communication facilities in ports, etc., as Technical Adviser to the Transport Wing of the Ministry.

(7) *Bridges Section (Technical).*—The work in the Bridges Section consists mainly of examination and selection or approval of sites for bridges proposed to be constructed on national highways and other roads under the administrative control of the Ministry of Transport or financed from the Reserve in the Central Road Fund or under the Central Aid Programme for the development of roads of Inter-State or economic importance; examination of designs (outline as well as detailed) and plans for such bridges; scrutiny of estimates for the survey and construction of such bridges and their approaches; examination of tender papers and tenders of important bridges; watching progress of bridges works including inspection at site; preparation of type designs for different kinds of members in the superstructure and sub-structure of bridges; drafting of bridge code and laying down of specifications and standards for different members and materials used in bridge construction; dissemination of information on matters relating to bridges; tendering advice to States and other authorities on matters pertaining to bridges, participation in various professional committees, e.g. the various Committees & Sub-Committees of the Indian Standards Institution, the various River Commissions of the Flood Control Wing of the Central Water and Power Commission etc., tendering advice on design, construction etc., etc., of structures other than bridges, e.g. harbours, jetties, tunnels, etc.

(8) *Roads standards Section (Technical).*—This section is responsible for evolution of standards and specifications for highway design and construction after collection and study of factual data

about current practice in India and of practices prevailing in foreign countries and after discussion with Chief Engineers of States and other Highway Engineers; maintenance of liaison with the Indian Roads Congress through participation in the work of its technical committees; design and lay-out of road junctions after inspection of sites, if necessary; advice on setting and layout of petrol filling stations; control over the working of the Central Road Test Track, Calcutta; dissemination of technical information e.g. through the Transport Communications Monthly Review and the Indian Roads Congress Journal; collaboration with the Indian Standards Institution in the evolution of standards for materials of construction and Codes of Practice for issue by the institution; advice to the Ministry of Education in evolving Hindi equivalents for transport terms; assistance to the Central Road Research Institute in framing the basic policies for the research work of the Institute; participation in the work of Committee of the C.B.I. on standardisation of testing apparatus, scrutiny of specifications and techniques for road surfaces; coordination of road research in India; preparation of briefs on technical issues for the use of representatives of the Roads Wing deputed to attend technical conferences abroad, e.g. session of the International Roads Congress.

(9) *Materials and Plant Section (Technical).*—This Section is responsible for giving advice, when required, to States and the Community Projects Administration on the selection or purchase of road-making machinery and plant; advice on proposals for indigenous manufacture of road rollers, concrete mixers, stone crushers, and bitumen boilers, and other road-making machinery and plant; collection and dissemination of technical information regarding specification, prices, etc., of various types of road-making machinery; scrutiny of project estimates as regards mechanical methods of road construction and requirements of tools and plant for national highway works and projects in Part 'C' and Part 'D' States; assistance in the procurement of road-making machinery and road and bridging materials, e.g. road rollers, cement, coal, Callender Hamilton bridges, etc., required for national highway and other centrally aided road works; allocation of steel for road and bridge works in States; assistance to States in obtaining transport for the movement of road metal and other road-making materials required for road and bridge works; participation in the work of the Internal Combustion Engine Committee of the Council of Scientific and Industrial Research and manufacture in India of earth-moving and other type of Plant and Machinery Committee of the Ministry of Commerce and Industry; acting as convener of the manufacture of road-making and mechanisation sub-Committee of the Indian Roads Congress.

(10) *General (Technical) Section.*—This section handles technical work not within the sphere of projects, bridges, road standards, or materials and plant sections. It is also entrusted with the preparation and maintenance of maps, drawings, charts, sketches, drawing office stationery, litho and special printing and reproduction processes, and preparation of road atlases of States showing all types of roads in existence.

(11) *Statistical Section.*—This section is responsible for the collection, analysis, and compilation of road mileage and expenditure statistics; data relating to traffic surveys and other statistical problems connected with road development and road research and tourist

traffic statistics. The section published some years ago a compilation of the basic road statistics of India, which, besides road mileage and expenditure statistics, includes other transport statistics. This publication is brought up-to-date every year through the issue of annual supplements which contain up-to-date statistical information on the various subjects included in the main publication. The Statistical Section also undertakes original studies and research work in the field of economics of roads and road transport, including the economic benefit of roads to underdeveloped regions, traffic (including tourist traffic) surveys and miscellaneous experiments, e.g. experiments for assessing the cost of operation of motor vehicles on different types of surfaces. The section scrutinises reports issued on five-year plans of States from time to time with a view to ascertain the achievements (both physical and financial) in respect of road development with reference to the targets set out in the plans. The section also studies the civil works budgets of States with a view to ascertain the extent of funds allocated for communications and other allied works and the broad results of the study are published in the Transport-Communications Monthly Review issued by the Indian Roads Congress.

(12) *Standards, Materials and Plant Section (Non-technical Section).*—Any correspondence or discussions with other departments or authorities concerning the work of the following technical sections, viz., Bridges Section (standards and specification only) Road Standards Section, and Materials and Plant Section, is handled by the S. P. Section. References from the Chief Controller of Imports relating to the grant of licences for the import of road rollers and other road making plant and machinery or spare parts of such plant or machinery are also dealt with by this Section.

(13) *Administration (including Cash and Central Registry and Issue) Section.*—The Administration Section deals with the establishment of the Roads Wing and of the Central Road Test Track at Calcutta and the establishment (or headquarters) budgets and accounts, including the annual appropriation accounts of the Roads Wing. The Cash and Central Registry and Issue Sections work under the control of the Section Officer, Administration Section. The Central Registry and Issue Section receives all communications and papers addressed to the Roads Wing. It is also responsible for the typing of all communications to be issued from the Roads Wing and for the despatch of such communications and other papers to the addressees concerned.

(14) *Roads General Section:*—This section deals with office administration and other general matters common to two or more sections of the Roads Wing with the exception of general references relating to planning and preparation of material on road development for briefs, articles, speeches, etc., which are handled by the Planning Section. The Roads General Section is also in charge of the library of the Roads Wing.

APPENDIX VIII

Duties and responsibilities of Engineer Liaison Officers.

- (1) To act as local representative of the Government of India, Ministry of Transport (Roads Wing) and as Liaison Officer between the Chief Engineer of the State to which he is attached and the Consulting Engineer (Road Development);
- (2) To assist to the best of his ability in the planning and development works on National Highways with due regard to the requirements of the Central Government;
- (3) To assist in the preparation of estimates and designs and supplement by means of separate notes the description of, and justification for, the proposals, specifications and rates;
- (4) In the company of a Public Works Department Officer of a rank not below that of an Assistant Engineer, to examine proposals on the ground as may be considered desirable by the Chief Engineer of the State concerned and visit works in progress;
- (5) To prepare or assist in the preparation of progress reports;
- (6) To collect and assist in the collection of statistics of rates, labour, traffic etc. pertaining to roads and road works;
- (7) Generally to make himself thoroughly familiar with the liabilities for National Highway works and maintenance within his sphere of jurisdiction, preserve cordial relations with the State Officers, and do everything within his power to further the development of India's road system;
- (8) To be responsible for looking after the interests of the Government of India in road matters and proper maintenance of National Highways and other Centrally administered roads for the development and proper maintenance of which grants are sanctioned by the Centre;
- (9) To assist in the preparation of road and bridge registers for National Highways;
- (10) To examine and countersign estimates for National Highway and other road works upto a limit of Rs. 40,000, which are financed wholly or partly by the Government of India, and require their technical approval and financial sanction.

APPENDIX IX

A MEMORANDUM ON THE ECONOMICS OF DIESEL OPERATION VERSUS PETROL OPERATION

by

N. BALAKRISHNA, *Transportation Engineer, Bombay Municipality.*

It is disturbing to note, especially for engineers, that a body of opinion in our country holds the view that the petrol engine may be more suitable as the power source for heavy duty passenger service and load carrying vehicles than the compression ignition engine or the diesel oil engine as it is commonly called, for such a view is the antithesis of current practice in all parts of the world. One can understand the selection of the petrol engined vehicle for transport purposes in certain districts of our sub-continent but such districts are few and isolated. Even in a highly advanced country such as North America where fuel is very cheap and speeds are high on inter-city and State routes and where petrol engines are used for passenger service vehicles, the trend is markedly towards the compression ignition engines in the new designs. But the favourable conditions for petrol powered vehicles existing in North America do not exist in many other parts of the world and least of all in our own country. More than 17,500 buses operate in municipal passenger transport services alone in the United Kingdom and the handful of petrol powered heavy buses in operation are all of the pre-war type.

Long life, inherent high thermal efficiency, lessened fire risk, suitability of torque characteristics are some of the major accepted advantages of the diesel engine as the engine for economic hard work. Rarely have any of the U.K. bus chassis manufacturers fitted petrol engines in their bus chassis since the early 1930's and it is very difficult to bring to mind a British manufacturer who makes a modern petrol engine solely for heavy passenger service or trunk use.

The would-be manufacturers and assemblers of automobiles in our own country will, I dare say, be the first to acknowledge the supremacy of the diesel engine over the petrol engine for heavy duty work whether it be a load carrying truck or a passenger service vehicle. I am giving below an extract from the pamphlet issued by one of the pioneers in the automobile industry of India.

“YOU GET THESE ADVANTAGES WITH A DIESEL ENGINE—

1. An increase in miles per gallon of fuel of upto 40% compared with petrol engines;
2. Operates on low priced fuel which is non-volatile and non-inflammable at ordinary temperatures;

3. Sustained torque at low engine speeds thus enabling a diesel unit to hold its own without the need for frequent gear changing;
4. Lower maintenance cost.....no carburettor or electrical ignition equipment to service. Greater mileages between overhauls;
5. Non-contaminating exhaust as conclusively proved by laboratory tests;
6. Risk of fire practically eliminated. No restrictive storage regulation as is normally the case with pertol".

This Indian pioneer in the automobile industry has more or less summed up in a nutshell the major points where the diesel scores over the petrol. The list above is by no means conclusive and an attempt is made below to analyse and clarify the various factors which have made the supremacy of the diesel engine, as the power unit for road transport vehicles, an almost axiomatic principle. As the necessity for discussing petrol *versus* oil fuel at engineering conferences or Technical Institute functions is virtually nil, I have not been able to trace any suitable papers or current data to assist me in establishing a case and it is, therefore, possible that a few minor points to further establish the supremacy of the diesel may have been overlooked in this memorandum.

FUEL ECONOMY

Diesel and petrol engines are power units designed and constructed for conversion of heat energy into mechanical energy. The primary consideration in conversion of energy is the output of mechanical energy for a given amount of heat energy or in other words the efficiency of the conversion unit. The efficiencies of diesel and petrol engines are approximately 38 per cent. and 22 per cent. respectively. In other words a diesel engine converts 38 per cent. of the available heat energy into mechanical energy whereas a well designed petrol engine converts only 22 per cent. of the heat energy into mechanical energy. FOR A COUNTRY LIKE INDIA WHICH IS ENTIRELY DEPENDENT ON FOREIGN SOURCES FOR ITS REQUIREMENTS OF FUEL, IT IS OBVIOUS THAT THE USE OF DIESEL ENGINE WILL RESULT IN CONSIDERABLE ECONOMY OF FOREIGN EXCHANGE. This aspect of fuel economics is discussed in further detail at a later stage. Diesel oil whether it be in the country of origin or whether it be an imported commodity is always bound to be cheaper in value than petrol.

Fuel economics can be further explained by the work done by a given volume of fuel. The work done by a gallon of petrol on an average would be 52 ton-miles as against about 100 ton-miles for a gallon of high speed diesel oil. In other words, a gallon of diesel oil will do almost double the amount of work that a gallon of petrol does; allowance for the inherent extra weight of the engine and the chassis has to be considered. Even on a modest estimate a gallon of diesel oil will, therefore, do the traction work done by about 1.75 gallons of petrol which latter fuel is at least 50% more in c.i.f. value as compared to high speed diesel oil. In theory, therefore, the cost of fuel required for traction purposes with diesel is about one-third that of petrol.

Safer To Handle

Diesel oil is non-volatile and non-inflammable at ordinary temperatures. The risk of fire while handling or transporting is practically non-existent. Further, the restrictive regulation regarding storage, transport etc. of diesel oil is virtually negligible as compared to petrol.

Lower Maintenance Costs

High speed diesel engines are normally designed to run at 1,600 to 2,400 R.P.M. whereas petrol engines are usually designed to run at 3,000 to 3,500 R.P.M. Therefore, the moving parts of a diesel engine have lesser velocity than those in a petrol engine. Wear on any mechanical unit is primarily dependent on speed. The velocity at which relative movement takes place between the rubbing components being less on the diesel engine, the wear of the moving parts is generally at a lower rate than that in a petrol engine. This is reflected in the fact that the replacement needs of piston rings, bearings, etc. are less than those in a petrol engine for given mileages and docking and overhauling periods of a diesel engine are at greater mileages than those for a petrol engine. The overhauling is carried out approximately on the following basis—

Petrol engines—40,000 to 50,000 miles.

Diesel engines—1,20,000 to 1,40,000 miles.

Further, under conditions existing in major parts of our sub-continent accessories of a petrol engine like carburettor, fuel pump, ignition equipments etc., do go out of order frequently and the petrol engine has far too many components likely to fail for no specific omission or negligence in maintenance. Generally speaking a Maintenance Engineer in India would prefer a diesel engine for reliability in operation under conditions existing in our country.

Data compiled by an Indian Manufacturer:—M/s. Ashok Motors Ltd., of Madras have prepared certain comparative statistics on the results of operational services between petrol and diesel vehicles for conditions existing in our country and the conclusions arrived at may be more or less taken as a correct reflection of the economic advantages of diesel as compared to petrol. The assumption that petrol engines require overhaul at about one-third the mileage between overhauls of diesel engine is substantially correct based on experience. It is also an established fact that owing to the shorter period between overhauls of petrol engined vehicle, the number of days that a petrol vehicle is out of commission for scheduled maintenance and repairs is far in excess over the corresponding idle days of diesel vehicles. Even though critics will be able to find loopholes in some of the figures in the data compiled by Ashok Motors, I personally feel that a stronger case can be established for the diesel on an economic basis alone. To cite only one instance, depreciation is based on assumed lives of 4 years for petrol vehicles and 8 years for diesel vehicles. It is preferable to give the life in terms of miles instead of years but this is neutralised by the assumption that the vehicle covers an average of 30,000 miles annually. In actual practice, the assumed life of the petrol vehicle is substantially correct but the diesel vehicle does give much more than 8 years of useful economic life under the care of an experienced Maintenance Engineer. The Bombay Electric Supply & Transport Undertaking to-day operates diesel vehicles which have been purchased more than 17 years ago and have covered

over 4 lakhs of miles. This itself gives a further edge to the fact that the diesel is by far a better economical proposition as a power unit for passenger service vehicles and heavy duty trucks and strengthens the claim established in Ashok Motor statement.

Prevailing Operating Costs in the United Kingdom:—The Fortieth Edition, 1952-53 of "The Commercial Motor" has published tables of operating costs for all types of commercial vehicles based upon prevailing costs in the United Kingdom, for petrol, oil, steam and electric goods and passenger carrying vehicles. The figures given therein are taken as a standard by Operators in the United Kingdom and though the information is based on facts not obtaining in our country, the comparative values remain unaltered. All the 14 tables of costs given therein are illuminating and interesting to Maintenance Engineers and policy makers; Tables IX and X are of particular and topical interest to us. Extracts of Tables IX and X for petrol engined and oil engined four-wheeled buses covering 1,000 miles per week are reproduced below:—

TABLE IX
Operating costs of petrol-engined four-wheeled buses

COSTS
(For all users)

Standing Charges (Per Week)

	20-pass.		26-pass.		32-pass.		40-pass.		48-pass.		56-pass.		
	s.	d.											
Licences	.	14	7	19	4	23	3	27	0	30	10	34	8
Wages—													
(44 hours)	.	140	0	235	0	235	0	235	0	235	0	235	0
(88 hours)	.	280	0	470	0	470	0	470	0	470	0	470	0
Rent and Rates	.	12	7	13	8	13	8	13	8	13	8	13	8
Insurance	.	23	7	27	0	28	2	29	10	32	8	33	0
Interest	.	21	0	25	2	33	7	42	0	54	7	56	8
TOTALS:—													
(44 hours)	.	211	9	320	2	333	8	347	6	366	9	376	0
(88 hours)	.	351	9	555	2	568	8	582	6	601	9	611	0

RUNNING COSTS (Pence Per Mile). 1,000 Miles Per Week.

	20-pass.	26-pass.	32-pass.	40-pass.	48-pass.	56-pass.
Fuel . . .	5.01	7.13	8.31	9.08	9.98	11.10
Lubricants . . .	0.18	0.20	0.21	0.22	0.23	0.23
Tyres . . .	1.40	1.53	1.60	1.67	1.73	1.80
Maintenance (d) . . .	0.24	0.29	0.34	0.36	0.44	0.54
Maintenance (e) . . .	1.45	1.72	1.82	1.94	2.09	2.20
Depreciation . . .	2.58	3.01	3.15	3.20	3.78	3.88
TOTAL . . .	10.86	13.88	15.43	16.47	18.25	19.75

TABLE X

*Operating Costs of oil-engined four-wheeled buses.*COSTS
(For all users)

Standing Charges. (Per Week)

	20-pass.		32-pass.		40-pass.		48-pass.		56-pass.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Licences	9	4	23	3	27	0	30	10	34	8
Wages—										
(44 hours)	235	0	235	0	235	0	235	0	235	0
(88 hours)	470	0	470	0	470	0	470	0	470	0
Rent and Rates	13	8	13	8	13	8	13	8	13	8
Insurance	27	0	28	2	29	10	32	8	36	0
Interest	33	7	42	0	45	2	56	8	58	10
TOTALS:—										
(44 Hours)	328	7	342	1	350	8	368	10	378	2
(88 Hours)	563	7	577	1	585	8	603	10	613	2

RUNNING COSTS (Pence Per Mile). 1000 Miles Per Week.

	26-pass.	32-pass.	40-pass.	48-pass.	56-pass.
Fuel	3.27	3.81	4.16	4.55	5.73
Lubricants	0.20	0.21	0.22	0.23	0.23
Tyres	1.53	1.60	1.67	1.73	1.80
Maintenance (d)	0.29	0.34	0.36	0.44	0.45
Maintenance (e)	1.54	1.63	1.76	1.87	1.98
Depreciation	3.15	3.36	3.53	3.85	4.01
TOTAL	9.98	10.95	11.70	12.67	14.29

That the compiler of the above statistics of cost data has considered all the essential features can be assured from the introduction. It will be noticed from the above that difference in the comparative running costs per mile between petrol engined and oil engined buses is as much as 5.46 d. in favour of the oiler for a 56 passenger bus. This difference in favour of the oiler will be much higher in our country as the costs given above are worked on the assumption that petrol costs 4sh. 2d. per gallon and diesel oil fuel costs 3sh. 9½d. per gallon whereas the price differential between the two fuels is much more in India.

For lighter vehicles, whether they be load carrying or passenger service, the economy is not so pronounced in favour of the diesel, in spite of which extraneous factors such as national economy, foreign exchange relations etc. may induce the fitment of diesel engines even for the light duty vehicles.

Two articles which recently appeared in "The Commercial Motor" of Friday August, 29, 1952, are reproduced below without comments as they are of topical interest to automobile industrialists and operators of this country.

OIL ENGINES FOR LIGHT VEHICLES.

There is nothing in fitting an oil engine to certain light vehicles, because quite a number of private cars have been so equipped. It is interesting, however, to find that operators in the commercial field are considering the change-over from petrol to oil fuel for vans of under 30 cwt. capacity. A taxicab-owning concern has had a vehicle in this class with a four-cylindered engine actually approved by the Public Carriage Department of Scotland Yard, has put it into service in London, and is arranging to convert a number of others.

The vans concerned are, at least for the present, being tried out with three-cylindered oil engines, and one or two are regularly covering 400 miles a day on test. The major difficulties have been overcome and have, in fact, proved less than was thought might be the case. If the present progress continues, at least one vehicle of this type may be exhibited at Earls Court next month, where it would undoubtedly attract much interest.

The power units were not designed particularly for this class of work and that they should be found to be so good as to justify their use in the replacement of petrol engines is an indication of the progress likely to occur in the near future.

As far as the operator is concerned, it is almost purely a matter of economics. The higher the general tax on liquid fuel the more the oil engine benefits, for in effect both the ordinary price and the tax are halved by being spread over approximately double the mileage per gallon.

Factors which have to be considered are the comparatively high cost of the conversion, the fact that maintenance of the oil engine has, on the average, proved to be rather below that of the petrol unit and that the smoother acceleration may help to reduce tyre wear. It is easy to estimate at what annual mileage the cost of vehicles with the two types of engine will balance. After this point the oil engine will give a definite saving per mile.

Whether the public will appreciate oil-engined taxicabs remains to be seen. Probably most of the passengers will not notice any difference for one of our staff who had a run on the first put into service found it to be remarkably smooth and comparatively quiet even when idling. On the other hand a German small-four-cylinder oiler which was exhibited last year at the Turin Show, appeared to our representative to be unduly noisy until pulling.

"LONDON'S FIRST OIL-ENGINED TAXI.

The first oil-engined taxicab to be licensed for operation in the metropolitan area was put into service on Thursday of last week. The basis is an Austin cab forming one of the fleet run by Birch Bros. Ltd., Chathcart Street, London, N.W. 5.

The engine used is similar to that fitted in Ferguson tractors. This unit has four cylinders, with a bore of $3\frac{3}{8}$ ins. and a 4-in. stroke, the capacity being 2.1 litres. It has a Freeman-Sanders combustion chamber and the modifications called for were carried out by the Freeman-Sanders Engine Co., Ltd., Penzance.

The modifications were concerned with the camshaft, sump, inlet manifold and flywheel. The camshaft employed has its basis a shaft similar to that used in the Standard Vanguard car. As the Standard sump would have fouled the track rod, a special sump had to be made. Space considerations did not permit a fan to be used.

The Austin flywheel, dynamo, starter motor, clutch and gear box have been retained and a Layrub-coupling introduced.

Mr. John Birch, who has been responsible for this conversion, told a representative of "The Commercial Motor" that there was little difference in the matter of weight between the oil-engined cab and the standard petrol-engined taxi.

It is doubtful whether the passengers would notice any difference in the running as the unit is remarkably free from noise and the vibration transmitted through the body is negligible. The unit idles as quietly as a petrol engine.

The registration letters and number are KGT 109 and the police licensing number 7815. As a precaution against the fuel tank being replenished with petrol, the cap is painted green.

Although the prototype is somewhat of an experiment, Mr. Birch is looking to the day when the whole fleet of cabs operated by his company will be similarly converted."

REGULATION OR CO-ORDINATION OF DIESEL WITH PETROL

The fact that there is need on an all-India basis for regulation and/or co-ordination of the use of diesel driven transport vehicle with petrol driven transport vehicles cannot be denied. A large variety of makes and types of chassis and engines, whether they be petrol or diesel is not conducive to economy or efficiency. A restriction on the variety of types apart from a restriction on the variety of makes while at the same time giving the consumer selection of choice from a competitive market is indicated for economic and efficient road transport operation. There appears to be no need to lay further stress on the above as there will be no difference of opinion on the subject. The advantages of a petrol powered vehicle cannot be overlooked for hilly and comparatively inaccessible parts of the country and where very rapid acceleration is necessary. That the diesel engine does not come into its own unless the vehicle on which it is mounted is over 3 tons in capacity cannot be overlooked.

Standardisation on the following types of vehicles is, therefore, indicated.

(a) Light Commercial Transport Truck	Petrol engine.
(b) Light Passenger Service Vehicle	Petrol engine.
(c) Heavy Commercial Transport Truck	Petrol engine and with diesel engine as an alternative.
(d) Heavy Passenger Service Vehicle	Petrol engine and with diesel engine as an alternative.
(e) Extra Heavy Commercial Transport Truck	Diesel engine.
(f) Extra Heavy Passenger Service Vehicles	Diesel engine.

FALLACIES

There appears to be a very great confusion of thought in our country with regard to vehicles fitted with diesel engines. Many operators and administrators both official and non-official and even distributors have an idea firmly fixed in their minds that a motor vehicle powered by a petrol engine is a cheap vehicle while one powered by a diesel engine is necessarily expensive. This definitely is not the case and the fallacy arises because until recently a majority of vehicles in use for passenger and goods transport were light American types. These vehicles before the introduction of heavy import duties were admittedly cheap to purchase but they were cheap not because they were fitted with petrol engines but because they were mass produced light chassis which had been designed with the specific purpose of providing the cheapest form of commercial transport. When passenger transport services commencing with the Bombay Electric Supply and Transport Undertaking of Bombay and Hyderabad State Transport followed rapidly by the larger organisations such as Bombay State Transport, West Bengal Transport etc..

introduced diesel engines as the power units, they preferred a very large heavier and sturdier type of chassis manufactured in the United Kingdom. These vehicles were more expensive compared with those which had previously been used. They were not expensive because they were fitted with diesel engine, but because they were heavy duty vehicles designed for a longer service life. This fact will be borne out when I say that the Bombay Electric Supply and Transport Undertaking have still in service vehicles which have seen service for over 17 years whereas the cheaper types of vehicles previously referred to are normally thrown in the scrap heap after 4 or 5 years of useful service. Broadly speaking, the cost of a motor vehicle is related to the weight of metal in the vehicle and a heavy duty chassis is comparatively expensive because it has a greater weight of material in it apart from all other considerations.

It is not realised in this country that the long distance inter-city type of transport vehicle commonly used in the U.S.A. is a very much heavy duty type vehicle and though these vehicles are powered by petrol engines and provide a very high standard of comfort, they are in fact more expensive than their counter part in the United Kingdom or those used by the larger and well established transport organisations such as the Bombay Electric Supply and Transport Undertaking, Hyderabad State Transport etc. Fuel cost in the U.S.A. forms a minor item in operation costs because petrol is comparatively cheap in that country. Even so, as stated earlier, there is a definite trend towards diesel engines. Early in 1930's commercial vehicle manufacturers of the United Kingdom such as Leyland, A.E.C., etc., offered alternative power units in all their chassis—either petrol or diesel. The difference in price between the bus or the lorry with petrol engine and with diesel engine was indeed small. A study of the history of bus transport in Bombay City will show that the Bombay Electric Supply and Transport Undertaking were using Leyland, A.E.C. and similar vehicles fitted with petrol engines in the early stages. The better economics of diesel engines made the Bombay Electric Supply and Transport Undertaking go over to 100 per cent. diesel operation. In fact, the demand in their country and from overseas on the said manufacturers for petrol engines reduced to a point at which it was no longer economic for them to produce the petrol engined heavy duty chassis.

Summarising from the above, when comparing prices of diesel engined and petrol engined chassis, it is necessary to ascertain that the chassis are comparable with regard to size, function and design. It is absurd to suggest for comparison that the cost of a Ford or a Chevrolet chassis which happens to be fitted with a petrol engine is cheaper than a Daimler which happens to be fitted with a Gardner diesel engine. If the same Daimler chassis were fitted with a petrol engine of the same size and power output as the diesel unit, the cost of the Daimler would still be considerably in excess of the Ford or the Chevrolet. This point appears to be so obvious that I do not intend to stress it further. Even so, very few people in the transport industry appreciate this fact and are able to forget that they have to pay comparatively high price for these chassis because they are powered by diesel units and not petrol units. I am reminded of the old adage—"comparisons are odious" when people glibly talk of the petrol vehicle being very much cheaper than the diesel vehicle. It cannot be denied that the diesel engine

is costlier than the petrol engine but the fact to remember is that the proportionate increase in cost for the same type of chassis fitted with diesel instead of a petrol engine is small when compared to the total cost of the vehicle. From the point of view of the operator, who is only concerned with the additional interest and depreciation charges which arise from the increased purchase price, and savings in fuel cost and the long life obtained, it is obviously economical for him to pay the higher first cost for the vehicle fitted with a diesel engine. There is another general belief that a diesel engine is costlier to maintain than a petrol engine. That this is a fallacy and is contrary to facts has been established by me previously under the heading "Lower Maintenance Costs".

There is an impression in many quarters which is also a fallacy that the lower operating cost in relation to fuel consumption is due to the fact that diesel oil is taxed at a lower level than petrol. But even if Government in due course tax the diesel oil at the same rates as petrol and thus make the price of both the fuels identical, it cannot be denied that there will still be a greater advantage in favour of the diesel engine due to the higher thermal efficiency of the latter. If equivalent types of buses or lorries with comparable sizes of engines are operated under approximately identical conditions, one being a diesel unit and the other a petrol unit, that the miles per gallon for the diesel will not be less than 1.6 times than that of the latter can be established beyond any reasonable doubt. In other words, if the petrol vehicle gives 10 miles to a gallon of petrol, the diesel vehicle can be confidently expected to give 16 miles per gallon of high speed diesel oil.

That the price differential between diesel oil and petrol in the United Kingdom is not so pronounced as in India had been referred to previously. Even so, operators in the U.K. are overwhelmingly in favour of diesel transport for transport of goods in loads from 3 tons and upwards and for all transport of passengers, so much so, that the petrol engine is rapidly disappearing from the roads of United Kingdom. The larger manufacturers of commercial vehicles in the United Kingdom are giving up or have given up the production of petrol engines.

TECHNICAL DATA

A resume of technical data on which some of the above statements are based is given below:—

1(a) Calorific value of petrol	20,000 to 21,000 B.T.U. per lb.
(b) Calorific value of diesel	18,500 to 20,000 B.T.U. per lb.
2(a) Speed range of Automotive petrol engines	3,000 to 4,000 R.P.M.
(b) Speed range of Automotive diesel engines	1,600 to 2,400 R.P.M.
3(a) Compression ratio of Automotive petrol engines	6:1 to 8:1
(b) Compression ratio of Automotive diesel engines	12:1 to 16:1
4(a) Minimum specific fuel consumption of petrol engines	0.45 to 0.6 Lbs. per B.H.P. hour.
(b) Minimum specific fuel consumption of diesel engines	0.35 to 0.45 Lbs. per B.H.P. hour.
5(a) Specific gravity of petrol	0.7 to 0.78 at 60° F.
(b) Specific gravity of high speed diesel oil	0.82 to 0.95 at 60° F.
6(a) Specific output of petrol engine	range 0.4 to 0.52 H.P. per cubic inch of swept volume.
(b) Specific output of a diesel engine.	range 0.22 to 0.32 H.P. per cubic inch of swept volume.

CONCLUSION

Road transport in India has reached a stage where the experienced operator has come to the conclusion that the lighter type of commercial vehicles which were extremely popular in the earlier years cannot give the requisite long life, freedom from breakdowns and economic working which are essential for the development of road transport. Transport operators of over a dozen undertakings who were possessing medium-size fleet switched over on their vehicles all their existing petrol engines to diesel engines for this specific reason.

The assemblers and undertakings who have plans of progressive manufacture of commercial vehicles in India appear to have tackled only light type of trucks fitted with petrol engines and medium types fitted with petrol engines with diesel engines as an alternative. These latter vehicles cannot be considered suitable in design for the development of city passenger transport or heavy goods transport. No attempt appears to have been made so far, to cater for the special needs of city passenger transport operators providing transport facilities in cities such as Bombay, Delhi, Madras, Calcutta, Hyderabad etc. Therefore, until this country develops manufacture of suitable diesel engined vehicles designed specifically for heavy duty service of the type required by State municipal or private owned undertakings for goods and passenger road transport, it appears that the urgent economic necessity of road transport development can only be met with if our Government allows import of these types of vehicles and spare parts required for their maintenance.

APPENDIX X(A)

Statement showing the grants sanctioned to various States towards the cost of iron flats required for making wider tyres for bullock cart wheels

Name of State	No. of pairs of tyres	Amount of grant sanctioned	R.s.
A. For making 3 $\frac{1}{2}$" wide tyres.			
1. Assam	100	2,500	
2. Bihar	100	2,500	
3. Bombay	100	2,500	
4. <i>Punjab</i>			
(i) former Punjab State	100	2,500	
(ii) former PEPSU	100	2,500	
5. Orissa	100	2,500	
6. Uttar Pradesh	100	2,500	
7. Madras	100	2,500	
8. <i>Madhya Pradesh</i>			
(i) former Madhya Pradesh	100	2,500	
(ii) former Madhya Bharat	100	2,500	
(iii) former Vindhya Pradesh	100	2,500	
9. Andhra Pradesh (former Hyderabad State)	100	2,500	
10. Mysore	100	2,500	
11. Kerala (former Travancore-Cochin State)	100	2,500	
12. Rajasthan	100	2,500	
TOTAL	1,500	37,500	
 B. For making 3" wide tyres			
1. Bombay	21	525	
2. Mysore	20	500	
3. Vindhya Pradesh (now merged with Madhya Pradesh)	20	500	
TOTAL	61	1,525	

APPENDIX X(B)

Statement showing the grants sanctioned to various States towards the cost of iron flats required for making tyres (3½" wide) for bullock cart wheels in the Community Project Areas

Name of State		No. of pairs of tyres	Amount of grant sanctioned
1. Assam	.	100	Rs 2,500
2. Andhra Pradesh			
(i) former Andhra State	.	12	300
(ii) former Hyderabad State	.	100	2,500
3. Bihar	.	100	2,500
4. Bombay			
(i) former Saurashtra State	.	100	2,500
(ii) former Kutch State	.	20	500
5. Orissa	.	60	1,500
6. Punjab	.	100	2,500
7. Madras	.	10	250
8. Madhya Pradesh			
(i) former Madhya Pradesh State	.	80	2,000
(ii) former Bhopal State	.	70	1,750
9. Mysore			
(i) former Mysore State	.	20	500
(ii) former Coorg State	.	100	2,500
10. Rajasthan			
(i) former Rajasthan State	.	100	626
(ii) former Ajmer State	.	25	
11. North East Frontier Agency	.	3	75
12. Manipur	.	12	300
TOTAL		1,012	25,300

APPENDIX XI

Statement showing the Summary of Conclusions/Recommendations

Serial No.	Reference No. to para No.	Summary of Conclusions/Recommendations.
1	2	3
1	6	The Committee are glad to note that the necessity of relaxations in the Code of Principles and Practices for the regulation of motor transport has at last been recognised and that the necessary relaxations have been incorporated in the Motor Vehicles (Amendment) Act, 1956. The Committee hope that prompt administrative measures will be taken by the Centre and the State Governments to ensure that the benefits accruing from the relaxations incorporated in the Motor Vehicles (Amendment) Act, 1956, are made available without any time-lag.
2	8	The Committee recommend that the Government should announce formally their policy in regard to the development of different means of transport.
3	10	The Committee suggest that the principles of inland transport co-ordination as laid down by the International Chamber of Commerce and enumerated in para 9, might be adopted by the Government with as few modifications as absolutely necessary, as their national transportation policy.
4	11	The Committee are glad to observe that a provision has been made in the Motor Vehicles (Amendment) Act, 1956, to constitute an Inter-State Transport Commission for the purpose of developing, co-ordinating and regulating the operation of transport vehicles in respect of any area or route common to two or more States.
5	12	The Committee recommend that prompt steps should be taken for the setting up of the Inter-State Transport Commission so that it may start playing a useful role in developing motor transport in the country to relieve the existing transport bottleneck.

1 2

3

6 14

The Committee are in entire agreement with the following observations of the Technical Sub-Committee of the Subject Committee on Transport in its report on future of road transport and road-rail relations which was issued in November, 1943:

"Our picture of the future of rural India is one in which motor transport will penetrate to the remotest villages connecting them with the main transport system and will play a gradually increasing part in marketing between village and town and villages. Thus the villager will have at his disposal modern means of transport, readier communication with the outside world, medical attention and other social services to no less a proportionate degree than the town dweller. To attain this result, active development of roads and constructive development of road transport are necessary."

7 15

It is worthwhile noting here that assigning the above role to the motor transport will in no way affect adversely the revenues of the Railways. On the contrary, it will bring more traffic to the Railways from the interior for despatch over long distances.

8 29

The Committee recommend that efforts should be made to import uniformity in taxes levied by the States and to bring down the incidence of taxation on motor vehicles. Now that the States have been reorganised into bigger units there are more chances their agreeing to a uniform rate of motor taxation and its realisation by the Centre through a single levy and its distribution to the States in agreed ratio as in the case of Inter-State sales tax. This proposal should be pursued with vigour by the Ministry with different State Governments.

9 34

The Committee are of the opinion that the setting up of the Inter-State Transport Commission for preparing and implementing schemes for the development of motor transport in inter-State regions should not be delayed.

2 2

3

10 37-38 A certain amount of regulation and control over motor transport is, no doubt, necessary with a view to ensuring safe, reliable and efficient service. Care should, however, be exercised to see that such regulation and control does not become so excessive as to hamper the growth of the industry itself. The Committee, therefore, hope that the Inter-State Transport Commission contemplated in the Motor Vehicles (Amendment) Act, 1956 will not act as a restrictive force, but as a wise counsel for the proper and well co-ordinated growth of motor transport to supplement effectively the transport requirements of the country.

11 43 The Committee are sorry to note that the response from the States to the question of forming Road Transport Corporations has been poor.

12 44 The Committee were informed that the Central Government have issued a directive in consultation with the Planning Commission that no allocation of funds would be made for nationalisation or expansion of existing services unless the State Governments set up Transport Corporations under the Transport Corporations Act. The Committee hope that this will expedite the formation of Corporations in all the remaining States.

13 45 The Committee very much appreciate the enunciation of the policy by the Planning Commission regarding the nationalisation of road transport. They, however, wonder if it could not be carried a step further. The progress of the setting up of the Transport Corporations has been extremely slow. Considerable ground has yet to be covered regarding the nationalisation of passenger transport. It is, therefore, doubtful whether the States will be in a position to take the added responsibility of nationalising goods transport in the Third Plan period also. If, therefore, after consultation with the State Governments, the policy in regard to the nationalisation of the goods transport is chalked out upto the end of the third Plan period, it will act as a great fillip to private enterprise. It has to be remembered that the life of a goods vehicle is about 8 to 10 years. If, therefore, the private enterprise is given a clear indication of the policy till 1965-66, considerable expansion of goods transport can take place in the private sector. This will materially assist in relieving the transport bottleneck in the country.

1

2

3

14 56 The Committee hope that the implementation of the recommendations of the Tariff Commission the acceptance of which was announced by the Government on the 23rd January, 1957 will put the automobile industry in the country on a sound footing. They, however, suggest that the annual production figures should be reviewed periodically against the requirements, and [the installed capacity stepped up further if the requirements increase at a more rapid pace. They anticipate that this is likely to occur as a result of the liberalised policy of the development of motor transport.

15 65 The Committee were rather surprised to note that no meeting of the Central Board of Transport has been held for more than last three years. This indicates that the Central Board of Transport, as at present constituted, is not performing any useful purpose.

16 66 The Committee suggest that the Central Board of Transport may be amalgamated with the Transport Advisory Council. In view of the reorganisation of the States, the Transport Advisory Council also requires to be reconstituted. The Committee were given to understand that the question of re-constitution of the Council has been under consideration of the Ministry of Transport. The Committee suggest that this question may be finalised without undue delay and that suitable non-official representation may also be provided on the Transport Advisory Council.

17 67 The Standing Committee of the Central Board of Transport has, however, been performing a useful function. It may, therefore, be allowed to continue and may be re-designated as the Standing Committee of the Transport Advisory Council.

18 77 The Committee were given to understand that the Study Group consisting of representatives of the Ministries of Finance and Home Affairs and the O & M Division of the Cabinet Secretariat which examined the working of the Roads Wing in detail in the middle of 1955, agreed that the present system had proved very satisfactory. If so, the feasibility of extending the system to other Ministries also under similar circumstances, might be examined by the O & M Division.

1 2

3

19 83 With the increased activities in the country in the agricultural and industrial spheres, transport problems have assumed a very great importance. The existing method of the handling of important problems of shipping etc. by the Secretariat staff cannot be regarded as satisfactory. The Committee were surprised to learn that recently an engineering expert on roads has been put in overall charge of the development of minor ports. The Committee are sorry to record that the development of the various modes of transport in the country such as shipping, roads, inland water navigation, port facilities etc., is not as rapid as they would like it to be. This is, of course, to a considerable extent, due to inadequacy of funds. It is also partly due to inadequate organisation at the Centre to deal with these problems.

20 84 With the ever-increasing complexity of transport problems, the Committee are of the opinion that a stage has now come when we should have a competent Central Executive Board which will function on the same lines as the Railway Board. It may be called the Central Transport Board, consisting of the Chairman and functional members. The Chairman will be the *ex-officio* Secretary of the Ministry and the members will be of the status of a Joint Secretary. To begin with, the Board should have three members *viz.* Member (Shipping), Member (Roads), Member (Ports). The Chairman, Railway Board and the Chairman, Central Water and Power Commission should be the *ex-officio* Members of the Central Transport Board.

Each functional Member should have adequate experience of the subject in his charge. Thus: for instance, an individual who has worked efficiently as a Director General (Shipping) may be selected as Member (Shipping). Chairmen of Port Trusts could provide Member in charge of Ports and some senior Chief Engineer might be selected as a Member in charge of Roads. Each functional member should be assisted with adequate technical staff as is the case with the Railway Board. The Committee are of the opinion that such an executive board will be the only adequate step to deal expeditiously with many complicated problems of co-ordinating and developing various modes

of transport. The Board should have adequate technical organisation at its disposal to ensure that the important policy decisions are promptly implemented and that proper guidance and supervision are provided to watch the progress of the various schemes and projects.

21 85 The Committee would also like to reiterate the recommendation made in para 42 of their Nineteenth Report that the Transport Ministry should be separated from the Railway Ministry and placed under the charge of a separate Minister for Transport. This is absolutely necessary if the various complicated problems of transport are to receive adequate attention.

22 88 The Committee suggest that the scrutiny of comments etc. received on the proposed bill for regulation of conditions of work of transport workers, from the State Governments and other interests by a sub-Committee consisting of the representatives of State Governments' nationalised undertakings and some non-official associations interested in road transport should be expedited and the Bill brought before Parliament at an early date.

23 93 The Committee recommend that in view of the economy inherent in the use of trailers, the Ministry of Transport should encourage the manufacture and use of trailers both by the private and public sectors.

24 98 The Committee are of the opinion that the Engineer Liaison Organisation should be regarded only an experimental measure. Definite criteria should be laid down to judge its success or otherwise, and the position should be reviewed at the end of the Second Plan in the light of these criteria. If the concrete results achieved by this organisation are substantial, then and then only should it be allowed to continue. In the meantime the feasibility of converting this organisation on the same lines as in the U.S.A should also be examined.

25 110 The Committee suggest that the extent of saving in foreign exchange that would accrue by dieselisation should be worked out, and if it is found to be substantial, efforts should be made by the Ministry of Transport to replace petrol operation by diesel operation, upto a reasonable limit.

I 2

3

26 115 The Committee suggest that special efforts should be made to see that the scheme drawn out by the Deputy Secretary, Ministry of Transport in his personal capacity, for the setting up of co-operative transport societies is worked out successfully. They also suggest that a paragraph should be added in the annual Report of the Ministry of Transport, indicating the progress of the scheme. The Committee understand that co-operative transport societies are functioning successfully in States like Madras, Punjab and Saurashtra. They, therefore, do not see why the above scheme should not work successfully, if sufficient interest is taken and proper guidance is given at the various stages of its development.

27 131 The Committee are of the opinion that a very careful expert examination of the problem of improving the bullock carts and positive steps towards that end are urgently called for separately for rural and urban areas.

28 134 The Committee feel that the allocation of Rs. 11/2 lakhs for conversion of iron tyred bullock carts into pneumatic tyred carts is too small for such a vast country. They, therefore, recommend that the amount should be suitably increased so that all the States may get the benefit of the scheme. The State Governments should also be persuaded to allot a certain quota from their own funds before any central assistance is given towards the scheme. In this connection, the Committee would like to draw the attention of the Ministry to their observations in para 38 of their 45th Report.

29 139 The Committee hope that the State Governments will realise the value of origin and destination surveys of road traffic. In particular, they recommend that the Transport Ministry should persuade with grants-in-aid from the Central Government the respective State Governments to carry out similar surveys in the cities of Calcutta, Ahmedabad and Kanpur and follow a well devised plan to meet traffic needs in such cities.

30 143 The Committee suggest that a study be made in consultation with the State Governments of the conditions as existing in different States in India as well as in other foreign countries in regard to tolls and imposts on National Highways and State Roads

1

2

3

and that, as far as possible, a uniform policy should be followed both in regard to National Highways and State Highways. The incidence of tolls should be kept to the barest minimum, and only for certain specific purpose, care being taken to see that it does not, in any way, impede the smooth flow of traffic.
