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# THE KIRKHAMGATE-DISHFORTH TRUNK ROAD SCHEME: AN ANALYSIS OF THE POLITICS OF TRUNK ROAD PLANNING

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| ACTRA | Advisory Committee on Trunk Road Assessment |
| BRF | British Road Federation |
| CBMC | City of Bradford Metropolitan Council |
| DoE | Department of the Environment |
| DTp | Department of Transport |
| EYFS | East Yorkshire Farm Services |
| HBC | Harrogate Borough Council |
| KMC | Kirklees Metropolitan Council |
| LCC | Lancashire County Council |
| LsCC | Leeds City Council |
| MAFF | Ministry of Agriculture, Fisheries and Food |
| MBC | Metropolitan Borough of Calderdale |
| MoT | Ministry of Transport |
| NERCU | North Eastern Road Construction Unit |
| NYCC | North Yorkshire County Council |
| RCU | Road Construction Unit |
| RHTM | Regional Highway Traffic Model |
| SACTRA | Standing Advisory Committee on Trunk Road Assessment |
| TRRL | Transport and Road Research Laboratory |
| WMDC | Wakefield Metropolitan District Council |
| WRCC | West Riding County Council |
| WYMCC | West Yorkshire Metropolitan County Council |
| WYTS | West Yorkshire Transportation Studies |

# THE KIRKHAMGATE-DISHFORTH TRUNK ROAD SCHEME: AN ANALYSIS OF THE POLITICS OF TRUNK ROAD PLANNING

## 1. INTRODUCTION

Trunk road planning is a complex issue which is frequently reduced to a technical problem of forecasting traffic demand and planning to meet that demand. What is often forgotten is that the planning process is a political one. Decisions have to be made as to whether a road is needed within the context of a national transport network; what alignment that road is to take; whether resources are available for a particular scheme subject to priorities which have to be decided; whether the road is deemed to give a worthwhile return of investment given a certain set of criteria for measuring value for money; and so on. Clearly, many of the decisions taken are overtly political but at the same time we can show that many decisions which are political are hidden behind a mystique of technical planning. It is these decisions which I wish to explore in this paper in a way which may cast light on a broader view of the political process in modern Britain.

At the outset, I should explicitly define what I mean by politics. Politics is the exercise of power by a particular individual, group or class and power is the ability to influence or control one's life and actions and those of others. If such a definition is vague or contentious, then so be it. I make no apologies for the fact, but I am defining the context of the arguments presented below.

The structure of the discussion works at two levels. Firstly, there is a general discussion of some of the problems of the road planning process as it operates in Britain. Secondly, there is a more specific discussion of problems which arise from a particular case study, namely the Kirkhamgate-Dishforth trunk road scheme. The latter analysis serves two purposes. On the one hand, the case study illustrates the way in which more general processes operate at a specific level. On the other, the case presents some particular problems which can only be identified for that one scheme.

## 2. ROAD PLANNING AND POLICY IN BRITAIN

### 2.1 The development of a trunk road scheme

It takes at least ten years between the initial identification of the possible need for a road scheme and the road being opened for traffic. During that time the scheme develops through a series of stages. The process is represented diagrammatically in figure 1. The main procedures have been in operation since the 1968 Transport Act although some reforms were made subsequent to the report of the Advisory Committee on Trunk Road Assessment (ACTRA) published in 1977 (Department of Transport/ACTRA, 1977). The main stages of development are as follows.

(i) *Identification of need.* The possible need for a new road may be identified from a variety of sources. Congestion, accidents or environmental problems may suggest that a problem exists to which a new road may be one alternative solution. Alternatively, the need for a new road may arise from governmental policy in developing the transport network as a whole.

(ii) *Initial design.* If a potential need for a road is seen, then the Department of Transport (DTp), through its regional branches, the Road Construction Units (RCUs), carries out an initial design whereby traffic flows are forecast and a provisional plan drawn up.

(iii) *Initial assessment.* On the basis of this design an assessment is made of the likely costs and possible effects of the proposals. The scheme is still somewhat embryonic.

(iv) *Preparation pool.* If the Secretary of State for Transport feels that there is sufficient evidence that the road is both necessary and a viable proposition, then an entry is made into the 'preparation pool'. The pool is a reservoir of schemes under design or awaiting implementation. Most of the schemes in the pool were first identified in the 1970 White Paper 'Roads for the future: the new inter-urban plan' (Ministry of Transport, 1970) although schemes have since been added. The pool is published annually as part of the government policy White Paper series 'Policy for roads'. It is after this stage that detailed design and analysis of alternative routes are carried out by the RCU who send a report to the Secretary of State.

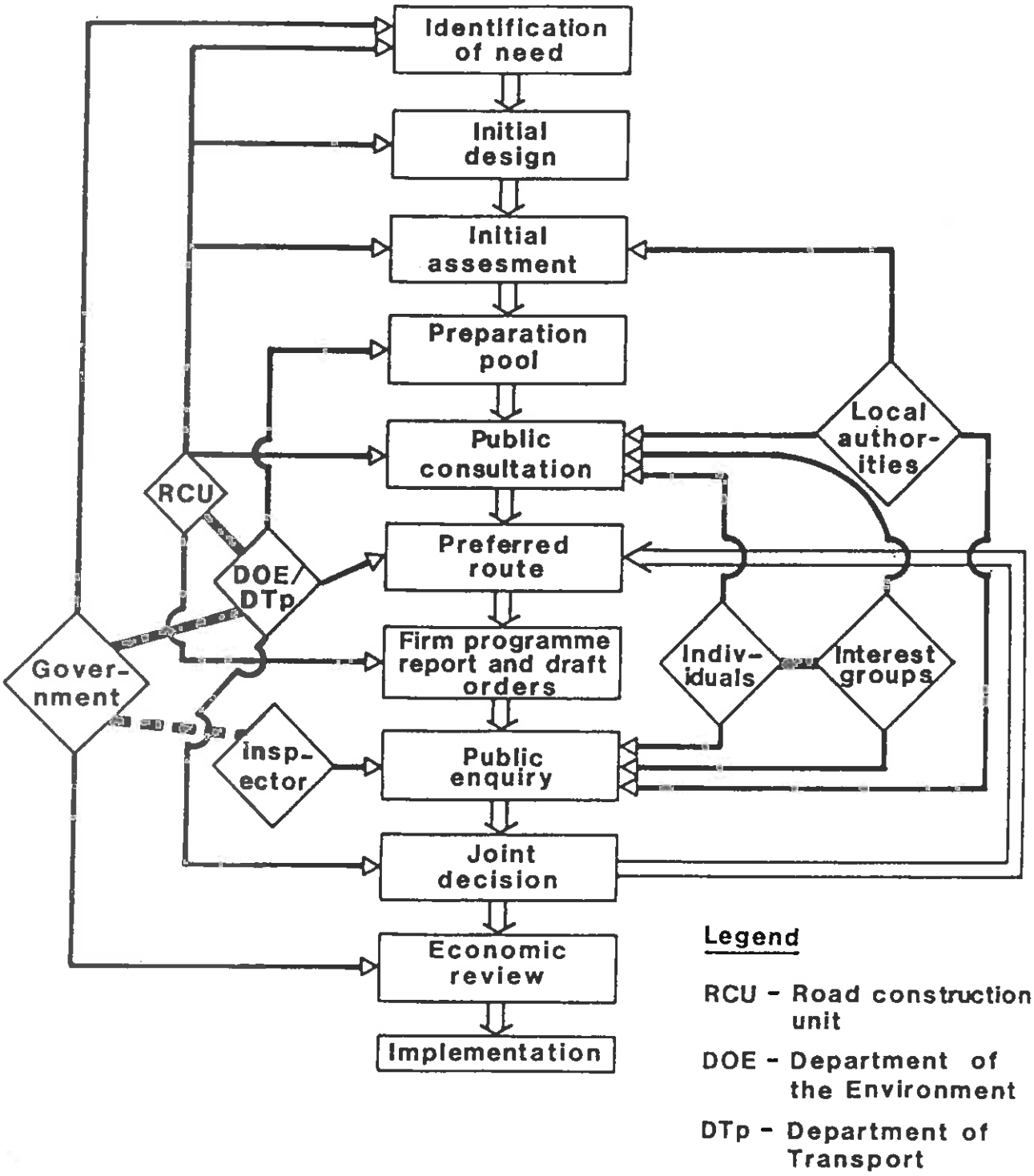



Figure 1. The Trunk Road Planning Process and Participating Agents

(v) *Public consultation.* Once alternative strategies have been identified, these are presented for public consultation whereby comments are solicited from individuals, pressure groups and local authorities - the latter having previously been consulted with regard to their own plans. The results of the public consultation are included in the report sent by the RCU to the Secretary of State.

(vi) *Preferred route.* On the basis of the information which he has received the Secretary of State chooses a preferred route upon which final design and analysis is carried out. The long process of implementation now begins.

(vii) *Firm programme report and draft orders.* The proposals are published for public inspection in the form of a firm programme report and draft orders are issued to define the route of the scheme (the line order) and any alterations which need to be made to the existing road network (the side roads order).

(viii) *Public inquiry.* If objections are made to the scheme then a public inquiry is held to hear those objections. The Inquiry Inspector prepares a report on the proceedings which he presents to the Secretaries of State for the Environment and for Transport. The report includes the Inspector's recommendations for the scheme.

(ix) *Joint decision.* The Secretaries of State then make a joint decision on whether or not the orders are to be confirmed. If they are not, then a new route may be chosen and new draft orders published and so on.

(x) *Economic review.* If the orders are confirmed and the scheme is to be implemented, then a decision is made following an economic review made by the government on the grounds of resource availability and priorities established between routes.

(xi) *Implementation.* If finance is available, the scheme is implemented. Land has to be acquired through compulsory purchase orders which may require the holding of a further public inquiry. Tenders are invited and contracts let. Finally, the road is constructed and opened for traffic.

The procesures outlined above are clearly defined but in practice there are many shortcomings to the way the system is operated. As we shall see, decisions are made at various stages which appear to be

technical answers to design problems but contain a distinct political element.

## 2.2 Forecasting and assessment techniques

### (i) *Traffic forecasts*

The main method of forecasting employed by the RCUs is based upon origin and destination surveys. Surveys are conducted on existing roads to estimate the total current trip flows and to assess the proportion of current traffic that would use the proposed road if it existed at the time of survey. A forecast is then made on the basis of growth factors published by the DTp. The DTp's forecasts are based upon continuing trends in the rate of growth of car ownership and mobility.

There are, however, serious drawbacks to the forecasting methods used. In the first place, there are technical problems in the use of the local origin-destination survey forecasts. These have been considered in detail by the Standing Advisory Committee on Trunk Road Assessment (SACTRA)(DTp/SACTRA, 1979 - see also Heggie, 1979). The local survey may fail to take account of traffic which would reassign to a new road from outside the study area or traffic which may reassign to a new road outside the study. The surveys cannot take account of traffic which may change origin or destination due to the changes of accessibility brought about by the new road. Surveys may rapidly become out of date during the lengthy stages of design. Frequently, there is also a lack of consistency in the assumptions, methods and results of different survey teams. Finally, much survey work is relevant only to the scheme for which it is being prepared and is not of use for other purposes. Clearly, this is a waste of resources.

The DTp has been aware of these shortcomings and in 1975 it launched the Regional Highway Traffic Model (RHTM) Project to develop a more workable method of forecasting flows. More will be said of the project later. With these technical difficulties it is hardly surprising that many objectors have been able to develop their own forecasts for a scheme which contrast sharply with those made by the RCU. As we shall see later, this was the case with the Kirkhamgate-Dishforth Scheme.

Notwithstanding the technical difficulties of forecasting, there are further problems which are not so apparent. Each of these forecasts includes certain built-in assumptions regarding the projected growth of road traffic (as we have noted these are usually included in the DTp's growth factor forecasts). The main devise employed is to assume that traffic will continue to grow with respect to recent trends and subject to an upper limit to growth. Thus, car ownership is assumed to form a logistic growth as represented in figure 2. More accurate forecasts are then built on a model which incorporates the rates of change in real incomes and real motoring costs. The model, outlined by Tanner (1974), is given by

$$\frac{dy(t)}{dt} = ky(t)\{s - y(t)\} \qquad (1)$$

and

$$k = a + b\frac{1}{i}\frac{di}{dt} + c\frac{i}{p}\frac{dp}{dt} \qquad (2)$$

where $y(t)$ is the level of car ownership at time t,
$s$ is the saturation level of growth,
$k$ is a constant of proportionality,
$i$ is real income,
$p$ is an index of motoring costs,
and $a$, $b$, $c$ are constants.

Thus the forecasts are themselves dependent upon forecasts of motoring costs and real income. The DTp therefore produce a range of forecasts such as those shown in figure 3. Assumptions on income growth were based upon Gross Domestic Product projections of growth within the range 2% per annum and 4%. Britain's economic preformance in recent years clearly draws these assumptions into question. Therefore, while the method may be the best that is available at the moment and while progress is still being made in developing the model, we must question whether assessments based upon what are apparently dubious forecasts should be given the weight that they are at present.

But has the RHTM provided any solutions to these forecasting problems? In the short term, the answer is no: for the RHTM has not yet become operational and there are serious difficulties which have to be overcome. The RHTM project was launched in an effort to develop a

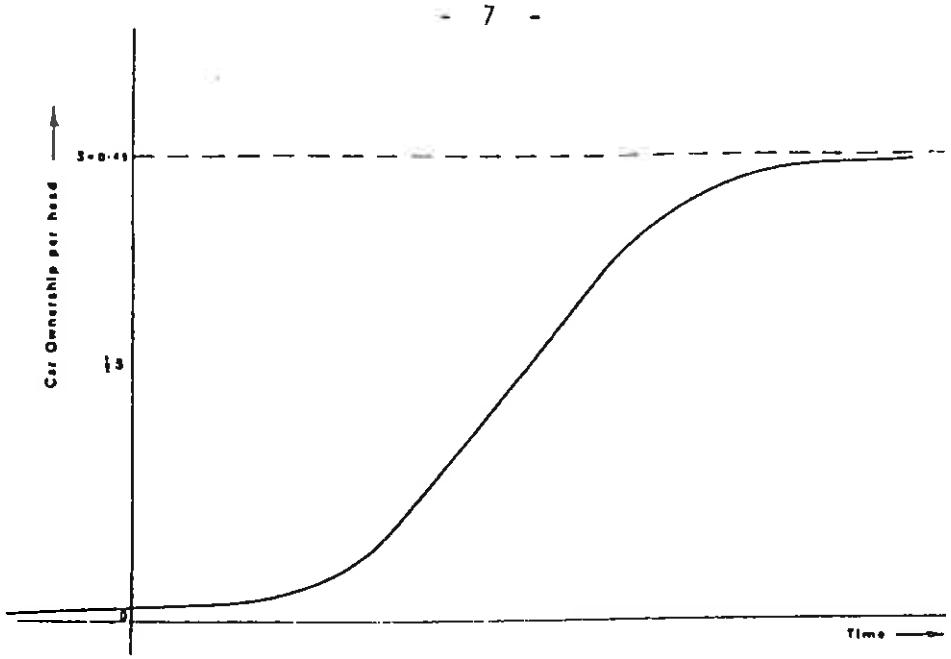



Figure 2. Car Ownership against Time
(Source: DTp/ATRA, 1977)

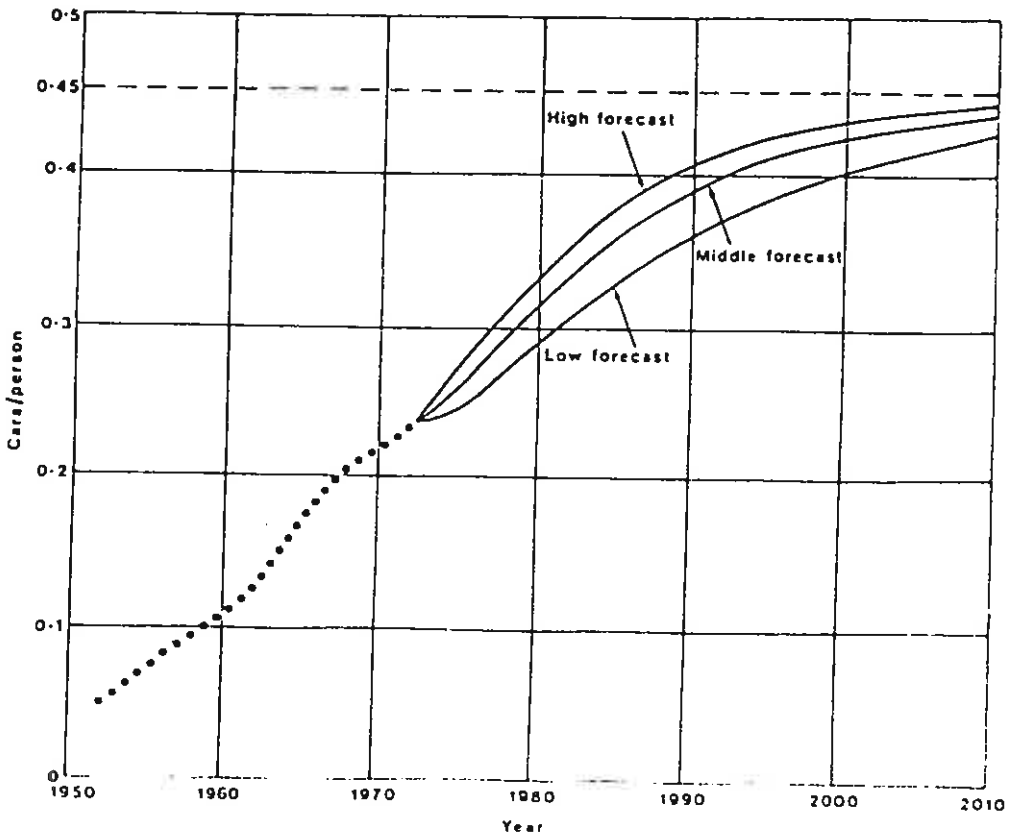



Figure 3: Actual and forecast levels of car ownership, 1952-2010
(Source: Tanner, 1974)

consistent national forecasting model on a national data base. A huge data collection operation was launched in 1976 on the 50,000 km or more of roads included in the model. This included virtually all trunk roads and 95% of all other principle roads. Clearly, if the model becomes operational this data base will need to be updated constantly.

The model itself is a gravity type, trip-distributional model of the form

$$T_{ij} = (a_i G_i)(b_j A_j) F^s(C_{ij}) \qquad (3)$$

where $T_{ij}$ represents the number of trips from origin i to destination j;
$G_i$ represents the number of trips generated at i;
$A_j$ represents the number of trips attracted to j;
$C_{ij}$ represents the separation factor or the deterence of travelling from i to j;
$F^s(C_{ij})$ represents the empirical deterence function for the trip matrix defined by the set of cells, s;
and $a_i$, $b_j$ are the balancing factors required to satisfy the row and column 'maximum likelihoods' constraints.

The model is further disaggregated using a series of sub-models to estimate car ownership, trip ends, private vehicle distribution, commercial vehicle traffic and trip assignments. The development of these submodels are obviously crucial to the success of the whole project but as yet a satisfactory form has not been developed. When SACTRA reported on the project in 1979 they identified considerable problems in the operation of the models from which they concluded that:

> We do not think that the problems encountered in the RHTM Project are likely to be solved in the near future, and bearing in mind the high cost of further work, we therefore recommend that the Department should cease efforts to try to recalibrate the RHTM distribution sub-model.
> (DTp/SACTRA, 1979, p. 47)

More and more the project seems doomed to failure.

At the same time, if the model were to be successfully implemented the problems outlined for the local forecasting techniques will not be solved. The model will still be dependent on the assumptions which are inputted to the model. The car ownership sub-model for example is based upon the logistic growth of ownership in relation to income of households and cannot in this form allow for policy directed towards

discouraging road traffic (such as, in the extreme case of free rail traffic). The model assumes the continuation of the transport market in its present form. It therefore excludes certain political decisions and take policy as a parameter which varies only within certain given limits.

Yet the political nature of the forecasts is obscurred within a modelling framework which is highly technical and which, implicitly, appears to be politically neutral. If we are to develop a coherent transport and roads policy, the assumptions incorporated in the forecasts must be fully explained and alternatives discussed. As we shall see in section 2.4 below, this is not the case, for the public is not given access to such information and forecasts made by the DTp and the RCU's cannot be challenged at public inquiries.

(ii) *Scheme assessment*

We have already seen that alternative schemes have to be assessed both in their own right and in relation to each other. The techniques for such assessment are no less controversial than those of traffic forecasting. There are two main elements to a scheme assessment. Firstly, there is a quantitative assessment, based on a form of cost benefit analysis, which assesses the rate of return for the proposed scheme in terms of the benefits which would accrue to future road users and the capital costs which are borne by the community through the DTp. Secondly, there is a qualitative and subjective analysis of other effects of the scheme in terms of environmental damage (or advantage), community severence, agricultural land loss, amenity loss and so forth.

The basis of the DTp's cost benefit analysis is the so-called COBA computer programme which was outlined by the then Department of the Environment (DoE) in 1972 (DoE, 1972) but which has been revised several times since. The economic performance of a scheme is calculated in terms of the ratio between net benefits and the capital cost of the scheme. More explicitly, this ratio can be expressed as

$$\frac{NPV}{C} \equiv \frac{PVB - C}{C} \qquad (4)$$

where NPV is the 'net present value' of the scheme, that is the difference between the 'present value of benefit' (PVB - that is, the total benefits of a scheme to be accrued over an expected life of 30 years and discounted

to a base year) and the capital costs (C) of the scheme (again discounted to the base year). A scheme is deemed to be economically viable if it offers a rate of return of at least 10 per cent. Thus, a scheme would not normally be implemented if the ratio NPV/C was less than +0.10.

Capital costs are relatively easy to estimate; for, on the basis of past experience, the DTp can calculate the cost per mile of certain grades of roads. Given the length and grade of a proposed road it is a simple task to estimate the total capital costs of the scheme.

The evaluation of benefits, on the other hand, is a different problem. The DoE have identified three main components to road benefits. Firstly, time is saved by road users who experience a reduction of congestion and therefore a shortening of journey time. This has been estimated by the DoE (1972) to comprise some 60 per cent of all benefits. More recently ACTRA has put this figure at 80 per cent (DTp/ACTRA, 1977). Secondly, there are savings in terms of a reduction of accidents due to less congested and therefore safer roads. Thirdly, there are the obvious savings in operating costs. If these benefits are to be compared with capital costs then they must be expressed in common units, that is monetary value. To calculate these values the DTp uses a set of standard values for the costs of, say, one saved life or one hour of time saved and multiplies the total life saving or time saving of a scheme by these standard values.

However, there are some interesting value judgements involved in establishing these monetary standards. An obvious point is what is the value of a saved life? Or what *is* the value of an hour's time? The latter question raises an interesting problem. The DoE (1972) defined two types of time, working time and non-working time. The former can be estimated in terms of wage rates of particular road user (a lorry driver or a commercial traveller) and, on the basis of empirical work carried out by the Transport and Road Research Laboratory (TRRL) non-working time is valued at one quarter the value of working time. Thus the total time savings of a scheme can be evaluated.

We can illustrate the calculations in terms of a hypothetical by-pass scheme, the XYZ scheme, devised by the DoE. If we consider the situation where a main road (the A2000) passes through a town (XYZ), congestion may occur and it may be advisable to build a by-pass.

A map of this hypothetical situation is given in figure 4. We could now assess the scheme in a way which is crudely represented in table 1. The data given by the DoE in their example was somewhat unrealistic and, in places, inconsistent. Therefore, new figures have been inserted in parts of the data base, although the data is rather arbitrary. It should be noted that the hypothetical data allows for no realignment of traffic to the new road from roads other than the A2000. Also, in estimating the total scheme benefits, annual benefits have not been discounted. This is of little concern since the figure for scheme cost is arbitrary.

Figure 4. The hypothetical XYZ by-pass scheme (after DoE, 1972)

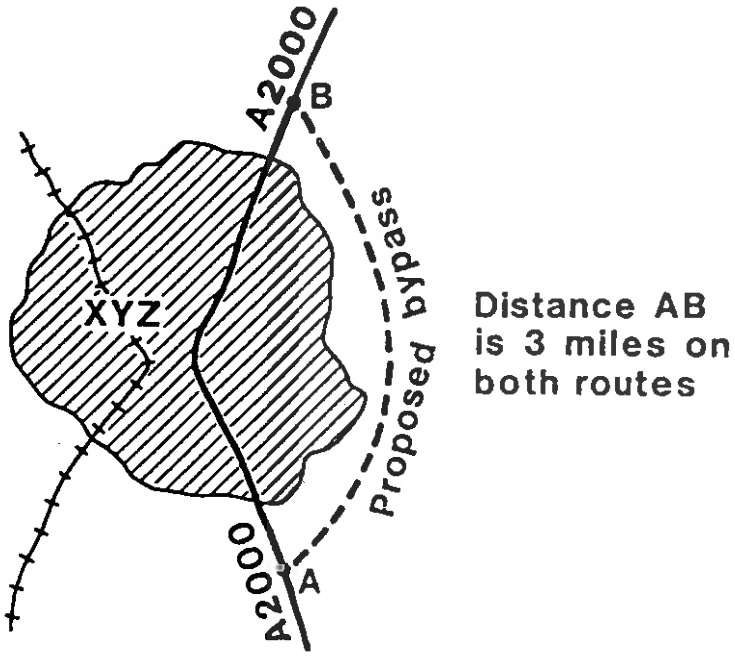


Table 1. Assessment of XYZ scheme

1. Traffic flows:

| | | |
|---|---|---|
| Without XYZ scheme: | flow on A2000 | 20000 vehicles per day |
| With XYZ scheme: | " " " | 5000 " " " |
| With XYZ scheme: | " " by-pass | 15000 " " " |

Vehicular composition:

| | |
|---|---|
| cars | 78% |
| light goods | 10% |
| heavy goods | 10% |
| buses | 2% |

2. Time savings:

| | | |
|---|---|---|
| Without XYZ scheme: | average speed on A2000 | 39 mph |
| With XYZ scheme: | " " " A2000 | 43 mph |
| With XYZ scheme: | " " " by-pass | 53 mph |
| ∴ Without XYZ scheme: | average time on A2000 | 4.6 mins |
| With XYZ scheme: | " " " A2000 | 4.2 mins |
| With XYZ scheme: | " " " by-pass | 3.4 mins |

Total time can be valued using standard values.

3. Operating costs:

Evaluated using standard values.

4. Accident savings:

| | |
|---|---|
| Personal injury accident rate on A2000 | 1.6 per million vehicle miles |
| Personal injury accident rate on by-pass | 1.0 per million vehicle miles |

Total accident costs can be evaluated using standard values.

5. Aggregate costs: (£000's)

| | old A2000 | new A2000 | new by-pass | |
|---|---|---|---|---|
| Time | 448 | 102 | 248 | |
| Operating costs | 300 | 60 | 130 | |
| Accidents | 90 | 20 | 40 | |
| | 838 | 182 | + 418 | = 600 |

Annual scheme benefits (832000 - 600000) £238000

Total scheme benefits (30 year life) £7.1 millions

Continued/ ...

Table 1 (continued)

6. Capital costs:

Estimated total capital costs £6 millions

7. Rate of return on investment

$$\frac{PVB - C}{C} = \frac{£7.1 - £6}{£6} = 0.183 = 18.3\%$$

The scheme, then, offers an apparently excellent rate of return for the £6 million investment. However, if we change the assumptions for the calculation of just one of the elements of road benefits a different picture emerges. In the calculation of time costs it was assumed that working time was valued at £2 per hour and non-working time at one quarter of that value (0.5/hr). It was also assumed, for simplicity, that all goods vehicle journeys were made in work time and, somewhat unrealistically, that all car journeys were made in non work time. Bus journeys were reallocated as car journeys. If then we reallocate the traffic composition or change the evaluation of time then the NPV/C ratio can be affected considerably. Table 2 gives revised time estimates and scheme assessments for four alternatives: (a) with vehicle composition of cars 50%, goods vehicles 50%; (b) composition of all cars; (c) assumed all time to be valued at £2 per hour (ie. all time valued as working time) and (d) all time valued at £0.5 per hour (ie. non working time).

Table 2. Four alternative scheme assessments

| Alternative | Time evaluation (£000) pa Old A2000 | New A2000 | New by-pass | Time saving (£000) pa | NPV/C |
|---|---|---|---|---|---|
| Original | 448 | 102 | 248 | 98 | 0.183 |
| Alternative (a) | 700 | 160 | 388 | 152 | 0.460 |
| Alternatives (b) & (d) | 280 | 64 | 155 | 61 | 0.005 |
| Alternative (c) | 1119 | 256 | 621 | 243 | 0.915 |

Clearly, alternatives (b) and (d) give an estimate of rate of return which is very low and would not be deemed as giving a worthwhile return on investment. Alternatives (a) and, especially, (c) give a much greater rate of return than the original evaluation and would be deemed to be highly attractive investments.

Scheme assessments are therefore highly sensitive to the evaluations of time costs. This was recognised in the ACTRA report (DTp/ACTRA, 1977) although ACTRA felt that the method of evaluation was working satisfactory. However, this did not recognise some important defects in the method. As we have noted, work time is valued in terms of its cost to the employer. This assumes that wages are equal to the value of the productivity of that labour. It further assumes that savings in work time are used by the employer to increase output and, therefore, national income. Thus the saving is deemed to be a social saving. These assumptions can be challenged through Marxian economics. For an individual firm is concerned with profit making and this profit is derived, via the so-called labour theory of value, from the firm paying a price (wage) for labour which is below the value of that labour in terms of its production. There is a further class element introduced if we question the assumption that increases in national product can be deemed to be social benefits. For, that increase in wealth is not distributed equitably and greater benefits accrue to a particular class, capital.

The evaluation of non-work time is a more difficult problem. The evaluation at one quarter of work time value is based on empirical work, carried out by the TRRL, of how much 'people are actually prepared to pay to save time' (DoE, 1976, p. 99). Yet, as Heggie (1979) points out, the studies to which this Green Paper referred were studies based on the *assumption* of modal choice due to cost savings. Indeed, Heggie further concludes that the view is non-sensical and that considerable empirical evidence contradicts that of the TRRL. Heggie is therefore in a position to challenge the validity of the main assumptions which are incorporated into the time cost assessments of trunk road schemes. Since these are deemed to be some two thirds of all costs, then the whole economic assessment methodology is brought into question.

Notwithstanding the validity of the time evaluations, the setting of non-work costs as being equal to one quarter those of work-time has, as we have seen, the effect of making schemes that favour industrial and commercial traffic more attractive than those which serve a larger proportion of 'leisure' traffic. The result is a distinct bias towards the former type of traffic which need not be justified in transport policy statements.

The method of economic assessment therefore leaves much to be desired. But what of the other factors which have to be included in the overall assessment of a scheme? We can include here such factors as agricultural land loss, community severence and environmental effects such as pollution, noise and visual intrusion. These factors are not readily evaluated in money terms and cannot, therefore, be included in a rigorous cost-benefit analysis such as COBA. Instead they have to be assessed in a more subjective way. Quantitative measures can be calculated (number of people affected by noise of a certain level, etc.) but these are in units which are incompatible with the economic assessment. They have to be weighted subjectively by the RCU's or, ultimately, by the Secretary of State. This is clearly a political decision and one that is open to great controversy. But there are no established guidelines and there has never been any serious public debate on the matter. The Secretary of State often does not give a clear indication of the bases for his decision except for vague references to national policy, about which more will be said later. Indeed, the public for whom a road is intended to serve or who suffer the adverse effects of a road are given little, if any, say in the determination of priorities. Assessment of a scheme can, therefore, be reduced to a decision made at the whims of individual Ministers.

## 2.3 Road planning and transport policy

The planning of a scheme overlaps with national transport policy considerations at two important levels. Firstly, the identification of the possible need for a scheme may come from the national road network devised by central government. Second, the final decision of whether or not to implement a scheme is dependent upon the same

network needs and upon governmental decisions as to whether resources are to be made available for the scheme. Clearly, these decisions are overtly political, but we can raise some important questions as to the basis of these decisions. In another paper (Barton, 1981) I have outlined some of the problems which have arisen in the development of national transport policy in Britain since the war. Some of these arguments are re-emphasised and developed here.

In the first place, it can be said that Britain does not possess a national transport policy as such. Transport policy has not been discussed by Parliament since the publication of the 1977 White Paper (DTp, 1977), and this was 11 years after the previous major review. 'Transport policy' is comprised of a series of sectoral policies. There does exist a roads policy (which is reviewed annually), a railways policy, a trunk road public passenger transport policy, a freight transport policy, etc., but the components are rarely considered in their totality.

Secondly, we can question whether successive governments have taken the need for an efficient transport system as their yardstick for developing the transport network. The former Minister, Herbert Morrison has argued that transport policy in the fifties, in the form of a rapid run down of the railways at the expense of a rapidly expanding road network, was a deliberate response to the needs of a powerful and influential road lobby (see Hudson, 1981). Indeed, Hamer's (1974) analysis of the activities of the road lobby and their connections within government does suggests they are one of the most powerful pressure groups in Britain and are capable of influencing policy to the extent suggested by Morrison. The case is impossible to prove but the lack of a coherent transport policy can only increase our suspicions.

Thirdly, and concommitently, the historical development of the road network was an *ad hoc* affair. The main period of rapid development of the road network was during the late fifties and the sixties. By June 1970, 653 miles of motorways had been built and a further 380 miles were under construction (Boot-Allen and Hamilton, 1970). But it was not until 1970 that any government published a road network plan (Ministry of Transport, 1970). The

majority of the road network had been built as the Ministry of Transport had identified needs for the roads. (Road planning and assessment techniques of the time left much to be desired.)

Clearly the road network in Britain has been (and still is being) developed in an *ad hoc* manner by the MoT, DoE and DTp with no effective transport policy as a frame of reference.

## 2.4 Public involvement in the planning process

The comments above imply that the public has no say in the question of road planning. Yet there are formal provisions for allowing the public access to the planning process. This apparent paradox is easily reconciled. For, the provisions for public participation are sham involvements which do little but create the appearance that the public have some say in the development of a scheme. Several factors indicate that this is the case.

The public are allowed to express their opinion at two stages in the planning process: public consultation and public inquiry (see section 2.1 and figure 1). Public consultation consists of the DTp announcing its intention and offering alternative plans to the public from whom comments are solicited. At this stage, the design of the scheme is still embryonic and the public can be given little information on the scheme. The exercise produces very little response (typically less than one per cent) which has little statistical significance and cannot be claimed to be representative of general public opinion. At the same time a large proportion of the responses will represent what Thompson (1981) has called a NIMBY (not in my back-yard) reaction which can readily be dismissed by the DTp as normal reaction of people threatened by an intrusion in their environment. After all, if a road has to be built, someone has to suffer its adverse effects! The DTp sees itself as an arbiter which allocates the misery fairly. (Whether or not this is the case shall remain a moot point.) In this light, it is difficult to imagine that the DTp will place much importance on the results of the public consultation exercise.

The public view is, however, diffused to the DTp via opinions expressed by pressure groups and by local authorities. The former are in a weak position at the time of public consultation when plans

have only been recently released and groups have not had sufficient time to organise or to prepare a case for presentation to the DTp. Even then, when a pressure group has been able to exert an influence over the scheme, the DTp, under the cover of the small numbers of responses, can dismiss the views of the group as unrepresentative. (We shall see that this was the case in the Kirkhamgate-Dishforth scheme.)

Local authorities are a different phenomenon. They often have considerable resources available to consider the scheme. This is especially so in the case of County Councils who hold the responsibility for planning smaller local road schemes and who therefore possess some expertise in road planning. Local authorities are also made aware of the DTp's intentions at an earlier date when the RCU's consulted with them over their own local transport plans. The local authorities can give more consideration to a scheme than either pressure groups or individuals. But how representative are local governments? Pluralist political theory traditionally sees local government as an arbiter and referee between local communities and groups and as a representative of some general view ultimately expressed at the ballot box. The view is therefore compatible with the local authorities being representative of the people they serve. Some recent work has challenged this view with the argument that local authorities play a more subversive role in managing and servicing rather than serving and representing the local population (see, for example, Cockburn, 1977; Broadbent, 1977). The issue is a complex one which cannot be discussed here, but it is important to be aware that the local government does not necessarily represent the local population.

More important than the public consultation exercise is the public inquiry. Serious criticisms can be levelled at the way the system is operated at present. We have already noted that a public inquiry has to be held if objections are raised to a proposed scheme. In fact, this is not the whole truth. Inquiries need only be held if objections are raised by a particular class of objectors, the so-called 'statutory objector'. These have been defined by the DTp as being:

> ... broadly speaking local authorities, navigation authorities, water authorities and property owners, occupiers and leaseholders likely to be affected by the proposals. (DTp/DoE, 1978, p. 5)

Thus, objections on the grounds of, say, loss of amenities do not necessarily cause an inquiry to be held. Furthermore, only statutory objectors have a statutory right to be heard at an inquiry. This latter anomaly was recognised by a governmental review into inquiry procedures in the mid-seventies but no change in the law was recommended (*ibid.*). Rather, it was emphasised that, under the Highways (Inquiries Procedures) Rules 1976 (Statutory Instrument 721), the Inquiry Inspector had the discretion to hear those who are not statutory objectors. This of course conveys no legal *right* to be heard and the DTp may advise Inspectors not to admit such evidence.

The problem of what evidence is admissable at a public inquiry is a broad and highly controversial one. In many cases the main controversy over a proposed scheme is the question of whether there is a need for the road. Yet objectors have been debarred from challenging the DTp's case of need. This position was only established after much conflict between objectors and the DTp and after a lengthy legal battle.

Inquiries are held under the provisions of the Highways Acts of 1959 and 1971. (These were consolidated under the Highway (Inquiries Procedures) Rules in 1976.) The 1959 Act states, in section 10, that 'after considering any objections to the proposed scheme that are not withdrawn ... the Minister may make (*sic.*) or confirm the scheme'. In apparent contradiction, the Act further charged the Inspector with the right to decide what objections are inadmissable. There was no problem over these contradictory statements until 1973 when objectors at several inquiries began to assert their right to challenge the need for schemes. Inspectors at most inquiries overruled their claims and their decisions were supported by the DoE in 1974 when they issued a set of *Notes for the Guidance of Panel Inspectors* and confirmed that objectors had no right to challenge the need for a scheme. The 1978 White Paper emphasised the position on the grounds that

> The national road programme ... is clearly not a matter which is suitable for debate at local inquiries.

and that

> Local inquiries are unsuitable for examining technical issues ... which have a national impact (DTp/DoE, 1978, pp. 6-7)

The objectors were not to concede the point easily and the M42 Action Group, aggrieved at not having been allowed to present a case against the RCU's traffic forecasts, issued a writ in the High Court to reopen the Inquiry. The application was rejected in December 1977 but the Action Group gained a victory in the Appeal Court. Finally, the DoE took the case to the House of Lords and, in February 1980, the Law Lords ruled in favour of the DoE. The ruling has denied objectors any right to challenge the need for a road. In view of the lack of a coherent national transport policy and the many technical problems of the planning process, opposition to many schemes will continue but objectors will feel aggrived at not being able to present their views to the inquiry.

Much of the controversy at inquiries in the seventies was directed at the inquiry inspectors themselves. Objectors felt that the Inspector was a puppet of the DTp. This is hardly surprising since panel inspectors are paid a fee for their work by the DTp. Until recently the inspector was nominated by the Secretary of State for the Environment from a panel approved by the Lord Chancellor. In 1977 the procedures were changed so that inspectors were nominated by the Lord Chancellor himself. The reform is cosmetic for the personnel of the panel has hardly changed and still includes 'establishment' figures, such as retired military officers, Q.C.s and Civil Servants. These figures still represent the establishment against which many objectors feel they are fighting.

There is also an imbalance of resources in the battlefield of the public inquiry. It is generally accepted to be appropriate that the state should bear the costs of road planning. But objectors frequently bear considerable costs in preparing their evidence. Many objectors are formally represented at inquiries. This usually entails the payment of a solicitor's fee. Many major objectors employ consultants to prepare their case against the DTp. At an inquiry at Winchester in 1976, evidence of need was admitted by the Inspector and the M3 Joint Action Group were able to show that the DTp had given little attention to the question of the need for the road. But the Group had incurred costs of £40,000 by contracting a team of professional consultants (Tyme, 1978). They were not, however, entitled to any compensation despite the DTp's shortcomings. Only owners, occupiers and lessees are entailed to compensation for costs and only then if the Secretary of State decides not to confirm the order in respect of their property. Objectors therefore must normally bear their own costs and financial constraints prevent some objectors from presenting their case adequately.

The crux of the matter is what role is played by the public inquiry in the decision making process? In the eyes of the government, the inquiry is an *advisory* institution through which the Secretary of State is made aware of local opinion. But objectors arguments cannot carry any weight if they are unable to challenge the assumptions which underlie the DTp's proposals. Besides, the Secretary of State need not heed the case made by the objectors. It is rare for the Inspector at an inquiry to recommend the abandonment of a scheme (if this has ever happened) and it is even rarer for the Secretary of State to act on this recommendation. Even when proposals are withdrawn, the DTp can return with new proposals, as happened in the case of the proposed Aire Valley scheme in Yorkshire. The proposal was to construct a major trunk road through the valley and thus relieve many small towns of high levels of traffic. Objectors regarded the scheme as unnecessary and argued for a series of smaller by-passes around each town. The public inquiry, held in 1975, ended in chaos following disruptive tactics being employed by the objectors. The DTp shelved their proposals but four years later they re-emerged in a slightly revised format and, since it was now certain that objectors could not challenge the need for the road, the 1980 public inquiry was a relatively orderly event. The DTp finally got their way.

The failure of successive Secretaries of State to respond to criticism raised at inquiries gives rise to an alternative interpretation of the role of the inquiry. It is little more than a public relations exercise whereby the public are given an opportunity to air their views on a scheme and to vent some of their anger. They cannot raise the most important issue (that of need) and are left to argue over the relatively unimportant question of alignment. The inquiry is therefore little more than a means of legitimising the decisions of the DTp.

## 3. THE KIRKHAMGATE-DISHFORT SCHEME

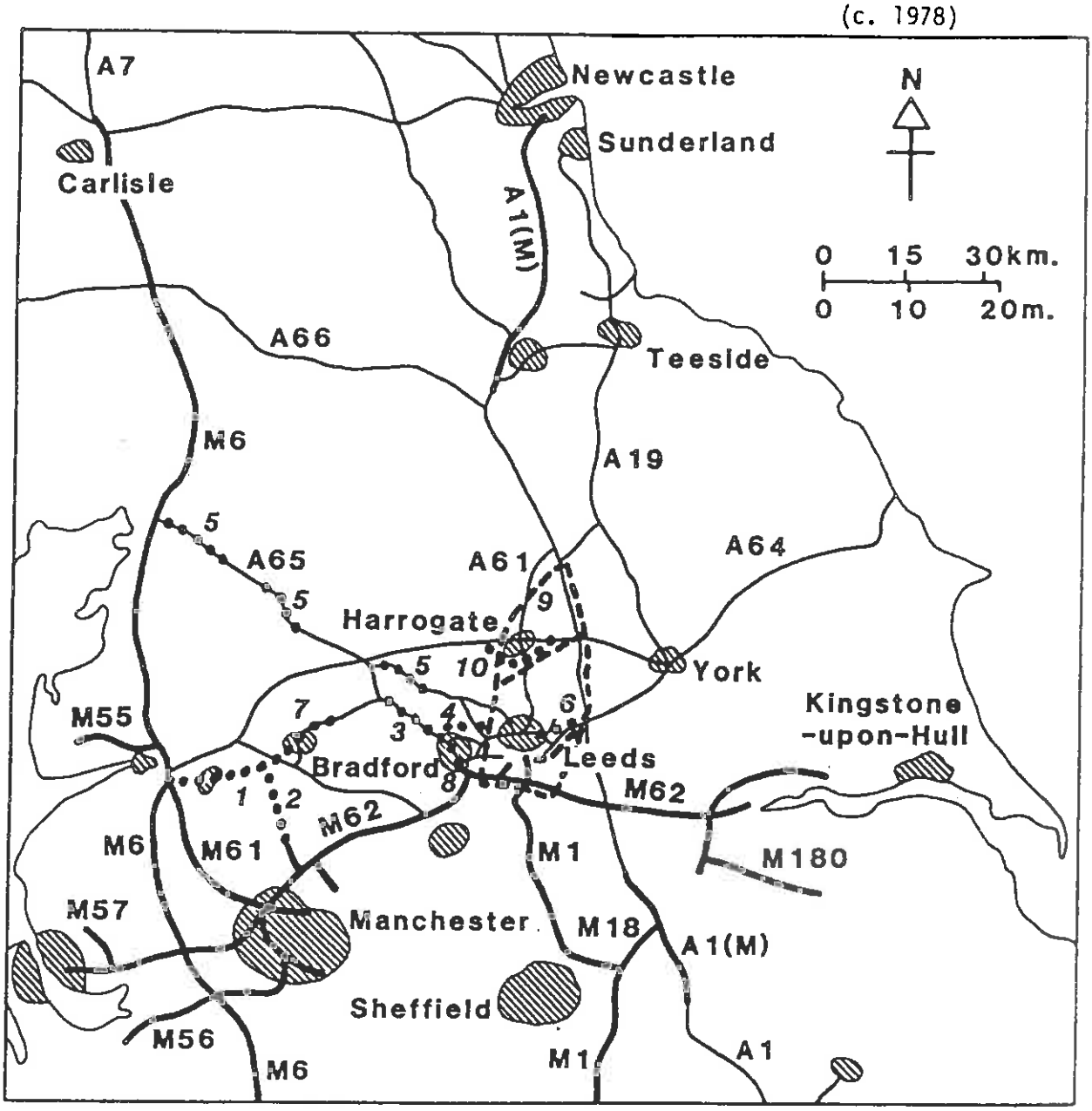
So far I have argued that at various stages in the planning process the RCU's and the DTp make important decisions which are political in the sense that they have important effects upon the lives of individuals and communities. Some of these decisions are overtly political while others are covert and are hidden behind a mystique of technology. It is also the case that there are few safeguards to ensure that the RCU's and the DTp are planning efficiently or that they are making rational decisions. But we have been dealing with the problem at an abstract, generalised level. For people threatened by the intrusion of a new road their interest is focussed at a specific level. We need therefore to examine a particular case which illustrates how some of the general problems are manifested at a local level and to identify some more specific problems. The Kirkhamgate-Dishforth scheme gives rise to some interesting problems.

### 3.1 Background and development of the scheme

A cursory examination of figure 5 shows that a gap exists in the national motorway network through West Yorkshire. Traffic to the North East from Lancashire or the South must either use the A1 trunk road (which is now over loaded) or pass through major towns such as Leeds, Bradford and Harrogate on lower grade roads (A61, A64, A58*) to continue their journey along the A1. A large proportion of this

*Since 1976 heavy lorries have been banned on the A58 Leeds-Wetherby road.

Figure 5. Existing and proposed major road network in Northern England (c. 1978)




Motorways

Major all purpose road

Alternative alignments of Kirkhamgate-Dishforth scheme

Other proposed road schemes:

Main urban areas

DTp

1 M65 Calder Valley motorway
2 A56 diversion
3 Airedale trunk road
4 Shipley-Thackley-Leeds link
5 A65 improvements

Local authorities

6 East of Leeds network (WYMCC)
7 M65 link (LCC)
8 Bradford spine road (WYMCC)
9 Ripon relief road (NYCC)
10 Harrogate by-pass (NYCC)

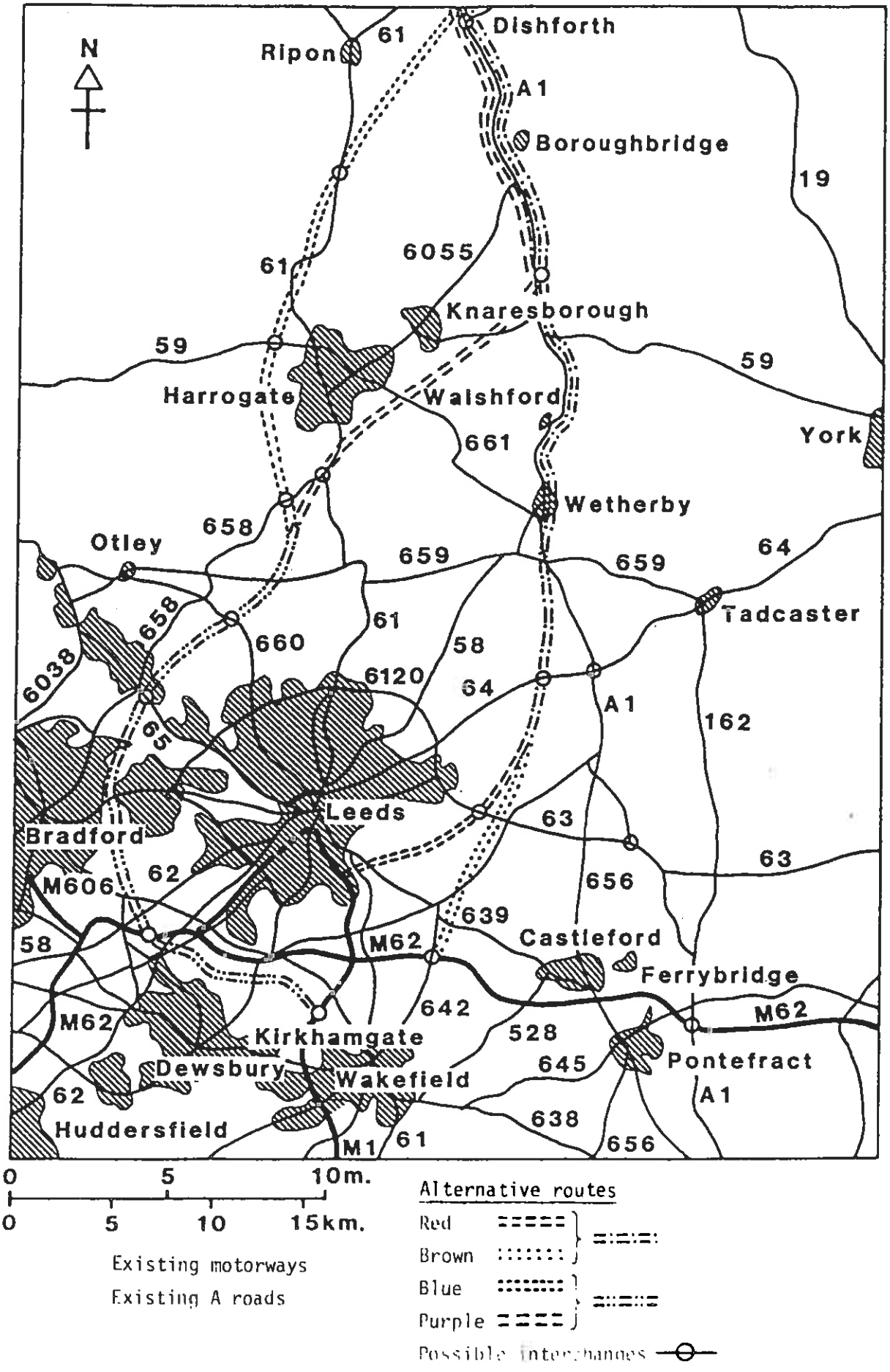
through traffic is goods traffic and this has caused a heavy environmental burden in many towns. It is hardly surprising that a scheme was suggested to build a major trunk road from near the Lofthouse Interchange (M1/M62) at Kirkhamgate, south of Leeds to the A1/A61 junction at Dishforth. We shall examine the traffic problem in more detail below.

The possibility of such a road through West Yorkshire had been first suggested as long ago as 1962, but it was not until the dualling of most of the A1 (London-Edinburgh) trunk road and planned improvements of the A19/A169 to Darlington that there was obvious pressure on the A1 between Ferrybridge and Dishforth. In September 1968 the MoT issued a brief for a survey and feasibility study to be carried out by the West Riding County Council (WRCC). In their interim report, published in April 1969, WRCC proposed a grandiose scheme based on a new road passing east of Leeds but with link roads to the west. The MoT advised that funds would not be available for the proposed scheme and therefore the WRCC, in the final report published in April 1971, opted for a west of Leeds route. This route was entered into the preparation pool in 1972 although it had been included in 1970 inter-urban plan (MoT, 1970).

In the meantime, work continued on the scheme. (The RCU's had been formed by this time and the North Eastern RCU (NERCU) took over responsibility for the scheme.) In 1975 the DoE published a consultation document offering four alternative routes for the road. These alternatives were presented as corridors within which an alignment could be made. The four alternatives were the 'Blue' and 'Purple' routes, passing west of Leeds and the 'Brown' and 'Red' routes to the east (see figure 6). The results of the consultation exercise are discussed in section 3.4.

In December 1976, following continued assessment of the alternatives, the Director of NERCU sent an Assessment Report to the Secretary of State, implying that there was little to choose between the route on traffic and environmental grounds but that the Blue route offered the most favourable rate of return on investment. In March 1977 the Parliamentary Under Secretary, John Huran, visited the area and spent 3 hours touring the western corridors. Partly as a result of this visit, the Secretary of State, William Rodgers, announced the preferred route and went against the advice of NERCU by choosing the Brown corridor.

Figure 6. Alternative routes of the Kirkhamgate-Dishforth Road (Source: DOE, 1975, p. 4)



In September 1978 the DTp announced alternative alignments within the Brown corridor and in March 1979 draft Orders were published for improvements to be made to the northern section of the A1 between Walshford and Dishforth. It was also made clear by the DTp that they were not completely excluding the possibility of a western alignment, and much of the discussion at the public inquiry (which opened in October 1979) centred around the west or east question. The inquiry, however, was never concluded: for, in January 1980, during the Christmas adjournment of the inquiry, the DTp announced that the plans were being reviewed 'in the light of the Government's consideration of public expenditure'. The draft orders were withdrawn and the inquiry abandoned.

New proposals were published in January 1981 which proposed a scheme similar to the Red route but on a much smaller scale (the A1 is not to be improved north of Wetherby) (see figure 7). It is now some 13 years since the initial identification of a possible need for the road and the scheme has not yet been through a public inquiry. The sequence of events to date is summarised in table 3.

### 3.2 Assessments of the scheme

It is clearly shown in figure 3 that early assessments of the scheme favoured a west of Leeds alignment while later analyses found in favour of an eastern alignment. If we look more closely at the reasoning behind the preferences at various stages in the planning process. Table 4 summarises the assessments and the reasons for the choice of different routes. Four main themes were taken into consideration: traffic, economic, environmental, and strategic planning effects. In order to understand the obvious variations in these assessments we shall consider each category in turn.

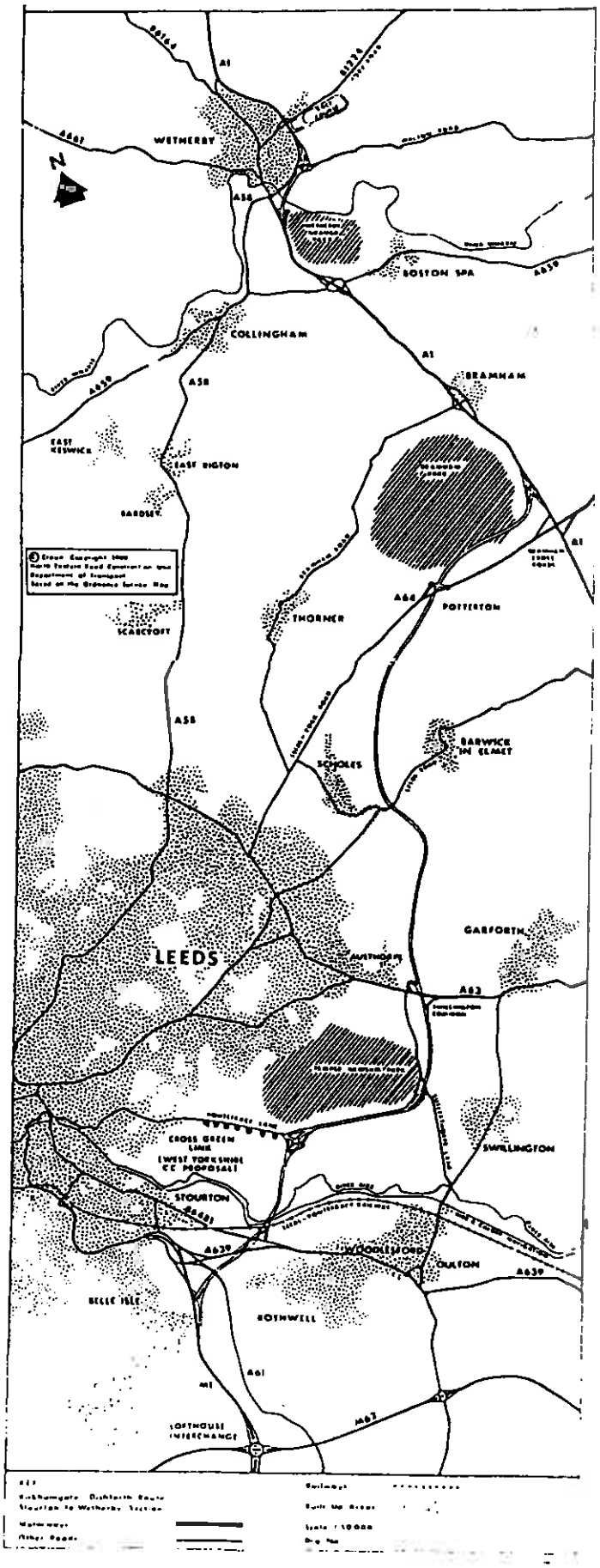



Figure 7. The revised proposals for the Kirkhamgate-Dishforth scheme, January 1981

(Source: DTp/NERCU, 1981)

Table 3. The Kirkhamgate-Dishforth Scheme: a chronology of events

| Date | Event | Participants | Favoured Route |
|---|---|---|---|
| Mid 1960s | Dualling of most of A1 (London-Edinburgh)<br>Planned improvements to A19/A169 to Darlington<br>Pressure on A1 Ferrybridge-Dishforth Section | MoT | |
| Sept 1968 | MoT brief issued to survey and feasibility study on K-D link (to be conducted by West Riding County Council) | MoT, WRCC | |
| April 1969 | Publication of Interim Report of Feasibility Study (WRCC, 1969) | WRCC | E |
| ( 1970 | Publication of White Paper ('Roads for the future') incorporating a western alignment of the K-D road | DoE | W ) |
| April 1971 | Final Report of Feasibility Study (WRCC, 1971) | WRCC | W |
| 1972 | Scheme enters Preparation Pool | DoE | W |
| May 1975 | Publication of consultation document (DoE, 1975) | DoE | - |
| May 1975 onwards | Public consultation exercise | All interested parties | - |
| Dec 1976 | Assessment Report sent by Director of NERCU to SoS | NERCU | W(B1) |
| Mar 1977 | Inspection of area by Parliamentary Under Secretary for Transport (John Huran) | DTp | - |
| July 1977 | Announcement of preferred route by SoS for Transport (William Rodgers) | DTp | E(Br) |
| Sept 1978 | Announcement of alternative alignments within Brown corridor | DTp/NERCU | E(Br) |
| Mar 1979 | Publication of draft Orders for the improvement of the Walshford/ Dishforth section of A1 | DTp/NERCU | E(Br) |

Continued/ ...

Table 3 (continued)

| Date | Event | Participants | Favoured Route |
|---|---|---|---|
| Oct 1979 | Public inquiry opens | All interested parties | - |
| 17 Dec 1979 | Adjournment of public inquiry for Christmas | | |
| 2 Jan 1980 | Announcement of proposals to review plans<br>Public inquiry abandoned | DTp | |
| Jan 1981 | Publication of new proposals and draft Orders | DTp/NERCU | |

KEY: Favoured route: E Eastern alignment (Br: Brown; R: Red)
W Western alignment (Bl: Blue; P: Purple)

Participants:
DoE Department of the Environment
DTp Department of Transport
MoT Ministry of Transport
NERCU North Eastern Road Construction Unit
WRCC West Riding County Council

Table 4: The bases of decisions on the Kirkhamgate-Dishforth scheme

| Study | Preferred route | Evaluation | | | |
|---|---|---|---|---|---|
| | | Traffic | Economic | Environment | Strategic |
| Feasibility study, 1969 | East of Leeds | - | ✓ | - | n/a |
| Feasibility study, 1971 | Blue | n/a | n/a | n/a | n/a |
| NERCU Report, 1976 | Blue | ✓ | ✓✓ | - | ✓ |
| Secretary of State, 1977 | Brown | X | X | ✓✓ | n/a |
| DTp evidence at public inquiry, 1979 | Brown | X? | - | ✓✓ | ✓ |
| Minister of Transport, 1981 | Red | n/a | n/a | n/a | n/a |

Key:
- ✓ advantage of preferred route
- X disadvantage of preferred route
- - little difference between alternatives
- n/a information not available

(i) Traffic issues

The main source of information on traffic was a survey and traffic assessment carried out by Jamieson, Mackey and Partners, a firm of consultants contracted by NERCU. They also had information available from the West Yorkshire Transportation Studies. The results of their work were published in 1976 (Jamieson *et al.*, 1976) with a review being published three years later at the time of the issuing of the draft Orders for the scheme (Jamieson, *et al.*, 1979).

Two alternative solutions do not appear to have been given sufficient consideration by the DTp and NERCU. Firstly, there is the possible diversion of traffic off the roads, that is, essentially on to the railways. The possibility of such a scheme is not even mentioned in the DoE's consultation document (DoE, 1975) or in the NERCU Assessment Report (DTp/NERCU, 1976) or in the proof of evidence given by the DTp at the public inquiry (Bineham, 1979). In Jamieson *et al.*'s (1979) traffic assessment, rail transport is given three paragraphs of attention in the form of a description of the existing local and inter-city passenger network. The alternative does not appear to have been considered in the planning of the scheme.

The cause of this omission is derived from several factors. In the first place, the Kirkhamgate-Dishforth scheme has been an established component of the trunk road network plan since 1970. If such a need for a road has been established at a national level, it surely will be built and a rail alternative is excluded by national policy. Secondly, road transport has considerable advantages over rail in freight traffic. Rail freight is only suitable for bulk trafficking although this may be overcome by technological innvoation and the necessary investment. Such investment has never been forthcoming in the post-war period. Thirdly, rail costs are regarded as being greater than those for road transport although the point has never been satisfactorily proven. The debate continues (see, for example, Nash, 1978; Harrison, 1979). In these circumstances, the policy which necessitates the building of a new road link excludes any rail alternative.

The second alternative is that the existing road network is sufficient to cater for the projected increases in traffic particularly if the A1 is upgraded between Ferrybridge and Dishforth and lorries are

compulsorily routed onto the main trunk roads. Such an alternative would clearly have great environmental benefits but the possibility was dismissed at an early stage in the development of the scheme.

In the 1975 consultation document, the DoE presented three arguments against the proposal. Firstly, there would be major disruption during the necessary reconstruction phases. This is certainly true, but it may be a cost that is worth bearing in the short term. Secondly, the DoE claim that the alternative is too expensive. The cost is estimated as being £94 millions compared with £84m, £87m, £93m and £93m for the Red, Brown, Blue and Purple routes respectively. The route would be of approximately the same length of reconstruction as that of the other schemes but less costs would surely be incurred due to less land acquisition and the availability of construction materials. The DoE's cost evaluation seems at face value to be exaggerated. A third, more realistic argument presented by the DoE is that route would add 17 miles of journey length to traffic travelling from the west to the north east if they had to follow the M62 as far as Ferrybridge and then take the A1 northwards. This would incur considerable operating costs upon this traffic. Besides, traffic would not be expected to bear the increased travel time and any compulsory routing would be difficult to implement. (Advisory routing of traffic via Ferrybridge has been in existence for some time but does not appear to have been successful in diverting traffic from inner Leeds.)

There is therefore a strong economic and traffic case which counteracts the environmental advantages of an A1 improvement scheme. However, the comparison between these factors is, as we have seen, subjective and the DTp has not fully explained their reasons for considering the scheme impracticable for they have never publicly assessed the benefit that the scheme may offer. The issue has been virtually disregarded.

The DTp is therefore intent upon building a new road and we must now consider the evidence between the traffic effects of the alternative schemes. The data collected by Jamieson, Mackey and Partners presented a thorough analysis of the current traffic situation, the results of which are given in table 5 and figure 8. The former gives details of the present external traffic flows (that is, between the study area and external regions and between external regions) while the latter gives estimated flows at sample points within the study area. Using this data and a trip distribution

Table 5. External traffic flows for Kirkhamgate-Dishforth study area

| Sector | Northern external | Eastern external | Sector Southern external | Western external | Internal |
|---|---|---|---|---|---|
| Northern external | | 3000 (5) | 17500 (16) | 4500 (5) | 18000 (9) |
| Eastern external | 3000 (7) | | 7000 (6) | 6000 (7) | 46000 (22) |
| Southern external | 17500 (41) | 7000 (11) | | 8500 (9) | 75000 (36) |
| Western external | 4500 (10) | 6000 (10) | 8500 (8) | | 72500 (34) |
| Internal | 18000 (42) | 46000 (74) | 75000 (69) | 72500 (79) | |
| | 43000 | 62000 | 108000 | 91500 | 211000 |

Figures are two way flows on average August weekday, 1978.

Figures in parentheses are percentages of column totals

(Source: Jamieson *et al.*, 1979)

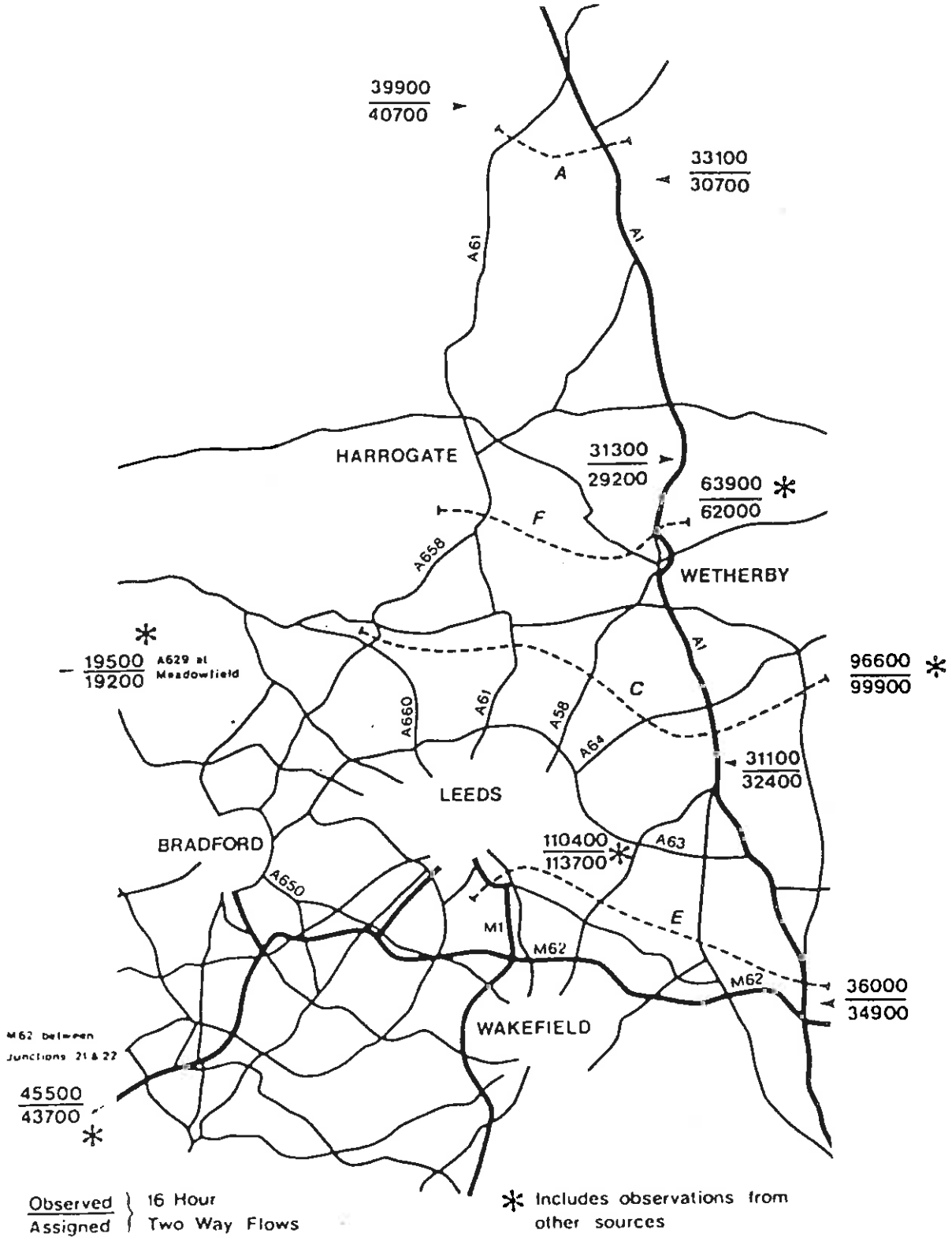



Figure 8. 1978 Kirkhamgate-Dishforth Traffic Model Validation

(Source: Jamieson et al., 1979)

model of the form outlined in section 2.2, Jamieson *et al.* produced forecasts for the year 2001 for each of the four alternative routes and for the 'do nothing' alternative. These forecast distributions are shown in figures 9(a)-(e).

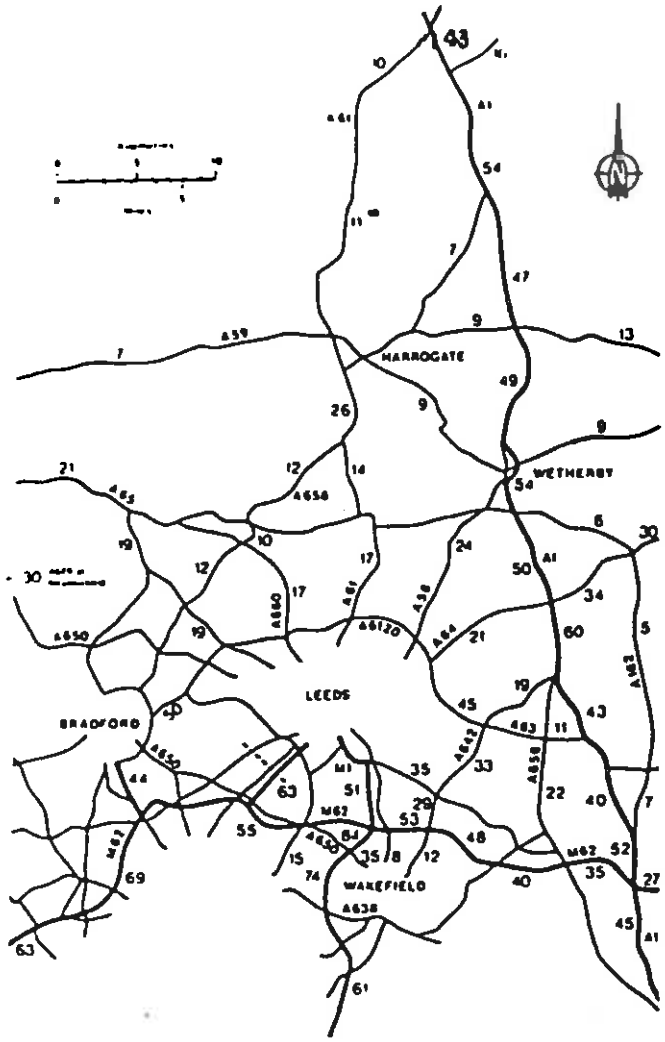
There is a general consensus over the interpretation of the results. In particular, the western alignments offers a better general solution in that the relief to existing roads occurs over a wider area. The western solutions also offer greater benefits to regional traffic although the eastern alignment serve more local traffic. In this light, the Secretary of State's acceptance that the preferred route did not offer the best traffic evaluation is confirmed. Indeed, there has been consistent support for the view that the western alignment provides a better all round solution in traffic terms.

(ii) Economic assessment

One of the most startling features of the assessments of the scheme which have been carried out over the last decade is the total lack of consistency between estimates. In the Assessment Report of 1976, NERCU estimated the ratios NPV/C to be 0.51, 0.40 - 0.17 and 0.06 for the Blue, Purple, Red and Brown schemes respectively (DTp/ NERCU, 1976). On the appearance of these statistics there is an overwheming case for the Blue route to be built while neither of the eastern alignment satisfy the 10% return on investment criteria. By 1979, the estimates had changed. Jamieson *et al.* (1979) calculated the respective ratios as 0.23, 0.16, -0.16 and 0.11. The Secretary of State's decision in favour of the Brown route is far less anomolous with this data. Two main factors resulted in the great discrepancy in the figures; the inclusion of supplementary schemes in the earlier evaluation and the reassessment of construction costs in the later.

To digress, the DTp has always been aware of the important role the Kirkhamgate-Dishforth scheme may have in relieving local transport problems. Both West Yorkshire and North Yorkshire county councils have embryonic plans for the construction of various schemes. These were outlined in figure 5. The following table identifies schemes which are necessary to supplement each of the alternatives. (In essence, these schemes would *not* be necessary if an alternative alignment was chosen.)

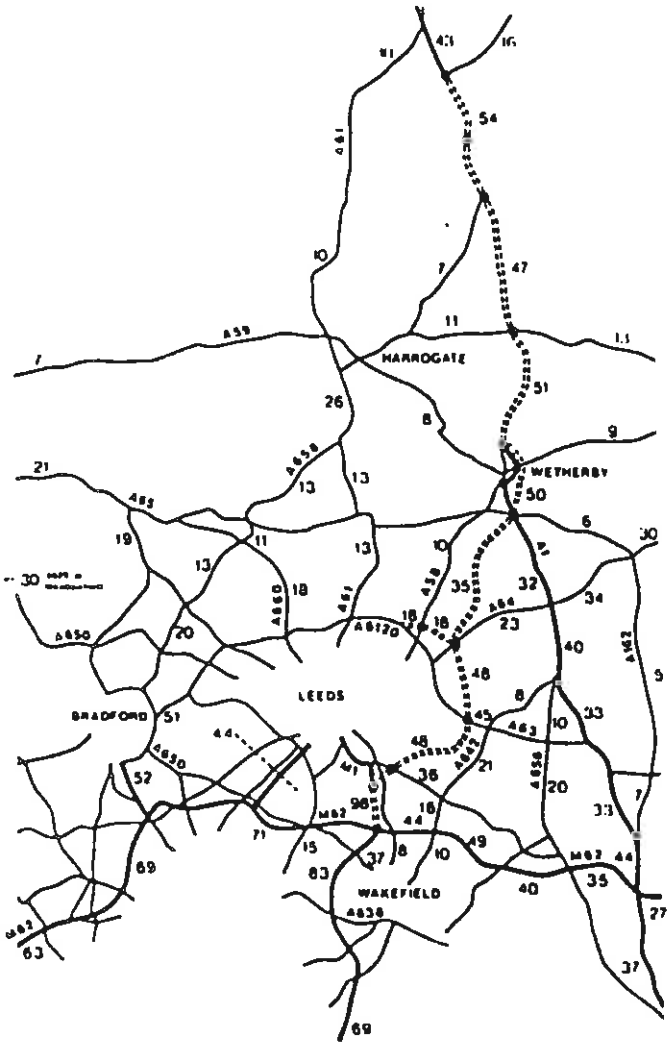
Figure 9. Traffic forecasts for the Kirkhamgate-Dishforth Scheme Study Area (Source: Jamieson et al., 1979)



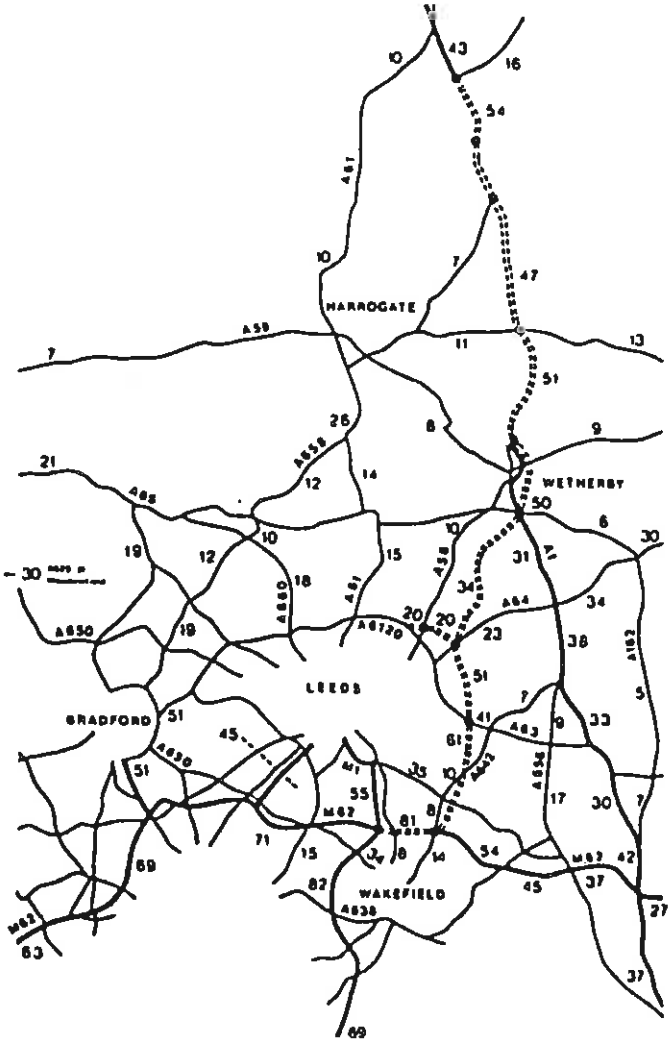

2001 Two way flows, thousand vehicles per 16 hour average August weekday.

(a) Economic Base: 2001 Highway Assignment Median Growth

Figure 9 (continued)

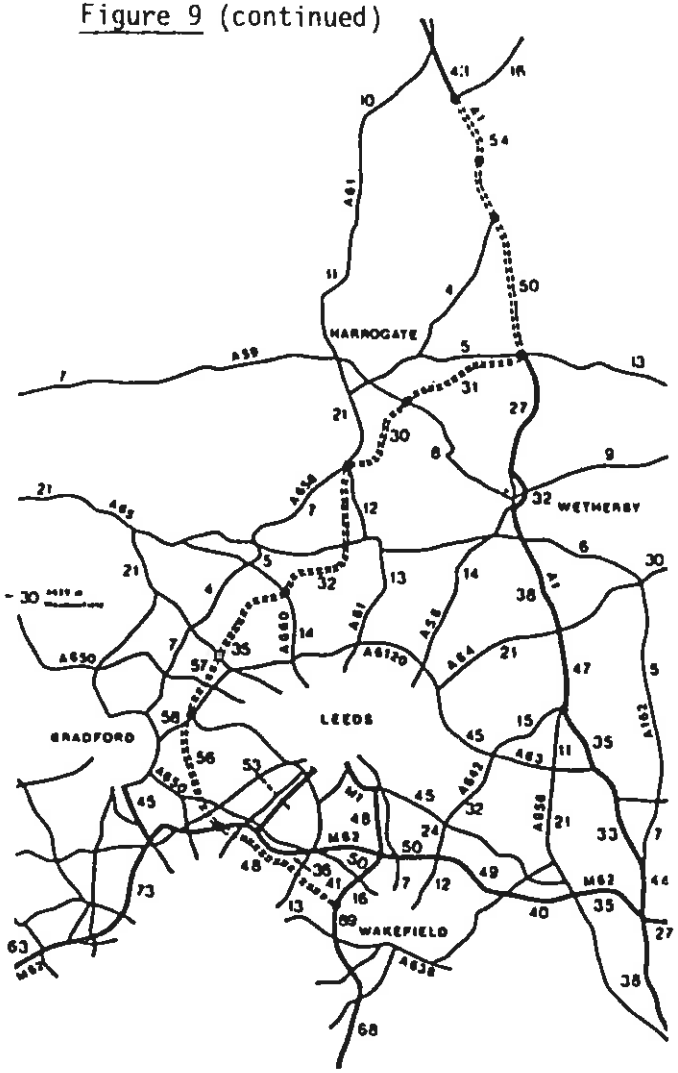



(b) Red Route

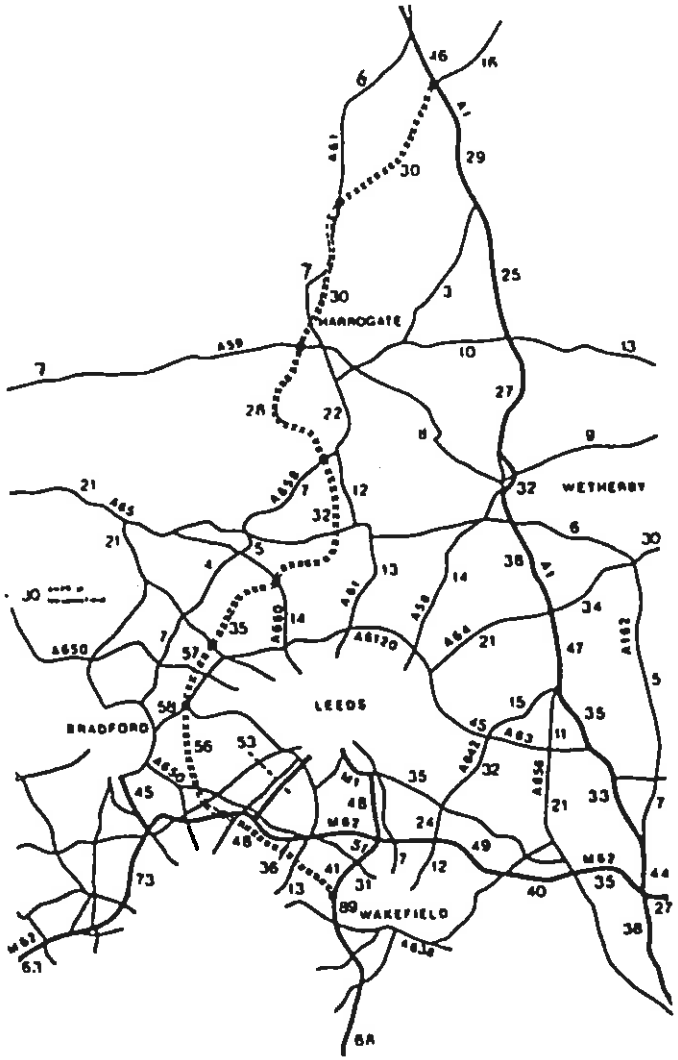



(c) Brown Route

Figure 9 (continued)




(d) Purple Route




(e) Blue Route

Table 6. Supplementary schemes to the Kirkhamgate-Dishforth scheme

| Supplementary scheme | Associated Kirkhamgate-Dishforth corridor | | | |
|---|---|---|---|---|
| | Red | Brown | Blue | Purple |
| 1. A link from Airedale to M62 | X | X | - | - |
| 2. Leeds ring road improvements (A6120) | X | X | X | X |
| 3. Bradford-Harrogate road improvements (A658) | X | X | - | - |
| 4. Oulton-Woodlesford by-pass and A63-A64 link | - | - | X | X |
| 5. Improvement of A1 South of Wetherby | - | - | X | X |
| 6. Harrogate by-pass | X | X | - | - |
| 7. Ripon by-pass | X | X | - | X |

The costs of these schemes have been estimated at various times but there is little doubt that those schemes necessitated by the eastern alignments would prove more expensive than those of the western routes. Furthermore, local schemes produce a much smaller rate of return than trunk schemes since the benefits are largely environmental. This is particularly so with by-passes such as the proposed Harrogate and Ripon relief roads. On the other hand, the Oulton-Woodlesford link and A63-A64 link schemes associated with the western routes are more readily integrated with the national trunk road network since they would provide a link from south Leeds to the A1 and would service some regional traffic as well as much important local traffic which already use a heavily over loaded route. The supplementary schemes associated with the western routes would therefore be expected to yield excellent rates of return on investment. NERCU's analysis of the NPV/C ratios bears this out.

Should supplementary schemes be included in assessments of trunk roads? It is not easy to generalise the problem for it is only because of the particularly wide reaching effects of the Kirkhamgate-Dishforth scheme that the issue is important. The DTp maintain that supplementary schemes are the responsibility of local authorities and are not concerned with the cost incurred in building a new trunk route. Nevertheless, the building of a trunk route usually involves the solution of local problems which would otherwise necessitate alternative action. Ideally, such savings would be included as a

benefit of a scheme. In the case of the Kirkhamgate-Dishforth scheme they can be included as a cost for the choice of one alternative excludes the building of an alternative and therefore necessitates the building of supplementary schemes which may not be necessary. This is clearly the position advocated by the NERCU in 1976. The decision later to exclude the cost of supplementary schemes would need some explanation but this is not forthcoming in the material published by the DTp or by NERCU. Without such a rationalisation it appears that the decision was taken solely because it helped to vindicate the Secretary of State's choice of a preferred route.

A second factor in the anomolies of the cost estimations is the extra design work carried out on the preferred route. This was clearly illustrated by North Yorkshire County Council (NYCC) in the evidence which they presented to the public inquiry (King, 1979). They compared the DoE's 1975 cost estimates with those of NERCU's 1978 review by revising the former at 1976 prices. The result was as follows.

Table 7. Comparison of 1975 and 1978 cost estimates

| Scheme alignment | Capital cost (£m) DoE 1975 (1974 prices) | DoE 1975 (1976 prices*) | NERCU 1978 (1976 prices) |
|---|---|---|---|
| BLUE | 80 | 86 | 85 |
| PURPLE | 76 | 82 | 81 |
| RED | 59 | 63 | 62 |
| BROWN | 62 | 67 | 59 |

*Calculated by NYCC.

There was therefore no significant change in the cost estimates for the blue, purple and red schemes but there was a 13% reduction in the estimate of the cost of the Brown route. This resulted from the more detailed design work carried out when the Brown route had been nominated as the preferred route.

NYCC argued that similar cost reductions could be made on the other routes and they carried out the necessary design work on the Blue route (which they themselves favoured). A firm of consultants

designed an alignment (called the 'Mouchel' route) which secured potential cost savings of £13 millions. The main reason for this achievement was a relaxation of the design standards employed by the DTp. Desirable minimum horizontal radius was reduced from 960 m to 800 m; maximum visibility was reduced from 300 m to 230 m and maximum gradient was increased from 4% to 6%. These changes were within the scope of recommendations made by ACTRA and accepted by the DTp in the 1978 White Paper (DTp, 1977a).

What is clear is that the economic assessment carried out by the NERCU has been inadequate in that it did not adequately assess all contingencies. There is also the problem that the Secretary of State chose a preferred route which at the time did not appear to satisfy the DTp's own 10% rate of return criteria. In this light the suspicion of some cover-up operation cannot be discounted. Besides, there is a strong case, on economic grounds, for a west of Leeds alignment although this case was dismissed by the Secretary of State.

(iii) Environmental considerations

In the 1976 Assessment Report, NERCU concluded that on the grounds of environmental effects there was "little to choose between the four corridors" (DTp/NERCU, 1976, para. 3.4.1). They did warn that the western corridors would need sensitive treatment to reduce their adverse effects. Despite the advice of NERCU, the announcement made by William Rodgers in favour of the Brown route stated that

> "A route to the west of Leeds would have crossed Wharfedale and the Crimple Valley and this was environmentally unacceptable. A new road across Wharfedale would have totally changed the character of a lovely area." (DTp, 1977b)

Ironically, the Secretary of State's announcement was in a press notice which also declared the DTp's intentions to build a new road across North Devon.

There are three main components to environmental impact (noise impact, agricultural effects and landscape and visual intrusion). These have been considered in detail by consultants for NERCU and by opponents to the scheme. But, there are serious defects in the case presented by the DTp.

*Noise.* Any new road has the effect of both increasing noise intrusion for those residences located nearby and reducing noise for property located adjacent to existing roads which may be relieved of traffic. In assessing the impact of the road, the consultants commissioned by NERCU estimated the numbers of properties within each corridor which would be likely to be affected by a significant (at least 2 dBA) noise increase or reduction. The crude data is given in table 8 below. The consultants reached the conclusion that the western corridors produced greater effects (both detrimental and beneficial) but that overall there is little to choose between the four routes, with perhaps a marginal advantage for the eastern routes if the data is disaggregated (Jackson, 1979).

Table 8. Noise impact of the Kirkhamgate-Dishforth scheme

| | Western Corridors | | Eastern Corridors | |
|---|---|---|---|---|
| | BLUE | PURPLE | RED | BROWN |
| Number of properties having a noise increase of at least 2 dBA | 675-1505 (1090) | 645-1415 (1030) | 50-325 (188) | 35-815 (175) |
| Number of properties having a noise decrease of at least 2 dBA | 2315 | 2060 | 1275 | 1275 |
| Net change | 1640-810 (1225) | 1415-645 (1030) | 1225-950 (1087) | 1240-960 (1100) |

(Figures in parentheses are median values)

Source: Jackson, 1979.

The analysis carried out by Atkins Research and Development has one serious drawback. The comparison between the east and west corridors is not compatible. The analysis was a corridor analysis, that is to say the analysis was carried out on the basis of a range of possible alignments rather than detailed alignments. In the case of the Brown route the alignment was already well developed especially since for the eastern corridors much of the alignment already exists as the A1 north of Wetherby.

*Agriculture.* Work has been carried out on the agricultural effects of the scheme both by the Ministry of Agriculture, Fisheries and Food (MAFF) and by East Yorkshire Farm Services (EYFS), consultants to NERCU. The likely effects of the scheme can be measured in terms of the total land taken disaggregated according to the MAFF grading system (see Table 9). While the western corridors can be seen to require a larger

Table 9. Land requirements of the Kirkhamgate-Dishforth scheme

| MAFF grades | Area of land (hectares) Western corridors BLUE | PURPLE | Eastern corridors RED | BROWN |
|---|---|---|---|---|
| 1 (best) | 0 | 6 | 6 | 6 |
| 2 | 50 | 58 | 88 | 88 |
| 3 | 265 | 226 | 148 | 157 |
| 4 | 60 | 41 | 0 | 0 |
| 5 (poorest) | 0 | 0 | 0 | 0 |
| Total agricultural land | 375 | 331 | 242 | 251 |
| Non-agricultural land | 27 | 25 | 36 | 31 |
| Urban | 12 | 10 | 18 | 3 |
| Total land take | 414 | 366 | 296 | 285 |

Source: Snell, 1979.

area of land, this is generally of lower quality than the land required for the eastern corridors. Hence, at the time of public consultation, MAFF supported a western alignment (DTp/NERCU, 1976). EYFS, however, reached a different conclusion. They stressed that the western alignments would affect a greater number of farming units, which, being of smaller size, are more vulnerable to land loss and severance (Snell, 1979). Again, the analyses were inadequately based upon corridors. The EYFS analysis also fails to take account of the fact that an eastern alignment may lead to greater agricultural efficiency by forcing the consolidation of small farms. (This point was made by Bradford City Council (CBMC, 1980).)

*Landscape and visual intrusion.* It is this aspect of the problem which has caused most concern but which is most difficult to assess quantitatively. Atkins, Sheppard, Fidler and Associates carried out an analysis of landscaping of the roads the results of which were presented by Thirkettle (1979). The analysis is largely subjective and centres around the serious environmental problems associated with a blue or purple route in Airedale, Wharfedale and the Crimple Valley. In this sense their evidence vindicates the decision made by the Secretary of State in 1977. Again there are shortcomings in the case presented on behalf of NERCU.

In the first place there is a major inconsistency in the problem of the environmental impact of the road in Airedale. As figure 5 shows, the DTp already have plans to build a new trunk road through Airedale and which was to have extended into Leeds via the Shipley-Thackley-Leeds link road. The scheme could then have linked with the Kirkhamgate-Dishforth scheme. These schemes would already cause environmental problems in Airedale, a factor which does not seem to have been regarded as important in the development of these other schemes. Why then is the potential environmental damage to Airedale so important to the DTp in the case of the Kirkhamgate-Dishforth scheme but not in the other cases? There seems to be only three possible explanations for this contradiction. Firstly, the DTp may not be aware of the potential damage which the Airedale and Shipley-Thackley-Leeds schemes may do to Airedale. This is not so, for there have been considerable public outcry about the schemes and, besides, the DTp has been aware of the problems of the scheme (if they were not they would be guilty of gross negligence).

A second explanation is that the DTp have underestimated the potential damage of the former schemes. A third, concommitant explanation is that the environmental effects of the Kirkhamgate-Dishforth Blue route have been overestimated. Whichever possibility may be valid (and both may be) there is clearly a charge to be made against the DTp that, at best, they have failed to carry out their prescribed task adequately or, at worst, that they have deliberately exaggerated or played down the environmental factor in order to further their own case. The latter, if it were true, would indeed be a very damning accusation.

So what of the case presented by the DTp on the Kirkhamgate-Dishforth scheme? The case presented by Thirkettle is another example of the use of corridor analysis in providing an inadequate conclusion for the problem. The possibility of detailed design alleviating many environmental problems have been investigated by North Yorkshire County Council. The relaxed design standards of NYCC's Mouchel route is claimed to solve the problems of three important and highly sensitive areas. Similar work has been carried out by Bradford Council. While the design carried out by NYCC and CBMC may leave much to be desired, it is a more adequate base for environmental impact analysis than that used by the DTp's consultants. The result is that, as of yet, the DTp has not had sufficient information to compare the alternative routes adequately. Indeed, the Secretary of State seems to have ignored, in 1977, the information that had been available at that time. For the Assessment Report argued that there was little to choose between the four corridors except that the western routes would require more sensitive treatment.

(iv) Strategic considerations

Again, three main areas of concern present themselves for consideration of strategic issues - economic development, Green Belt policy and Structure Plans. These are issues which are of direct relevance to the local authorities who have statutory duties as planning authorities.

*Economic development.* It is frequently argued that a new road will attract industrial development to that area which it serves. For example, West Yorkshire Council "firmly believed that the economic future of various parts of the county could be assisted by improvements to their local and national road communications" (WYMCC, 1977a, 5). Yet the nature of the relationship between transport facilities and economic development has never been satisfactorily defined.

On a general level, it can be argued that improved roads may stimulate economic development in two ways: by inducing industrialists to locate in the area because of actual or perceived benefits of better communications or by making local firms more competitive and thereby stimulating local profits and investment.

In their analysis of the strategic considerations, Atkins Planning suggested that neither of these relationships exist and that the Kirkhamgate-Dishforth scheme is not likely to be a stimulus for the local economy. Indeed several local empirical studies have shown that this is so (see Murray, 1979). The view was also supported by the ACTRA Report (DTp/ACTRA, 1977, para. 20.19).which argued that "in only relatively few cases will the quantity of the trunk road network be a predominant factor in decisions on industrial locations". Indeed, it may be that transport improvements are detrimental to the local economy. For, production has become concentrated spatially while peripheral markets are served from the centre. Ameliorations in the transport network may facilitate the further development of this concentration both in terms of economic advantage and temporal possibility (see Barton, 1981). In this way the Kirkhamgate-Dishforth scheme may assist in opening the markets of West Yorkshire and the North East to the production centres of the Midlands and the South East.

Despite the uncertainties of the relationship most local authorities in the area still maintain that the road, if it was to serve their local area, would benefit their local economies. Thus, Bradford have consistently compaigned for a West of Leeds alignment whilst WYMCC and Leeds Council have campaigned for an eastern alignment (for traffic reasons they prefer the red route) since the main focus of economic growth in West Yorkshire is likely to be in the area around east and south east Leeds. Wakefield have consistently supported the Brown route which would most adequately serve the industrialised Five Towns area (Castleford, Normanton, Featherstone, Pontefract and Knottingley). Only Kirklees Metropolitan Council (KMC) have argued that the road will not necessarily produce any economic benefits to their area although they accept the need for the road. For Bradford, Leeds and Wakefield, with their traditional industries of textiles and mining in rapid decline, the road can offer some hope in the economic gloom of the seventies and eighties.

Interestingly, Harrogate Borough Council (HBC) is the only local authority which actively campaigned against the road passing near their own town. While information has not been forthcoming from the council, it appears that they are concerned that the road may attract industry and spoil the sedentary nature of this residential town.

*Green Belt.* A considerable area of West Yorkshire and North Yorkshire are defined as Green Belt in the County Structure Plans. Therefore, it is inevitable that the Kirkhamgate-Dishforth road will cross considerable lengths of the belt (see figure 10). The length for the eastern alignments is less than that for the western alignments. Furthermore, the western alignments of the road threaten the strip of Green Belt between Leeds and Bradford - a strip which in places is barely one mile wide and which is therefore highly sensitive to intrusion. Murray (1979), supported by WYMCC (Eagland, 1979) and LsCC (Pope, 1979) argue that this land must be protected at all costs and that alignment between Leeds and Bradford is unacceptable.

Predictably, Bradford Council have argued that the problem is not so severe and that, with careful routing of the road on the periphery of Bradford and with strict control of adjacent development, the Green Belt can be adequately protected (CBMC, 1980). The problem is clearly one of emphasis which cannot easily be resolved.

*Structure planning.* Clearly, a major new road in a county will have considerable influence upon the County Council's Structure Plan. We have already considered some aspects of this problem. But the new road would affect not only economic development and Green belt aspects of county policy but also transportation, residential location, commuting, leisure policies and so on. It would be pointless to consider further aspects of the problem here but we should bear in mind that the counties have to give priorities to the different effects of the scheme in deciding their preference. Inevitably conflicts will emerge. For example, NYCC support a Blue Route for the assistance which the route gives to its own transport policy. Yet the route threatens part of the Harrogate Green Belt, it may encourage commuting to West Yorkshire and may increase the pressure on tourist areas particularly the Yorkshire Dales National Park. All of these latter effects are contrary to the goals of the NYCC Structure Plan.

When the scheme is finally implemented then the counties must also plan to manage its effects. In this sense the road is an exogenous input into their plans, an input over which they have little or no control.

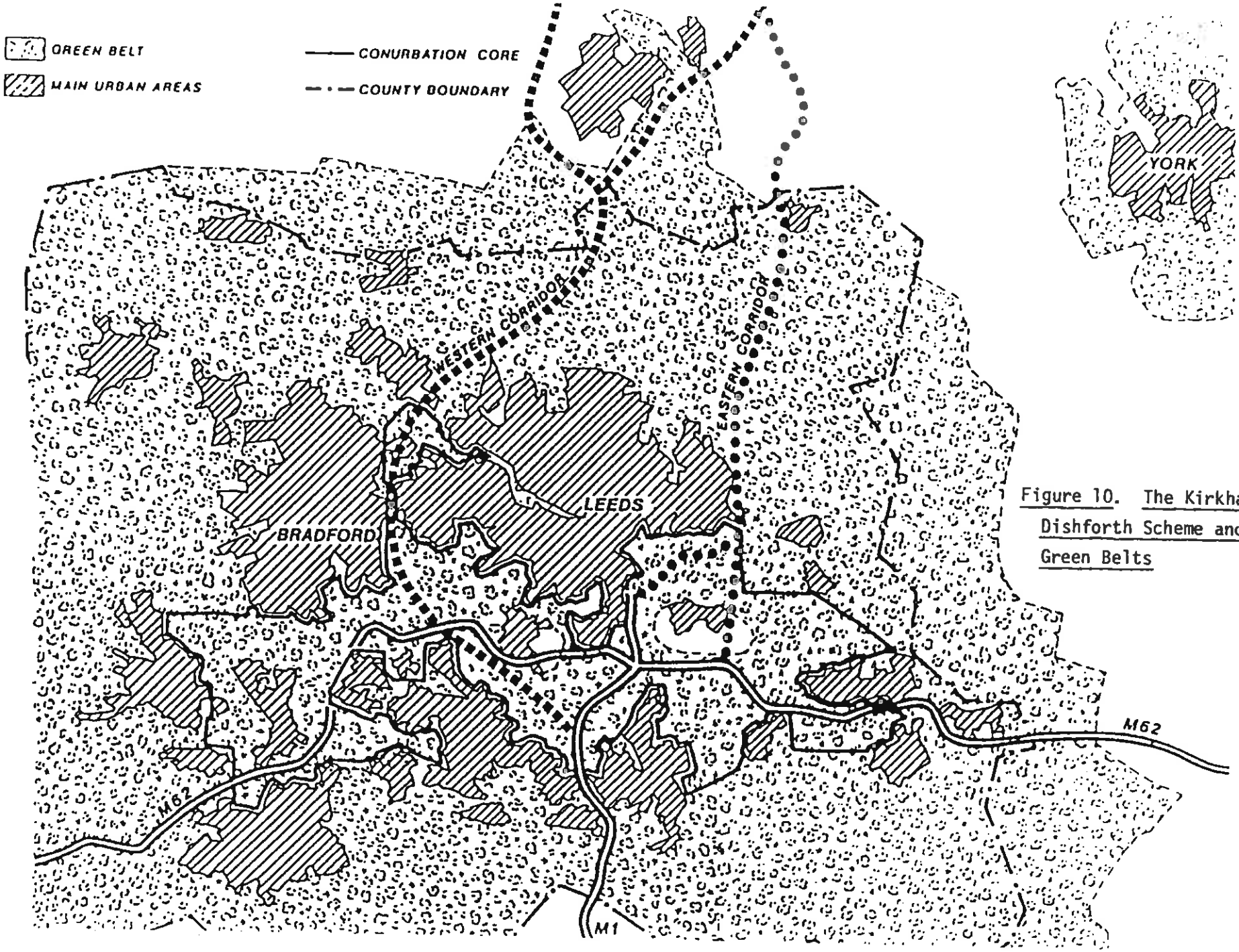



Figure 10. The Kirkhamgate-Dishforth Scheme and the Green Belts

## 3.3 Attitudes of local authorities and the public

There can be little doubt that the local authorities have had little influence in the decisions made by the DTp. When approached by the DTp during the 1975 consultation exercise, all but two of the local authorities expressed a preference for an alignment within the Blue corridor. The exceptions were Wakefield Council who expressed no preference between the routes and Leed City Council who were at that time of the opinion that no new route was necessary (Leeds are the only council to have ever expressed such an opinion).

Yet these opinions seem to have been totally disregarded in the 1977 decision. By the time of the public inquiry in 1979, only Bradford and NYCC maintained their support for the western alignment. Of the remaining councils, only Wakefield supported the Brown route. WYMCC and Leeds preferred a red route alignment while Calderdale and Kirklees councils expressed no preference. By now, Harrogate council were supporting an east of Leeds alignment.

Two factors seem to have been responsible for these changes of heart by the local authorities. Firstly, further work has specified the likely effect of the route in the localities. Most of the local authorities are concerned with the economic and traffic benefits which the scheme may bring to their area. There is therefore a tendency to support that route which passes nearest to the authorities main economic development areas. This is a partial explanation of the attitudes of Bradford, Wakefield, Leeds and West Yorkshire Councils. The last two, together with NYCC, have been considerably influenced by the traffic benefits which the road may bring to their areas. West Yorkshire's attitude is well expressed in the West Yorkshire Transportation Studies (WYTS) Final Report (WYMCC, 1977b, 65) which says of the Kirkhamgate-Dishforth scheme that

> "The best route depends mainly upon the relative weighting placed on the possibility of the route encouraging economic development and the extent to which the County Council should use the opportunity to assist in the solution of a number of severe transport problems in Leeds".

Despite the uncertainty of the relationship between the new road and economic development, the councils have maintained the opinion that the road *will* assist their local economy in some way.

The second factor is the urgency with which some local authorities feel that the road needs to be implemented. In a recent report (Stables, 1981) Calderdale council have argued that the alignment of the road was of secondary importance to the urgent need to implement the scheme. It is conceivable that when the new proposals for the scheme reach public inquiry, the local authorities may drop their objections for a speedy implementation of a scheme which, after some 12 years, has not yet passed through its public inquiry stage. Only Bradford seem certain to maintain their opposition. There is also the threat that the scheme may after all be abandoned. During the 1979 public inquiry, the Parlimanetary Transport Secretary, Kenneth Clarke, told a meeting of the North East Regional Highways Consultative Committee in Yorkshire that the Kirkhamgate-Dishforth scheme might survive the cuts but that its priority was being reviewed (*Yorkshire Post*, 22 Nov., 1979). The statement appears to have been a threat designed to encourage local authorities to accept the DTp's proposals for fear of loosing the scheme altogether. In the event, further delay has occurred with the recent scaling down of the DTp's proposals. For many local authorities the urgency for the implementation of the scheme must appear even greater.

Of the other representative bodies which responded to the consultation exercise, the majority took the attitude that the road should not pass through their area. Parish councils, traditional rural community representatives, predictably took this attitude. Of 24 such councils 19 were in support of an alignment away from their own locality. Only two council, Boston Spa and Collingham with Linton Parish Councils, responded in favour of a route (an eastern alignment) which passed through their own territory. Yet both would gain from a reassignment of traffic off main roads which pass through their communities*. Urban residents associations and action groups took similar stances. An interesting exception being the A64 Residents Action Group which has campaigned for an eastern alignment to relieve their heavily overburdened road. A third type

*Both parishes are located on the A58 which, until a ban on goods vehicles on the road was enforced in 1977, carried considerable commercial traffic.

of representative body is the group of trade organisations, chiefly Chambers of Commerce which support the route most likely to serve the transport needs of their members (usually the closest of the alternative alignments).

Finally, there is a group of respondent organisations whose interests are more general. The motivations of organisations such as the Road Haulage Association, Transport 2000, the Railway Invigoration Society and the Energy Options Group are obvious but some groups have a more general interest which is often difficult to discern (eg. White Rose Sailing Association, Northern Horticultural Society and the National Council for Women). The 1976 Assessment Report made little comment on these figures except to state that the organisations responded in favour of a western alignment in the ratio of 3:1.

Of the members of the public who responded, their attitudes were almost written off by the Assessment Report. The response rate was less than 1% of the adult population of the study area. An overwhelming support was given to an eastern alignment but this was partly dismissed as a response to the activities of the well organised Pudsey-Dishforth Motorway Action Group (PUDMAG) which campaigned against the western alignment. Besides, many of the comments of individuals can be dismissed as the reaction of people threatened by the scheme and not as constructive criticism.

In essence, the attitudes of the public and of representative organisations seem to have been completely ignored in the decision making process. The heavy support of local authorities and representative organisations for the Blue route was apparently ignored in the 1977 decision as were the opinions of individuals although these may have been used to support the Minister's decision. Yet no mention of public opinion is made in the announcement nor is there any significant reference in the evidence prepared for the public inquiry. The public appear to have been virtually ignored once they had been given the opportunity of stating their opinions.

## 4. CONCLUSIONS

From our broad analysis of the planning process and the specific consideration of the Kirkhamgate-Dishforth controversy we can identify certain problems in the way in which decisions are made. The conclusions have far reaching implications.

The decision by the Department of Transport are perhaps more technical than those of any other government department. Few people outside of the department have the ability to understand the work of the DTp's planners and the public have no right to challenge this work. Yet we have seen that there are severe limitations to the technology employed by the Department (see section 2.2(i)). The DTp have accepted that their forecasting techniques are far from perfect and ACTRA suggested that there was little likelihood of significant progress being made in the near future. The DTp's planning is therefore shrouded in a mask of technology which not only prevents examination from the outside but also appears to prevent the DTp themselves from looking out with any clarity. Yet when the public is permitted to challenge the work of the DTp serious criticisms can be made. The work carried out by NYCC and CBMC on the Kirkhamgate-Dishforth scheme is sufficient to expose the inadequacies of the DTp's analyses.

In their analyses the DTp are guilty of two major faults. Their forecasting techniques do not give results about which the DTp themselves should be confident. Certain alternative solutions to transport problems are omitted in the way that the DTp analyses their date.

The assessments made by the DTp are similarly dubious in character (see section 2.2(ii)). In the first place the assessment of the economic and traffic performance of a scheme is dependent upon the doubtful forecasts made by the DTp. The economic assessment of a scheme, as it is carried out by the Department, contains an inbuilt bias towards certain types of scheme and certain types of traffic. While this may be defensible, the adoption of certain assumptions have political implications which are either not recognised by the Department or are ignored. Similarly, environmental assessments of the scheme are purely subjective and therefore open to controversy. The case of the Kirkhamgate-Dishforth road has shown that the ways in which the assessments are carried out are inadequate. The case also

highlights the fact that the Secretary of State need not accept any of the advice that is given to him. The choice of preferred route was contrary to the evidence then available. The scheme did not even appear to satisfy certain government criteria, most notably the 10% return on investment.

So what were the grounds for the 1977 decision? Certainly we have shown that the environmental case outlined by the Secretary of State appears spurious. We can only speculate about the real reason for the decision, but the timing may give some clues. The announcement followed shortly after the introduction of the first major cuts in public expenditure and the fact that the Brown route offered a far less expensive solution to the problem may have been of paramount importance. Certainly the abandonment of proposals in 1980 were influenced by expenditure cuts. If this is so then the DTp went against all policy statements in favour of cost considerations. This has not been made clear at any time.

One further observation must be made about the case. Following the announcement of the preferred route, all subsequent evidence supported the DTp's choice of alignment, while before 1977 the evidence was predominantly against the preferred route. These sentiments were expressed by objectors at the public inquiry (see The Yorkshire Post, 3 Oct. 1979 and 13 Oct. 1979) and by a planning officer of one of the local authorities (who shall remain anomymous) who suggested that the DTp's decision had little regard for the evidence. Whether or not such accusations are valid (indeed they may not be verifiable), the way in which the case has been handled by the DTp leaves much to be desired and can do little to ease the suspicions of objectors.

We must also consider the role played by national policy in the planning of trunk roads. We have argued that transport policy in Britain is virtually non-existent and that the governments since the war have pursued an inadequately considered road programme with considerable vigour for reasons which may not be as rational as is claimed (see section 2.3). Yet national policy leaves little room for discussion at the local level. It may be that certain solutions may present themselves as being feasible at a local level but these may be excluded at a national level. This appears to have been the case in the Kirkhamgate-Dishforth scheme.

And what of the public's involvement in the scheme? Our earlier analysis introduced fears that the whole public participation exercise in road planning may be little more than a false appearance of democracy which creates an involvement while providing manageable outlets for objectors' frustrations (see section 2.4). The case study has provided evidence that this may indeed be so, for the DTp appears to have dismissed or ignored the arguments presented by the public even when this appears to support the DTp's own view. There also appear to be little that the public can do to prevent the DTp from implementing its intended schemes. Other cases have helped to create a suspicion among the opponents of transport schemes that the Department will do all it can to ensure that its schemes are implemented. Certainly, the Kirkhamgate-Dishforth scheme will now almost certainly be built and on an alignment which the DTp sees fitt. Work should commence in 1984!

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