TRAFFIC REDUCTION:
THE PLANNER'S ROLE IN LIMITING CAR USE

Tim Pharoah
Reader in Transport & Urban Planning
South Bank University, London

There is a need for a radically different approach to transport and development. We can now see that Margaret Thatcher's "great car economy" is getting out of hand, and that more needs to be done to limit traffic. This paper discusses the nature of the problem, and how the planning system could contribute to its solution.

Why should we reduce travel?

Travel is not a benefit. It is a cost. We only travel in order to get access to activities, facilities and people at a different location from ourselves. A primary aim of transport and planning policy should therefore be to reduce the amount of travel necessary for a given level or value of activity.

The long-term trend is for the amount of travel to increase, and the environmental and other costs involved are increasing as well. People in Britain now travel four times further each year than 40 years ago, but can we argue that the quality of our lives is four times better? Reducing the amount of travel will inevitably mean reducing the amount of <u>car</u> travel, which accounts for 85% of all mileage. Figure 1 shows that while population and trip making have remained fairly stable, the amount of car use has dramatically increased. Whatever the explanation, we are travelling much further to do what we want to do.

From a planning viewpoint, it is important to recognise that the growth of car travel is not matched by in increase in benefits, but results from subsidised cheap motoring. This explains why the provision of more roads and car parking leads to more traffic and cars to fill them. Cheap motoring also means that while land use planning can reduce the **need** for car travel, this does not necessarily result in less **actual** car travel; land use planning is a necessary but not a sufficient condition for less car traffic.

Within this over-riding problem of distorted travel demand due to subsidised motoring, the problems of transport are in some ways misunderstood, and too narrowly defined.

Fig. 1 The Mobility Explosion
1973 -1991

Index 1973 = 100
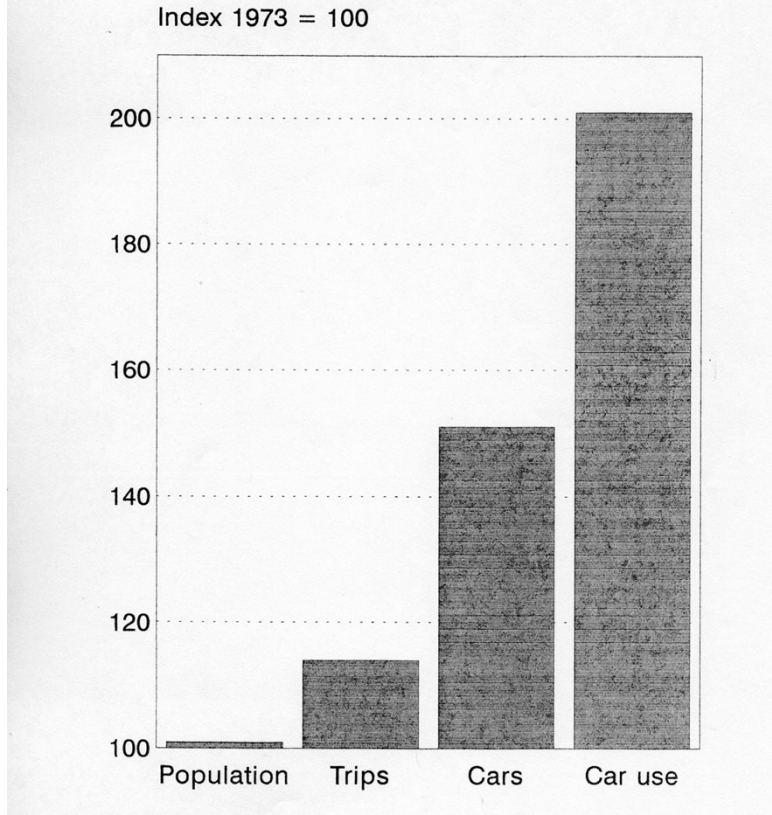
Some common misconceptions are:

1. <u>Restraining car commuting into town centres will reduce road traffic</u>. This category of traffic is already restrained in most towns, and is growing only slowly. The "new wave" of traffic growth is generated by the other categories of journey, as a by-product of social and economic changes such as those set out in Appendix 1.

2. <u>Limiting traffic growth in urban areas will reduce traffic growth in general</u>. Two thirds of traffic growth occurs outside urban areas. Restraining car trips within urban areas will have little impact on growth elsewhere, and may even encourage it.

3. <u>Providing for increased inter-urban road traffic does not result in increased urban traffic</u>. More than 80% of people live in urban areas, so it follows that at least 80% of journeys begin or end in urban areas. Roadbuilding outside towns will therefore increase traffic inside towns.

4. <u>The traffic problem is the result of a failure to provide sufficient roads and parking</u>. Instead, it is the growth of unrealistic expectations due to cheap individual car travel, and the failure to compensate for environmental and community destruction.

5. <u>Improving public transport will reduce car use</u>. Better bus and rail services can attract passengers, but will not by themselves deter car use. Without measures to limit car use directly, more public transport will mean more travel overall.

The transport problem is also too narrowly defined. There are concerns about the environmental damage caused by new transport infrastructure, about congestion, about noise and air pollution, and their effects on health, and about road accidents.

The impact of private motorised travel goes much wider, however, and our concern should embrace matters that are at present barely discussed. What about, for example, the impact of moving and parked vehicles on the street scene, and on the quality of private and public spaces? Many residential streets are already full of cars, even where only 40% of adults own a car. Pavements and verges are used for parking, front gardens are ripped up for hard-stands, and walls and hedges and trees are removed. Most of this is either outside planning control, or is even encouraged by the application of parking standards.

Little attention if any is paid to wider social pathologies which car use causes. Car users have access to a widening choice of facilities, while those without cars are powerless to prevent the decline and loss of local facilities on which they depend. Public transport which might take them further is usually inadequate and often too expensive. As accessible facilities close down, children lose their independence. For example, local cinemas to which they could walk are replaced by a multi-plex on a site reachable only by car. They are once again dependent on parents as chauffeurs.

The role of town planning in promoting car-based living is often underplayed. For example: a new large development can mean the loss of smaller, locally accessible facilities; allowing car parking at one location means the loss of public transport trips from another location; providing for extra traffic at a new store or office development means further encouragement to drive; building at low densities reduces the chances of supporting local facilities, and of travelling on foot or by public transport.

The break-up of space caused by the presence of vehicles, both moving and parked, means a loss of opportunity for social interaction. People who go directly from door-to-car-to-door have no chance to see or speak to anyone except at the home and the destination. This leads to isolation in the community, and ultimately alienation from it. The streets, and the public transport systems, are increasingly populated only by those who have no choice, and who collectively cannot provide the critical mass necessary to keep the public realm safe and secure. From this follows crime, loss of community involvement, and ultimately loss of confidence in the area, and hence economic and social decline.

These links between motorisation and urban decline and deprivation cannot easily be proved, but anyone who doubts the process need only compare British city trends with those of North American cities over the past thirty years.

How will these problems develop?

The problems are already serious enough to justify planning for less traffic. What we are faced with, however, is a predicted doubling of traffic in the next 30 years (see Figure 2). If this prediction is allowed to become reality, prospects for the future quality of life are grim. Even if a technical fix arrived which meant that all cars were silent and non-polluting, and were guided by computer to avoid congestion, would we still want a lifestyle with twice as much car traffic as today?

Fig. 2 Forecast Traffic Growth
Index 1990 = 100

1989 NRTF for GB rebased to 1990
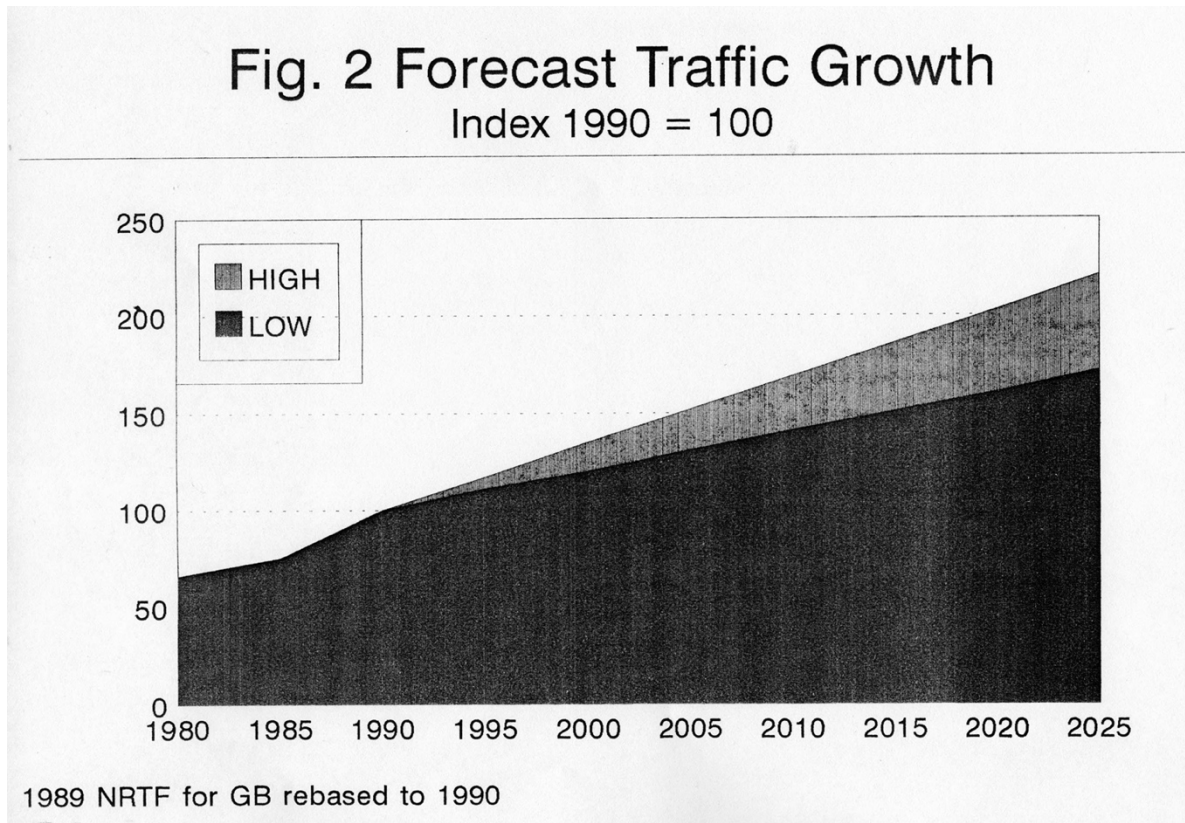
Source: Transport Statistics 1991 (DTp 1991)

We are told that traffic growth is inevitable as the economy grows, but perhaps the notion of "economy" is becoming warped. The argument runs like this: We need the economy to expand, so that we can afford a higher quality of life and a better environment, and better welfare through the "trickle-down" effect. In order to achieve this growth of the economy, we have to accept a lower quality of life, a more polluted and dangerous environment, and less opportunities for those without cars.

Not only is this illogical, it is contrary to what economically successful countries are doing. In comparison with other countries, the amount of car traffic in Britain appears to be greater than can be justified by economic output (see Figure 3).

Fig. 3 Car Use and Economic Output
Index   GB = 100
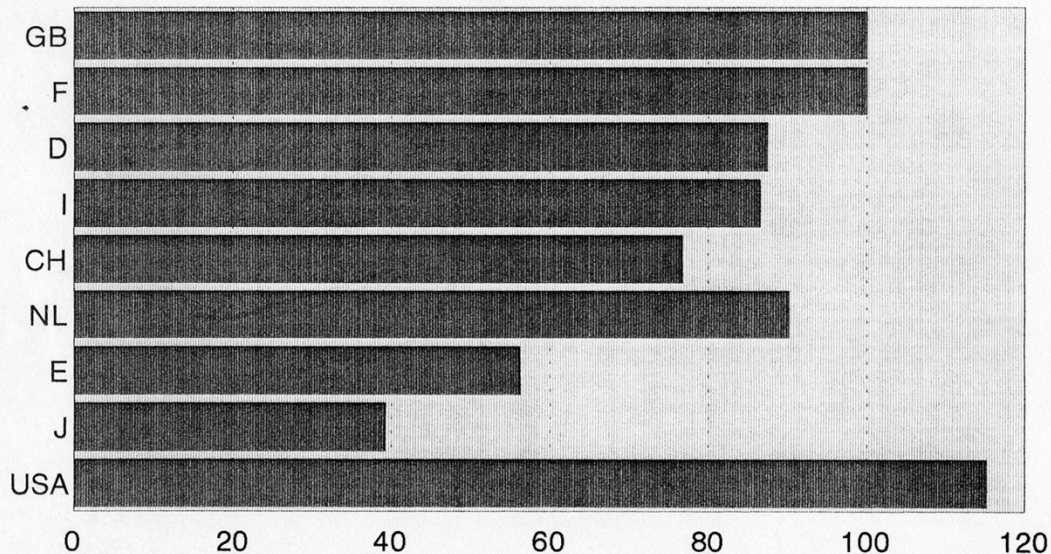
Car kms per unit of per-capita GDP, 1989

What is being done, in the face of the projected doubling of road traffic? The forecast traffic growth is, or should be, a starting point for policy makers in a four-stage process:

1.   Establish likely growth, and its distribution, given present policies.
2.   Assess the desirability of such growth in terms of its impact on social, economic and environmental objectives.
3.   Set up targets for limiting or reducing traffic.
4.   Devise a strategy for meeting the targets.

This process has been adopted in The Netherlands, where forecasts are seen as part of normative planning, to help in shaping a better future (Dutch Second Chamber of the States General, 1990). In Britain, not one of the steps listed above has been taken.

The national response in Britain

There is now, however, official recognition that not all of the forecast traffic growth can be accommodated, and PPG13 includes the objective of reducing the **growth** of travel. As yet, however, there is no policy to reduce traffic.

Without clear and quantified targets for future traffic levels, there is no means by which policies can be tested against objectives, or monitored for their effectiveness.

Central government has so far set itself against a national transport plan. It should, however, take responsibility for the consequences of individual decisions and policies at the national level, and in particular their impact on the ability of local authorities to solve their own problems. The massive Trunk roadbuilding programme will fuel traffic growth on the rest of the road system, while bus deregulation and rail privatisation place severe constraints on the ability of local authorities to plan for these modes.

On the other hand, the active consideration being given to fiscal measures to "influence" demand for road travel (road tolls and urban road pricing) could be helpful to local authorities in the longer run.

The local response

Planning authorities are now urged, for example through planning policy guidance on housing, retail and transport, to plan to reduce the need to travel. The three tools at their disposal are the planning of land use location and transport infrastructure (Development Plans), decisions on individual developments within the plan framework (Development Control), and influence over complementary transport measures (for example through the Transport Policies and Programmes, and the package approach to bids for transport funding).
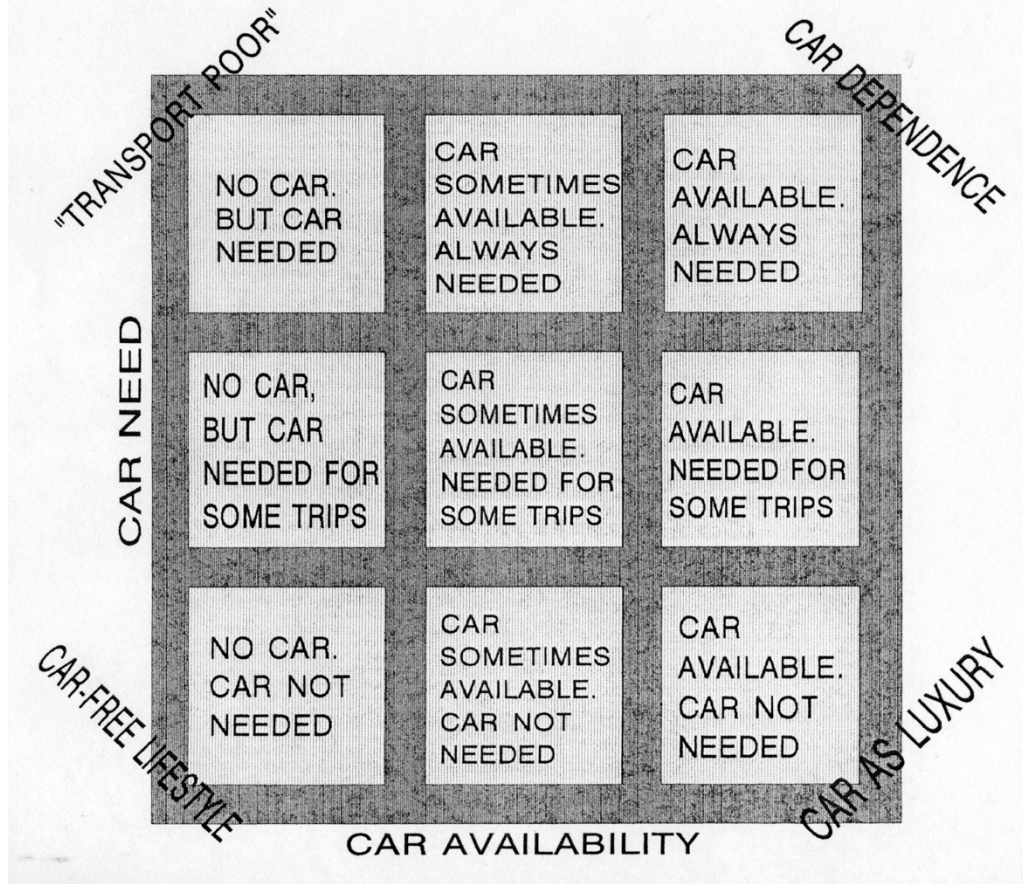
Land use planning and location can be used to increase the proportion of people able to live comfortably without using the car for all their trips. This means conserving land use patterns that already meet this criterion, and using new development to reinforce rather than erode the pattern. This needs to be integrated with plans for public transport, and facilities for walking and cycling. Figure 4 relates the degree of car dependence to the degree of car availability and the 9 boxes show the different circumstances in which people live. The policy aim should be to increase the proportion of people living in the bottom three boxes.

Local authority rhetoric is getting stronger about the need to tackle the problems caused by excessive traffic. For example, a report by the Association of County Councils in 1991 stated:

> "If the Department of Transport forecasts of growth were actually to materialise the demand for roadspace to satisfy them could not be met in many places without major environmental damage. A total rethink of our present basic strategies is required."

As yet, however, no local authority in Britain (or any other country as far as the author is aware) has adopted a policy of city-wide traffic reduction. Meanwhile planning applications for large scale, single use, car-based developments are making it ever more difficult to reduce dependence on the car, or even to moderate the rate of traffic growth. Friends of the Earth in 1992 called upon local authorities to set a target of a third reduction from 1990 urban traffic levels by the year 2005 (Pharoah 1992).

Fig. 4 Degrees of Car Dependence

NO CAR. BUT CAR NEEDED	CAR SOMETIMES AVAILABLE. ALWAYS NEEDED	CAR AVAILABLE. ALWAYS NEEDED
NO CAR, BUT CAR NEEDED FOR SOME TRIPS	CAR SOMETIMES AVAILABLE. NEEDED FOR SOME TRIPS	CAR AVAILABLE. NEEDED FOR SOME TRIPS
NO CAR. CAR NOT NEEDED	CAR SOMETIMES AVAILABLE. CAR NOT NEEDED	CAR AVAILABLE. CAR NOT NEEDED

"TRANSPORT POOR" — CAR DEPENDENCE — CAR NEED — CAR-FREE LIFESTYLE — CAR AS LUXURY — CAR AVAILABILITY

Eventually, local authorities will have to address the issue of traffic levels, since these determine so much else about the quality of our lifestyles and "travelstyles".

What should local authorities do to meet the objective of reducing travel?

1.   The first requirement is to protect those features of our present way of life which if eroded would produce more traffic growth, such as

- Relatively low car ownership
- Relatively high levels of walking
- Compact settlements
- High proportion of urban dwellers.
- High proportion of employment in areas accessible by public   transport.

The main means at the disposal of local authorities is to refuse all new car-based developments, and large-scale developments which threaten local or central area facilities, and to stop all traffic, highway and parking schemes which favour the car over other modes.

2.   The relative attraction of car-based developments can be reduced by promoting the quality of traditional urban centres that are accessible without cars. The current emphasis on revitalising town and city centres is to be welcomed in this context, but the decline in quality of district and neighbourhood centres presents an equally important challenge.

3.   Traffic calming measures can be introduced throughout urban areas to make walking and cycling safer, and to enhance the prospects of local economic activity. Devon provides an example of how a comprehensive strategy can be adopted (Devon County Council, 1991).

5.   Parking in new developments can be reduced. One approach is to reduce parking standards in areas accessible by public transport (as advocated by the London Planning Advisory Committee), but this will perpetuate the trend towards car dependence elsewhere. A more radical approach would be low parking standards at all locations, which would compel developers to take account of access by non-car modes, to favour sites accessible by public transport. Local facilities would also be encouraged.

6.   Local authorities can help to promote alternatives to the car, and to raise public awareness of the problems. The campaigns in Hampshire, Hertfordshire, Leicester, Nottingham and elsewhere provide examples.

The constraints on local authorities in Britain are acknowledged to be a major obstacle to progress, especially the limited power to raise revenue, the inability to guarantee public transport services as part of their strategy, and the requirement to respond to private sector initiatives rather than to plan more positively.
Nevertheless, there is much scope within present powers to get on with the six areas for action set out above. Local authorities should of course continue to campaign for wider powers, but this cannot justify inaction in the short term.

Lack of powers also cannot explain or excuse poor planning practice when the opportunity for action arises. Local authorities continue to miss opportunities, and to make decisions which lead to more car dependence. Let us take two examples; light rail planning and Traffic Impact Assessments.

Light Rail and sustainable development

Some North American cities have taken a more integrated approach to light rail development. Toronto is perhaps the best-known example of where development densities have been drastically increased around metro stations, producing a much higher public transport share of travel than is usual for cities of its size. Other cities like Portland have followed the same model with success.

The danger of British light rail projects is that they simply divert travel from bus and existing rail services, and have only a marginal impact on car travel. No reduction of parking or roadspace is planned to match the shift to public transport. Indeed, so little importance is attached to reducing car use that the actual impact is not monitored.

Surveys of the Manchester Metrolink, for example, discovered that 10% of passengers formerly used the car, but unless information is collected on how other members of the household are using those cars, the overall impact on car kilometres will not be known.

Simply increasing the ridership of one public transport service at the expense of another is of dubious benefit. High ridership may be welcomed by operators, but unless it is associated with reduced car travel the environmental impact will be negative.

Traffic Impact Assessments

When local authorities receive an application for a large new development, they normally require the preparation of a so-called "Traffic Impact Assessment" (TIA). This is usually carried out by consultants for the developer, or the local authority, or both.

If the capacity is sufficient, then the development will not usually be refused on traffic grounds. If it is not, then there may be scope for the developer to pay for extra capacity to be provided.

This process is unsatisfactory in terms of reducing car travel, or reducing car dependence.

1.   TIAs do not (usually) consider overall access to the site in any normative sense. The issue of whether users of the development can realistically reach it without using a car is mostly ignored. Even where it is physically possible to reach it on foot or by public transport, the quality of such access may be so poor as to be irrelevant. In any case, the catchment area of large developments is normally so wide that no more than a fraction of users could live within walking distance. Promoters of large-scale developments talk only of "drive times", never "walk times" or "public transport times". Non-car users are disadvantaged, and car users are not encouraged to choose alternative modes.

2.   TIAs have the effect of perpetuating car dependence. In order to arrive at a figure for traffic generation, other similar developments in similar locations (or "comparables" in the jargon) are studied to provide a model of what should be provided in terms of roads and parking. The use of comparables has become a fairly formal procedure since the advent of development databases such as TRICS and TRAVL. It may be useful to know the potential traffic generation of a development, but this should not be confused with the amount to be provided for. The policy is to reduce car dependence, yet the present use of TIAs promotes new development which is just as car-dependent as the developments which prompted the concerns in the first place.

3.   TIAs take account only of the impact on the roads in the immediate vicinity of the development. Yet at the same time, the traffic generation calculations may be on the basis of drive times of 10, 20 or 30 minutes or more. At 30 mph a 10 minute drive time includes new car trips from up to 5 miles away. Of course, one new development will produce a barely noticeable traffic increase at that distance, but no account is taken of the cumulative and overlapping traffic growth caused by such developments over time.

Within a strategy of reducing car dependence and car use, TIAs should become "Travel" or "Accessibility" assessments. They would include a statement, compatible with the local authority's

traffic reduction strategy, about the mode choice to the site, and how the intended mode split of users would be achieved.

Conclusion

Traffic reduction is needed to achieve a wide range of social, economic and environmental objectives. The Government has made the first tentative step by recognising that car growth should be limited, and that land use planning has a role to play in achieving this.

Local authorities are mostly keen to accept and apply the new approach, but the planning practice is not changing as fast as the policy rhetoric.

The weakness of local government is a major obstacle which needs to be rectified, in particular the ability to influence the nature of development proposals brought forward by the private sector, and to determine the long-term provision of public transport services. The lack of any national strategy for reducing traffic, and the continuance of policies that will increase traffic, is also a hindrance to local action.

Nevertheless, lack of powers does not excuse bad planning practice, or continuing collusion with developers in providing for car-dependent lifestyles. Local authorities have more than enough to do using present powers to stop developments and schemes which fuel car dependence, and to promote development patterns that reduce it. Who knows, such a strategy could even revive the fortunes of local government itself!

APPENDIX 1 SOME FEATURES OF THE "NEW WAVE" GROWTH IN CAR TRAFFIC

1.	Car owners are becoming a more heterogeneous group, as ownership spreads to older people and to women. Multi-car households are growing fast.
2.	Parking provision increases, especially outside centres.
3.	Public transport is losing its critical mass.
4.	Provision of car-based facilities for shopping, leisure, employment.
5.	Large single-use developments.
6.	Decline of local facilities reachable on foot.
7.	Declining population densities.
8.	Shift of population and employment from urban to rural.
9.	Subsidies for cars (company car perks etc).
10.	Growing fears about personal safety.
11.	Opting out of schools and hospitals (removal of assumption that people will use local facilities).
12.	Provision of more road capacity (new, wider roads, traffic management, SCOOT, Autoguide, etc).
13.	Increasing danger on the roads: more escort journeys.
14.	Increasing economic activity, especially amongst women.
15.	More flexible working patterns.
15.	Faster roads lead to longer journey lengths (further destinations within same time).
16.	Road building confined to low density areas attracting people away from traditional centres.

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Tim Pharoah, School of Land Management & Urban Policy, South Bank University, London, SW8 2JZ.
Fax: 071 498 1924, or email "pharoat@vax.sbu.ac.uk"