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TOWARDS SUSTAINABLE TRANSPORT POLICIES

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The development of policies which support the use of sustainable transport modes is a particularly wide topic. This paper considers the various issues which arise in such policy development and how a United Kingdom sustainable transport policy could be framed.

Sustainable Transport Policy Issues

- Today local streets are not generally used as a play area by children to the same extent as they were in the 1950s, say. (One might speculate whether this is because of increased vehicular traffic levels or because of the growth of the video games industry - ML.)
- Public space in cities tends to be dominated by motor vehicles. Traffic calming opportunities are inversely proportional to traffic flow.
- Pedestrian footways are frequently obstructed by motor vehicles in urban areas.
- Out-of-town Superstore development has taken place. This raises a number of questions including whether the level of pedestrian safety adjacent to such developments is adequate.

"High" and "Low" estimates of road traffic growth have been made. However, policy has not been adjusted to arrest forecast road traffic growth. One element of a Sustainable Transport Policy might be the setting of road traffic targets.

- To take a political view the implementation of policies which support sustainable transport modes would require that these policies are perceived, by MPs and Councillors, as being popular with their constituents. If these policies enjoyed the support of both politicians and their constituents, the likelihood of their implementation would increase. It is useful therefore to consider the following:

Support fewer cars and more public transport

| | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| views of European city residents | 84% | 16% |
| politicians assessment of citizens views | 51% | 49% |

Source: UITP, 1991

This would suggest politicians are not necessarily in touch with their constituents' on this issue.

- Individuals attitudes to car ownership are also crucial. These are estimated to be 50% related to transport issues only and 50% related to more emotional issues, such as pride.
- "Parking and Traffic Management"¹ and local authorities' Unitary Development Plans (UDPs) might suggest that the following classes of road traffic should be targets for restraint:
- A typical restraint policy, usually in the form of parking and traffic management, attempts to restrict:
 - traffic travelling through, or gaining access to, town centres;
 - peak period traffic;
 - car commuter traffic.

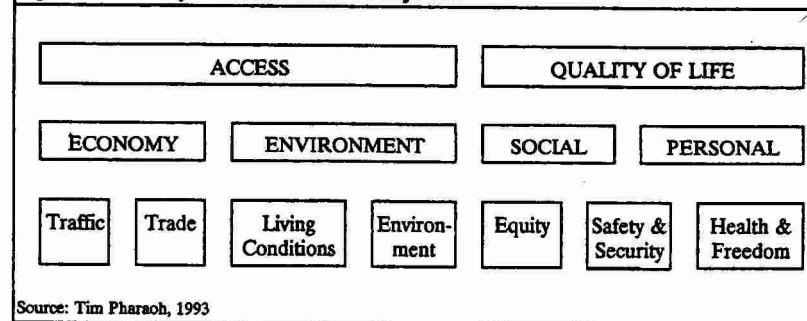
It can be noted that such restraint policies would generally have little impact on the total number of vehicle miles. In London the peak period road traffic volume comprises 5% of total vehicle miles.

- How to discourage car use, and encourage diversion onto public transport, when buses (for example) are constrained by the congested road network? It is suggested that the first step in deterring car use, through former car commuters, say, diverting to buses, would be to improve bus service quality, by protecting routes from the variable disruption caused by other traffic.
- How do alternative planning policies affect the use of sustainable transport modes? For example, policies which promote the development of out-of-town Superstores, as opposed to those which support the commercial viability of existing High Street shops, will have an impact on the use of sustainable transport modes. Residential and commercial planning policies will, in a similar way, influence road traffic volumes.
- Conflict between "Access" and "Quality of Life" Demands.

Figure 1 shows the dual objectives of traffic reduction of Access and Quality of Life requirements, and how these break down into seven sub-objectives.

¹ Traffic Management and Parking Guidance. Department of Transport, Circular 5/92. 26th August 1992.

Figure 1: Hierarchy of Traffic Reduction Objectives

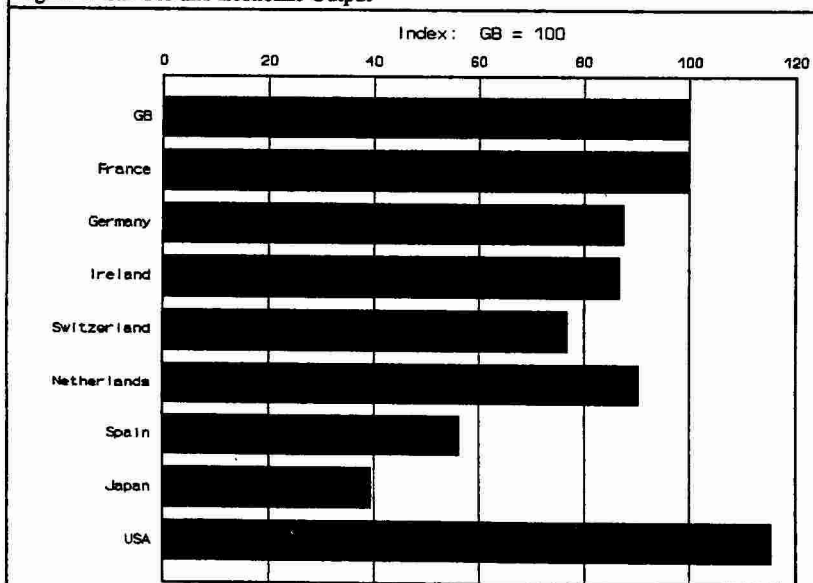


Source: Tim Pharaoh, 1993

- Is there a link between economic growth and vehicular traffic growth?

The performance of various economies relative to car-kilometres has been investigated and the ratio of car-kilometres to Gross Domestic Product (GDP) calculated for a number of countries (shown in Figure 2).

Figure 2: Car Use and Economic Output



Car kilometres per unit of per-capita GDP, 1989

- Is there a link between growth in retail sales and vehicular traffic growth?

Figure 3 shows the results of a study of 38 German cities which indicated that there is an inverse relationship between growth in retail sales and the percent of trips by car.

| | | Retail Sales Growth 1978 - 1985 ¹ | | |
|--------------------------------------|---------------|--|---------|---------------|
| | | Below average | Average | Above average |
| Percent of Trips by Car ² | Below average | 1 | 6 | 10 |
| | Average | 1 | 7 | 2 |
| | Above average | 3 | 6 | 2 |

Source: DIFU, Berlin 1991

Notes: 1. Retail growth trends of inner cities
2. Percent of customers arriving by car, in relation to average city size.

When pedestrianisation/traffic calming is proposed to be introduced in a town centre, retailers are likely to complain that this proposal will make access by car more difficult and that consequently trade will suffer. Retailers are also likely to complain if, after pedestrianisation has been implemented, it is suggested that traffic should be allowed back into the street!

European planning practice has generally been to provide pedestrian and public transport access to shopping streets. For example, Dortmund has seamless pedestrian precincts, while trams provide public transport services to retail areas in Amsterdam.

- Examples of European planning practice encouraging pedestrian access/public transport links to retail areas:
 - a footway/cycleway ring "road" is provided in Munster, Germany;
 - high quality public transport information is provided both in-vehicle and at modal interchanges;
 - investment in light-rail systems, such as the one in Grenoble.

Re-directing United Kingdom Policy to Support Sustainable Transport Modes

The UK planning/transport environment has the following existing features, which can be seen as having the potential to support Sustainable Transport modes:

- a relatively low level of car ownership;
- a high percentage of walk trips (as a proportion of total person trips made by various modes);
- compact town and city layouts;
- 80% of the population lives in urban areas.

These strengths could be built on to develop a transport policy which encouraged the use of Sustainable Transport modes in the following way:

- upgrade existing high-density residential neighbourhoods through traffic calming and shared-space developments;
- devise a motor vehicle traffic reduction strategy and attempt to reduce, for example, from 95% the percentage of shoppers who arrive by car at Lakeside, Thurrock;
- implement planning policies which reduce the requirement to travel (annual vehicle kilometres travelled in the UK has increased fivefold since the 1950s) by, for example, locating jobs near to residential areas;
- encourage diversion from car to other modes;
- improve the quality of urban life ie improve "Lifestyle" and "Travelstyle". These improvements to lifestyle can be seen as the carrot with which to encourage diversion to Sustainable Transport modes.

Discussion

Geoff Mileham (Network SouthEast): The Department of Transport (DOT) has stated that additional road network capacity is required in order to accommodate peak period vehicle flows. Would you accept that a sustainable transport policy could require that the planned funding for this additional road network capacity be diverted to funding public transport?

Tim Pharoah: One difficulty faced is that rail infrastructure investment, present regime, has to demonstrate a financial rather than an environmental (eg discouraging car use) return.

Aubrey Benn (Confederation of British Industry): One way of encouraging the use of Sustainable Transport modes would be to plan smaller cities with places of residence located close to the work place.

Tim Pharoah: One could also consider the impact of charging car users for the congestion (or possibly the environmental costs) that their car journey imposed. This would lead to different location decisions being made.

Peter White (University of Westminster): The household is the unit which undertakes location decisions. Surveys have shown that while a household may relocate so that the head of household (the husband, say) can cycle to work, his spouse may now be forced to make a car trip which is several times longer than her previous journey.

Peter Jones (University of Westminster): What does less travel to work mean?

Tim Pharaoh: A reduction in person kilometres travelled to work. One difficulty is that surveys have not addressed total travel by households and how this changes. Therefore, one cannot judge whether a reduction in person kilometres has been achieved across all modes. Research suggests that the number of trips per person per day is constant. (Tim Pharaoh would appreciate information on this aspect.) Therefore, the requirement is to reduce the length of each trip.

Aubrey Benn: Surely this reduction can be encouraged by having tighter town planning regulations which would encourage local cinemas, more city centre supermarkets and residential flats above town centre shops and offices?

Geoff Mileham: Network SouthEast research has shown that, generally, individuals do not like travelling to work.

Peter Jones: German research has suggested person trip rates are constant. Old and new towns both experienced approximately the same proportion of individuals commuting into the centre. Commuter journey-to-work isochrones were found to encompass large catchment areas, if journey-to-work, delays increased out-of-town residential developments were found not to be viable.

Tim Pharaoh: In (the former) West Germany the adjustment in car ownership has been incremental. However, in (the former) East Germany car ownership has increased exponentially generating significant impacts. Possibly current attitudes attach a novelty value to this previously denied luxury car use and these attitudes will diminish as the novelty wears off.

Peter White: PPG 13² is currently circulating in draft (Note: final version issued in March). How will this affect policy? Will it encourage a clash between the DOT and the Department of the Environment?

Roger Webber (London Buses): A reduction in person kilometres is a very broad policy goal. How is the appropriate trip type identified, targeted and reduced?

Tim Pharaoh: A difficult question. Trips to school by car, escorting children, may be an appropriate type of trip to target. Road pricing would allow individuals to appreciate the cost of such a school run and may encourage them to make alternative arrangements. Even without road pricing, more selective car use could be achieved with shared car ownership (local rental) schemes, as are now operating in many continental cities.

Roger Webber: The technology used in the Cambridge time-based congestion charging would be appropriate.

Peter Jones: An improved urban life style would be the carrot that encourages less car use. It is necessary to identify which trips are essential and target them for reduction. Hampshire County Council is encouraging individuals to make less use of cars and identify the importance of their car trips. Here car users have not necessarily seen their car use as essential and if a car was not available would divert to cycling/walking.

Tim Pharaoh: A Bremen study confirmed that walking/cycling are the preferred alternatives to car use. A preference would be a charge for a car at point of use - having a car (i.e. the investment) is likely to lead to car use. Therefore, there is a need for a mid-point between no car and having a car, and therefore use.

Report by Martin Lawrence, Senior Consultant, Oscar Faber TPA.

² Department of the Environment/Department of Transport. PPG 13, Planning Policy Guidance: Transport. March 1994.