SUSTAINABLE TRANSPORT POLICY AND PEOPLE LIVING IN RURAL AREAS

A POLICY PAPER

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The Scottish Consumer Council (SCC) has been closely involved with transport policy throughout its 21 years. We have covered issues including ferry services, bus deregulation, getting to school by bus and, most recently, travelling on public transport with babies and children. This policy paper continues the SCC’s interest in transport issues, but focuses largely on private transport in the form of the family car and its use in rural areas. A companion policy paper Cars and the Environment published by the Scottish Consumer Council (Farrington, Collins and Coole, 1996) examines the wider picture of sustainable transport options.

Those of us who live in cities or towns are often able to walk to the shops, to work, to the doctor’s surgery or to visit friends. Even when we have to visit somewhere that is beyond walking distance we can usually catch a bus or take a train. For those of us who live in the countryside, walking is seldom an option and public transport is often unavailable, inconvenient or too expensive. In rural Scotland road and rail networks have to overcome long distances and many geographical barriers and, in addition, ferry and air services may often be the only means of travel. Public transport systems are consequently poorly developed and services are fragmented. Links between bus, rail and ferry services may pose problems for those making connections on longer journeys. Even if you do own a car you face longer journeys and consistently higher petrol prices.

Being able to travel to use services or pursue various activities plays an important part in determining our standard of living and quality of life. Those without a car make fewer journeys to a narrower range of places than car owners. Many people are not able to substitute public transport for car use because of cost, inconvenience and, in some cases, because public transport is not available. For many families in rural Scotland, the car is a vital lifeline. It is not a luxury: it is a necessity, and most basic activities such as shopping, visiting and getting to work depend on it.

Patterns of private car use are very different in rural areas, where there is a much higher degree of car dependence. In many situations, owning a car is the only practical and economical way to get around. Many of those in rural areas are living on lower incomes, paying more for petrol and, consequently, spending a larger proportion of the family budget on travel. Any increased costs in running a car or in the price of fuel will have serious implications for those living in rural Scotland.

The Royal Commission on Environmental Pollution (RCEP) has proposed increasing fuel prices and imposing road taxes and road pricing with the aim of reducing atmospheric pollution. Petrol prices are, however, already approximately 12.9% higher for leaded and 15.3% higher for unleaded in rural areas of Scotland than in urban centres. The RCEP’s policies which are designed to address largely urban-based congestion and pollution do not adequately take into account the unique problems in rural areas. Any further costs in running a car will fall disproportionately on those in rural areas, and rural residents should not have to pay for solutions to urban problems.
In the light of the RCEP’s report and the government’s Green Paper *Transport: the way forward*, it is vital that the interests of those living in rural areas are fully addressed. The SCC is very concerned that solutions for urban areas are not necessarily applicable in rural situations. Many of the issues involved are discussed in this paper and I hope that you will find it interesting and thought provoking.

Deirdre Hutton
CHAIRMAN
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CHAPTER 1  BACKGROUND

1.1 Introduction

In rural areas, the car is a vital lifeline as public transport alternatives are limited and services can be at a distance. For most people, including those with lower incomes, car ownership is the only option. In this respect, the cost of running a car and the price of fuel are crucial.

This paper addresses the issues involved for rural car users in the light of the report of the Royal Commission on Environmental Pollution (RCEP) in 1994 which made a clear case for the need to consider how to limit, and if possible reverse, the growth in atmospheric pollution arising from increased road traffic and particularly car use. The RCEP made 110 recommendations including increasing fuel prices and road taxes and also introducing road pricing.

The goals of the RCEP, in particular to reduce CO₂ emissions, are seen and understood to be more sustainable solutions to the problems posed by current trends in transport use. However, what is less well understood is the impact these measures will have on vulnerable groups such as people with low incomes and rural dwellers. The needs of those living on low incomes in relation to transport in general are discussed fully in Farrington (1994). Further work is needed to assess the implications for low income consumers of sustainable transport policies. In relation to rural areas, patterns of private car use are distinctly different from urban areas. There is a greater dependency on the private car, it being the only economic and practical option for many people. Current costs of motoring consume a significantly higher proportion of rural household budgets as a result of higher fuel prices, greater dependency and lower incomes.

Against this background, the introduction of further cost increases may have serious consequences for rural residents in terms of choice and access. This has resulting implications for the economic and social wellbeing of rural communities as a whole.

This paper sets out the problems faced by rural consumers in the context of moves towards a more sustainable transport policy. It highlights the issues of car dependence in Scotland, particularly in rural areas and it explores the implications of the RCEP report and the options available for addressing environmental issues while avoiding disadvantage for rural consumers.
1.2 The Royal Commission on Environmental Pollution

In October 1994, the Royal Commission on Environmental Pollution (RCEP) made 110 recommendations, for government consideration, on current transport policy and options for change. One of the apparently hardest hitting recommendations was that petrol prices should be incrementally raised, to double in price, relative to other goods, by the year 2005.

The most important recommendations, for the average car owner and driver, made by the RCEP are summarised below.

- Increased fuel taxes, so that the price of petrol and diesel would be doubled, relative to other goods, by the year 2005.
- Implementation of a comprehensive set of targets to improve air quality, cut transport noise and reduce the levels of CO₂.
- Tightening up of the system for annual MOT tests especially test on emissions limits.
- Graduation of vehicle duty to reflect the polluting potential of vehicles.
- Measures aimed at cleaning up exhausts from all combustion engine-powered vehicles, making road vehicles more fuel efficient, and the examination of appropriate alternative fuels or vehicle designs.
- Measures to reduce the level of particulates emissions (particularly PM10) from diesel-powered engines.
- Examination of the effectiveness of lowered and more strictly enforced speed limits.
- Reduction of the government’s road budget by half. Road building work to be restricted to local bypasses and maintenance activities.
- Banning of unleaded super-premium petrol.
- Retention of the standard for benzene levels in air at 5ppm to be lowered to 1ppm at a later date.
- Encouragement of modes of private transport other than motor-driven — by the introduction of safer and more extensive pedestrian routes and cycleways.
- A more comprehensive air quality monitoring programme around the UK.
- Changes to company car policies by both the government and the companies involved.
- Utilisation of the proceeds of any potential motorway tolling programme for the maintenance of that motorway, with the remainder being fed back into the costs of a sustainable transport policy.
• Implementation of a programme to improve bus usage, frequency and emissions levels — by increasing the number of bus lanes, the policing of these lanes and giving priority to buses over other vehicles and traffic lights.

• Implementation of measures to effect an increase in the percentage of freight moved by rail and an increase in the share moved by water by the year 2000.

• Implementation of a 56mph speed limit for all HGVs over 7.5 tonnes from 1996.

• Opposition to European Community (EC) plans to allow 44 tonne lorries on the road.

• A programme of incentives and measures to encourage a switch to natural gas as a fuel for heavy vehicles.

• Discouragement of air travel when rail is competitive. The improvement and extension of rail services (particularly inter-city) to provide cheaper, more frequent and more attractive rail travel.

• Encouragement of light railway and tram systems in towns and urban cities with passenger flows sufficient to make them cost-effective which are too small for an underground rail network.

Concern has been expressed about the potential effects of the recommendation to double petrol prices and about other measures designed to increase the cost of car use. More specifically there is concern about the potential impact on Scottish consumers living in rural areas.

A Scottish price survey carried out by Mackay Consultants of Inverness in the winter of 1994/95 revealed that the price of leaded petrol was, on average, 12.9 per cent higher in rural Scotland than in a large urban centre like Edinburgh (63.13p versus 55.9p) (Mackay, 1994/95). Unleaded petrol, more widely used in the UK, was 15.3 per cent more expensive (55.9p versus 49.9p). Linked to this, 1994 inflation rate calculations showed that, although overall inflation in rural Scotland is similar to that of the rest of the UK, inflation on travel in rural Scotland was half of a percentage point higher than for the rest of the UK. The summer 1994 price survey from the same consultancy showed, in addition, that the price of transport (both private and public) was 12.5 per cent higher in rural Scottish locations than in Aberdeen and 16.1 per cent higher than in Edinburgh. It is not surprising then, that there is considerable concern about the effect that further price increases, taxes and duties on transport and fuel will have on the more remote areas of the UK, and especially on vulnerable populations in the Highlands and Islands where transport costs were a significant 19.3 per cent higher than in Edinburgh.

The local, national and global environmental impact of traffic is reviewed in the Scottish Consumer Council paper Cars and the Environment: A Policy Paper, (Farrington, Collins and Coole 1996).
CHAPTER 2. CAR DEPENDENCE IN SCOTLAND

This chapter aims to highlight the issues of car-dependence in Scotland, particularly in rural areas. It will provide evidence that car-use is a vital part of rural life.

2.1 The need for cars

Everybody has a basic need to travel. People need to travel in order to get to work, go to school, use necessary services and to go shopping, to pursue leisure opportunities, to visit friends and relatives, as well as to visit a pharmacist, doctor's surgery or hospital. Of all modes of transport, the preferred means of travel is by car — 79 per cent of the total distance travelled annually per person (over the period 1989 to 1991) was by car (National Travel Statistics, 1992). Travelling by car allows for more flexibility over destinations, routes and when a journey can be made. As well as convenience, the car provides privacy, personal comfort and a degree of security. For example, in some parts of rural Scotland, parents of school children fight for their children's right to have access to a school taxi service. Otherwise, they escort them personally, by bus or car, because of concerns for child and road safety in rural areas: parents are "unwilling to allow their children to walk to and from school along country roads" (Shucksmith et al, forthcoming).

Use of public transport has declined in favour of the private car. Car ownership rates have increased dramatically since the 1950s. The cost of buying a car has remained relatively low in comparison to the cost of public transport and more people from lower income groups are finding themselves able to buy a car. In addition, public transport services have declined and fares have risen, in the face of competition from car use (Appendix). This 'vicious circle' means that car acquisition and use has become increasingly necessary for many households, simply in order to maintain their mobility.

Unrestricted choice, however, of how often, how far, and by what means, to travel is not available to everyone. People can be restricted because of physical, social and economic factors. A rural location can especially limit choices for travelling. Generally, facilities and services are more scattered in rural areas and people need to travel further. People in rural areas travel, on average, 50 per cent more miles per year than those in urban areas (National Travel Statistics, 1992). When public transport services do exist, their use is often constrained by timetables, the cost of fares, or distance from home to bus stop/rail station. Understandably, car ownership rates in rural areas have always been higher per household than in urban areas. Table 1 shows the relative levels of car ownership for rural and urban areas in Britain.

In addition, rural residents travel more by car than those who live in urban areas. As a proportion of total mileage, 87 per cent of the mileage travelled by rural residents is by car, compared to 77 per cent of the mileage travelled by urban residents (National Travel Statistics, 1992).
Table 1  Car ownership levels for rural and urban areas in Britain

<table>
<thead>
<tr>
<th>Percentage of households who</th>
<th>own two or more cars</th>
<th>do not own a car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>37.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Urban</td>
<td>21.0</td>
<td>35.0</td>
</tr>
</tbody>
</table>

(Source: National Travel Statistics, 1992)

2.2  Car dependence in Scotland

Indicators such as levels of car ownership have led people to emphasise how much rural residents rely on the car (National Travel Statistics, 1992). Jones (1991) discusses the issue of car-dependency in relation to current lifestyles. He provides evidence that people are reluctant to live life without a car. This is despite an awareness of problems (environmental and social) associated with car use. Jones compares results from a number of public attitude surveys carried out in the UK over recent years. Generally, 60 - 70 per cent of drivers see their lifestyles as fully dependent on car ownership. He also highlights the fact that perceived car dependence varies with different people, and between different areas. Jones uses evidence which showed that households in rural areas were twice as likely as urban households to view a car as essential.

It could, therefore, be suggested from the issues outlined above, that car dependence is likely to be an important factor for people living in rural Scotland. There is very little research available which deals specifically with car dependence among people in rural Scotland, and from which figures of car dependence have been produced. Instead, a variety of factors need to be examined together to help indicate the extent to which car dependence exists in a certain area, or for people belonging to a specific socio-economic group. It has already been suggested that the frequency, distance and mode of travel is the result of a complex interaction between physical, social and economic factors (Potter and Hughes, 1990). Factors affecting the extent of household dependence on cars in Scotland, particularly in rural areas, are considered below.

2.2.1  Accessibility

According to the Scottish Office report Scottish Rural Life, 29 per cent (that is, 1.48 million people) of the Scottish population lives in rural areas. Within these rural districts, one third of the population live in scattered small villages and hamlets, and therefore have long distances to travel and slow transport linkages.

According to the Owen and Coombes’ Index of Peripherality, which looks at remoteness from centres of population/economic ability, most of Scotland is ‘peripheral’: compared to peak accessibility values for inner London, most of Scotland has values of only one fifth of
this peak (Scottish Office, 1992). All of the fifteen least accessible travel-to-work areas in the UK are in Scotland (ten are in the Highlands and Islands and five are in north-east Scotland). Even regions adjacent to the urbanised central belt in Scotland still rank low overall in the UK: Borders ranks 57th, and Dumfries and Galloway ranks 58th out of a total of 65 UK regions (Scottish Office, 1992). Owen and Coombes also considered driving times as an indication of accessibility. One third of Scotland’s rural population (495,000) lives more than one hour’s drive from a major centre and 11 per cent (164,000) live more than two hours’ drive from a major centre (see Maps 1 and 2). Rural areas often have a low level and scattered provision of services. Facilities are often concentrated in a few centres some distance apart and there are rural areas where the population must be mobile in order to reach basic facilities. For example, in the Mearns, in north east Scotland, where Laurencekirk is the main centre for service provision, most of the Mearns North sub-area is without a primary school, doctor’s surgery or chemist (Farrington, 1986). The work of Shucksmith et al (forthcoming) looks at the perceptions and needs of people living in rural Scotland, and provides evidence of the overwhelming requirement for transport to enable access to various services in all of the areas studied. Table 2 shows the proportion of respondents requiring vehicular transport in each of the four study areas.

Table 2  Proportion of respondents requiring vehicular transport

<table>
<thead>
<tr>
<th>Amenity</th>
<th>Angus</th>
<th>North Ayrshire</th>
<th>Wester Ross</th>
<th>Harris</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visiting</td>
<td>90</td>
<td>91</td>
<td>77</td>
<td>47</td>
<td>86</td>
</tr>
<tr>
<td>Health services</td>
<td>87</td>
<td>89</td>
<td>71</td>
<td>65</td>
<td>82</td>
</tr>
<tr>
<td>Social activities</td>
<td>90</td>
<td>86</td>
<td>67</td>
<td>39</td>
<td>81</td>
</tr>
<tr>
<td>Shops</td>
<td>75</td>
<td>89</td>
<td>57</td>
<td>61</td>
<td>74</td>
</tr>
<tr>
<td>Work</td>
<td>51</td>
<td>58</td>
<td>39</td>
<td>38</td>
<td>49</td>
</tr>
<tr>
<td>School</td>
<td>21</td>
<td>38</td>
<td>35</td>
<td>46</td>
<td>31</td>
</tr>
<tr>
<td>None of the above</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

(Source: Shucksmith et al, forthcoming)

Potter and Hughes (1990) emphasise that accessibility will depend on the extent to which people can use all forms of transport and, therefore, that it is important to maintain quality of service for all forms of transport. Alternative transport provision for rural areas is discussed in section 2.2.4.

2.2.2 Mobility

There is a clear relationship between mobility and car availability. The importance of a car for enhanced mobility can be seen by examining evidence from the National Travel Survey of 1989/91 (National Travel Statistics, 1992) where distances travelled per year are compared between households who have cars and those who do not. Those with cars travel more per
year than those households without cars, often up to three times more. Table 3 shows travel distance in relation to car availability.

Table 3  Travel distance in relation to car availability

<table>
<thead>
<tr>
<th>Number of cars in household</th>
<th>Miles travelled per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more cars</td>
<td>9,630</td>
</tr>
<tr>
<td>No car</td>
<td>2,770</td>
</tr>
</tbody>
</table>

(Source: National Travel Statistics, 1992)

Farrington (1995) examines the change in the proportion of household car ownership in urban and rural areas of Great Britain, and discusses the factors involved in the changes. Table 4 gives details of household car ownership in urban and rural areas of Great Britain.

Table 4  Household car ownership in urban and rural areas of Great Britain

<table>
<thead>
<tr>
<th></th>
<th>Urban (% of households)</th>
<th>Rural (% of households)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No car</td>
<td>48 35</td>
<td>30 19</td>
</tr>
<tr>
<td>One car</td>
<td>43 44</td>
<td>53 44</td>
</tr>
<tr>
<td>Two or more cars</td>
<td>10 21</td>
<td>17 37</td>
</tr>
</tbody>
</table>

(Source: Farrington, 1995)

It can be seen that, in rural areas, the decline in non-car households has been from about a third to a fifth. Alongside this there has been an increase in multiple car ownership. These changes reflect two underlying aspects of car ownership — the household’s ability to buy cars (income related) and their need for cars. The latter is particularly important in rural areas, where facilities are not as readily available as in urban areas. Owning a car may also be a requirement because of a lack of sufficient public transport services, though this in itself can create a further decline in public transport provision.

National Travel Statistics data (1992) showed that for Great Britain as a whole, over half the working population usually drove to work by car. Similar figures are available for Scotland. From the 1991 Census of Population it can be seen that an average 56.8 per cent of people in Scotland as a whole travelled to work by car or motorbike. The percentage for rural Scotland
is slightly higher though — an average of 58.59 per cent, with as many as 66 per cent of people in some districts travelling to work by car or motorbike.

A relationship between mobility and car availability in rural Scotland is identified in research carried out in the mid 1980s in Speyside, Buchan and the Mearns (Farrington, 1986). The average number of trips made per week by households with a car was 10.3, compared to an average of 1.9 trips by households without a car. Farrington feels that this reflects three characteristics: the rural nature of households; an enforced self-sufficiency of rural dwellers; and personal immobility of the elderly.

In the Mearns, a typical lowland rural area, facilities are mainly concentrated within a few centres, leaving large areas where inhabitants must be mobile in order to reach basic facilities (Farrington, 1986). Of total trips made in this area, 77.5 per cent of households travelled by car, 7.7 per cent travelled by getting lifts in other peoples’ cars and 2.5 per cent travelled by bus. Similar data were also recorded for the Speyside area. Within the study on travel in the Mearns, results are given for total trips made by households in relation to household car ownership. The results are categorised according to dependence on public transport. In households of total dependence 36.3 per cent of trips are made by bus, 20.2 per cent by lifts and 14.1 per cent by taxi. In contrast to this, households that are not dependent on public transport made 90.3 per cent of trips by car, and 2.5 per cent by lifts. This indicates that as well as increasing mobility, car ownership increases car dependence.

Another factor with an impact on mobility is income, and household expenditure. The average weekly household spending on ‘motoring expenditure’ for all areas in the UK was £32.83 in 1990 (Family Expenditure Survey, 1991). However, the figure for non-metropolitan areas of low population density was the highest of all types of administrative areas. In these districts £38.98 of weekly household expenditure was on motoring, ranking as the third greatest expenditure after housing and food.

Farrington (1995) uses evidence from the Family Expenditure Survey to examine the relationship of income to car ownership and hence mobility for people in Scotland. In 1990, 79 per cent of families earning £200 per week or less had no car. In contrast, only 15 per cent of families earning £300 or more per week had no car. This suggests that greater income and car ownership, which is closely related, enables greater mobility through flexibility in choice of mode of travel.

2.2.3. Car ownership

In the discussion on mobility it has been shown (National Travel Statistics, 1992) that households with cars travel far greater average distances per year than those without cars. Generally speaking, across Britain, car ownership rates have been growing rapidly since the 1950s. In 1990, the average car ownership rate for Scottish households was 56.8 per cent, the lowest of the UK regions, compared with the UK average rate of 66.5 per cent (Farrington, 1995).

It is also evident that car ownership levels for rural households tend to be much higher than for urban households. In rural households car ownership rates can be up to 80 per cent
Looking at Scotland in detail, rates of car ownership vary greatly across the country (Maps 3 and 4).

Generally speaking, there is higher car ownership per household in rural districts than in urban districts (Farrington, 1995). For example in Sutherland, 69.7 per cent of households have a car and in Gordon District 83.4 per cent of households have a car, compared with the figures for the urban areas of Aberdeen (60 per cent), Dundee (48.3 per cent) and Glasgow (34.5 per cent). In Scotland, regions with over half their households having one car were predominately rural i.e. Grampian, Highlands, Borders, Dumfries and Galloway (Farrington, 1995), and the highest levels of multiple car ownership were also predominately in rural areas. It seems reasonable to conclude that having a car is vitally important in the maintenance of quality of life and standard of living (through employment) for a greater number of households in rural Scotland.

People in rural areas unable to own a car are greatly restricted in their mobility, and ability to visit and access a range of people, goods and services. The issue of accessibility and implications for the quality of life in rural areas is discussed further in chapter 3 in relation to the RCEP proposals. It is a fact that "many relatively poor rural families make great sacrifices to keep their car going" (Nutley, 1992). This has been borne out in a recent study by Shucksmith et al. (forthcoming) carried out in specific rural areas of Scotland. When questioned about the necessity of private car ownership, the overwhelming majority of respondents to the survey saw car ownership as the key to maintaining a reasonable standard of living in a rural area. The majority felt that they were "living in car-dependent rural societies". Shucksmith et al. comment that "cars were seen as an absolute necessity, and the majority of respondents could not envisage life without a car. In scattered communities where the head of household and spouse were working, the households made considerable financial sacrifices to maintain two cars".

The car may be only one of various modes of travel available in rural areas and peoples' reliance on the private car to meet their travel needs will be influenced not only by their ability to afford it, but also by the other transport options that are available to them. The lack of adequate alternative transport provision is often a factor in increasing car dependence in rural areas.

2.2.4 Alternative transport provision

Across the UK there has been a decline in bus services since 1955. Rural services, which are the least cost-effective to run, have tended to suffer more, and service provision often tends to a minimal level (some services in the Highlands run only once daily). In addition, over the past decade or so, there has been a major reconstruction of the UK bus industry. The 1985 Transport Act brought with it 'free market' measures of deregulation, reduced public subsidy and a shift of the bulk of bus operations from the public to the private sector. Over a year and a half at the start of the 1990s passenger journeys by bus in Scotland dropped by 6.5 per cent, twice the average decline since 1977.

With rising levels of car ownership, it seems that public transport, especially bus services, are struggling to compete with the car as a preferred form of transport. This may be due to
the level of fares, the extent of services provided, flexibility, accessibility, reliability, comfort and information available to customers about services.

Shucksmith et al (forthcoming) in their recent survey of rural Scotland have also shown that availability of bus services will not necessarily guarantee a certain level of usage. Despite there being a high availability of bus transport for all areas (an average of 72 per cent of households), only a small proportion of households made use of the service (an average of 32 per cent). However, despite this low usage, most respondents still believe that there is a strong case for retention of services, especially for special needs groups, such as the elderly and those with disabilities.
CHAPTER 3  THE IMPLICATIONS OF THE RCEP PROPOSALS FOR THE QUALITY OF LIFE IN RURAL AREAS, WITH PARTICULAR REFERENCE TO SCOTLAND.

Having explored car dependence in rural Scotland, the implications of large fuel price increases will now be addressed. It can be suggested that with a doubling of petrol prices, the use of private transport would become more restricted to higher income groups. The increase in the cost of running a car would restrict peoples' choice of transport, which would inevitably further influence access to services etc. It has already been noted within this context that people living in rural areas would be particularly vulnerable to these changes. This chapter examines the issues of proposed car-related cost increases and accessibility penalties (as proposed by the RCEP) for those living in rural areas of Scotland, and the implications which these may have for their quality of life.

3.1 Access issues

Access to places with a choice of employment, services, goods, leisure, health-care, and education is the basis for a good quality of life for many people. Access may be restricted by physical distance, the existence of road/rail networks, car ownership, provision of public transport, age, disability, and ability to pay for travel. Lack of access, for whatever reason, may result in lack of choice, isolation and a restricted lifestyle. The ability to own and use a private car for travel is a major factor in ensuring access and mobility for people living in rural areas. This is especially the case for people who live in rural areas in Scotland.

Rural Scotland in particular can be seen as a special case. In general terms, there are several economic disadvantages for rural Scotland:

- less competitive locations for business;
- small local markets with few opportunities for business expansion or for location of new companies;
- a limited range of skills and available labour;
- poor quality transport links in terms of frequency of services and destinations served; and
- high per-capita cost for infrastructure (Scottish Office, 1992).

Moreover, people in rural areas have gross weekly earnings below the Scottish average. The Scottish average for the percentage of households which fall within the lowest weekly wage brackets (£150 and below, at 1992) is itself higher than that of the UK average (Fyfe, 1994). In addition, the average household expenditure in Scotland is much lower than the UK average. In 1992, the average weekly disposable income for households in Scotland was £257, compared to a UK average of £280 per week (Fyfe, 1994). Several Scottish rural areas show a large proportion of people at or below the low pay threshold (two thirds median earnings). In the four study areas examined by Shucksmith et al (forthcoming) 65 per cent of the total sample fell below the low pay threshold. This varied from 46 per cent in Angus to
83 per cent in Harris. This compares to an average figure of 55 per cent of households with an income below the low pay threshold for Great Britain as a whole. Alongside this, prices of goods in rural areas are, in general, higher than in major cities. Thus, below average earnings and above average price levels mean that real earnings in rural Scotland are low relative to Scotland as a whole (and to the UK as a whole) (Scottish Office, 1992).

From this evidence, it seems likely that a sharp increase in fuel prices will have potentially serious implications for many in Scottish rural areas. The assumption is often made that car ownership can be strongly associated with a particular socio-economic group, i.e. that car ownership levels increase with wealth. However, this assumption is less applicable to people living in rural areas, where car ownership is strongly correlated with remoteness rather than income (Shucksmith et al, forthcoming). Although a car may be costly it is often essential for survival in rural areas. The need to keep a car going, even if it means making cut-backs elsewhere, will have considerable consequences in the face of a rise in the cost of petrol. As Farrington (1994) suggests “any changes in car ownership costs may have a significant effect on these consumers”.

People in rural areas are also burdened by higher general costs in maintaining a car: there will be greater depreciation through extra 'wear-and-tear' from more journeys. The distribution of petrol stations is, in addition, fairly scattered, meaning longer distances to travel and petrol costs are higher. In rural Scotland, average petrol costs are 12.9 per cent higher for leaded petrol and 15.3 per cent higher for unleaded petrol than in Edinburgh, (Farrington, 1994 and Mackay, 1994/5). For respondents to surveys conducted in rural Scotland, the cost of maintaining a private car was a more important issue than public transport provision — “the majority of respondents could not envisage life without a car” (Shucksmith et al, forthcoming).

In this context the implications of the RCEP proposals on fuel prices can be analysed further.

As a hypothetical example, take the case of a low income rural household with a disposable weekly income of £250 in an area with no viable public transport service capable of providing access to the range of locations needed for work, shopping, recreation and family visits. The costs of car ownership and use might be as follows:
<table>
<thead>
<tr>
<th>Expense</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of car (£3000)</td>
<td>£1000 per year</td>
</tr>
<tr>
<td>Oil &amp; fuel (300 miles/week, 30 mpg)</td>
<td>£1352 per year</td>
</tr>
<tr>
<td>Insurance (comprehensive)</td>
<td>£200 per year</td>
</tr>
<tr>
<td>Maintenance (DIY + dealer + MOT)</td>
<td>£300 per year</td>
</tr>
<tr>
<td>Vehicle excise duty</td>
<td>£140 per year</td>
</tr>
</tbody>
</table>

The weekly cost, not allowing for inflation, garaging, major repairs or replacement cost, would thus approximate to:

- Purchase: £19.23
- Fuel: £26.00
- Insurance: £3.85
- Maintenance: £5.77
- Vehicle Excise Duty: £2.69

Total: £57.54

Fuel is the greatest single cost, making up 45 per cent of total costs. Thus, while it is correct to say that fuel costs are marginal, varying with the amount of car use, and most of the remaining elements are fixed costs, the marginal costs are actually rather high. It is often said that car users need to be given a clear message about the impacts caused by their car use, by increasing marginal costs, that is, fuel prices. Yet households of the type referred to above are already in a situation where fuel accounts for 10.4 per cent of weekly income. Doubling fuel prices would increase this to over one fifth. This would be exacerbated by the higher prices which people in rural areas already pay for their fuel. In 1995 a survey by the Scottish Consumer Council, carried out by their Consumer Network volunteers, confirmed that people living in rural areas can pay as much as 13p per litre more. It is not difficult to imagine that doubling fuel prices would severely curtail the household’s activities, if not force it out of car ownership altogether. The RCEP report did recognise that "...there will be a significant adverse effect on some motorists if they are heavily dependent on using a car, have low incomes, and cannot adapt to the new circumstances over the ten years in which the increases in fuel duty will be taking effect. A larger number of people will benefit, however, from the improvements in public transport we envisage" (RCEP, page 118).

The Commission specifically addressed equity issues and recognised the following points.

(a) People have chosen their places of work and residence on the basis of present and historical mobility costs.

(b) People living or working in places where there is no suitable or affordable alternative transport will face ‘relatively heavy burdens’.
(c) Their recommendations deliberately increased the costs of car use rather than car ownership because it was not considered equitable to erect high barriers against car owners.

(d) One way of countering inequity would be to give low income and rural groups compensation through tax concessions or increased transfer payments, as advocated by the German Council of Environmental Advisors.

The Commission, however, favoured policies for bringing about major improvements in public transport as an essential component of any equitable and acceptable strategy for reducing private road travel by increasing its costs. It also argued that:

(e) public transport improvements would bring benefits to low income households, most of whom are dependent on public transport; and

(f) there would be benefits to some rural areas where there has hitherto been no alternative to car use.

It was also argued that fuel price increases, in contrast to other taxes or charges on consumption, would not be significantly regressive, because "far fewer of the households with the lowest incomes have use of a car" (RCEP, p. 254).

In the context of rural Scotland, there can be ready acceptance of points (a) and (b), possible cautious interest in point (d), but scepticism about points (c), (e) and (f). In particular it is unhelpful to claim fuel price increases to be non-regressive because car ownership among low-income households is low: it is likely to become lower if fuel prices were doubled, and it has already been argued that car ownership and dependence in low income households in rural Scotland is necessarily high.

Rural Scotland is particularly difficult to serve with public transport without high subsidy costs, and at a level which could replace car use by an acceptable amount. Scepticism about the real chances of public transport provision at this kind of level in rural Scotland is justifiable on the basis of past experience. At best there would be a significant time-lag before such a position could be reached.

3.2 Multiple deprivation issues

Evidence of the distribution of multiple deprivation in rural Scotland has recently been presented by Pacione (1995). Using indicators including low pay, segregation, unemployment, ill health and education, Pacione shows that high levels of multiple deprivation are quite widespread in the 29 per cent of the Scottish population (who occupy 91 per cent of the area of Scotland) which he defines as rural (Map 5). In these areas south of the central belt, 27 per cent of the population experience multiple deprivation above the average for Scotland, while in Highland Districts, this figure is as high as 58 per cent, the highest levels of deprivation being in the north west. Yet many of these Districts also display high car ownership levels, as seen in Maps 3 and 4. The inference is that assumptions which equate high car ownership in rural areas with affluence are an over-simplification of reality. Indeed, overall levels of affluence are no higher for rural than urban Scotland. In rural
Scotland, 12.4 per cent of the work-force fall within the professional/managerial socio-economic status groups, compared with 14.2 per cent in urban Scotland (Pacione, 1995).

While more detailed primary research would be needed to identify more precisely the link between income, deprivation and car ownership in rural Scotland, it is clearly incorrect to assume that high car ownership levels in rural Scotland necessarily equate with an ability to absorb the higher costs of car ownership.

3.3 Other car-related cost increases

Fuel price increases are not the only car-related cost increases which have been considered by the Commission. The others include vehicle emissions taxing, road taxing, road pricing and 'on-street control'.

3.3.1 Vehicle emissions taxing

A vehicle emissions tax is one option to attempt to reduce vehicle emissions. This would not penalise those individuals who use their vehicles for infrequent trips (that is, it does not discourage car ownership, only unnecessary car use) but does penalise those who travel for long distances (long-distance commuters, for example). In other words, those people who own a car but choose to use another form of transport to reach their place of employment, for example, would be rewarded by lower annual tax bills.

An emissions tax would discourage the continued use of very old cars with no emissions-reducing technologies, with low fuel efficiencies and which used leaded fuel. This may have knock on effects, especially for the elderly, first time buyers or poorer individuals who could not afford to buy a new or relatively new vehicle. The government could help them by contributing a certain proportion of the cost of a new vehicle — with the level of support given dependent on the difference between the emissions levels of the old and the replacement vehicle.

Unfortunately, such a system does not take into consideration those individuals who drive at lower speeds, and thus produce less pollution. Nor does it distinguish between urban driving (more environmentally damaging due to congestion) and motorway or rural journeys. In particular, it does not take account of the absence of alternative means of travel — a common problem in rural areas.

Emissions taxes may be administered in other ways, and there appears to be scope for smart card technology to monitor car emissions, but these have technical or practical difficulties at present which make it unlikely that they could be easily administered in the near future. However, greater weighting for urban driving and reduced weighting for rural driving (excluding certain trunk corridors) should be feasible, and would recognise the need for car use in areas such as rural Scotland.
3.3.2 Road taxing

The way in which road taxes can be administered varies considerably but the most likely option is adding the extra cost of the tax, in proportion to distance travelled, on to the yearly road tax levy which every car owner currently has to pay. Unfortunately, such a system is likely specifically to penalise rural motorists as, by definition, the distances this group travels are frequently far greater than those travelled by their urban or suburban counterparts.

3.3.3 Road pricing

The principle behind road pricing is that drivers pay for the specific uses they are making of roads, and for all of the costs incurred by other users (Balchin et al, 1988). Direct road pricing involves road users paying more directly for using road space. It aims to take into account the social costs of motoring. In effect, drivers pay the equivalent of marginal social costs.

If road pricing is to be introduced, alternatives to using cars must be provided. This will be of fundamental importance to car-dependent consumers, and particularly those in rural areas and on restricted incomes. There may be a need for rural and off-peak public transport services to be subsidised. Improvements in public transport service provision would be essential. In addition, other schemes would have to be considered to serve the particular needs of people living in rural areas, such as ‘dial-a-bus’, school bus and taxi services, community transport (such as special services to doctors’ surgeries) and mobile services.

There are a number of points in favour of road pricing which suggest that it could lead to less congestion, free-flowing traffic, and fewer delays as well as increasing tax revenue and encouraging drivers to think about changing their driving behaviour.

However, there are concerns about the effectiveness of road pricing schemes. There are also concerns that they would affect different groups in different ways, depending on their ability to pay or to access alternatives. Road pricing schemes aimed at reducing urban congestion would affect rural commuters who have little alternative. Low and middle income users at peak times (and with no alternative to car use) would be worst affected. In this case, road pricing, in conjunction with alternative provision, is needed, for example:

- charge areas on outskirts of town/city; and

- providing park-and-ride schemes on the perimeter of the charging area to allow cars to be used part of the way into work. It would be easier for the local authority to provide a bus/rail service for this shorter distance than to provide a service which meets the needs of all outlying rural residents who commute into the town for work.
3.3.4 On-street control

Reducing the amount of, or attractiveness of, on-street parking has proved very successful in many cities as a means of reducing actual levels of traffic entering the inner city area, reducing congestion, and increasing a shift to public transport or other alternatives such as walking and cycling. The regressive tendency of this approach is, however, a problem for low-income car users.
CHAPTER 4  PUBLIC TRANSPORT AND RURAL CAR USERS

In order to achieve a significant reduction in car use with its associated urban congestion and emissions, a significant shift from the car to public transport will be needed, even if policies aimed at suppressing car use, such as fuel prices, emissions taxing and road pricing, are to be pursued. This would have to focus on urban areas where the problem is concentrated.

The problem for rural dwellers in Scotland currently dependent on car use for their way of life is that rural transport networks are often operating at a minimal level, with for example, voluntary services filling gaps, and a lack of integration between commercially based bus, rail and ferry services. The loss of the co-ordinating role of local councils, despite their powers to tender for ‘social’ bus services, has, in its way, probably been at least as significant for rural areas as it has in the higher profile urban areas. Regional Councils often achieved remarkable results in maintaining basic services with regard to travel needs. The voluntary sector probably still has scope for providing more infill services such as demand-responsive services for special needs groups. But inevitably the concept of a Scotland-wide network of integrated public transport, with — crucially — well-publicised timetables covering large geographical areas, has been further eroded over the last decade.

Small niche bus operators, and post buses, continue to provide infill services, while large operators such as FirstBus and Stagecoach are active in identifying markets and running efficient organisations. But long-term continuity, which is so important for the well-being of rural communities, especially in the more remote areas of the Borders, north east and Highlands and Islands, is difficult to secure. Large-scale investments required for ferries and port berths, trains and stations, require planning horizons of twenty to thirty years, a timescale which is difficult to ensure in the ‘short-termism’ characterising current transport policy. Market forces have always been an unsure base for rural transport, especially in Scotland, and adoption of the car by each household as its answer to the inadequacies of public transport has of course reinforced the difficulties of a market-led solution to the problems of Scotland’s rural areas.
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

There is no easy answer to the problems experienced, in general, by people living in rural areas and these problems must be addressed by looking at broad policy areas within a structural approach. In chapter 3 the available evidence on car dependence in rural Scotland was discussed, and it was concluded that high levels of dependence were evident, and that to make a direct link between wealth and car ownership, particularly in rural areas, would be inaccurate. Although more research is needed on the role of car use in rural households, it is reasonable to argue that the 'pricing' approach to the reduction of car use for environmental goals, must be accompanied by far-reaching action even to begin providing the level of public transport in rural areas that would be needed to give rural car users a real alternative.

The RCEP recommended large scale fuel price rises and other mechanisms such as vehicle taxation based on fuel consumption to give car users and manufacturers clear signals which would fundamentally affect their behaviour. Perhaps the biggest problem facing rural car users in Scotland is that they would be expected to pay the cost of these 'signals' while the problems being addressed are largely urban. Rural car use generally does not cause congestion, and the level of emissions reached in most rural areas does not give cause for medical concern. It is mainly in the context of CO₂ emissions that rural car use contributes, in proportion to its use, to a global problem.

This, together with the financially regressive nature of increases in the cost of car use, is the focus of the issue for rural areas of Scotland. A strategy which does not unfairly penalise the 'appropriate' use of cars for medium or longer-distance, rural journeys, while discouraging 'inappropriate' use for short-distance or urban journeys would be more equitable for rural Scotland. Public transport can have a role in rural areas, but it would appear that closer regulation, with significant capital investment and revenue support, would be necessary before it could begin to replace rural car use on any significant scale in the long-term. A positive way forward in the public transport field would be to extend the format of Passenger Transport Authorities as seen in Strathclyde PTA, in a way which is capable of recognising and dealing with the needs of Scotland on the one hand and specific areas on the other. In the context of the present paper, the power and ability to regulate commercially run services in rural areas, in order to achieve integrated systems which include island and mainland communities, would be a welcome development.

5.2 Recommendations

Recommendation 1

The implementation of each of the 110 recommendations of the RCEP must always recognise its possible effect on rural car users.

Policymakers must recognise the different needs of rural areas in the context of car dependence and public transport provision so that blanket policies designed with national and global concerns in mind do not cause disproportionate hardship. The problems addressed by
the RCEP are largely, but not entirely, concentrated in large urban areas and along heavily used inter-urban corridors. The contribution of rural car users is less significant, but as they commute by car in large numbers to urban workplaces or shop in urban centres they too become part of the concentration of traffic with its congestion and emissions. On the other hand, the rural-only use of cars, as found in large areas of northern and north east Scotland, the Borders and the Islands, is relatively speaking a much less significant part of the problem. Policies designed to address the problem should recognise this as far as possible.

The strategic point to consider is whether the burden of decisions on more sustainable transport policies, particularly as represented by the financial costs and the social and economic hardship of large increases in the costs of car use for rural families, are unreasonably great for them in particular to bear.

Recommendation 2

There is an urgent need for a systematic and comprehensive appraisal of the implications of RCEP recommendations.

The RCEP report, and an extensive literature, shows that there are many possible approaches to the goal of limiting the environmental impact of road traffic. These include alternative fuels, improved vehicle design, traffic restraint, improved public transport, higher levels of walking and cycling, and a range of taxation measures designed to affect peoples' behaviour in term of car purchase and use (see Farrington, Collins & Coole, 1996). The Commission made 110 recommendations in these areas. There is an urgent need for a comprehensive and systematic environmental, social and economic appraisal of the probable effects of these recommendations in a variety of combinations.

Recommendation 3

The effects of the introduction of alternative fuel and policy options on rural areas should be addressed.

Policies which favour the introduction of alternative fuels should bear in mind that this may incur heavy transitional costs for rural filling stations. There is also a need to recognise that measures designed to reduce car use by increasing the costs of acquiring and/or using cars (fuel price increases and emissions taxing) have potentially serious consequences, including significant inequity implications for rural households with no realistic alternative mode of travel, as in many parts of Scotland, and significant safety implications for all car users resulting from the down-sizing which the Commission aims to achieve (see Farrington, Collins & Coole 1996). These implications are not adequately addressed in the Commission's report.
Recommendation 4

More research is urgently needed into measures to address transport problems in rural areas.

Available evidence shows that the lives of people in rural households are in many cases built around car use of necessity. Public transport often cannot offer a reasonable alternative, at the levels of supply and fares typical of rural Scotland. More detailed and focused research is needed on car-dependence in these households. Research is also needed on the possible uses of technology such as smart cards to provide positive discrimination in favour of these consumers in respect of fuel prices and other environmentally based measures such as road taxing.

Recommendation 5

It is essential that the development of transport and environmental policy (together with other related areas such as land use and energy) is based on thorough evaluation of options, leading to cohesive and integrated policies capable of identifying and implementing measures appropriate for a variety of contexts.

The most obvious contexts for Scotland are probably: central urban areas; urban-based journey-to-work areas; and deep rural areas. Each type of area could receive the package of measures best tuned to its needs. Policies for deep rural areas could focus on strengthening public transport provision, (for example, with demand-responsive and brokered voluntary services), stress the need for integration within and between modes, and for the co-ordination of health and education services with public transport provision.

Recommendation 6

Immediate action should be taken by policymakers and transport providers to achieve an integrated policy view in rural areas.

It is beyond the scope of this report to explore the capacity of reorganised Scottish local government to deal with these policy issues. It would, however, appear that to achieve the policy overview necessary for the integrated action needed, it will be necessary for policy to be developed at least one level above the new unitary authorities, that is, regional transport authorities, or even at a Scottish level — a Scottish transport authority. The challenge for such authorities, or, in their absence, for consortia of new unitary authorities, will be to achieve a progressive degree of intervention in the operation of privatised and deregulated operators so that attractive, reliable, affordable, integrated and safe public transport services can build up into a system providing a viable alternative to car use in rural Scotland. If there were a time-lag between significant increases in motoring costs and the provision of adequate alternative transport, then hardship and inconvenience would be widespread among rural car users in Scotland.
APPENDIX

Relative costs of car ownership and public transport use, 1974-95

Analysis of a sample of data on the costs of car ownership and public transport use in relation to the Retail Price Index (RPI) shows that over the last two decades the costs of car purchase have risen more slowly than the RPI, while public transport fares have risen more rapidly than the RPI. In the period 1974-83, fuel costs rose very rapidly, but less than public transport rates. In the period 1987-95, overall motoring costs rose by slightly more than the RPI, (due mainly to increased taxation and insurance costs), but by significantly less than public transport.

<table>
<thead>
<tr>
<th></th>
<th>R.P.I.</th>
<th>Motoring Expend.</th>
<th>Car Purchase</th>
<th>Fuel</th>
<th>Car Tax</th>
<th>Insurance</th>
<th>Rail Rates</th>
<th>Bus Fares</th>
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<td>100</td>
<td>410.1</td>
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<td>Jan 83</td>
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<td></td>
<td>100</td>
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<tr>
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<td>151.0</td>
<td>100</td>
<td>-</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Oct 95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
<td>187.3^1</td>
<td>177.1</td>
</tr>
</tbody>
</table>

Notes: ^1 Includes tax and insurance.

MAP 1: AREAS OUTWITH ONE HOUR'S DRIVE OF A MAJOR SERVICE CENTRE

(Source: Scottish Office, 1992)
MAP 2: AREAS OUTWITH TWO HOUR'S DRIVE OF A MAJOR SERVICE CENTRE

(Source: Scottish Office, 1992)
MAP 3:  PERCENTAGE OF HOUSEHOLDS WITH ONE OR MORE CARS

34 - 43  
44 - 53  
54 - 63  
64 - 73  
74 - 83  

Source:
General Register Office
for Scotland,
Regional Reports,
(1993 b-m).

<table>
<thead>
<tr>
<th>Region Boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Boundary</td>
</tr>
</tbody>
</table>

0 80km

(Source: J.H. Farrington, 1995)
MAP 4: PERCENTAGE OF HOUSEHOLDS WITH TWO OR MORE CARS

Source:
General Register Office for Scotland,
Regional Reports,
(1993 b-m).

(Source: J.H. Farrington, 1995)
MAP 5: MULTIPLE DEPRIVATION INTENSITY IN RURAL SCOTLAND

(Districts listed on map)

(Source: M. Pacione, 1995)
REFERENCES


