

National Transport Strategy – Promotion And Delivery Of  
Sustainable Transport Consultation Event

Dundee 8 September 2005

# **TRANSPORT AND SOCIETAL CHANGES IN SCOTLAND**

**SG STRADLING**

TRANSPORT RESEARCH INSTITUTE NAPIER UNIVERSITY, EDINBURGH

## Sustainable development: economic development vs environmental protection

Development that 'meets the needs of the present without compromising the ability of future generations to meet their needs' (Bruntland Report, 1987). Equity between generations and equity within generations.

- Some aspects of the current situation
- Things that probably will change
- Things that probably won't change
- Readiness to cut car use

Scotland: population of just over 5 million people  
in 2.2 million households  
with 2.0 million cars

---

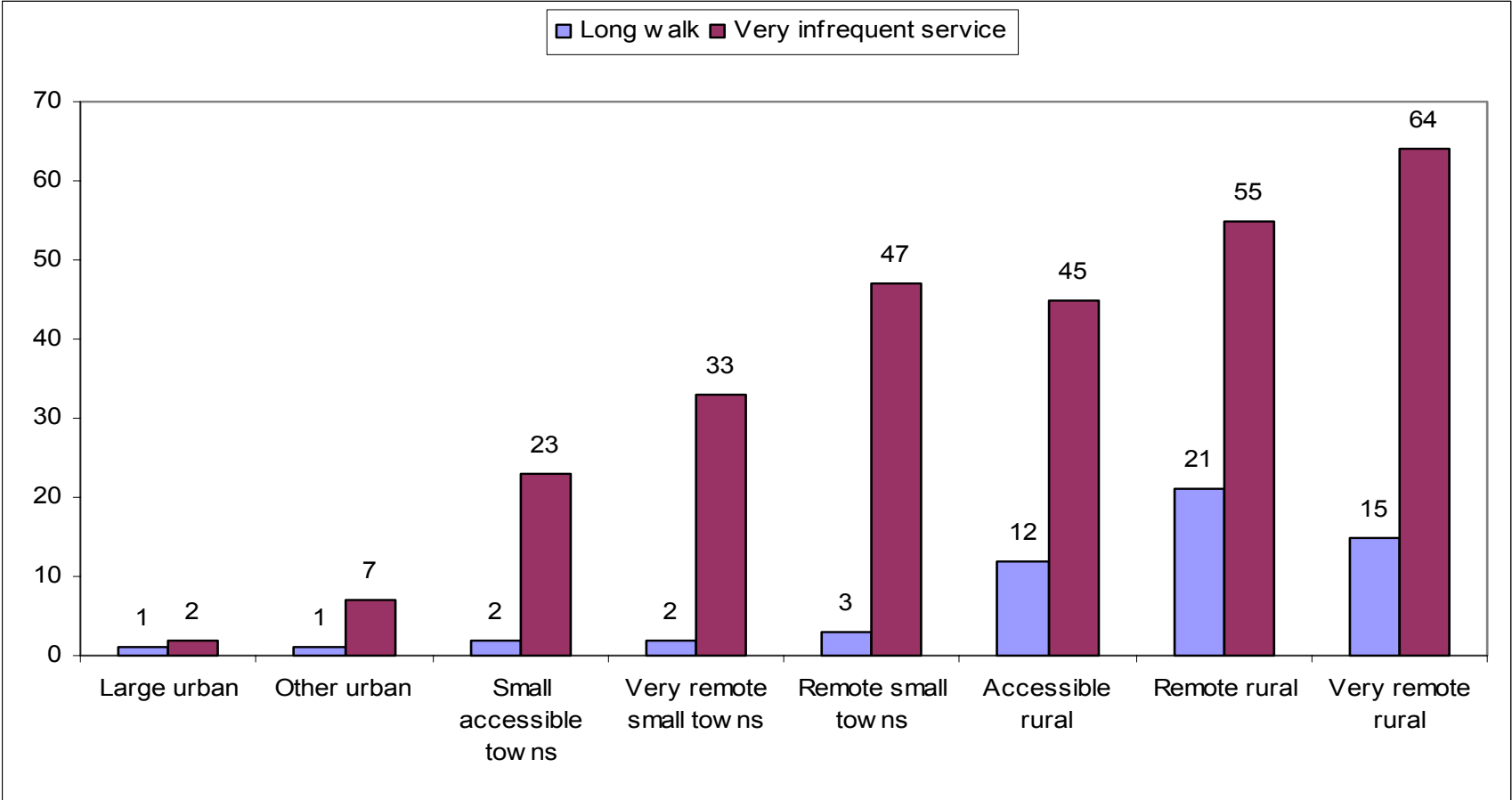
Area	None	One	Two or more	Cars per 100 households
Scotland	34	43	23	93
Highlands & Islands	26	49	26	106
Mid Scotland & Fife	27	46	27	106
South of Scotland	28	46	27	105
North East Scotland	31	44	26	101
West of Scotland	33	42	25	96
Central Scotland	34	43	23	94
Lothians	36	44	20	88
Glasgow	55	35	10	57

Percent of Scottish households **without** access to a car for private use  
by location and income quintile

	Lo-est	2	3	4	Hi-est	Total
Large urban	74	72	51	28	8	44
Other urban	68	64	38	17	4	33
Small remote towns	66	60	37	19	5	34
Small accessible towns	65	55	31	12	3	26
Accessible rural	48	44	21	8	1	18
Remote rural	44	38	19	6	2	19
Total	65	62	39	18	4	33

55% of Scottish adults live within 3 minutes and 85% within 6 minutes walk of their nearest bus stop.

Access to local bus service by location showing percent with a long walk (14 minutes or more) and a very infrequent service (less than one every half hour)



## Things that probably will change:

Oil (less of) (GM promises 1.1bn hydrogen fuelled cars world wide by 2020)

Climate (somewhat warmer, potentially devastating) (more sun, more wind)

Household composition (more households, more older persons)

Communication (separation) technologies (travel joins up the places where people go to meet their obligations) (restorative effects of the public realm)

Labour market (even less manufacturing; more service)

*'Years ago, a wife never went out to work, did she? So now the wife has a car ... and the man has his. The wife now has the same independence as a man, whereas women never had it years ago.'*

Perceived attractiveness of alternatives to the car (please!)

*'To be quite honest, the buses are absolutely awful and they're dirty and smelly ... you never know who's on them, especially late at night. I feel sorry for women who have to go on a bus late at night when they've got all the drunks coming on.'*

## Things that probably won't change:

### Human nature, human needs

Food, shelter, safety, movement/travel, proximity for social interaction, co-operation, competition, status, equity, maintenance vs development work, notions of 'the good life', restorative effects of leisure activities and access to 'wilderness', wealth to trade for resources

### Differential opportunities (34% no car: Rigidities in the housing market)

Disability: A quarter (26.6%) of Scottish adults report having "any long-standing illness, health problem or disability that limits your daily activities or the kind of work that you can do". 7.6% report difficulty using a bus, 10.9% difficulty standing for 10 minutes and 11.9% difficulty walking for 10 minutes.

Car as amplifier of advantage: Quality of life measures of: rated convenience of local 'life-support' facilities (e.g., bank, shop, GP, local hospital); mobility; income; social networks; use of sports/cultural facilities; neighbourhood tranquillity; civic participation and health status varied much more between those from households with and without car access than between those with better and worse bus access.

## Travel needs

*'... people travel to work a lot more now. You used to work around the corner. Nowadays I travel 30 miles there and 30 miles back every day. I had the choice - I could have moved, I suppose, but I tended to think why should I, so I put up with the travelling.'*

In 2003 around 70% of adults reported journeys were by car or van.

In 2002/03 40% had used their local bus in the previous month.

However most Scottish adults (97%) are multi-modal travellers, with just 3% using only one mode and half having used 7 or more transport modes.

4 car driver segments which differ in the extent to which:

- they exhibit attachment to the car
  - they are willing to consider alternative modes
  - they are already multi-modal
  - they feel willing and able to reduce their car use
  - they are aware of transport issues
  - they believe in and identify with environmental problems
- 
- DIE – HARD DRIVERS - 26% of Scottish drivers (20% of Scottish adults)
  - COMPLACENT CAR USERS – 28% of drivers (21% of adults)
  - MALCONTENTED MOTORISTS – 24% of drivers (18% of adults)
  - ASPIRING ENVIRONMENTALISTS – 24% of drivers (18% of adults)

Die-Hard Drivers (DHD) like driving and would use the bus only if they had to. Few believe that higher motoring taxes should be introduced for the sake of the environment and there is overwhelming support for more road building to reduce congestion. There are slightly more males than females in this group.

Car Complacents (CC) are less attached to their cars but currently see no reason to change. They generally do not consider using transport modes other than the car and faced with a journey to make will commonly just reach for the car keys.

Malcontented Motorists (MM) find that current conditions on the road such as congestion and the behaviour of other drivers make driving stressful, would like to reduce their car use, but cannot see how. They say that being able to reduce their car use would make them feel good, but they feel there are no practical alternatives for the journeys they have to make. They are slightly over-represented in accessible rural areas of Scotland.

Aspiring Environmentalists (AE) are actively trying to reduce their car use, already use many other modes and are driven by an awareness of environmental issues and a sense of responsibility for their contribution to planetary degradation.

Cutting my car use ...	<b>DHD</b>	<b>CC</b>	<b>MM</b>	<b>AE</b>	<b>Total</b>
Not thinking about it	88	57	40	15	54
Thinking or doing something about it	12	43	60	85	46

*'There used to be a time, years ago, when you could say it will take an hour to do that journey. Now, you say that journey takes an hour but it could take three, or 50 minutes if you have a good run. There is no clear time-scale you can allow to do a certain journey, because of bottlenecks for no reason at all.'*

*'Driving in Edinburgh gives me a headache because of the traffic congestion and the impossibility of finding a parking space.'*

*'I'll try not to go into the city centre unless absolutely necessary (no parking, very expensive) and try to do most of the shopping in malls outside the centre.'*

*'General dislike of public transport as have to travel with general public.'*

	<b>DHD</b>	<b>CC</b>	<b>MM</b>	<b>AE</b>
I like travelling in a car	98%	82%	82%	73%
I find car driving can be stressful sometimes	25%	28%	66%	67%
Reducing my car use would make me feel good	5%	21%	65%	78%
No of modes used ever (of 8)	4.0	4.5	4.4	5.2
No of modes used once a month or more often	2.9	3.3	3.3	3.9
Being environmentally responsible is important to me	61%	76%	85%	89%
Environmental threats such as global warming have been exaggerated	39%	19%	20%	9%
People should be allowed to use their cars as much as they like, even if it causes damage to the environment	48%	13%	19%	7%
For the sake of the environment, car users should pay higher taxes	4%	5%	17%	39%
I would be willing to pay higher taxes on car use if I knew the revenue would be used to support public transport	11%	9%	38%	46%
It is important to build more roads to reduce congestion	72%	23%	60%	30%

## **DIE-HARD DRIVERS**

Willingness to use car less	VERY LOW
Perceived ability to use car less	LOW
Environmental imperative	VERY LOW
Potential 'switchability'	VERY LOW
Drivers to change	None
Obstacles to change	High psychological and actual dependence on the car Passionate about car use and the right to drive Do not feel personally responsible Do not believe others will change their behaviour too
Policy Options	Weaken stereotypical image of PT users Hard 'push' measures (fiscal and non fiscal)

## CAR COMPLACENTS

Willingness to use car less                      LOW

Perceived ability to use car less              HIGH

Environmental imperative                      LOW

Potential 'switchability'                      MEDIUM

Drivers to change                      Acknowledgement of existing alternatives

Not passionate about car use

Obstacles to change                      Low travel awareness

Low environmental imperative

Policy Options                      Education into negative aspects of car use

Education into monetary costs of car use

Promote positive qualities of public transport

## **MALCONTENTED MOTORISTS**

Willingness to use car less	VERY HIGH
Perceived ability to use car less	VERY LOW
Environmental imperative	HIGH
Potential 'switchability'	HIGH
Drivers to change	Frustrated by congestion and stress of driving High environmental imperative and travel awareness
Obstacles to change	Perceived lack of alternatives Believe others will not change too
Policy Options	Promote messages reinforcing moral obligation Promote +ve aspects of PT and –ve aspects of car

## ASPIRING ENVIRONMENTALISTS

Willingness to use car less	VERY HIGH
Perceived ability to use car less	HIGH
Environmental imperative	VERY HIGH
Potential 'switchability'	VERY HIGH
Drivers to change	High environmental imperative and travel awareness +ve attitudes to PT Experience of using alternative modes Support for car restraint policies
Obstacles to change	High travel demand
Policy Options	PT, walking and cycling provision Promotion of alternative modes Disincentives to car use

The non-car users divide into three types:

- CAR SCEPTICS - 35% of non car users and thus 8% of Scottish adults
- RELUCTANT RIDERS – 30% (7% of adults)
- CAR ASPIRERS – 35% (8% of adults)

Car Sceptics are travel aware, environmentally aware, managing without a car, more likely to use bicycles and to support constraints on unfettered car use.

Reluctant Riders tend to be older and less well off, involuntarily dependent on public transport and where possible travel as passengers in others' cars.

Car Aspirers, more of whom are unemployed, from social class DE, and environmentally unaware, need better access to destinations than their current high bus use provides and for this and other reasons aspire to car ownership. *"It just gives you freedom doesn't it? Independence to go anywhere you want and come back whenever you want. You don't have to wait around."*

## Issues and Barriers

- Issues
  - Equity (actual and perceived)
  - Lifestyle (generation of travel needs; need for speed: *'Life is lived in the fast lane - I just need to get to places quickly all the time.'*)
- Barriers
  - Attitudes and die-hard drivers
  - Land-use planning
  - Support for change (these people need help)