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Mick Bates AM  
Chair, Sustainability Committee  
National Assembly for Wales  
Cardiff Bay  
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16 November 2007

Dear Mick

**Sustainability Committee inquiry into Carbon Emissions in Transport in Wales**

Sustrans Cymru is a practical sustainable transport charity. We are working towards a Wales where people choose to travel in ways which benefit their health and the environment.

We are pleased to be able to contribute to the Assembly's Sustainability Committee inquiry into the reduction of carbon emissions from transport.

Regards

Lee Waters  
National Director, Sustrans Cymru

## General questions

**1. Is the proposed 3 per cent annual reduction target by 2011 ‘in areas of devolved competence’ sufficient to enable Wales to make its full contribution to meeting UK-wide targets? If not, what targets should be put in place?**

Sustrans Cymru commends the Assembly Government for setting carbon reduction targets. It is important that these targets apply across Government with immediate effect. Transport is considered by Whitehall to be one of the least cost effective ways of cutting carbon, and we would like Wales to lead the way in challenging that view.

The 4th Science Assessment of the Intergovernmental Panel on Climate Change published earlier this year concluded that we have to zero all human greenhouse gas emissions by 2060 – (ie not just emissions from burning fossil fuels) and even then there is still a 77% chance of temperatures rising by more than two degrees.

It is essential, therefore, that the Assembly Government’s target is interpreted as a reduction of at least 3% in all devolved areas, including transport, by the end of this Assembly’s term - and not *from* 2011.

**2. Should the emission reduction target be based on Welsh consumption, or production, or both (i.e. should it take into consideration the carbon dioxide generated in Wales (production), or the carbon dioxide emissions that Wales’ residents are responsible for, regardless of their source (consumption))?**

Given the scale of the challenge posed by climate change it is important that the target takes a maximalist approach, it should therefore be based on consumption.

## Questions specific to transport emissions of carbon dioxide:

**3. What particular challenges does Wales face in reducing carbon dioxide emissions from transport, and how can these challenges be overcome?**

Wales does not face any *particular* challenges. Most car journeys in Wales are local: 60% of car trips are less than five miles, while around 25% of car trips are less than 2 miles. And given that 12% of the UK's carbon emissions come from cars reducing the number of journeys we make by car is critical to cutting carbon.

“Doing nothing is no longer an option”, according to the Chairman of the Royal Commission on Environmental Pollution. Professor Sir John Lawton says that technological improvements alone will not be enough to deliver the scale of emissions reductions we need to see from the transport sector. “Behaviour change is vital”, he stresses, “and that means all of us travelling less far, in more energy efficient ways and at slower speeds”<sup>1</sup>.

Research by Sustrans in the English Sustainable Travel Towns found that cycling provided a viable alternative for the greatest share of local car trips, followed by public transport and walking. Our research also found:

- Lack of information is the greatest subjective barrier to increasing use of public transport, affecting half of all local car trips which could be made by bus using existing services.
- Poor perceptions of relative travel time form the single greatest subjective barrier to walking and cycling in place of the car local trips, and yet over short distances travelling by car saves little or no time.
- People perceive door-to-door journey times by car relative to public transport to be around twice as quick as they really are.

Our TravelSmart programme has achieved a 13% relative reduction in car driver trips across the target population of 6,500 households as a result of significant increases in

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<sup>1</sup> <http://www.sustrans.org.uk/webfiles/Info%20sheets/ff44.pdf>

walking (+21%) , cycling (25%) and public transport use (+13%) in Peterborough (one of the English Sustainable Travel Towns)<sup>2</sup>.

TravelSmart helps people to make a few changes to their daily travel choices when and where it suits them best. We work with households offering tailor-made information and support, enabling people to walk, cycle and use public transport more often. More than a dozen pilot projects and large-scale campaigns dating back to 2001 have provided robust evidence of the cost-effectiveness of the TravelSmart approach, placing it at the leading edge of the 'smarter choices' movement in the UK.

#### **4. Do the current transport policies of the Welsh Assembly Government give sufficient emphasis to carbon reduction?**

Sustrans Cymru believes that carbon reduction should be placed at the heart of the Welsh Assembly Government's transport policies. To meet the twin challenges of climate change and obesity, the Government must take responsibility for increasing the levels of active travel.

The Government needs to harness all its policies to reduce the need to travel, and to place pedestrians and cyclists at the top of the hierarchy of road users rather than at the bottom.

In particular we feel that transport policy should focus on accessibility rather than mobility. In other words, the emphasis should be placed on our ability to get about easily rather than on increasing our 'mobility' which is concerned with increasing our capacity to travel further and faster.

A review of continental best practice shows that a combination of measures is required:

- Planning policies that achieve compact, mixed land-use patterns with most major local destinations within walking distance of residential areas;

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<sup>2</sup>[http://www.sustrans.org.uk/webfiles/travelSMART/PCC%20Interim%20Research%20report\\_FINAL%20.p](http://www.sustrans.org.uk/webfiles/travelSMART/PCC%20Interim%20Research%20report_FINAL%20.p)

- Sufficient and secure cycle parking at key destinations and transport interchanges (typically coupled with decreasing parking for cars in inner city areas);
- An integrated marketing strategy which targets information on those who are susceptible to change the way they travel;
- High profile innovative projects such as city bikes, bike stations and bridges as well as flagships routes (including dedicated crossings over natural barriers such as major roads or rivers to provide advantage to cyclists and pedestrians – Sustrans’ ‘Connect2’ People’s Millions Lottery bid is proposing nine such interventions across Wales<sup>3</sup>).

We warmly welcome the announcement of four Sustainable Travel Towns in Wales and are delighted that the Assembly Government accepted our advice. We look forward to working closely with them to take the policy forward.

We also commend the new and expanded Safe Routes in Communities programme. It is critical that efforts to make the journey to school safer are not overly focused on engineering solutions but place emphasis on encouraging more parents and children to walk and cycle.

However, for the commitment to sustainable transport to be a meaningful the Government’s interest needs to go beyond these initiatives. We do not yet know the scope of the Sustainable Travel Towns or the budget. There is a danger that the available funding will be spread too thinly.

We feel the lessons that should be learned from the English towns are:

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<sup>3</sup> [df  
http://www.sustransconnect2.org.uk/](http://www.sustransconnect2.org.uk/)

- 1) Clear identification of physical activity and public health objectives, and getting health promotion professionals involved in maximising the positive potential of the modifications to be carried out (also, acting as a test bed for NICE guidance to be published Feb 08)
- 2) Scope should include hard demand management measures (eg charging, speed restraint, road space reallocation, traffic restraint,) alongside Smarter Choices
- 3) Consistent monitoring framework including behavioural surveys and cycle / bus passenger / road traffic counts
- 4) Better integration between the Sustainable Travel Towns programme and delivery of other local transport schemes
- 5) Early stages of programme should include extensive awareness-raising among key internal and external stakeholders;
- 6) Steering group to oversee and advise Towns (more in the style of the Cycling Demonstration Towns than Sustainable Travel Demonstration Towns)
- 7) Strong communication element, getting all stakeholders onside, selling the town as a national or European leader, etc

If the challenge of climate change is to be met Sustainability needs to apply to transport policy across Wales, not simply in designated towns. At the moment WAG's mindset and processes are biased towards large projects that encourage car use. For example, WAG's analysis tool for transport projects WelTAG (Welsh Transport Appraisal Guidance) favours big expensive schemes in excess of £5m that very often increase carbon emissions. The process requires considerable detail about the traffic benefits of

investment proposals and promotes the benefits of the traffic generated by road schemes<sup>4</sup>. To quantify this factor and to include it in the cost/benefit calculation runs counter to attempts to reduce carbon emissions. The practice also perpetuates the link between economic growth and traffic growth. If climate change is to be tackled, and the devastating economic consequences envisaged by the Stern report avoided, then economic and traffic growth must be de-coupled.

Devolution offers Wales an opportunity to show international leadership in re-ordering economic thinking for a low-carbon age.

This is especially important given the challenges posed by ‘Peak Oil’<sup>5</sup> - the idea that we may already be reaching the stage when supplies of oil no longer match the demand for it. The former Head of Exploration and Production at Saudi Aramco, Sadad al-Huseini, says that global production has reached its peak and the oil price will rise by \$12 annually for the next 4 to 5 years as new fields become increasingly costly to exploit, with output falling within 15 years as the world’s oil resources become “very severely depleted”<sup>6</sup>.

Given the central position of Saudi Arabia to all forecasts for increased production, we would submit that Sustainability Committee urgently establish a formal inquiry into energy security issues; we would be delighted to assist with the framing of any such initiative.

**5. To what extent has the Welsh Assembly Government been successful in utilising the powers available to it in order to reduce carbon dioxide emissions from transport?**

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<sup>4</sup> In common with other DfT assessment tools it favours schemes that generate more traffic because more cars and lorries on the road mean more fuel sales - and hence more tax revenue for the government. By contrast, public transport schemes, which take motor vehicles off the road and so reduce fuel sales and tax revenue, have points deducted: <http://www.newstatesman.com:80/200708090012>

<sup>5</sup> <http://europe.theoil Drum.com/node/3130>

<sup>6</sup> Podcast interview with Sadad al-Huseini on lastoilshock.com, October 29th, 2007

Though the devolution settlement is untidy, there is no legislative impediment to reducing carbon emissions from road transport.

According to the Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland 1990-2005<sup>7</sup>, “road transport is the largest single source of CO2 after power generation and iron and steel, and comprises 14.4% of the total Welsh carbon dioxide emission in 2005, which is 12% of all Welsh GHG emissions...The emission has risen by 9.3% from 1990 to 2005”.

Sustrans Cymru’s response to the draft Welsh Transport Strategy<sup>8</sup> showed that 76% of the Assembly Government transport budget for 2005/6 was for roads; while less than 2% was for walking and cycling; and 0.05% of the transport budget in 2005/6 was allocated to ‘Smart measures’ to promote sustainable transport.

The Assembly Government have plenty of weapons in their arsenal to tackle carbon emissions by promoting sustainable transport, but they chose to prioritise unsustainable transport. The decision to go ahead with a new section of the M4 north of Cardiff threatens not only to swallow £700 million of scarce resources, but also to undo all the good work that parts of the Assembly Government have been doing to promote sustainability.

To achieve a meaningful reduction in carbon emissions we need to transform the way we travel. This will require a policy framework that recognises and promotes the importance of walking and cycling, and significant ongoing investment in a range of practical programmes that overcome the barriers to them. Evidence from other European countries shows that sustained investment in the order of £5 - £10 per head per year is required.

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<sup>7</sup> AEA Energy and Environment, 2007 – [http://www.airquality.co.uk/archive/reports/cat07/0709180907\\_DA\\_GHGI\\_report\\_2005.pdf](http://www.airquality.co.uk/archive/reports/cat07/0709180907_DA_GHGI_report_2005.pdf)



**6. Could alternative targeting of Welsh Assembly Government financial resources lead to greater reductions in transport emissions than is currently being achieved? If so, where could additional resources lead to greatest impact? (Please provide details to support your evidence).**

27% of the trips made on the National Cycle Network (NCN) last year were made by people who could have used a car but chose not to – 91 million trips that replaced a car trip. All 338 Million trips made on the NCN represent a potential saving of 437,000 tonnes of carbon - the equivalent of over 180,000 new cars<sup>9</sup>.

Much of the NCN is for shared use, with pedestrians accounting for over 50% of users of the traffic free sections, and more than 600,000 trips last year by disabled users in Wales.

As well as carbon savings there are significant health and fiscal benefits from investment in walking and cycling. The role of walking and cycling in tackling obesity has recently been underlined by the decision of the World Health Organisation to bestow an award on the NCN for ‘Counteracting Obesity’, and by the recognition of the Government’s Foresight programme of its role in preventing 60% of the UK population becoming obese by 2050<sup>10</sup>.

The health benefits informed research by Sustrans into the economic benefits of investment in walking and cycling routes. The analysis found that every £1 spent on a route generates a benefit worth £20, compared to the slimmer average return of other transport schemes such as rail and roads, which is typically £3 for every £1 spent. For example the high profile £15 billion London Cross Rail project has a ratio of 2:1 and motorway improvement schemes often have a benefit value that is significantly lower than the cost.

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<sup>8</sup> Sustainable Transport for Wales, 2006, Sustrans Cymru – based on a report by Transport for Quality of Life - [http://www.sustrans.org.uk/webfiles/Wales%20Policy%20Docs/STW%20-%20Executive%20Summary%20\(English\).pdf](http://www.sustrans.org.uk/webfiles/Wales%20Policy%20Docs/STW%20-%20Executive%20Summary%20(English).pdf)

<sup>9</sup> The National Cycle Network Route User Monitoring Report 2006

<sup>10</sup> Foresight Tackling Obesity: Future Choices – Project Report. Government Office for Science, 2007-10-18

Our research takes the Government's own methods of assessing the benefit to cost ratio of transport schemes<sup>11</sup>. The findings highlight how money spent on creating an environment that encourages and enables walking and cycling directly saves NHS, and other spending, on preventable deaths from illnesses attributed to physical inactivity such as coronary heart disease, stroke and colon cancer.

There are now 1,270 miles of the National Cycle Network in Wales which last year carried some 31 Million trips: 14% of those by people new or returning to cycling.

Sustrans is developing two schemes to significantly expand the NCN in Wales to put it within reach of over half the Welsh population for the cost of half a mile of motorway.

Our Connect2 project and our proposal for a Valleys Cycle Network would see new sections of the NCN built within two miles of some 1, 500, 000 people for a cost of around £18 Million<sup>12</sup>.

International evidence also shows that better information, well targeted, can make a considerable on travel behaviour. Sustrans' Travel Smart programme<sup>13</sup> delivers measurable and sustained reductions in car use by enabling people to make a few changes to their daily travel choices when and where it suits them best. A major government report released in October highlighted the effectiveness of Sustrans' TravelSmart

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<sup>11</sup> The benefit to cost ratio is calculated by attributing a monetary value to a number of factors, from public health benefit (ie the cost saving of a healthier population), the savings to employers whose fitter workforce take less time off, and the time saved through shorter journeys, particularly during the school run peak periods. The costs include the investment costs of safe routes, maintenance expenditure, and losses to the Treasury that might result from tax revenue decreases due to reduced fuel sales as people switch from using their cars to walking and cycling.

<sup>12</sup> Sustrans Connect2 is competing in a public vote at the beginning of December for a one-off £50 Million grant to overcome barriers to walking and cycling in 79 communities across the UK. The nine Welsh schemes (Carmarthen, Rhyl, Clydach, Port Talbot, Merthyr, Pontypridd Cardiff, Newport and Monmouth) would attract £3.7 Million of lottery money into Wales and with a further £8 Million of match-funding would see new sections of the NCN built within two miles of some 520,000 people. Our Convergence funding bid for a Valleys Cycle Network would put a new path within two miles of over 1,140,000 people in exchange for match-funding of around £10 Million.

<sup>13</sup> Leading the way in travel behaviour change, 2006, Sustrans - <http://www.sustrans.org.uk/webfiles/travelSMART/TravelSmart%20info%20sheet%202006.pdf>

programme at reducing traffic<sup>14</sup>, and in-turn carbon emissions. The report independently commissioned by the Department for Transport on Individualised Travel Marketing (ITM) drew on the outcomes of eight TravelSmart projects over the past four years, showing that they achieved reductions in car trips ranging from 9 to 13 %, and made a compelling case for its expansion across England.

There is a further opportunity to reduce carbon emissions from transport by investing in 'green tourism'. As flying abroad becomes more expensive as less socially acceptable the opportunities to encourage people to holiday within Wales increase. The National Cycle Network provides iconic tourist routes such as the long distance C2C route in the North of England and The Camel Trail in Cornwall which attracts over 500,000 trips along its 17 miles each year. Routes such as these, as well as being destinations and attractions in their own right help sustain the economy by supplying trade to local businesses along and near the routes.

In 2006 *'The Economic Impact of Cycle Tourism in North East England'*, was conducted by the Institute of Transport & Tourism at the University of Central Lancashire, Loughborough University, and Sustrans. It focused on economic impacts of four National Cycle Network routes - the C2C (Sea to Sea), the Coast and Castles, Hadrian's Cycleway and the northern section of the Pennine Cycleway.

The research revealed<sup>15</sup>:

- between them the routes attracted over half a million trips
- route users contributed £9.6 million of direct expenditure to the North East economy
- this represents a value of £13.4 million to the wider economy
- this supports 216 jobs in the immediate vicinity of the routes
- route users from out-of-region generated £5.9 million, supporting 95 full-time equivalent jobs

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<sup>14</sup> The DfT 'Best Practice Guide on Personalised Travel Planning' was launched on 13 October 2007 by Transport Minister Rosie Winterton MP at the Smarter Choices conference in Nottingham.

<sup>15</sup> The Economic Impact of Cycle Tourism in North East England. Sustrans / One NorthEast

- users attribute an additional amenity value of £1.7 million to the routes
- cycling activity is important to local supply chains, with major implications for the circulation of income in the local tourism economy

**7. What examples from other administrations (devolved, UK and overseas), where other means have been used to achieve reductions in transport carbon dioxide emissions, could be adopted in Wales under current powers?**

The Scottish Government has established a dedicated Sustainable Transport Team within their Transport division. Within the team are officials responsible for workplace travel planning, sustainable transport in the regional transport partnerships and walking and cycling. Previously walking and cycling had been linked with road safety (as it is in Wales) and as such too little attention was given to the need to bring about a change of culture. For example the safe routes to school programme in Wales is heavily focused on engineering solutions (new barriers, colored bits of tarmac outside a school, new paving), and not enough on behavior change.

Also in Scotland they have moved away from the situation where the construction of new walking and cycling routes relied mainly on under-spend money: funding which arrived in January and had to be spent by March (a situation all too common here). The Scottish Government now funds Sustrans to the tune of £8 Million a year. That money is split equally between two projects: 'Developing the National Cycle Network' and 'Tackling the School Run'. Both were placed under the umbrella of reducing short car journeys, tackling carbon emissions, congestion and childhood obesity.

In London too strong political leadership has shown that it is possible to reduce carbon emissions and reduce congestions. The introduction in February 2003 of a £5 congestion charge to drive within Central London cut traffic levels by over 20%<sup>16</sup>.

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<sup>16</sup> Managing Transport Energy Power for a Sustainable Future, Edited by James Warren (2007), The University Press, Cambridge

There are numerous international examples of good practice to encourage levels of walking and cycling. The Dutch city of Groningen, with 185,000 inhabitants, experiences about 150,000 trips by bicycle every day. Overall, 37 percent of area commutes are made on bikes<sup>17</sup>. With an official town bicycle planner, Groningen has created an infrastructure it refers to "continuous and integral," which includes surface and underground bicycle parking facilities, dedicated bike paths, and two-way bike lanes even on one-way streets.

The high level of walking and cycling is the direct result of a deliberate effort to increase levels of active travel. In 1986 Groningen developed what is believed to be Europe's first dedicated bike policy document, which focused on a broad spectrum of bike transportation and awareness programs. Educational programs now include teaching the health and economic benefits of cycling. They have programs to introduce new immigrants to cycling. Many of them came from places where the car is the ultimate status symbol so it is important to show that in Holland, they can get around very easily by bicycle, status symbols aside.

Groningen's bicycle planning has not occurred in a vacuum, but rather complements an integrated scheme that includes low-priced parking facilities for cars, strong public transport and careful public transit linkages between car parking areas and centres for employment and education. With these amenities, cars use, especially in the city centre, was successfully restricted without impacting local business.

**8. In the context of the Government of Wales Act 2006, which further means of reducing carbon dioxide emissions from transport could *only* be achieved with the introduction of further legislative competence for the National Assembly for Wales?**

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<sup>17</sup> [http://karlenzig.typepad.com/karlenzig/2007/06/the\\_future\\_of\\_c.html](http://karlenzig.typepad.com/karlenzig/2007/06/the_future_of_c.html)

Sustrans Cymru has recently submitted a petition to the Assembly that calls for a duty to be placed on the Assembly Government to develop and maintain a network of traffic free shared use paths across Wales.

The funding mechanism for Local Government currently rewards councils that build a section of new road with a formula for maintenance costs. There is no such reward for building infrastructure for shared use paths; consequently there is a disincentive to local authorities from building paths for walking and cycling.

A legislative framework for the promotion of walking and cycling would redress the current bias towards road building. This would require extra powers to be devolved to Wales and Sustrans has proposed a Walking and Cycling Paths Legislative Competence Order. The proposal is that:

Field 10 (highways and transport) of Part 1 of Schedule 5 to the Government of Wales Act 2006 be amended as follows:

After Field 10 : highways and transport insert “provisions relating to highways and other paths for the sole or shared use of cyclists and pedestrians or to facilitate the use of highways by cyclists and pedestrians”.

This petition is supported by BMA Cymru, Age Concern Cymru, NUT Cymru, NAHT Cymru, Play Wales, WWF Cymru, Groundwork Wales, Keep Wales Tidy, Council for National Parks, Friends of the Earth Cymru. The petition was also signed by BT Cymru and the Royal Mail, reflecting the contribution that business feels walking and cycling can make to tackling climate change.

**If specific carbon dioxide emissions targets are to be set for Wales, should those targets be subdivided into shares by sector? If so, what share of the total should reductions by the transport sector comprise?**

Given that road transport accounts for 12% of carbon emissions it is not unreasonable to expect savings of at least 3% per year from transport in Wales. This will be a significant challenge to the orthodoxies of the sector since a central tenet of transport policy over the last five decades has been to accept the growth in private motor transport as inevitable, and to cater for it.

Despite widespread acceptance that this 'predict and provide' approach can never meet predicted motor traffic growth, WAG will be spending some £350 million over the life of this Assembly "to improve the trunk road network"<sup>18</sup>. This massive infrastructure programme is in itself a major CO2 source, but in addition once built the additional road space will induce extra traffic<sup>19</sup>. Forecasts for past schemes have consistently underestimated the rate of traffic growth and overstated the 'relief' from congestion that they offer to by-passed settlements<sup>20</sup>.

Under a business as usual scenario, UK transport CO2 emissions are expected to continue rising, by 35% between 1990 and 2030<sup>21</sup>. Transforming transport is therefore critical in achieving our emissions reduction targets. The UK aims to move beyond its Kyoto target towards a 20% emissions reduction (on 1990 levels) by 2010, and to put itself on a path to 60% reduction by 2050. Since 1990, the two sectors where emissions have risen are household and transport, by 12% and 9% respectively<sup>22</sup>. A Department for Transport study investigating whether a 60% CO2 reduction in the UK domestic transport sector could be achieved by 2030 has concluded that this is possible, but only with real and early change in travel behaviour<sup>23</sup>

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<sup>18</sup> Statement by Ieuan Wyn Jones AM to National Assembly, 2 October 2007

<sup>19</sup> Department of Transport, 1994 Trunk Roads and the Generation of Traffic. Report by Standing Advisory Committee on Trunk Road Assessment

<sup>20</sup> Council for the Preservation of Rural England and Countryside Agency, 2006 Beyond Transport Infrastructure

<sup>21</sup> Hickman and Banister, 2005 Looking over the horizon, Visioning and Backcasting for UK Transport Policy

<sup>22</sup> Department for Environment, Food and Rural Affairs, 2006  
<http://www.defra.gov.uk/environment/statistics/globalatmos/gainvent.htm>

<sup>23</sup> Department for Transport, 2006 Transport Statistics GB 2005

