

March 2015

Submission to the National Assembly for Wales

in response to the

**Public Accounts Committee
inquiry into the value for
money of motorway and trunk
road investment**



**cyfeillion
y ddaear
cymru
friends of
the earth
cymru**

Introduction

1. The Public Accounts Committee asks whether or not the Welsh Government's approach to major road projects delivers value for money through scrutinising:
 - the effectiveness of Welsh Government planning and costing of schemes
 - the approach to project delivery and evaluation of projects; and
 - how the Welsh Government could improve its approach to planning and delivery of schemes.

2. Friends of the Earth Cymru has extensive experience of dealing with the Welsh Government in the context of such schemes. Our take-home message from these interactions is that Welsh Ministers have a predilection for seeking a particular transport outcome before determining whether or not a problem exists and conducting a thorough investigation of the various ways of solving any such problem. In the case of the M4 relief road, for example, Transport Ministers (with rare notable exceptions) have repeatedly pursued a motorway across the Gwent Levels without recognising that alternative means might be used to achieve the desired ends. It is difficult to avoid the conclusion that some Ministers appear to crave expensive vanity projects in the almost total absence of evidence justifying those projects.

3. The Committee may wish to scrutinise our response to the consultation on the draft National Transport Plan as it relates to Welsh Government transport planning¹. The draft Plan is not fit for purpose, for at least the following reasons:
 - It fails to logically flow from the Wales Transport Strategy
 - It is based on road transport models ("evidence"²) that are proven to be flawed
 - It is based on degrading environmental concerns to less than 6% of the status they have in the overarching Strategy
 - It fails to even mention, let alone consider, the outstanding means of reducing road injuries and fatalities (20mph schemes)
 - It is not coherent with other important Welsh Government strategies, notably the Sustainable Development Scheme and the Climate Change Strategy, and the commitments that stem from them
 - It is made without any indication of funding allocation to different forms of transport (capital or revenue), which makes it almost impossible to weigh up the Welsh Government's priorities
 - It fails to demonstrate the slightest understanding of the (in)equality consequences of new road infrastructure

Transport planning and the draft National Transport Plan

4. The Transport Minister commissioned Professor Preston to conduct a review of strategic transport planning in Wales³. Professor Preston describes 'problem-oriented planning' as being typically reactive, the risks of which include the emergence of piecemeal or short-term solutions⁴. The draft

¹ We shall publish our consultation response shortly

² <http://wales.gov.uk/docs/det/consultation/ntp/150116-ntp-consultation-document-en.pdf> 3.1.2

³ <http://ppi.w.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf>

⁴ <http://ppi.w.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf> p4

National Transport Plan presented by the Welsh Government is replete with problem-oriented planning because its road transport section is wholly premised on a 1% year-on-year increase in traffic:

“One solution to such a situation would be to provide more transport capacity to reduce congestion – the so called predict and provide approach”⁵.

5. It is particularly noteworthy that the 7 of the 17 long-term outcomes of the Welsh Transport Strategy that are classified as relating the environment have been side-lined into one-ninth⁶ of one of the five ‘key priorities’ of the draft plan.
6. Environmental factors have therefore reduced in importance by 18.5-fold⁷. Or, to put it another way, environmental concerns have just 5.4% of the stature they enjoyed in the Wales Transport Strategy.
7. Planning Policy Wales states that:
“The Welsh Government aims to extend choice in transport and secure accessibility in a way which supports sustainable development and helps to tackle the causes of climate change by: encouraging a more effective and efficient transport system, with greater use of the more sustainable and healthy forms of travel, and minimising the need to travel”⁸.
8. The focus of the National Transport Plan appears to be mainly on the (road) transport system, and not on “more sustainable and healthy forms of travel, and minimising the need to travel”.
9. Interventions on “healthy forms of travel” (other than those arising from statutory duties under legislation) number just one: making improvements to the National Cycle Network. There is no commitment to actually delivering personalised travel planning (ITC1 and 2) at any point in the next 10+ years.
10. There is not one intervention of the 93 listed that works towards “minimising the need to travel”.
11. The Sustainable Development Scheme for Wales tells us that:
“wherever we look... the amount we travel – we know we are living beyond the environment’s means to sustain us”⁹.
12. It notes that in order to achieve our vision of a sustainable Wales, we must:
“organise the way we live and work so we can travel less by car wherever possible”¹⁰.
13. There is nothing in the draft National Transport Plan that refers to demand management: pursuing ways of reducing car travel.

⁵ <http://ppi.w.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf> p5

⁶ “Sustainable travel and safety” – encourage safer, healthier and sustainable travel, where sustainable travel will likely be defined as travel that contributes to environmental, social and economic outcomes.

⁷ From 7/17 to 1/45

⁸ <http://wales.gov.uk/docs/desh/publications/140731chapter-8-en.pdf> 8.1.1

⁹ <http://wales.gov.uk/docs/desh/publications/090521susdev1wales1planeten.pdf> p5

¹⁰ <http://wales.gov.uk/docs/desh/publications/090521susdev1wales1planeten.pdf> p18

14. The only conclusion to draw is that the Welsh Government has no intention of minimising the need to travel or traveling less by car, and very little intention of promoting healthy forms of travel.
15. This is particularly frustrating in view of Professor Preston’s review, which highlights the ‘holy grail’ of integrated and sustainable transport¹¹. This ‘ladder of interventions’ puts “making healthier choices the default option for people” at a relatively low level of intervention.
16. WeITAG: the Welsh Government’s flagship traffic assessment tool¹², is described by Professor Preston as:
“light on quantification and does not provide value for money assessments. It seems to lack both a sound scientific basis and an underlying evidence base”¹³.
17. WeITAG has been used by the Welsh Government for years as the basis for all road transport planning. And yet it is light on quantification, does not provide value for money assessments, lacks an evidence base and has no sound scientific basis.
18. Well-documented problems with this type of road planning include the infamous problem of tax receipts (particularly VAT and fuel duty receipts) that result from increasing traffic generated by new road schemes contributing to a positive rating for road planning.
19. This problem is described in detail by the Campaign for Better Transport in their 2010 submission to the Westminster Transport Committee¹⁴. Although some improvements have been made since 2010, the fundamental issue of increased tax revenue counting as societal benefit remains.
20. This is completely contrary to what we might expect if there were a rational dovetailing of policy relating to planning, sustainable development, climate and transport.
21. It is also particularly detrimental to transport in Wales because the purported benefit of increased tax receipts accrue solely to the UK Treasury. So only a very small proportion of that increased tax revenue as a result of new road infrastructure in Wales will end up coming to Wales – yet the purported benefit skews the results of transport planning very much in favour of road schemes and against sustainable and low-carbon transport which provide a host of societal and environmental benefits that are ordinarily absent from road schemes.
22. One factor that is known to *increase* road transport is major new road infrastructure. It is therefore impossible to reconcile the Welsh Government’s support for a new stretch of M4 to the south of Newport with reducing car traffic. Unless investment in ways to achieve modal shift *far outweighs*

¹¹ <http://ppiw.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf> p6

¹² <http://wales.gov.uk/topics/transport/planning-strategies/weltag/?lang=en>

¹³ <http://ppiw.org.uk/files/2014/11/Approaches-to-strategic-transport-planning.pdf> p13

¹⁴ See “Without reform, NATA will continue to reward schemes with poor policy fit”

<http://www.publications.parliament.uk/pa/cm201011/cmselect/cmtran/473/473we31.htm>

that in new road infrastructure, the induced traffic increase by new roads will very likely create problems for attainment of the transport climate targets.

Greenhouse gases and modal shift/demand reduction

23. The Welsh Government uses TEMPro forecasting as the basis for its policy decisions. If we assume the TEMPro modelling to be correct (it isn't – see below), we would expect a roughly 1% increase in traffic across Wales per year until 2040¹⁵.
24. Fuel efficiency has apparently improved by 2% per year over the past 15 years or so¹⁶.
25. However, fuel consumption for cars in real-world driving in 2011 was 21% greater than that assumed from testing¹⁷. (Some studies put this discrepancy at 35%¹⁸). This gap had increased from 8% in 2001¹⁹. So a minimum of 13 percentage points of the efficiency gains over this period are fictitious. These flaws in testing vis a vis real life have major implications for assumptions being made by governments on forecast improvements in fuel efficiency by the vehicle fleet in general.
26. In fact, the assumptions used by the Welsh Government in calculating future improvements in fuel efficiency are so flawed that the European Commission is replacing the current 20-year-old testing procedure with a new one in 2014 which it is hoped:
“will enable the gap between declared and actual fuel consumption to be reduced thus providing more reliable information to the consumers and legislators”²⁰.
27. This means that *actual* improvements in efficiency are in the order of 1% per year. So the greenhouse gas emissions reduction as a result of improved fleet efficiency (1% annually) will offset the modelled increase in traffic (1% annually).
28. What then of the remaining challenge of reducing greenhouse gas emissions by 3% per year until 2020? The Welsh Government has no credible means of achieving it other than through reducing traffic, which would infer demand management and modal shift.
29. Nowhere in the National Transport Plan – other than in relation to shifting freight from road to rail – is modal shift mentioned.

Modelling

30. A large part of the National Transport Plan appears to be based on the TEMPro modelling. It should be now be obvious that this modelling is not fit for purpose.

¹⁵ <http://wales.gov.uk/docs/det/consultation/ntp/141210-ntp-seaer-env-rep-en.pdf> Table 2 (p21)

¹⁶ <https://www.gov.uk/government/statistical-data-sets/env01-fuel-consumption> Table ENV0103

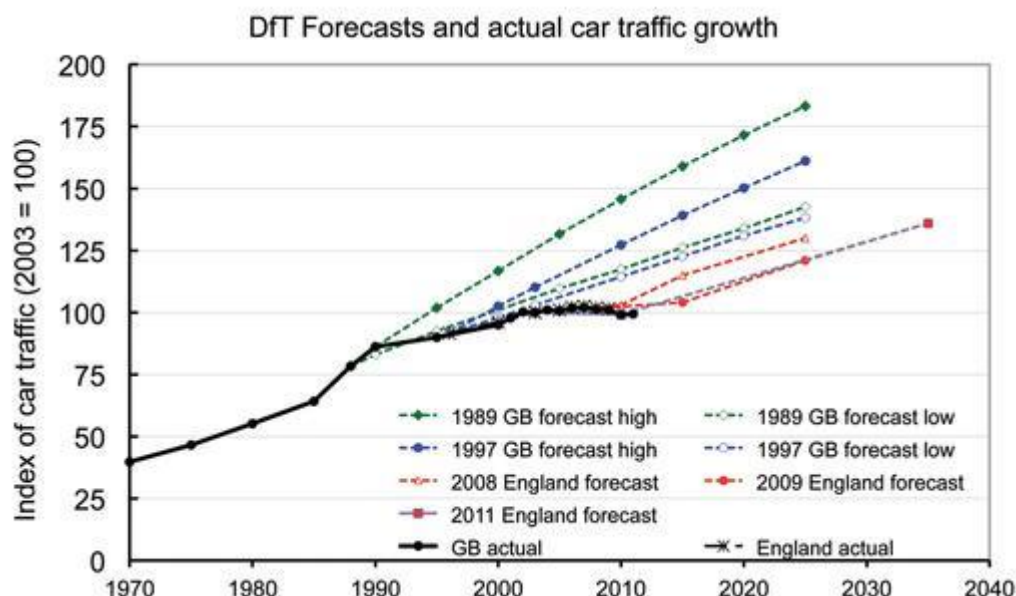
¹⁷ <http://www.theicct.org/fuel-consumption-discrepancies>

¹⁸ <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+E-2013-000307+0+DOC+XML+V0//EN>

¹⁹ <http://www.theicct.org/fuel-consumption-discrepancies>

²⁰ <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2013-000307&language=EN>

31. Firstly, traffic forecasting by the Department for Transport – which uses exactly the same modelling as the Welsh Government – has been risible²¹:



32. Professor of Transport Policy Phil Goodwin comments:

“The figure you see above is the result so far, for car traffic, showing successive downwards revision of the forecasts as for 25 years car traffic stubbornly refused to behave according to expectations. The revisions were of the form ‘growth later’, not ‘less growth... anybody, just anybody, looking at this graph is going to think that there is a downside risk of the long term traffic flows being substantially less than the forecasts, as they have continually been for at least the last quarter of a century’²².

33. The Department for Transport made a traffic projection for Wales in 2011²³. The projection of growth in traffic is shown in the table below.

| | 2003 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|------|------|------|------|------|------|------|
| 2011 Forecast (billion miles) | 16.3 | 16.5 | 17.3 | 19.1 | 20.5 | 21.9 | 23.2 |
| % increase on base year (2011 forecast) | | 1.2 | 6.1 | 17.2 | 25.8 | 34.4 | 42.3 |
| Annual increase needed to meet forecast | | | 1.35 | 1.86 | 1.79 | 1.76 | 1.72 |

34. Over the period 1993-2013 the average annual growth rate was 1.11%²⁴.

35. The Department for Transport forecasts – which the Welsh Government also uses as the basis for its forecasting – appear to be out of kilter with reality.

²¹ <http://www.bettertransport.org.uk/campaigns/roads-to-nowhere/lrt-130412>

²² <http://www.bettertransport.org.uk/campaigns/roads-to-nowhere/lrt-130412>

²³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/4244/road-transport-forecasts-2011-annex-miles.xls

²⁴ <https://www.gov.uk/government/publications/road-traffic-estimates-in-great-britain-2012> TRA8901.xls

36. Meanwhile, the same TEMPro model that was used during the Welsh Government's M4 consultation has already proven wildly inaccurate. In 2005, total traffic in the south-east Wales authorities was 7,928 million vehicle miles²⁵. In 2013, total traffic had declined to 7,869 million vehicle miles, a decrease of 0.7%, or **3.7% lower than the Welsh Government's forecast in the first year for which data has become available**. It is difficult to conceive of a more stunning failure to correctly forecast traffic patterns.
37. The whole analytical basis for the National Transport Plan is thus fundamentally and fatally flawed, and this modelling and all sections of the Plan that are based on it should be excised from the draft Plan.
38. The Welsh Government repeats almost like a mantra the problem of 'congestion'. But if this is a problem it is unquantifiable: the Welsh Government has no means of measuring congestion.
39. The evidence provided above strongly suggests that the Welsh Government is being disingenuous through claiming to follow
*"an evidence based approach for understanding the performance of the transport system, assessing the need for intervention and considering the social, environmental and economic impacts of our plans"*²⁶.

Maintenance

40. Given that the proportion of the trunk and motorway network requiring maintenance is more than 50% greater than the target level²⁷, resources that the Welsh Government had thought to allocate to road-building would be more profitably allocated to road maintenance. After all, if the Welsh Government is struggling to maintain the roads that exist at this point in time, allocating expenditure to the construction of new roads will worsen the state of existing roads.
41. The same holds true for the condition of footways. Given that the Welsh Government wishes to increase active travel (and, indeed, has legislated to that effect), it is disturbing to discover:
*"The condition of footways on non-trunk roads is deteriorating throughout Wales. In 2006 25.7% were subject to a loss in quality. There was a trend of steady deterioration between 1995 and 2004 (Data Unit Wales, 2007)"*²⁸.
42. The Welsh Government is also aware of the *"deterioration of the local highway asset"*²⁹; the same principle holds true – while existing roads are in poor condition it makes little sense to invest in new road infrastructure that will itself increase the maintenance burden.

Economy

²⁵ <https://www.gov.uk/government/publications/road-traffic-estimates-in-great-britain-2013> TRA8901.xls

²⁶ <http://wales.gov.uk/docs/det/consultation/ntp/150116-ntp-consultation-document-en.pdf> 5.1.1

²⁷ <http://wales.gov.uk/docs/det/consultation/ntp/150116-ntp-consultation-document-en.pdf> 2.6.7

²⁸ <http://wales.gov.uk/docs/det/consultation/ntp/141210-ntp-seaer-env-rep-en.pdf> p21

²⁹ <http://wales.gov.uk/docs/det/consultation/ntp/150116-ntp-consultation-document-en.pdf> 3.2.27

43. The apparent major rationale for investing in major enhancements to the road network is to “*stimulate the economy*”³⁰. It is not clear whether the Welsh Government is referring to the economic activity that results from public funding of infrastructure (any large construction project), or purported wider economic activity that results from increasing road coverage in Wales.
44. If the former, then it is a nonsensical argument. The Welsh Government may as well divert funding into any construction activity – or indeed, into activity that provides genuine societal benefit, such as improving healthcare.
45. If the latter, then no evidence has been provided that supports this contention. Certainly, there is much dispute as to whether large road schemes provide benefits to a particular area.
46. It is worth quoting part of the conclusions of the SACTRA report:
*“Some authors have claimed that national programmes of public investment, including road construction, lead to high rates of social return measured in terms of economic growth and productivity improvement. Other authors suggest that such effects do occur but on a smaller scale than has been claimed, and that, in general, any contribution to the sustainable rate of economic growth of a mature economy, with well-developed transport systems, is likely to be modest. **Our investigations support the latter assessment.**... Our studies underline the conclusion that generalisations about the effects of transport on the economy are subject to strong dependence on specific local circumstances and conditions”*³¹.
47. Clearly then, any individual road construction project must be supported by a thorough Cost-Benefit Analysis (as outlined in 4.2.2). The problem with current practise in this area is that such analyses are distorted by Treasury guidance that states that, for example, more fuel being used is a benefit to society (because of the taxes raised). The Welsh Government should commission a new methodology for Cost-Benefit Analysis for Wales that recognises some of the failings in the current approach.

³⁰ <http://wales.gov.uk/docs/det/consultation/ntp/150116-ntp-consultation-document-en.pdf> 3.2.19

³¹

http://webarchive.nationalarchives.gov.uk/20050301192906/http://dft.gov.uk/stellent/groups/dft_econappr/documents/pdf/dft_econappr_pdf_022512.pdf p7