Transport Policy 32 (2014) 139–147

Contents lists available at ScienceDirect

Transport Policy

journal homepage: www.elsevier.com/locate/tranpol

Beyond 'predict and provide': UK transport, the growth paradigm and climate change

Murray Goulden [a,*], Tim Ryley [b], Robert Dingwall [c]

[a] Horizon, NGB Building, University of Nottingham Innovation Park, Triumph Road, Nottingham NG7 2TU, United Kingdom
[b] Loughborough University, United Kingdom
[c] Dingwall Enterprises, United Kingdom

ARTICLE INFO

Available online 5 February 2014

Keywords:
Transport policy
Carbon emissions
Economic growth
Predict and provide
Transport demand management

ABSTRACT

Thirty years ago, Adams (1981) depicted a future UK where everyone was a millionaire lorry driver, simply by extrapolating from contemporary official transport growth assumptions. These assumptions underpinned the 'predict and provide' approach which then characterised transport planning. Twenty years later, the *New Deal for Transport* White Paper (1998) abandoned 'predict and provide' as unsustainable. This paper argues that the same growth assumptions that Adams took to their logical (absurd) conclusion have re-emerged to define both transport and the drivers of transport demand. While non-aviation transport is supposed to be carbon-neutral by 2050, the implied reductions in emissions rely on an absolute decoupling of transport demand and its drivers for which there is no evidence in current planning. Targets rely on optimistic, narrowly framed technology forecasts and behaviour change assumptions which appear highly unlikely in the present socio-political climate. Moreover, such is the cost of mitigating these tensions between economic growth and other concerns, it is argued that the targeted outcomes of current policy are as undesirable as they are unlikely. The paper concludes by calling for a transport policy which considers mobility in an integrated, holistic fashion, rather than merely as a dimension of economic growth.

1. Introduction

Politics can be characterised as the management of contradictions. Transport planning is no exception. The contemporary planner faces a series of conflicts, most pressingly the reconciliation of energy security, carbon emission targets, mobility demands, and economic growth. This challenge is often avoided by undertaking narrowly bounded modelling exercises that simply assume the continuance of selected trends considered to be desirable. The limitations of this practice were demonstrated more than 30 years ago by Adams (1981), pp. 204–206, who constructed an 'absurd scenario' based on a literal reading of contemporary UK government plans for meeting perpetual transport growth. The absurdity emerges when reintegrating the isolated trends into a coherent world view. By the year 2205 – according to official models – average annual income would reach £1 m, with one lorry on the road for every man, woman and child. Adams' describes such a world, in which the population would spend its days in these lorries, endlessly roaming the English "tarmac plain" (ibid. p. 206) in the hunt for consumables.

Adams' scenario is the logical outcome of 'predict and provide' thinking: the continual expansion of transport infrastructure to meet inferred latent demand. The resulting future appears very different one from the one legally mandated by the UK's Climate Change Act 2008. This future is outlined by the Committee on Climate Change (CCC), tasked under the Act to identify means of achieving 80% cuts in greenhouse gas (GHG) emissions by 2050, and monitor progress towards them. To date it has produced a number of Carbon Budgets (CCC, 2008; CCC, 2010), which include a target of 26% reduction (relative to 2008) in transport emissions by 2020, and 44% reduction by 2030.

For 2050, the only transport-specific target is for UK aviation emissions, which are expected to return to 2005 levels of 35 $MtCO_2e$, equivalent to 20% of current transport emissions. Given the overall 2050 target of 80% reductions, this effectively means that the rest of the transport sector, including maritime, must be entirely carbon free, unless other sectors take up the slack.

An important commonality with Adams' scenario remains however – the perpetuation of economic growth, increasing by 62% by 2030. To avoid the kind of ecological devastation Adams invokes, the CCC requires a radical decoupling of transport emissions from GDP, the scale of which is shown in (Fig. 1). The future envisioned by the CCC then is one where the primary determinants of transport demand continue to grow strongly, while

* Corresponding author. Tel.: +44 0115748022.
E-mail address: murray.goulden@nottingham.ac.uk (M. Goulden).

http://dx.doi.org/10.1016/j.tranpol.2014.01.006

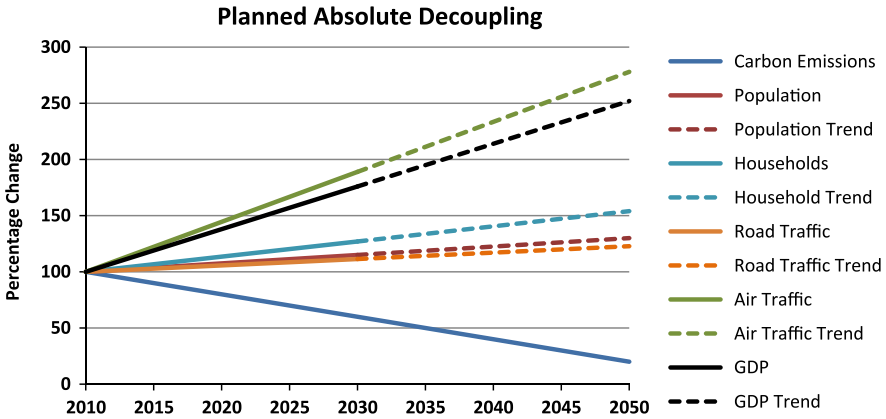

Fig. 1. Absolute decoupling of UK emissions from majors drivers assumed in CCC Fourth Carbon Budget (2010). Dashed lines for 2030–2050 extrapolated from 2010–2030 trends as these variables only modelled to 2035 currently. Trajectories simplified to straight lines.

related emissions are radically reduced. Its framing is one of the 'sustainable development', following the Brundtland Report (WCED 1987), which sought to reconcile competing demands for growth and environmental protection.

This paper considers the possibility of such radical carbon reductions in light of the recent history of UK transport policy, beginning in 1997, when the New Labour Government declared an intention to abandon predict and provide road building, in the White Paper *New Deal for Transport* (Dept of the Environment, Transport and the Regions (DETR), 1998). Following Adams' example, the paper will situate transport in a wider context, in which predict and provide is read as a sector-specific form of a dominant market-led growth agenda.

Section 2 discusses how, in the *New Deal for Transport*, mobility would be managed by central and local planners in such a way as to direct travellers to the most appropriate modes and, where possible, to reduce the need for travel at all. Present trends would not be projected unquestioningly into the future. Section 3 assesses the links between transport emissions and GDP during this period, finding that, while they weakened, success was limited, and driven by factors which may have already run their course. In practice, the policy management of mobility was quickly circumscribed. Section 4 shows how subsequent models have returned to endless growth, and to the outcomes satirized by Adams. Section 5 acknowledges that predict and provide has broadened from the road-building fixation of previous iterations, but concludes that it remains subject to a neo-liberal vision of market-led governance that leaves policy makers with few options for achieving carbon reduction targets. Current strategy rests on wishful thinking about changing behaviour (Section 6) or technological fixes (Section 7), neither of which is likely to resolve the conflicts between mobility demands, economic growth, energy security and climate change. The result is less the management of contradiction than its aggravation. We conclude that current policy thinking is unlikely to produce the resolution required. Transport policy debates need to expand beyond a narrow focus on a particular approach to economic growth, and consider mobility in a broader sense as a social good that may need to be balanced against others.

2. Managing demand?

'*A New Deal for Transport*' (DETR, 1998) has been hailed as a pivotal moment in UK transport planning (Goodwin, 1999). In the second half of the twentieth century motor car ownership and use had increased rapidly. As early as the 1960s there was a realisation, documented in the influential Buchanan report '*Traffic in Towns*' (Ministry of Transport, 1963), that unlimited use of motor vehicles could not reasonably be sustained, particularly in urban areas. However, the policy of building roads and associated infrastructure in direct response to traffic growth continued for the next three decades. This programme reached its apex with the 1989 *Roads for Prosperity* White Paper, when the Conservative Government committed to doubling the scale of the existing road building programme to £12bn (£25bn in 2012 prices), in order to provide a "*vital further boost for British industry*" (Department of Transport, 1989).

In this context, New Labour's White Paper appeared radical: "Simply building more and more roads is not the answer to traffic growth. 'Predict and provide' didn't work" (DETR, p. 5). Despite the huge investment in roads under preceding governments, congestion was increasingly costly for businesses; vehicle emissions were growing, contributing to climate change and local air pollution; and a mobility gap was widening between those with, and without, cars. Policy would focus on alternatives to the car, with improvements to public transport, cycling and walking facilities, and freight moved from roads onto rail and waterways. The drivers for travel demand would be tackled by encouraging more localized employment and services.

These changes were captured in the concept of "transport demand management" (TDM) (Ison and Rye, 2008) or, in the US, "travel demand management", defined as "*any action or set of actions aimed at influencing people's travel behaviour in such a way that alternative mobility options are presented and/or congestion is reduced*" (Meyer, 1999). Rather than building new roads, the UK government would maintain the existing network and manage it more efficiently. In this respect, it resembled many of the other initiatives of the early years of New Labour, particularly in health care, which deliberately set out to reverse the previous Conservative government's reliance on market mechanisms. The White Paper's policy goals included providing a level field for choice between different transport modes, ensuring efficient integration between them, and setting targets for sustainable policies. The new approach encouraged multi-modal studies (DETR, 2000a), where all forms of transport, including walking and cycling, were considered. The paradigm shift was captured by the '*Management*' of TDM: where 'predict and provide' sought to identify, and cater to, latent demand – following rather than leading market forces – TDM would proactively shape it according to long term planning goals. This was required because of the difficulty for markets in internalising indirect and/or delayed costs such as increased congestion and pollution.

3. Decoupling transport

The 'coupling' of transport and GDP has long been recognised: the high mobility of people and goods enabled by oil-fuelled