

Introduction

This is a modified version of a paper prepared privately for the Australian Transport Research Forum in Adelaide, 29 September 2004. As a result, this review still shows vestiges of its transport origins and hence focusses on demand-side rather than supply-side countermeasures.

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Perhaps the most compelling (but still largely unrecognised) evidence of the lack of even short-term sustainability in Australia is our very serious dependence on rapidly declining petroleum sources. Petroleum is currently essential for agriculture and most facets of Australia's community life and economic systems as well as for transport. Many people assume, wrongly, that medium and short-term supplies are assured. There is rapidly mounting evidence from the oil industry itself that this complacency about future oil supplies may well be very misplaced, for example Akehurst (2002).

Almost 80% of Australia's petroleum use is in transport. 55% of road transport fuel is petrol, 39% diesel and 6% is LPG, and Australia uses about 45,000 megalitres of petroleum each year.

Compared to other regions, Australia has a good level of understanding of practical demand management strategies (especially from successful and long-standing water conservation measures). This knowledge coupled with our existing still unallocated reserves of natural gas provides an encouraging opportunity for us both to forecast and to weather the coming oil shortage storms better than many other regions. It is particularly important that the issues are tackled seriously and urgently by major stakeholders, including the community.

Figure

1: Australia's vulnerability to oil depletion is shown in these diagrams of past Australian and world oil production and future decline predictions. (Australian data and forecasts from APPEA (2004). Global predictions after Bauquis (2004). IEA is the International Energy Agency; ASPO is the Association for the Study of Peak Oil & Gas. A majority of estimates of the peak of world oil production cluster between the present and 2020 (Andrews and Udall (2003))