Dr Murray May

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Environment and Heritage Committee
House of Representatives
Parliament House
Canberra ACT 2600   (Mailed to this address and also electronically
                                      to Environment.Reps@aph.gov.au)

Inquiry into a Sustainability Charter

Thank you for the opportunity to contribute a submission to the above inquiry. As much as possible, I believe an Australian charter should seek consistency with broader charters such as the Earth Charter (http://www.earthcharter.org/) and the earlier UN World Charter for Nature (http://www.un.org/documents/ga/res/37/a37r007.htm).

My submission has three sections: the first addresses "weak" and "strong" versions of sustainability; the second is a more concrete case study applied to transport (and especially aviation); and finally, I discuss the implications for an Australian Sustainability Charter.

1. **"Weak" and "strong" approaches to sustainability (also described as "shallow" and "deep" approaches)**

A Sustainability Charter must inevitably confront the highly contested nature of the meaning of the term "sustainability".

For example, "sustainable development" gained widespread support in 1987 with the publication of the Brundtland report (World Commission on Environment and Development, 1987). This concept is most often linked to a technocratic form of "environmentally benign growth", whereby the ecological crisis is considered to be resolvable by technical and procedural innovation. It is the perspective most associated with governments, economists and technologists. It has been linked to the "rhetoric of reassurance" whereby "we can have it all", including economic growth, ecological sustainability and social justice (Dryzek, 1997, p. 132).

However, many now consider sustainable development (and certainly "sustainable growth") to be an oxymoron. This seems to arise partly because many people (policymakers included) do not understand the consequences of exponential rates of growth, as physics professor Albert Bartlett (1998) has observed. In addition, the approaches used by traditional economists and technologists are regarded as grossly underestimating the complexity of the world. The sustainable development approach is considered to be ethically "weak", in contrast with "strong" ethical approaches to sustainability (Davidson, 2000).

The "strong" approach to sustainability allows human consumption patterns and the values that underpin them to be the focus of attention. It questions prevailing assumptions such as

unlimited growth (as being unsustainable), and growing consumption (increasingly emphasising compensatory wants). Further, this approach acknowledges that in most modern societies environmental governance remains an add-on, or a minimalist, "shallow" program, designed to avoid litigation and voter disquiet. It is the poor cousin of economic governance for ongoing growth in productivity and profits (Hill, 2006). By contrast, the "strong" approach argues for much more holistic "deeper" policymaking, without ignoring technological innovation as one useful strategy (Hawken, Lovins, & Lovins, 1999).

The inadequacy of "weak" approaches is increasingly underlined in books and reports about how we are beginning to transgress ecological limits, threatening our ecological, economic, and social systems, and ultimately our survival. Examples of such books include *The Revenge of Gaia* (Lovelock, 2006) internationally, and *In Search of Sustainability* (Goldie, Douglas, & Furnass, 2005) in Australia. As the latter book argues, "the full ramifications of a sustainable society are not yet being seriously debated in the broader Australian community" and "a truly sustainable society will require a profound change in mindset and a reorientation of the values of our national culture" (p. 3).

Likewise, a recent Canadian volume argues for the fundamental design and redesign of their systems of commerce and production so that they maintain and restore ecological systems (Cote, Tansey, & Dale, 2006). Importantly, Professor Stuart Hill from the University of Western Sydney in a chapter in the same book argues for the *expanded application of insights from ecology* not only to industrial practices, but also to the way we approach visioning, policy development, planning, decision making and implementation, and personal and social well-being (Hill, 2006). I commend the application of "deep" approaches to a Sustainability Charter and its further active use.

2. Case study related to your item 4: Transport (particularly aviation)

The transport area demonstrates very well the way in which "growth forever" models are incompatible with "deeper" approaches to sustainability that are cognisant of ecological constraints. With growth-based neo-liberal economic models, the most important measurable outcomes are defined in narrow economic terms, as stated by Button and Taylor (2000) in relation to air transport: "A major criterion for measuring the success of our air transportation system should be our ability to use air travel as a competitive advantage in a global economy".

Free market forces and economic globalisation underlie this worldview. The "no limits" assumption of economism also leads to the naïve extrapolation of single variable trends into the future, and significantly, to the neglect of the existence and complexity of ecosystems. For example, the World Tourism Organization's Tourism 2020 Vision program expects the number of international tourism arrivals (i.e. arrivals from abroad) to reach 1,000 million by 2010 and 1,600 million by 2020, as compared with 664 million in 1999 (World Tourism Organization, 1999).

The so-called "predict and provide" philosophy, which dominates road building and now increasingly air transport, typifies "business as usual" pathways. It is associated with growing emissions. This is demonstrated by projections made for greenhouse gas emissions from Australian transport through to the year 2020 (Bureau of Transport and Regional Economics, 2002). Even by 2010, total transport emissions are projected to be 47 per cent above the level for 1990 (the Kyoto base year). The modelling is based on the fact that

Australian transport demand is strongly linked to economic growth and population growth. The upward trending projections over time are particularly apparent for aviation, with total domestic aviation projected to increase its carbon dioxide equivalent emission levels by 139 per cent from 1999-2000 to 2019-20, mainly due to the scheduled airline market. The comparable value for international aviation emission levels (using fuel uplifted from Australia) is an increase of 258 per cent over the same period (Bureau of Transport and Regional Economics, 2002, pp. 154, 166).

The global climate changing consequences of this ever-expanding vision for aviation growth, whether repeated in Sydney, Canberra, Bristol, or Shanghai, have been investigated in depth by the Royal Commission on Environmental Pollution (2002) in the UK. The commission has consistently expressed "deep concerns" about the environmental consequences of the growth in air travel, stating that emissions from aircraft are likely to be a major contributor to global warming if the present growth in air traffic continues.

Air travel is generally forecast by the industry to grow at 4 to 5 per cent a year for the next 10 to 15 years. In areas such as the Asia-Pacific, growth rates of up to 7 per cent a year are forecast until the 2020s. One estimate by the Royal Commission (2003a) suggests that if air travel expansion in the UK goes unchecked (and assuming the rest of the economy begins to pursue a path towards a 60 per cent reduction in emissions), then by the year 2020, aviation will be costing about a quarter of the UK's climate change budget.

In 2003, the UK Government accepted the Royal Commission on Environmental Pollution's recommendation that the UK should put itself on a path towards a reduction in carbon dioxide emissions by 60 per cent from current levels by 2050. This recommendation is based on selecting 550 ppm as the upper limit for CO_2 in the atmosphere (Royal Commission on Environmental Pollution, 2000, p. 57). However, more recent discussions linked to "dangerous climate change" suggest a more urgent trajectory, with 450 ppm now being considered a more realistic upper limit (Department for Environment Food and Rural Affairs, 2006). This implies that carbon dioxide levels will need to be reduced by 80 per cent from their current levels by 2050.

This case study demonstrates that the growth-oriented visions for aviation held by the aviation and tourism industries run directly counter to the deep cuts in greenhouse gas emissions that are required to tackle global warming. The same rising trends are also apparent with road transport, but aviation is used as an example here as it is projected to have the strongest rate of growth.

3. Implications for the Sustainability Charter

The case study above underlines a critical dilemma in effectively tackling the growth of greenhouse gas emissions—namely that governments generally are unwilling to challenge the dominance of market-based considerations and a worldview based on continuing economic growth and free market forces. Typically, governments primarily consider tourism as a way of boosting economies. However, also typical is their ignoring of the environmental and climate change impacts. Recent work supports that quoted above, showing that air travel for tourism has a very significant environmental impact, particularly for international and long-distance flights (Becken, 2002a, 2002b; Benghezal, Foran, & Baker, 2000; Hoyer & Naess, 2001).

The implications for a Sustainability Charter are succinctly encapsulated in a statement from the UK Royal Commission (1994, p. 75): "An unquestioning attitude towards future growth in air travel, and an acceptance that the projected demand for additional facilities and services must be met, are incompatible with the aim of sustainable development". More recently, and effectively underlining this point, the commission (2003b) expressed disappointment in the UK Government's 2003 White Paper *The Future of Air Transport*. The commission states that the White Paper "reveals a serious fracture between the government's policies on energy and aviation" and "fails to take account of the serious impacts that the projected increase in air travel will have". In contrast with the White Paper announcement of "a huge expansion in airport capacity", the Royal Commission argues instead for the restriction of airport development.

A Sustainability Charter must be consistent with the goal of a reduced scale economy that progressively weans itself from fossil fuels. The progressive parts of the economics profession (generally within the area of ecological economics) realise that economic objectives must be subordinate to ecological imperatives. Rethinking and redesigning much of what is currently taken for granted – including the use of tax shifting (Brown, 2006) – are important policy tasks for living within an ecological framework. The South Australian Government will soon introduce legislation to mandate 60 per cent reductions in GHG emissions by 2050 (*South Australia to legislate for deep cuts*, 2006). The more ambitious target of 80 per cent reductions below 1990 levels by 2050 has now been set by the US State of California (Office of the Governor of the State of California, 2005).

In relation to transport, governments generally attempt to meet the demand for travel and to widen the opportunities for travel by road, rail and air. Within a socially and ecologically oriented framework, however, *reducing travel demand* is an important policy goal.

Air travel will have to be drastically reduced, and tourism reframed towards the local and regional. Issues a Sustainability Charter should address with respect to air travel include: What are the myths linked to the inevitability of the "Airport City" as part of a global economy? And what kinds of scenarios face "Airport Cities" in an era of oil depletion? In relation to the latter question, the Centre for Sustainable Transportation (2000) in Canada considers much of the current investment in airport infrastructure to be both unjustified and unwise. This is because of the need to curb greenhouse gas emissions and the coming lack of availability of low-cost aviation fuel, a consequence of the end of cheap oil.

Rail transport, which has distinct advantages with respect to greenhouse gas emissions, suffers from impoverished investment in Australia because of a lack of political will. Substantial direct and indirect policies and funding continue to be made in support of car-based lifestyles. On the other hand, European countries such as the Netherlands, Germany, Denmark, and Sweden have implemented policies and infrastructure that facilitate higher levels of walking and cycling for daily travel than in Australia and the USA. This has positive benefits for both the environment and public health, as with much lower rates of obesity (Pucher & Dijkstra, 2003).

In conclusion, I consider that a significant shift in outlook is needed. In essence, the prime focus should be on redesign initiatives within an ecological framework. This is profoundly different from the usual approach that aims to improve efficiency within flawed designs. If only "shallow" approaches are used, the setting of targets is likely to constitute little more than a losing battle against the tide of economic growth and increasing consumption.

References

Bartlett, A. A. (1998). *Forgotten fundamentals of the energy crisis*. Retrieved 2 May, 2006, from http://www.npg.org/specialreports/bartlett_index.htm

Becken, S. (2002a). Analysing international tourist flows to estimate energy use associated with air travel. *Journal of Sustainable Tourism, 10*, 114-131.

Becken, S. (2002b). The energy costs of the Ecotourism Summit in Quebec. *Journal of Sustainable Tourism, 10*, 454-456.

Benghezal, V., Foran, B., & Baker, B. (2000). *Unfogging the future in 2020: Balancing the opportunities and challenges for Australian tourism in the long term* (No. 00/09). Canberra: CSIRO.

Brown, L. R. (2006). *Plan B 2.0: Rescuing a planet under stress and a civilization in trouble*. New York: W. W. Norton.

Bureau of Transport and Regional Economics. (2002). *Greenhouse gas emissions from transport: Australian trends to 2020* (No. 107). Canberra: Author.

Button, K. J., & Taylor, S. (2000). International air transportation and economic development. *Journal of Air Transport Management, 6*, 209-222.

Centre for Sustainable Transportation. (2000). *Sustainable transportation monitor No. 3: The future of aviation*. Retrieved 2 May, 2001, from http://www.cstctd.org/CSThomepage.htm

Cote, R., Tansey, J., & Dale, A. (Eds.). (2006). *Linking industry and ecology: A question of design*. Vancouver, BC: UBC Press.

Davidson, J. (2000). Sustainable development: Business as usual or a new way of living? *Environmental Ethics, 22*, 25-42.

Department for Environment Food and Rural Affairs. (2006). *Avoiding dangerous climate change: Scientific symposium on stabilisation of greenhouse gases February 1-3, 2005, Met Office, Exeter, UK: Executive summary of the conference report*. London.

Dryzek, J. S. (1997). *The politics of the earth: Environmental discourses*. New York: Oxford University Press.

Goldie, J., Douglas, B., & Furnass, B. (Eds.). (2005). *In search of sustainability*. Collingwood VIC: CSIRO Publishing.

Hawken, P., Lovins, A. B., & Lovins, L. H. (1999). *Natural capitalism: The next industrial revolution*. London: Earthscan.

Hill, S. B. (2006). Redesign as deep industrial ecology: Lessons from ecological agriculture and social ecology. In R. Cote, J. Tansey & A. Dale (Eds.), *Linking industry and ecology: A question of design* (pp. 29-49). Vancouver, BC: UBC Press.

Hoyer, K. G., & Naess, P. (2001). Conference tourism: A problem for the environment, as well as for research? *Journal of Sustainable Tourism, 9*, 451-470.

Lovelock, J. (2006). *The revenge of Gaia*. London: Allen Lane.

Office of the Governor of the State of California. (2005, 6 January). *Governor Schwarzenegger establishes greenhouse gas emission reduction targets (Press release)*. Retrieved 5 May, 2006, from http://www.climatechange.ca.gov/climate_action_team/index.html

Pucher, J., & Dijkstra, L. (2003). Promoting safe walking and cycling to improve public health: Lessons from the Netherlands and Germany. *American Journal of Public Health, 93*(9), 1509-1516.

Royal Commission on Environmental Pollution. (1994). *Transport and the environment: Eighteenth report* (No. Cm 2674). London: HMSO.

Royal Commission on Environmental Pollution. (2000). *Energy - The changing climate: Twenty-second report* (No. Cm 4749). London: HMSO.

Royal Commission on Environmental Pollution. (2002). *The environmental effects of civil aircraft in flight: Special report*. London: Author.

Royal Commission on Environmental Pollution. (2003a, 23 May). *Building more runways is wasteful (News release)*. Retrieved 9 July, 2003, from http://www.rcep.org.uk/news/03-01.html

Royal Commission on Environmental Pollution. (2003b, 16 December). *Royal Commission responds to aviation White Paper (News release)*. Retrieved 2 May, 2005, from http://www.rcep.org.uk/news/03-12.htm

South Australia to legislate for deep cuts. (2006, April). Retrieved 2 May, 2006, from http://theclimategroup.org/index.php?pid=785

World Commission on Environment and Development. (1987). *Our common future*. Oxford, UK: Oxford University Press.

World Tourism Organization. (1999). *Tourism 2020 vision: Executive summary updated*. Madrid, Spain: Author.