Comment on "Population and Environment in Australia"
by Dr. Colin Butler

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Dr. Butler believes that "The evidence for environmental stress at a global scale is increasingly deafening" (p. 26), but at least some of the analysis upon the basis of which he reaches this conclusion is simplistic **(Note 1).**

Butler charges some disciplines with a failure to examine this evidence, and singles out economics for special criticism. On the basis of his overview of the research being conducted in Australia on population and the environment, he concludes that conventional economists "pay little attention to potential environmental and social constraints" and assume that "environmental problems, such as salinity, greenhouse gas accumulations and biodiversity decline are either soluble, unimportant or exaggerated" (p.26-27). **(Note 2).**

On the subject of the place of Australian researchers in an international context, Dr. Butler argues that in this country the issues of "both sustainable development and sustainability ... have been marginalised" and that "Even the term 'sustainable development', almost universally accepted by the international community, has been altered to 'ecologically sustainable development' (ESD)" (p. 6).

These assessments of the importance that economists accord to environmental problems and of the place of Australian research and attitudes on the environment in the international spectrum do not sit easily with the stated research interests of Fellows of the Academy of the Social Sciences in Australia **(Note 3)**, the findings of Australia's ecologically sustainable development (ESD) process **(Note 4)** or the judgments by leading participants of the depth and strength of the Australian exercise relative to that of its overseas counterparts **(Note 5).** Dr. Butler's review of the Australian literature is very selective **(Note 6),** focusing almost entirely on the work of those whom he believes (sometimes wrongly) to be on his side of the debate about the relationship between environmental stress and economic development **(Note 7).**

In a paper presented to the Australian Academy of Science Symposium "Transition to Sustainability" in May 2002, political scientist Aynsley Kellow traced the origin of the term "sustainable development", and noted that "In Australia, the success of environment groups in inserting the word 'ecologically' into what became known as the ecologically sustainable development (ESD) process was something of a coup ..." **(Note 8).**

Butler does not mention this important paper in his survey, presumably because he believes that Kellow's careful exploration of the meaning of "sustainability" and "sustainable development" represents a "hijacking (or at least distracting) of what many think should be an urgent debate by overly semantic approaches" (p. 14).

Other important studies which are not included in Dr. Butler's bibliography include the collection of essays edited by Kellow (with Australian economist David Robertson) on *Globalization and the environment: risk assessment and the WTO* (2000); the book co-authored by

Kellow on *International environmental policy: interests and the failure of the Kyoto process* (2002); and the book co-authored by economist Warwick McKibbin on *Climate change policy after Kyoto: Blueprint for a Realistic Approach* (Brookings, 2002). Butler may disagree with the conclusions of these scholars, but this does not justify his disregard of their important contributions to the international debate on environment and sustainability issues.

A regrettable feature of the report is the use of labels to characterise the position of researchers whose findings have differed from those of Dr. Butler. For example, he distinguishes the Boserupian principle, which he says should not be contentious, from "extreme interpretations of it, as set out for example by 'cornucopian' writers such as Julian Simon" (p. 17). He then quotes what he says is Partha Dasgupta's summary of this "extreme view". However, the quoted extract represents Dasgupta's verdict on "recent models of economic growth", not on Simon. In fact, Dasgupta makes no distinction between the views of Simon and Boserup: he brackets them together in the only reference to Simon in the paper that Butler cites.

In my paper presented to the ASSA Annual Symposium in 1999 ("Reporting on human development: lies, damned lies and statistics") - available at www.assa.edu.au/publications/op/op12000.pdf) - I commented on the way that the research contributions of the Australian economist Colin Clark (1905-89) had been misrepresented and dismissed as "cornucopian" (p. 67). It is satisfying to report that, in his Colin Clark lecture at the University of Queensland on 22 August 2003, the eminent economic historian Angus Maddison paid tribute to Clark's *Conditions of Economic Progress* (1940) in the following terms:

> It was the first study to present comparable estimates of levels of real income across countries... This created a framework for comparative analysis of performance in space and time which revolutionised the possibilities for comparative economic history, and analysis of problems of growth and development... He produced this monumental work single-handed, without research assistance in an era of slide rules and adding machines...

As outlined in my "Vice President's Note" in ASSA *Dialogue,* vol. 19, no. 1, 1999 (available at http://www.assa.edu.au/Publications/dial.asp), in 1949 Clark presented the keynote paper ("World resources and world population") at the UN Scientific Conference on the Conservation and Utilisation of Resources. Although he contested the view that the world could not support 3 billion people by 2000 "at any but coolie standards for most of them", his projections of the potential increase in global output (and in population) were quite conservative. And he endorsed the view that "The conservation of soil, forests, stream flows and natural biological equilibria is certainly one of the most important and urgent tasks which faces us today." Australia's greatest economist did not think that environmental problems were unimportant.

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Note 1. Figure 7 (p. 13) shows that per capita global grain production has decreased by 10 per cent or so during the past 20 years. Dr. Butler nominates several "plausible co-explanations" for this decrease, the first of which is "a decline in the rate of expansion of global carrying capacity, in part because of approaching biological and environmental limits". There is no

warrant for such a conclusion. The decline in the world average per capita level is attributable entirely to changes in the relative weight of developed and developing countries in the global population. Declines in per capita grain production can be consistent with rising income and nutrition levels. For example, China's per capita grain production decreased by 14% between 1996 and 2001, but per capita production of other foodstuffs increased substantially during the same period: meat by 33%, fruits by 37% and milk by 46% (China, *Statistical Yearbook* 2002).

Note 2. It is not true that economists "assume" that environmental problems are either "soluble, unimportant or exaggerated". All competent economists base their assessments on an evaluation of the evidence. The possibility of serious consequences arising from the accumulation of greenhouse gases in the atmosphere was recognised 30 years ago in a research paper published by the Australian Treasury (*Economic Growth: Is It Worth Having?*, 1973, pps. 11-12). At that time it was reasonable to expect a more rapid rate of accumulation than now seems likely. In fact, outcomes in terms of emissions growth and temperature increase have consistently fallen short of projections:

- In 1970 a leading group of researchers at MIT projected that global emissions of carbon dioxide from fuel combustion would exceed 45 billion tons annually (CO2 equivalent) by the year 2000 (*Man's Impact on the Global Environment: Report of the Study of Critical Environmental Problems,* p. 54): in the event, annual emissions did not reach one-half of this figure in 2000. Some of the IPCC emissions scenarios project that, even in the absence of climate policies, fossil CO2 emissions will never reach the level that was projected for 2000 in the MIT study.
- In the *Global 2000* report to the President of the US, published in 1980, it was projected that global fossil carbon dioxide emissions in 1990 - only 10 years later - would be about double that of the mid-1970s (Vol. 2, p. 181). By the year 2000, after 20 years, these emissions were only 43 per cent above the 1975 level.
- At the *Greenhouse 1988* conference in Australia 15 years ago, Dr David Karoly of Monash University reported his conclusions from an analysis of temperature data from 31 stations in the southern hemisphere for the period 1950 to 1985: 'All stations show a warming trend, which is typically in the range 0.2 to 0.8 degrees C per decade' (quoted in Ian Lowe, *Living in the Greenhouse,* 1989, p. 39). Both of the estimates of the trend increase in mean land temperature in the southern hemisphere between 1946 and 2000 in the IPCC's Third Assessment Report (*The Scientific Basis,* 2000, Table 2.1) are well below 0.1 degrees C per decade - i.e. Dr. Karoly's range for the average decadal rate from 1950 to 1985 exceeded the now-estimated decadal rate for the entire half-century by a multiple of between 3 to 1 and 10 to 1.
- On the basis of several sets of 'predictions' of the increase in average temperatures in the succeeding decades which were presented at *Greenhouse 1988*, Professor Ian Lowe concluded: 'My younger son is 35 years younger than I am; by the time he is my age, it is likely that the temperature will have increased by about three degrees' (*Living in the Greenhouse,* p. 40). In the most recent IPCC assessment, none of the six projections of the increase under different scenarios yields an increase in average temperatures of as much as 1 degree C between 1990 and 2025 (*The Scientific Basis,* Appendix II, Table II.4), notwithstanding that most of the IPCC's projections are based on much more rapid increases in output in developing countries than is expected by professional opinion in other contexts - e.g. in monitoring progress towards the Millennium Development Goals for reductions in poverty.

Note 3. Fellows of ASSA are asked to nominate their main areas of research interest for inclusion in their entry on the Academy's online membership register. At present, 42 Fellows explicitly include "environment", "sustainability" or "climate change" among their key interests. Their disciplinary affiliations are Economics, 12; Geography, 8; Anthropology, 4; History, 4; Education, 4; Political science, 3; Others, 7.

Note 4. In one of the cross-cutting "thematic essays" included in the discipline strategy review of the social sciences conducted by ASSA for the ARC (ARC, *Challenges for the Social Sciences and Australia,* 2 vols., 1998), Professor Stuart Harris reviewed the research on environment and sustainability issues by Australian social scientists, focusing in particular on the ecologically sustainable development (ESD) process which had "suggested that economic development and the environment need not be incompatible".

Note 5. In their editorial preface to *The ESD Process: Evaluating a Policy Experiment* (ASSA, 1997), Clive Hamilton and David Throsby judged Australia's ESD process, instituted in 1990, to be "by far the most comprehensive attempt undertaken in any country anywhere to come to grips with the reconciliation of economic and environmental values in the development process and to formalise the notion of ESD in practical policy terms" (p. v). Two of the three chairs of the ESD Process were economists: Stuart Harris and David Throsby.

Note 6. With the exception of a study of the emigration of skilled Australians by geographer Graeme Hugo, Dr. Butler does not refer to any work by any of the 42 Fellows with special interests in "the environment" and "sustainability" (see Note 3). Nor does he mention the essay by Stuart Harris in the discipline strategy review for the ARC (see Note 4) or the ASSA publication on the ESD process (Note 5).

Note 7. For example, Butler follows other contributors to the debate about Australia's carrying capacity (including Professor Jonathan Stone and Dr. Tim Flannery) in assuming that the assessments of geographer Griffith Taylor in the 1920s reflected an environmental consciousness that was lacking in his contemporaries. As noted by Emeritus Professor Anthony Chisholm in "Land, resources and the idea of carrying capacity" (*BCA Papers*, September 1999), I have shown (in my "Vice-President's note" in ASSA *Dialogue,* 4/1998) that this was far from being the case. Dr. Butler's report does not mention Professor Chisholm's article or my paper (available at http://www.assa.edu.au/others/icdoc.pdf)

Note 8. Dr. Butler argues that this has led to "a separation between the Australian and the international discourse and debate" and "a distancing from Australian involvement in the issues of global poverty, central to sustainable development as understood internationally" (p. 6). This is questionable: see the proceedings of the conference *Globalisation, Living Standards and Inequality* (Reserve Bank and the Australian Treasury, 2002), especially the address by Treasury Secretary Ken Henry (see pps. 239-49 at www.rba.gov.au/PublicationsAndResearch/Conferences/2002/).