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THE GARNAUT CLIMATE CHANGE REVIEW

FINAL REPORT

Ross Garnaut is one of Australia's most distinguished and well-known economists. He is an Officer of the Order of Australia for services to education and international relations, a Fellow of the Australian Academy of Social Sciences, and Honorary Professor of the Chinese Academy of Social Science. Based in the Research School of Pacific and Asian Studies at the Australian National University from 1972 to 2008, he was Professor of Economics from 1989 to 2008, and head of the economics department for much of that time. Professor Garnaut is now Vice-Chancellor's Fellow and Professorial Fellow in Economics at Melbourne University and Distinguished Professor at the Australian National University. He is Chairman of the International Food Policy Research Institute of Washington DC, Chairman of Lihir Gold Limited, Chairman of Papua New Guinea Sustainable Development Limited, Chairman of the editorial boards of the academic journals *Asian Pacific Economic Literature* and the *Bulletin of Indonesian Economic Studies*, and a Director of the Lowy Institute for International Policy.

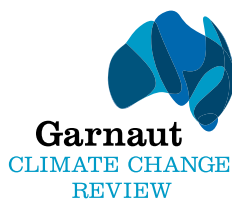
Professor Garnaut has had periods of secondment to senior positions in government. He was head of financial and economic policy in Papua New Guinea's Department of Finance in the years straddling independence in the mid-1970s, the principal economic adviser to Australian Prime Minister R.J.L. Hawke in the 1980s, and Australian Ambassador to China from 1985 to 1988.

The many books of which he has been author, co-author or editor include *The Taxation of Mineral Rent*; *Australian Protectionism*; *Australia and the Northeast Asian Ascendancy*; *The Third Revolution in the Chinese Countryside*; *Social Democracy in Australia's Asian Future*; and *China's Ownership Transformation*.

THE GARNAUT CLIMATE CHANGE REVIEW

FINAL REPORT

Ross Garnaut



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Preface

The Garnaut Climate Change Review was initiated in April 2007 by the then Leader of the Opposition, Kevin Rudd, and by the Premiers of the six states and the Chief Ministers of the two territories of Australia. It was commissioned by the First Ministers on 30 April 2007. The Commonwealth Government joined the Review in January 2008 after Mr Rudd became Prime Minister of Australia.

The Review was required to examine the impacts of climate change on the Australian economy, and to recommend medium- to long-term policies and policy frameworks to improve the prospects of sustainable prosperity.

The Review's secretariat was established in June 2007. Based within the Victorian Department of Premier and Cabinet, it included members from the public services of Queensland, Western Australia and South Australia. A secretariat office within the federal Department of Climate Change was set up in January 2008.

As part of its research and analysis, the Review consulted with a wide range of experts and stakeholders in Australia and overseas: academics, officials, government departments and public bodies, business leaders and representatives, and non-government organisations.

The Review produced four major documents as a basis for public discussion. An interim report was presented to First Ministers and released in February 2008; a discussion paper on the proposed emissions trading scheme in March, a draft report on 4 July and a supplementary draft report on 5 September.

The Review commissioned a number of papers on the impacts of climate change on Australia, which represent major contributions to the growing body of knowledge about these impacts. The papers are available on the Review's website at <www.garnautreview.org.au>.

The methodology applied in, and the results of, the Review's modelling have generated large volumes of analysis and information, of which this final report presents only a small proportion. A technical appendix to the report on the modelling is available on the website.

The Review has benefited substantially from interactions with other organisations and the community more generally at specialist forums, and public forums and lectures held around the country between August 2007 and September 2008. More than 10 000 people participated in these events over the course of the Review.

A formal submission process was also conducted, which attracted almost 4000 submissions. Interested stakeholders were encouraged to respond to a series of five issues papers, the discussion paper on the emissions trading scheme and the interim report, all of which stimulated considerable public discussion and debate on climate change mitigation and adaptation in Australia.

This final report is the last stage of a wide-ranging process that has transparently examined how Australia, as a single country, is likely to be affected by climate change, and how we can best contribute to climate change mitigation and start to adapt.

Acknowledgments

The Review's work, with its scale and complexity, could only be completed through the generous contributions of many people and organisations in Australia and across the world.

I had the good fortune of being supported by a management team led by Ron Ben-David as head of the secretariat, and Ian de Cruz, Kevin Keeffe and Stephen Howes. I am grateful that Ron took on the job of helping me get it all together on the day that I was given my presumptuous task. We have worked together on it every day since. Ian led the states-based team in Melbourne from the beginning in late June 2007 and Kevin the Commonwealth component of the secretariat from the time of its establishment in January 2008. Stephen held together the international work from his base at the Australian National University. The end product has been the beneficiary of their exceptional skills, capacities and professionalism.

Thank you to the team members who have been with me from the outset: Jonathan Chew, Elizabeth Edye, Ana Markulev, Nina Rogers and Karlie Tucker; and to our team of expert modellers from the Queensland Treasury, led by Greg Watts and Matt Clark.

It has been a long and hard road, but we have reached the place of which we spoke and maybe dreamed more than a year ago.

Tony Wood added valuable knowledge of technologies and much else when he joined me as a private adviser. Frank Jotzo introduced me to areas of economics in which he was an old hand and I was not.

From earlier this year, the team was strengthened with great professionalism by Dominic Burke, Alison Carrington, Clare Chick, Peter Corcoran, Charles Edlington, Kylie Meakins, Helen Morrow, Rob Murray-Leach and Claire Ruedin. During this time Daniel Adams, James Allen, Jacqueline Boreham, Conrad Buffier, Karen Dempsey, Darren Gladman, Lana Kelly and Kirsten Mann have all made valuable contributions to the Review. Anna Freeman managed to keep us in touch with a high proportion of the extraordinary number of Australians and others who were interested in the Review's work. Veronica Webster held together the threads of my absurd program of commitments against all the odds.

Many of the individuals mentioned above, and some others, made exceptional and particular intellectual and other contributions to the work. It would be invidious of me to single out those contributions here, but I will find ways of acknowledging these exceptional contributions in more personal ways.

My thanks go to several Commonwealth and state government agencies. The secretariat began its work in the Victorian Department of Premier and Cabinet, where the former Secretary, Terry Moran, made sure that things started strongly, and the current Secretary, Helen Silver, continued the excellent support. The Review became a joint Commonwealth–states project from early 2008, with the Commonwealth Department of Climate Change and its Secretary, Martin Parkinson, as its central point. The Australian Bureau of Agricultural and Resource

Economics provided strong professional support for the work from the beginning in 2007, with special contributions from the modelling team led by Don Gunasekera, ably supported by Helal Ahammad. The Review's joint work on modelling with the Australian Treasury team, led by David Gruen and Meghan Quinn, has broken fertile ground that will be cultivated by Australians for many years. Thanks also to the Office of Economic and Statistical Research in the Queensland Treasury for its ongoing support through the dedication of staff to the Review. The Australian Academy of Science and Academy of Technological Science and Engineering made significant contributions.

I am grateful for the assistance, services and information throughout the Review provided by the staff at the Australian Bureau of Statistics (particularly Steve Gelsi and Sandra Waters); Roger Jones and his many colleagues at the Commonwealth Scientific and Industrial Research Organisation; the Bureau of Meteorology; the Productivity Commission; Philip Adams at the Centre of Policy Studies (Monash University), who made large contributions directly and through the joint modelling with Treasury; the Melbourne Institute of Applied Economic and Social Research at Melbourne University; and WHH Publishing (especially but not only Virginia Wilton and Larissa Joseph).

Over the last 16 months, my team and I have held thousands of conversations with leaders in their fields in Australia and internationally, and received countless emails and letters offering advice, support and criticism. It is simply not possible to acknowledge all of these contributions. But many have been instrumental in informing the ideas and proposals presented in this Report, and some have been immensely important. Many of you will recognise your influence.

To Jayne, and to the partners and families of all members of my team, I thank you for your patience over many months, and your willingness to bear the demands of this project.

Ross Garnaut
Canberra and Melbourne
30 September 2008