Progress

The Ten Commitments



Bushfire ravages Black Mountain, Canberra. Better fire management for optimal environmental outcomes is a focus of national research. Greg Heath, CSIRO

Faced with a growing catalogue of environmental priorities and having seen little real progress on solutions, a group of Australia's most eminent ecological scientists decided to take matters into their own hands. The result is an innovative, step-by-step guide to our most pressing environmental priorities and a manifesto of what action can be taken to turn matters around.

In early 2007, some of the country's most respected ecological scientists came together at a specially convened roundtable to identify and develop a list of the most glaring environmental priorities needing to be addressed by the government. What made this gathering different from other scientific meetings was that it had its roots in business.

'For more than a decade Australia was going backwards on the sustainability front and some in business had a better grasp of the urgency of dealing with Australia's environmental problems than government,' says Molly Harriss Olson, founder and convenor of the National Business Leaders Forum on Sustainable Development, where the idea first came to light. 'The most innovative business leaders see there's a problem and are happy to respond to a call to action, but science has been invoked as an excuse to delay decisive action.

'With critical issues like climate change, the luxury of perfect science prior to action is gone.' She says that in the case of Australia's sensitive ecology, action needs to be taken now, but the question was how to clarify the issues for a new government, and provide an easy to follow roadmap for urgent action.

Inspiration came from a paper recently published by a group of UK scientists¹, which identified 100 ecological priorities needing urgent action in the British Isles. After consultation with leading Australian ecologists, including Professor Ian Lowe, Dr Steve Morton and Professor David Lindenmayer, on the feasibility of doing something similar here, the Business Leaders Forum decided to host a roundtable gathering of respected scientists from across ecological disciplines – including marine and terrestrial ecology, forestry, deserts, fire and water management, rainforests, alpine and urban environments – to nut out the big issues in a similar process to that employed by the UK scientists, but covering a much broader range of environments.

'Essentially this was a group trying to create a scientifically literate and robust response that allows action to be taken before all the hard facts are necessarily in place,' says Ms Harriss Olson. It also sought to create scientific information that was relevant to the policy makers; out of this need came the book, *Ten Commitments: Reshaping the Lucky Country's Environment*, and a paper that will be published in the journal *Austral Ecology* in early 2009. The book identifies 10 key action areas in each discipline, and a plan for resolving those issues.

The idea for this innovative dossier originated with ANU Professor of Ecology and Conservation Biology, David Lindenmayer, who was a keen supporter of the project from the outset. He says he was partly motivated because of a frustration with what he calls 'weasel words' about ecologically sustainable development.

'There is a lot of talk, a lot of platitudes about sustainability, but very little is actually changing on the ground,' he says. 'People want to see real change and will support doing what's necessary to make that change happen.

'A key issue, however, has been distilling the problems into terms that can be understood by anyone in business or government, so they can identify the problem and the steps required to fix it, or at least stop it from getting worse.'

UNSW Professor and arid river ecologist Richard Kingsford, who also contributed to the book, says the roundtable and the publications arising from it highlight the value of scientists distilling their ideas and life's work into priority actions for government.

'We need to get the message out that what we do is relevant and can provide solutions not just to today's problems, but to future challenges as well,' he comments.

'By far, though, the biggest difficulty faced by scientists engaged in this process was narrowing the number of challenges to just 10.'

For example, just one of the Temperate Marine Systems points demands a rethink about major activities such as fishing not only as 'uses' of ecosystems but as massive and cumulative changes in systems, and calls for the *community* to make decisions

1 Sutherland WJ et al. (2006) The identification of 100 ecological questions of high policy relevance in the UK. Journal of Applied Ecology 43(4), 617–627.

about such activities as it does about any other 'land-use'.

The Forest and Forest Management chapter calls for old growth forest logging to cease immediately, an improved reserve system for forests, and a reassessment of sustained yield calculations for production forests to avoid resource overcommitment.

The Urban Settlements chapter not only demands the expected improved transport and infrastructure, green cities and sustainable design, but also highlights the need to promote healthy food production and consumption, and child-friendly cities and urban policies.

Professor Lindenmayer agrees that the process required discipline, but says the resulting book is a straightforward, easy-to-read blueprint for policymakers to take meaningful action. 'Of the 10 key points identified in each chapter some are unpalatable, some are unpalatable but do-able, and others are more straightforward.

'Between them something may actually get done.'

Emerging factors

Several themes came up repeatedly in the compilation process, including the issue of resilience – a system's ability to recover



ECOS has five copies of *Ten Commitments* to give away. Tell us in 25 words or less what you think Australia's most pressing environmental issue is. Email your answer and your name and postal address to: publishing.sales@csiro.au by 30 November 2008.



The coastal community at Glaisher Point near Port Hacking, NSW. Urban sustainability and planning priorities are gaining prominence. Greg Heath, CSIRO

from disturbance or negative impacts, and the need to work on ways that might make ecosystems and other entities that are targeted for management more resilient, particularly in response to climate change, without negatively impacting other systems.

Unsurprisingly, the potential impact of climate change was raised in many chapters, although most contributors considered climate change to be one among many problems rather than being a key driver of environmental problems so far. The book's editors say this is a critical point, as climate adaptation strategies may well prove to be unsuccessful unless serious attempts to tackle other key environmental stressors such as land clearing, altered fire regimes and invasive species are embraced.

Other concerns included the lack of monitoring in many sectors, which affects scientists' ability to assess the effectiveness of policy initiatives and management actions, and the dominance of shortterm programs and lack of longer-term targets supported by ongoing policy and institutional processes.

The issues in each chapter cover a far broader set of policy, institutional, management and even tax-related suggestions than is traditionally expected from scientists, and Mike Bull, Flinders University Professor and editor of *Austral Ecology*, in which the subsequent paper will be published, says the whole process marks a very interesting transition from old to new ecology.

'Until a few years ago, scientists were

just interested in how systems worked,' he says. 'But with growing awareness about climate change and the environmental problems we're facing there has been a dramatic change in the sort of information that is required from ecological research, which has demanded a new approach.

'There is a growing sense of urgency that not only do we need to know how systems operate, but also how we can fix them as well from a practical perspective'

So while the book is directed at policymakers, it will also be given to all business leaders at the National Business Leaders Forum on Sustainable Development, as well as other community and thought leaders.

Professor Lindenmayer believes the book provides much of the information necessary to effect real change, and is a call to action by government.

'Once this book is handed over to the relevant people, we will be watching to see what changes,' he says. 'Then in three or four years we plan to write another book, gauging how well they went and determining whether anything has really changed. If nothing has, they may well fry in their own juices.'

Rachel Sullivan

More information:

Lindenmayer D, Dovers S, Harriss Olson M and Morton S (Eds) (2008). *Ten Commitments: Reshaping the Lucky Country's Environment.* CSIRO Publishing, Melbourne. Available from CSIRO Publishing http://www. publish.csiro.au/pid/5954.htm