

## How Adaptable are our Conservation Regimes?

*Jeff Smith*

### Introduction

Biodiversity conservation has been failing across Australia under current arrangements. As a result of climate change, it is now recognised that species will change in their distribution and abundance, ecosystem structures and functions will be altered and significant extinctions are likely to occur; also, that adaptation has limitations and will be ineffective for natural ecosystems.<sup>1</sup> These projections will, in turn, pose additional problems for conservation management in Australia.

This chapter critically evaluates the adaptability<sup>2</sup> of our conservation regimes. This is no easy task: many of the impacts of climate change are unknown and we simply cannot predict what will happen.

1 See generally the Intergovernmental Panel on Climate Change, *Synthesis Report Working Group II 11.4, Summary for Policy Makers*, 2007, p 65; W Adger, S Agrawala, M Mirza, C Conde, K O'Brien, J Pulhin, R Pulwarty, B Smit and K Takahashi, 'Assessment of adaptation practices, options, constraints and capacity' in M Parry, O Canziani, J Palutikof, P van der Linden and C Hanson (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, 2007, p 719.

2 This chapter uses the Intergovernmental Panel on Climate Change (IPCC) definition of adaptation, which is:

Adjustment in natural or *human systems* in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

The IPCC further distinguishes types of adaptation as:

- Anticipatory adaptation: adaptation that takes place before impacts of *climate change* are observed. Also referred to as proactive adaptation.
- Autonomous adaptation: adaptation that does not constitute a conscious response to climatic stimuli but is triggered by ecological changes in natural systems and by market or *welfare* changes in *human systems*. Also referred to as spontaneous adaptation.
- Planned adaptation: adaptation that is the result of a deliberate policy decision, based on an awareness that conditions have changed or are about to change and that action is required to return to, maintain, or achieve a desired state.

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