

Adaptation to climate change in Victorian “agricultural” landscapes – nature conservation

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Future climate scenarios suggest an overall warmer and drier Victoria with the frequency and effects of some extreme weather events increasing in potential impact (flooding, fire danger days). These inevitable, but as yet imprecise, changes in climatic conditions have the potential to have effects on land and water -use across rural Australia and Victoria and must be factored into the trend toward “sustainable landscapes”. Climate change may exacerbate some existing environmental / economic issues (eg. water as a limiting factor) and perhaps hasten some emergent trends (land / water –use change , C markets and offsets). To date, commodity production agriculture has driven Victorian land allocation and use (Mansergh *et al.* 2006), however, new landscapes are emerging over substantial areas with different drivers (eg. amenity landscapes, Barr 2005).

Natural systems will also “evolve” under new climatic regimes and in the case of biodiversity mass extinctions have been foreshadowed this century (Thomas *et al.* 2004). A major contributor to this depletion is the inability for species to migrate through fragmented landscapes. Rebuilding the ecological permeability of landscapes – biolinks - will be a feature of adaptation to climate change and a component of the inter-generational equity of landscape management. This paper explores the concept in the context of Victoria’s adaptation to climate change.

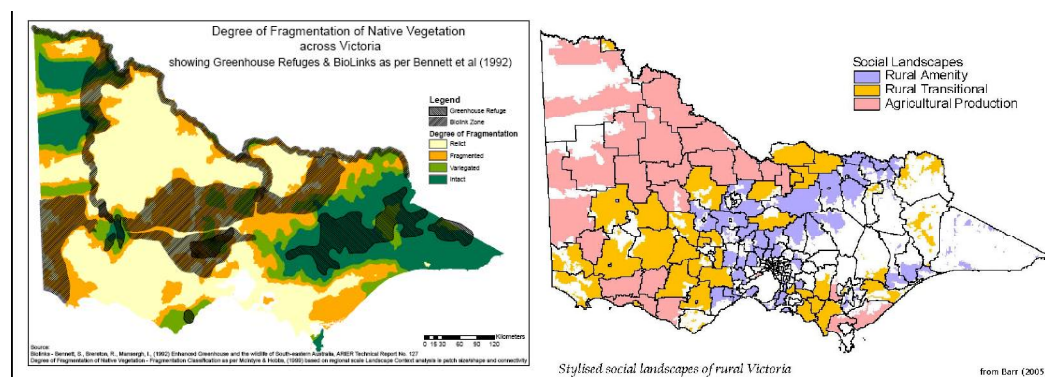


Figure 1. Victoria - broad biolinks (Brereton *et al* 1995) (left) and stylised social landscapes (Barr 2005) (right).

Barr N (2005) *The Changing Social Landscape of Rural Victoria*. (Department of Primary Industries: Melbourne).

Mansergh, I Anderson, H and Amos N (2006) Victoria’s living natural capital – decline and replenishment: 1880- 2050 (Part 2). *Victorian Nat.*: 288- 322

Thomas *et al.* (2004) Extinction Risk from Climate Change. *Nature* 427: 145-148.