

Dr Joern Fischer
The Fenner School for Environment and Society
Building No. 43
The Australian National University
Canberra ACT 0200, Australia

T: +61 2 6125 4612
F: +61 2 6125 0757
E: joern.fischer@anu.edu.au
<http://people.anu.edu.au/joern.fischer>

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Re: Submission in response to the current draft of the National Biodiversity Strategy

Dear National Biodiversity Strategy team,

I am writing to provide a small amount of feedback on your draft strategy. The feedback is based on the document itself, as well as on the public meeting I attended in Canberra on 30 March 2009.

First, I will briefly mention that I have heard some colleagues comment that the document was good (or even very good) at a conceptual level; but I have heard other comments stating that the document lacked important details about implementation – potentially implying that it amounts to little more than talk, with no clear plan for on-ground action. Both sets of views resonate with me to an extent, so I just mention them here in very general terms.

That aside, I have a single main comment, which I will try to illustrate with a few details below. My main comment is that I was very interested to see, both in the document and the presentation, that ‘resilience’ had become the major guiding principle of the strategy. I commented in the public meeting that I found it a very good choice for a guiding principle, but that I was not convinced whether the implications of making resilience a guiding principle are fully reflected or conveyed in the strategy.

Most importantly, I think it is critical to be precise about what the bounds of the system of interest are. In your glossary you refer to resilience as applying to ecosystems. Ecosystems are implied in the glossary not to contain humans as major actors; although an ‘ecosystem approach’ is implied to include humans as well. Much of the influential and recent literature on resilience is about social-ecological systems, i.e. systems where social and ecological components are tightly interlinked, and influenced by each other.

My sense is that talking about the resilience of ecosystems without people is not all that meaningful because people have pervasive impacts on ecosystems in most places – and ecosystems provide measurable services to people across the continent. So, a more appropriate focus probably is the resilience of interlinked social-ecological systems. Such a focus is consistent with various other priorities outlined in the Strategy, e.g. the mainstreaming of biodiversity, which also is very much people-oriented.

Assuming that people are to be a central part of the biodiversity strategy, and that resilience must apply to social-ecological systems because the two cannot be separated, this has implications for where the emphasis of conservation actions is placed.

I missed something in the document that talks about sustainable commodity production. Over fifty percent of Australia is commercially grazed, and farming systems are critical to Australia’s biodiversity. Farming systems are social-ecological systems. Resilience of biodiversity in farming systems is about the resilience of social-ecological systems as a whole. This implies major social and economic challenges, as well as more conventionally framed conservation challenges. *In other words, resilience as a guiding principle implies that a major thrust of the emphasis of conservation activities must be devoted to production landscapes* (especially farming landscapes, but also others, such as forestry-dominated areas).

In my mind, having resilience as a guiding principle implies a de-emphasising of protected areas and a stronger emphasis on commodity production landscapes. If I am correct, this is nothing short of a paradigm shift in conservation – from protecting nature from people, to ensuring the resilience of social-ecological systems as a whole. If I am right, and resilience does imply a paradigm shift in conservation strategy, then this would need to come out more clearly in the strategic document.

I attach some ‘tracked changes’ regarding some sections of the document.

I hope these comments are not too vague, and will be of some use. I would be happy to further clarify my thoughts if that was helpful to you.

Best wishes,

A handwritten signature in blue ink, appearing to read 'J. Fischer', with a stylized, cursive script.

Joern Fischer.

Note: the following page numbers may be off by one

P6:

The strategy reflects the intention of all Australian governments to ensure our biodiversity is healthy, resilient to climate change resilience just to climate change? and valued for its essential contribution to our existence. All governments recognise the urgency of this task. Despite efforts to manage threats, put in place conservation programs and integrate biodiversity considerations into other natural resource management processes, biodiversity in Australia is still in decline.

The main threats to our biodiversity are:

- climate change (resulting in conditions such as prolonged drought)
- invasive species
- loss, fragmentation and degradation of habitat a critical challenge is the interaction of these threats, e.g. fragmentation * climate change; or intensive agriculture * climate change * fragmentation
- unsustainable use of natural resources
- changes to the aquatic environment and water flows
- inappropriate fire regimes.

Each priority for change is linked to objectives, actions and results which will guide the development of biodiversity conservation approaches for national, state, territory and local governments, and for businesses, non-government organisations and community groups. The listed results are the expected ‘onground’ consequences of successful implementation of the actions.

The longer-term impacts of the strategy on conserving Australia’s biodiversity will ultimately determine its effectiveness. Implementation of the strategy will include the development of a long-term monitoring and evaluation framework and the incorporation of relevant monitoring actions from the strategy into existing well-established systems. This all sounds good, but note that the framework to actually do this implementation, monitoring and evaluation, involves many actors, and seems quite vague still. Should there be a pointer that the details are to be worked out still with all relevant actors?

P 11:

Our responses to biodiversity conservation are growing more sophisticated and what we have learnt is informing our current approaches. We are placing an increasing emphasis on acting at the right scale, getting the right mix of management within and outside protected areas, using an array of legislative and incentive mechanisms, and developing management processes and systems that promote the sustainable use of biological resources. Now we must improve our understanding of ecosystem resilience and manage for this in an environment that is under pressure from the consequences of human activity, including climate change. This points towards an intended shift in priorities, towards resilience. Yet, it separates the environment from people (rather than seeing them as inextricably linked) – I’m not sure this is necessarily what is intended by the resilience concept, or follows logically from it. I think Brian Walker’s little book is an excellent overview of what ‘resilience thinking’ is all about.

P13:

1.2.1 Making long-term changes

We need to focus on making enduring changes to sustain the integrity of Australia’s natural systems in the long term. Central to this strategy are six ‘priorities for change’ which are:

1. *Building ecosystem resilience*—ensuring that our natural environments are able to retain their biodiversity values and critical ecological functions in the face of growing pressure, including from climate change. Production landscapes must be a key part of this.

2. *Mainstreaming biodiversity*—ensuring that all Australians understand how their lives and actions affect biodiversity, and how biodiversity supports them. Yes, this is consistent with resilience as it applies to social-ecological systems
 3. *Knowledge for all*—improving, sharing and using our knowledge of biodiversity. This is also consistent with resilience as it applies to social-ecological systems
 4. *Getting results*—improving delivery of conservation initiatives.
 5. *Involving Indigenous peoples*—recognising the special relationship of Indigenous peoples with Australia’s natural environments, the cultural significance of that relationship and its ongoing importance to the conservation of Australia’s biodiversity. This is also consistent with resilience as it applies to social-ecological systems
 6. *Measuring success*—measuring and reporting the strategy’s implementation and effectiveness and being accountable for meeting the targets we set.
- P14

Priority for change 1: Building ecosystem resilience	
Action 1.1.2: Prepare and implement plans for biodiversity conservation at all levels (local, regional, state and continental) that maintain ecosystem health and protect threatened and endangered species. <u>This seems very much like an ‘old paradigm’ strategy – about endangered species, protected areas etc. It’s not what I would think should be the first action for building resilience! I.e. this appears to be a contradiction. Resilience must be about understanding the tightly linked nature of social and ecological systems; and implementing strategies for their ongoing development both within and outside protected areas ... or something like that ...</u>	All governments
Action 1.1.3: Establish conservation linkages that provide connectivity across bioregions, including at a continental scale. <u>Linkages are a nice idea. But the bits in between those linkages – the modified landscapes themselves – are equally if not more important.</u>	Partnership between all governments the community and the private sector
Action 1.1.5: Establish a national framework for off-reserve conservation. <u>This is rather vague and seems tagged-on; though I agree with the sentiment</u>	Partnership between all governments the community and the private sector

The kinds of actions required will be determined by place and in the context of other natural resource management issues and needs. However, evidence from past experience tells us that among those actions we will need to:

- secure and enhance critical intact habitats to increase ecosystem resilience I’m not sure this makes sense – what is the ecosystem as you mean it compared to the habitat? Resilience of the ecosystem to what?
- restore ecological function to critically degraded landscapes through sustainable practices that manage our soil and water resources

- increase the cover of native vegetation ~~wherever feasible~~ to enhance ecological connectivity across fragmented landscapes over time wherever feasible is the kind of disclaimer that I would prefer to see avoided ... where necessary would be more like it! What about something about sustainable production practices that create self-sustaining, resilient production landscapes? A key problem we have is that many of our agricultural landscapes are on a trajectory of decline, still – we need to at least aim to alter their trajectory as a whole
- Or in other words: Will this strategy deliver an increase in natural vegetation in Australia’s farming landscapes, or will declines continue? As it stands, declines are set to continue in most farming landscapes, with government initiatives only serving to slow the decline (but failing to actually reverse it).
- build local knowledge and capacity for the long-term stewardship of our environment
- protect our most endangered species and ecological communities.

P21

Six priorities for change

	What the priority entails
1. Building ecosystem resilience	Ensuring that our natural – <u>what about un-natural environments? In other words, what is natural? What about people? What about the 50% of Australia that is commercially grazed? Etc ... - environments are able to retain their biodiversity values and critical ecological functions in the face of growing pressure, including from climate change (note people and production landscapes are key to achieving this)</u>
2. Mainstreaming biodiversity	Ensuring that all Australians understand how their lives and actions affect biodiversity, and how biodiversity supports them <u>I think – I don’t think I said it before – this priority is a great part of your overall vision!</u>
3. Knowledge for all	Improving, sharing and using our knowledge of biodiversity <u>same comment as for 2 – these people-oriented aspects are critical.</u>
4. Getting results	Improving delivery of conservation initiatives
5. Involving Indigenous peoples	Recognising the special relationship of Indigenous peoples with Australia’s natural environments, the cultural significance of that relationship and its ongoing importance to the conservation of Australia’s biodiversity
6. Measuring success	Measuring and reporting the strategy’s implementation and effectiveness and being accountable for meeting the targets we set

To summarise – I like your strategic priorities. I’m just not sure if you have quite ‘followed through’ your own logic, especially with regards to production landscapes.

I hope these comments are somewhat useful.