Climate-ready conservation objectives

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CLIMATE ADAPTATION FLAGSHIP
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1. Magnitude of ecological impacts

- Current state
- Resilience

Ferrier et al

Future - preferred
Future - undesired

Magnitude of ecological impacts:
- Completely different
- Not much difference

Reduce loss
Change ("Climate mitigation")
2. Uncertainty in the detail of ecological changes

Current state

Future 1 - preferred

Future 2 - preferred

Future 3 - preferred

Future 1 - undesired

Future 2 - undesired

Future 3 - undesired
People experience and value different dimensions of biodiversity

- **Species**: types and variety of life
- **Ecosystems**: quality, function and services
- **Landscapes**: amount of nature
3. Explicitly consider multiple valued dimensions of biodiversity
Climate-ready framing

Strategies must accommodate:

1. Large **magnitude** of ecological change, and significant loss.
2. Considerable **uncertainty** in the detail of ecological changes.
3. Different impacts on **multiple valued** aspects of biodiversity.

Climate-ready = accommodate 1, 2, 3 ... and **move away from the static equivalents**
Are our current approaches conservation climate ready?

Review of strategic conservation documents

• 26 documents
• International, National, State, Regional, Local, NGO

Case studies

• Four agencies
• Decision making
• Barriers and enablers

Sample the climate readiness of Australian conservation as a whole.
Key lessons

1. Framing: relevant, robust, and challenging
   Different from status quo: would lead to materially different strategies and priorities

2. Desired biodiversity outcomes not clear in objectives

3. Lack of clarity about (ecological) means and (social) ends

4. Widespread recognition climate change is a threat ...
   ... but not that it is a game-changer

5. Widespread use of concepts related to the criteria: “Green shoots”
   • Resilience, Limits of Acceptable Change, ecosystem approach, landscape scale

6. Static paradigm very well entrenched: explicitly and implicitly
   • E.g., Biota and place entwined

7. Widespread use of threatened species, but acknowledgement it is becoming decreasingly effective
Prototype objectives

1. Reduce *species extinction*, as they change in abundance and distribution
2. Maintain *ecosystem health*, as they change in type, composition, structure, function
3. Maintain a *balance between human and natural processes in landscapes*, as types of ecosystem and land/water uses change

Need refining
Future challenges for innovation and adoption

Adaptation in undertaken by people, in agencies with multiple (conflicting) incentives and mandates

- Build capacity (understanding, concepts, ownership), not Blueprints
Future challenges for innovation and adoption

Adaptation in undertaken by people, in agencies with multiple (conflicting) incentives and mandates

Concepts and language

Robust concepts, that reflect value, and readily codified: significant ecological, social and institutional research

Ecosystem and Landscapes:

- What aspects are valued (separating inevitable change)?
- How do we measure (and predict) them?
- How do we incentivise their conservation?
Thank you

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