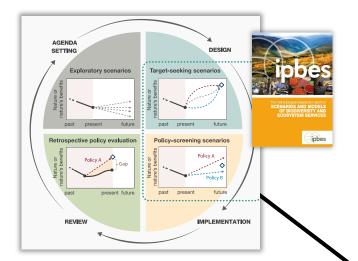
NSW FUTURE FOREST SCENARIOS

INTRODUCTION & OVERVIEW

Peter Kanowski, Steve Cork, Steve Lade – ANU Simon Ferrier – CSIRO 16.09.21





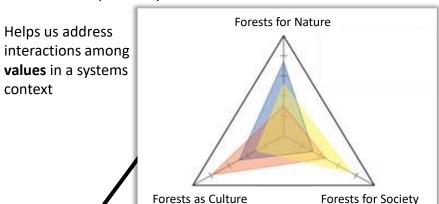


Conceptual framework to explain the **roles of scenarios in policy and planning** and the choice of scenario approaches to suit purposes

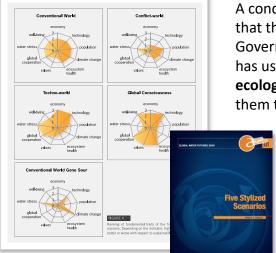
Ecological Societal Forest Ecological Governance Structure and Function Forest Policy Resource Management **Biotic and Abiotic Structure** Societal Priorities · Community Type Resource Economics • Tree Age Assessment of • Net Primary Production Modelingand **Ecosystem Processes** Monitoring data · Rate of carbon cycling and energy flow · Maintenance of structure structure Quality of the functions Value of the structure, functions, and services Final Ecosystem Goods Intermediate Ecosystem and Services Goods and Services Provisioning – Timber, fuel, Seguester Carbon transfer of managem · Produce dissolve carbon Regulating – Pollution and · Reduce nitrogen and greenhouse gas control Green lines a transfer prosperous information

A useful start towards a **conceptual model** of social-ecological systems around forests (Kleindl *et al.* 2018)

A modification to the Nature Futures Framework, which we think has some acceptance by the NSW Government and stakeholders



Forest scenarios project



A concept that the NSW Government

has used – a way to think about socialecological systems, and what might cause them to change or stay the same

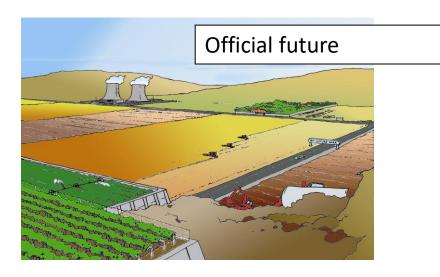
Resilience

Example of a scenario process that we think could serve the current purposes

What are scenarios?

- Representations of multiple plausible futures
- The good ones:
 - Explore multiple plausible futures
 - Are systematic, transparent, evidence-based as far as possible
 - Surface, explore and test our assumptions

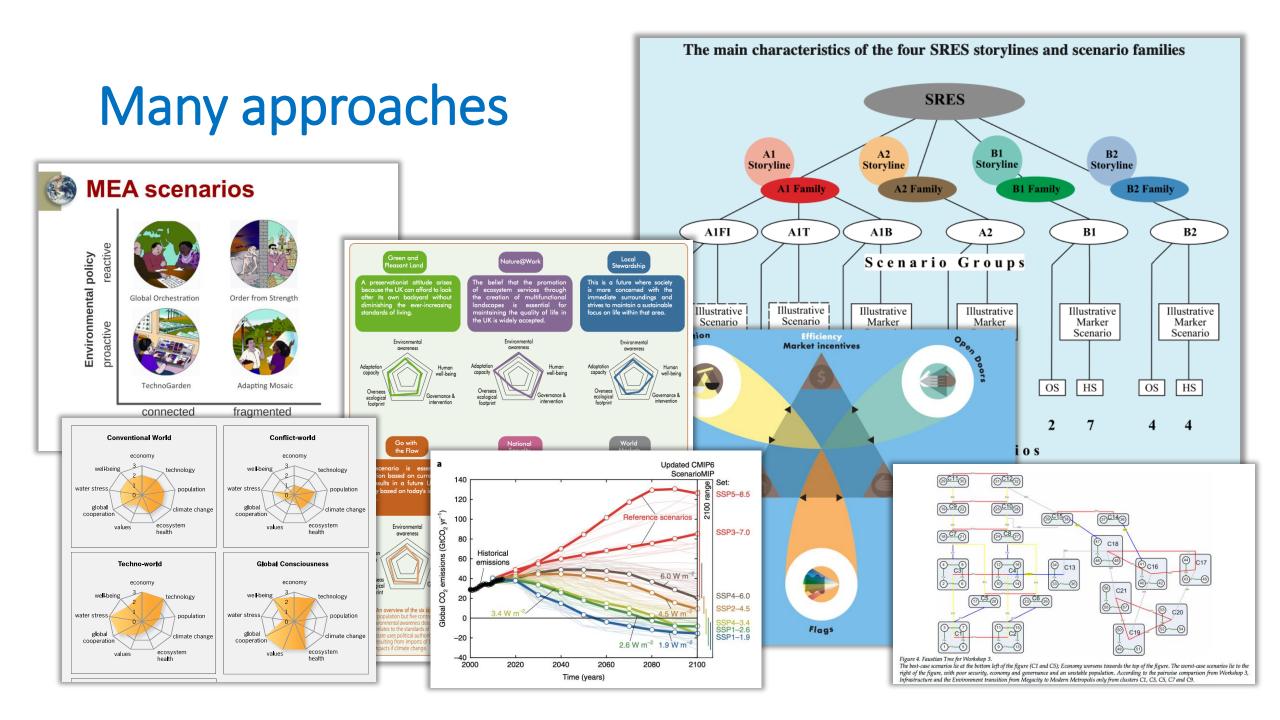
Many types of futures











Common components

Clear question/ focus

Implications
Early warning
Monitoring
Staged actions



Understand the system Recognise assumptions
Analyse past and emerging trends

Explore multiple key uncertainties (scenarios)

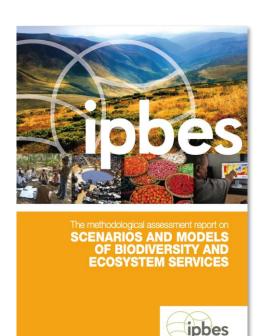
Identify key certainties and uncertainties

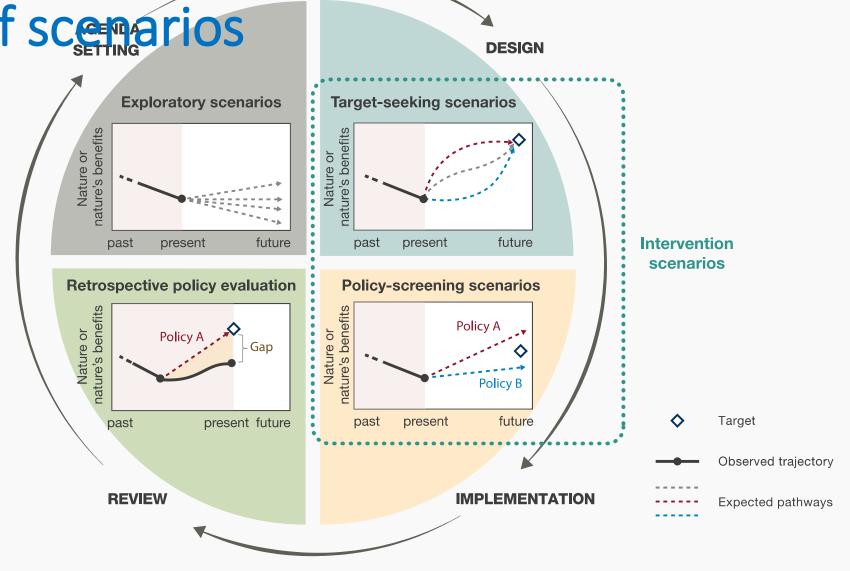
Our focal question – NSW forests

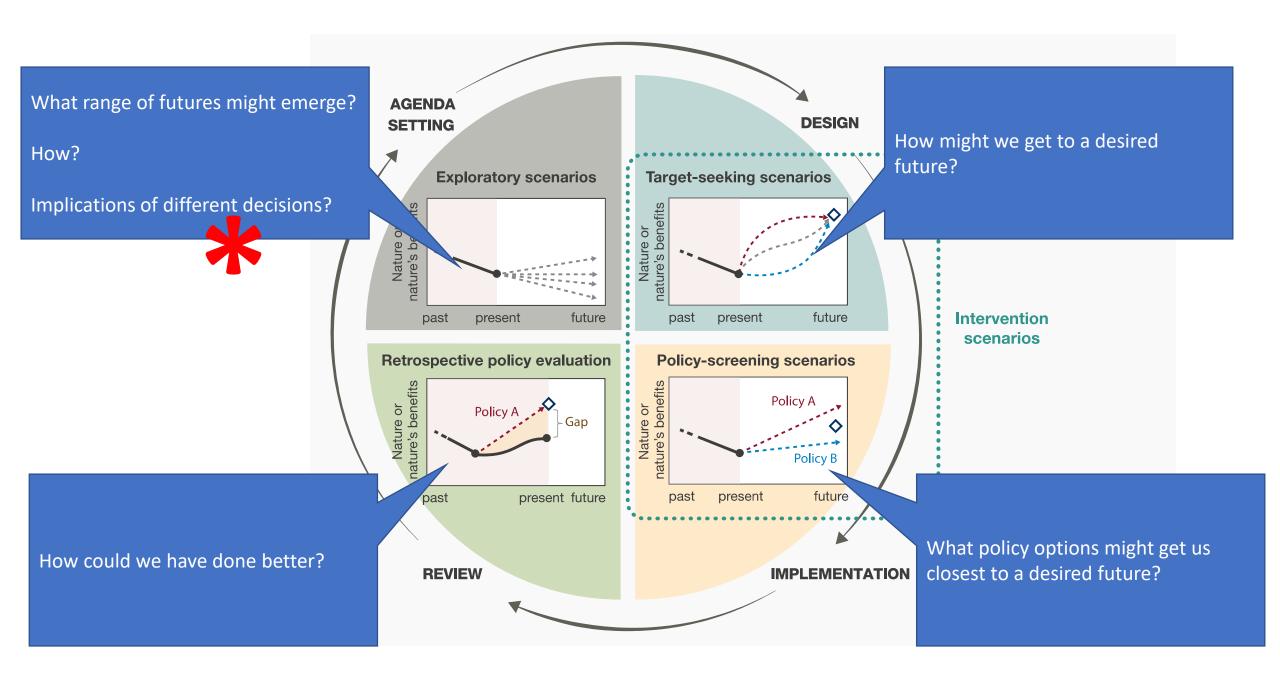
What might be:

- the range of alternative, plausible futures for NSW forests?
- the pathways by which these futures emerge?
- the implications of different decisions along the way?

Purposes of scemarios





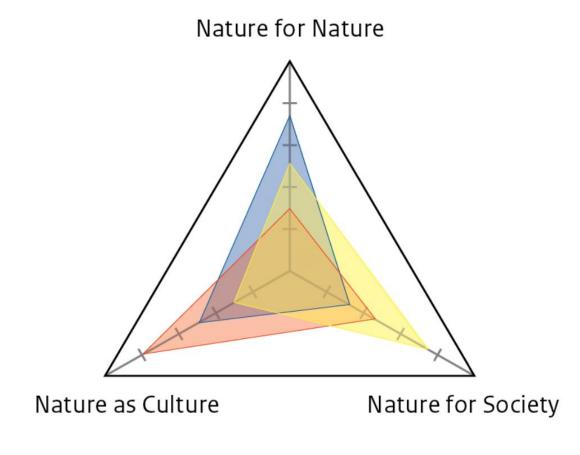


Values (Nature Futures Framework)

Nature for Nature: Nature has value in and of itself, and the preservation of nature's diversity and functions is of primary importance

Nature for Society: Nature is primarily valued for the benefits or uses people derive from it, and which could lead to an optimization of multiple uses of nature

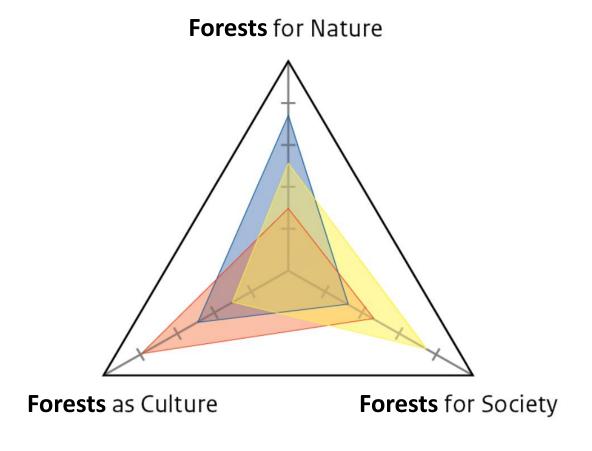
Nature as Culture: Humans are perceived as an integral part of nature, and therefore what is valued is the reciprocal character of the people—nature relationship



Nature Futures Framework

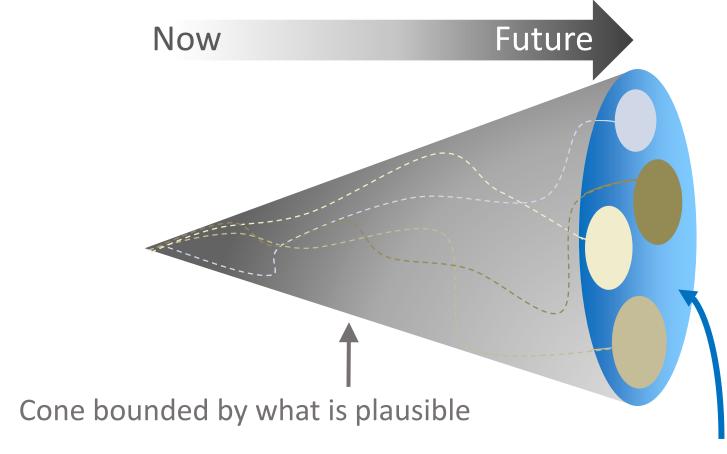
Values in this project

- Focus on NSW forests
- Initially, just focus on the three points of the triangle
- Think about the combinations later

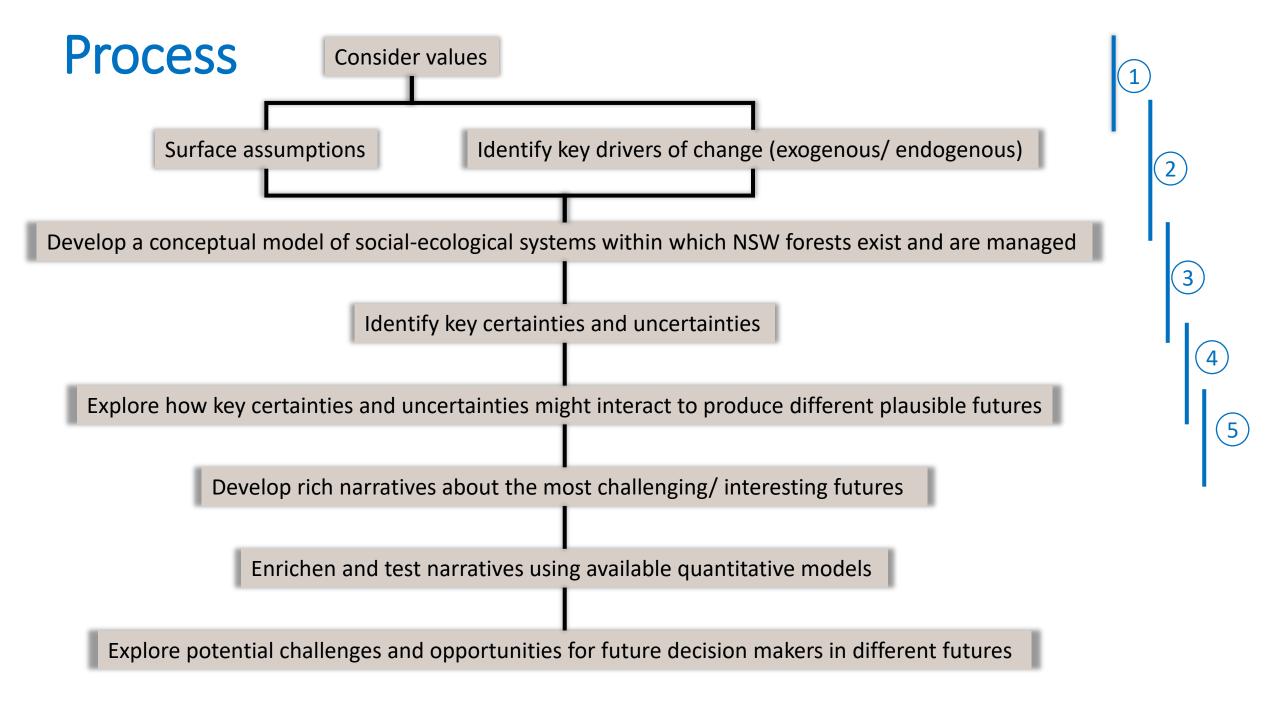




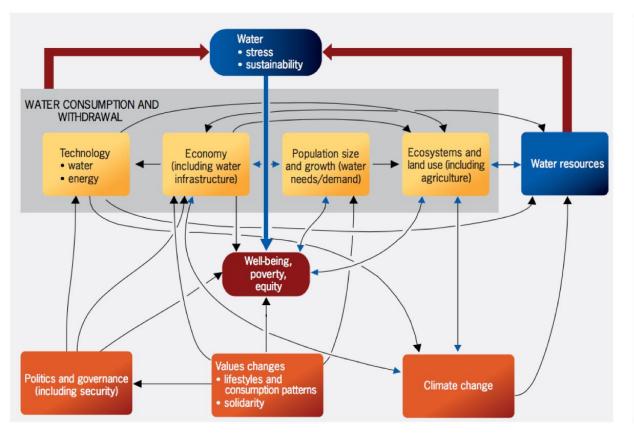
Multiple plausible futures

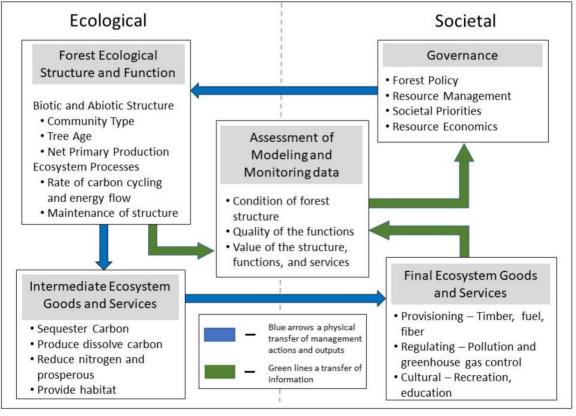


Possible futures that sample the 'plausibility space'



Examples of conceptual models





(Gallopin 2012) (Kleindl *et al.* 2018)

Exploring critical uncertainties

Environmental policy reactive



Global Orchestration

Order from Strength



MILLENNIUM

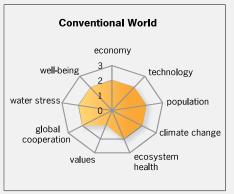


ASSESSMENT TechnoGarden



Adapting Mosaic

World governance fragmented

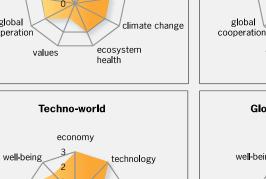


water stress

global

values

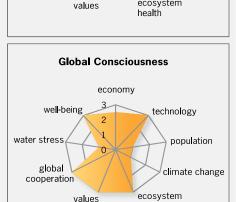
cooperation



population

climate change

ecosystem



Conflict-world

economy

water stress

technology

ecosystem

health

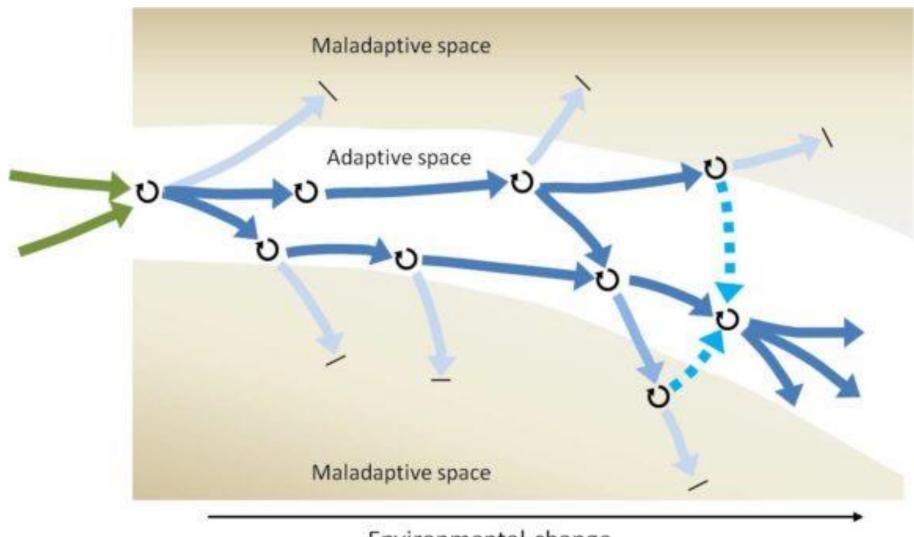
population

climate change

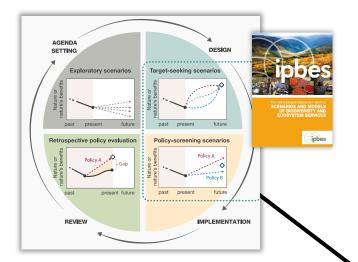
GLOBAL WATER FUTURES

Environmental policy proactive

Pathways



Environmental change

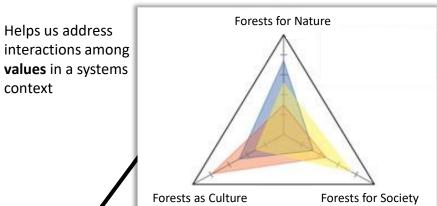


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