## Motivating better husbandry of Forested Ecosystems

Jerry Vanclay

Are forests, both public and private, maintaining sufficient & suitable habitats and ecosystem services?

If not, why not?

... and what can be done to improve this?



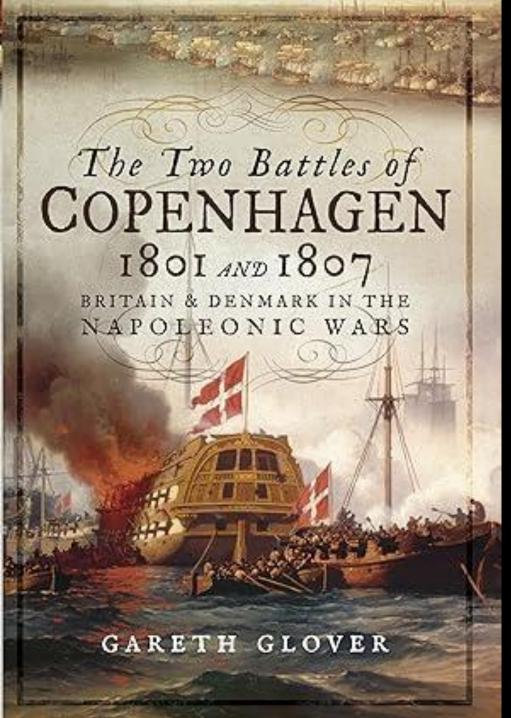


# NATUR I DANMARK



In 1991, Denmark's biggest NGOs, WWF (24,000 members) & the Hunters Association (90,000) formed an alliance to lobby for better habitat for waterbirds...

"We have a lot in common – we both want more waterbirds"





Every Dane understands that all Danish forests are artificial, are under 200 years old, and are carefully managed...



The King's Oak, one of the few trees over 200 years old











### **Denmark**

### Australia

Willingness to seek common ground

Little compromise, by government or NGOs

Awareness that forests need management

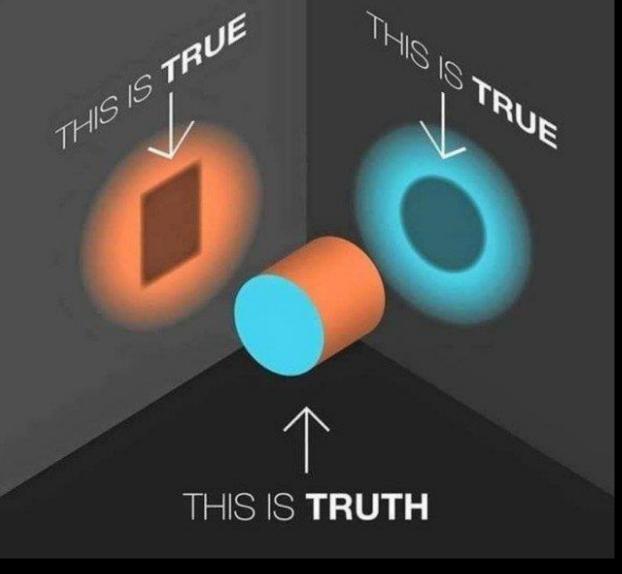
Widespread belief in primeval forests – despite 40,000+ years of cultural management (burning), fragmentation, feral animals, weeds, climate, etc.

Farm forestry profitable, cross-subsidized by wildlife revenue, stimulating active forest management Market drives high-grading & forest degradation of PNF, impairing long-term productivity

Can these observations help inform forest policy in Australia?

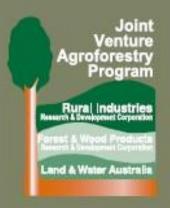
"... Nightcap rainforests burned in 2019 ..."

"... most of the burnt rainforest areas contained sclerophyll trees in the canopy, indicative of previous fire events..."



"Koalas are dying in record numbers from car strikes & dog attacks. Plus koala habitat is being lost to urban expansion..."

"... create a new Koala National Park to save koalas"





## Sustainable Private Native Forestry

A review of timber production, biodiversity and soil and water indicators, and their applicability to northeast New South Wales

RIRDC Publication No. 09/022



Wow! There was so much wildlife on that property that it should be National Park...

This farm has been in my family for over 50 years. Those critters are here *because* of what we do, not despite what we do...

I'm not telling anyone about our wildlife ... the buffer zones required are so big that they would affect my neighbour, as well as my own farming operations



## Modelling the outcomes of different silvicultural approaches in the private native forests of north-eastern New South Wales

V. Alex Jay and Alison Dillon

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#### **ABSTRACT**

Private native forests provide an important component of the log supply to local industry and a source of income for landowners in New South Wales (NSW). However, due to a history of high-grading, the estate in north-eastern NSW is in poor productive condition. In order to improve forest structure and productivity, various silvicultural techniques may be employed. In this study, the EUCAMIX forest model was used to compare three different silvicultural approaches and determine which provided the best silvicultural and economic outcome for mixed-species, mixed-age native forest stands in north-eastern NSW. The outcome for the entire estate in this area was also modelled. While high-grading leads to a long-term decline in forest values, it is a financially rational choice for landowners. Restorative silviculture produces better outcomes in the long term but the up-front costs and length of time to payback are likely to be a deterrent. Additional sources of revenue are therefore needed to incentivise landowners to engage in restorative silvicultural practices.

#### **ARTICLE HISTORY**

Received 21 December 2014 Accepted 5 October 2015

#### KEYWORDS

Forest resources; forest management; native forests; farm forestry; private forestry; selective felling; growth models; New South

Current rules and market forces lead to long-term forest degrade...

#### **Biodiversity Conservation Act 2016 No 63**

[2016-63]



Independent Review of the Biodiversity Conservation Act 2016 - Final Report

#### Status Information

#### Currency of version

Current version for 25 August 2023 to date (accessed 12 Octob

Legislation on this site is usually updated within 3 working days

#### **Provisions in force**

The provisions displayed in this version of the legislation have a

#### Responsible Minister

- · Minister for the Environment
- · Minister for Climate Change

## Panel overview

#### What the Review Panel has learned

#### The present Act is not meeting its primary purpose

The Review Panel found that the present *Biodiversity Conservation Act 2016* is not meeting its primary purpose of maintaining a healthy, productive and resilient environment, and is never likely to do so.

Biodiversity across NSW is at risk from a range of environmental disturbances:

- Clearing of native vegetation, intensifying land use, a growing population and associated infrastructure development has led to the destruction, alteration and fragmentation of habitat across the state.
- The effects of climate change are being felt, and are expected to become more pronounced.
   Projections show that extreme weather events such as bushfires, droughts, heatwaves, storms and floods will become more frequent and severe throughout NSW. Species and ecosystems are already being impacted, limiting their ability to adapt.
- Weeds are out-competing native plants and taking over large swathes of habitat, disrupting the natural balance of ecosystems and reducing species diversity.

## Guardian 'Utterly damning' review nno scheme fails to protect NSW 'Utterly damning' review finds offsets environment

Conservationists say auditor general's report shows offsets must be 'last resort' amid calls for overhaul of biodiversity market







## **Biodiversity Offsets** Scheme

Everything you need to know about the Biodiversity Offsets Scheme





## Problems with tender schemes ....

Tenders awarded for work that would have been done anyway

# BushTender

An opportunity for landholders to generate an alternative income through native vegetation protection and management as well as benefit the environment.

Don't reflect the real cost of work, because applicants bid low to secure funds

Often lacks monitoring to ensure commitments are fulfilled and maintained long-term

# Who has the 'Duty of Care' for forest-dependent species? How to ensure the **best outcome** for forest-dependent species?

...only landholders with forest have a duty of care, and those who destroyed forest long ago have no responsibility ... that hasn't worked well!

Why not share the responsibility more broadly...?

Why not reward landholders who demonstrate good wildlife outcomes?

This would incentivise conservation outcomes & ensure reporting of locations and status of rare plants & animals...

## A proposal for Stewardship Support to Private Native Forests in NSW

The Southern Cross Group of forest researchers and practitioners

Dr Jerry Vanclay, Professor of Sustainable Forestry, Southern Cross University
Mr David Thompson, Centre for Agricultural & Regional Economics Pty Ltd
Prof Jeff Sayer, previously Prince Bernhard Chair of International Nature Conservation
Dr Jeff McNeely, Chief Scientist, World Conservation Union (IUCN)
Dr David Kaimowitz, Director General, Center for International Forestry Research
Ms Anne Gibbs, Community Natural Resource Management Support Officer
Mrs Heather Crompton, past President, Institute of Foresters of Australia
Mr David Cameron, Committee Member, NSW Farmer's Association
Dr Ian Bevege, reviewer of ACIAR and CGIAR activities

## Annual payments to landholders based on 2 targets

- 1. Payment for total basal area of native trees in natural formation
- Payment for evidence of endangered species dependent on forested habitat

Invited to brief the Minister for Primary Industries (Ian Macdonald)

Small-scale Forestry (2007) 6:205–218 DOI 10.1007/s11842-007-9010-6

#### RESEARCH PAPER

How to foster good husbandry of private native forests

Jerome K. Vanclay

Received: 3 February 2007/Accepted: 23 March 2007/Published online: 5 May 2007 © Steve Harrison, John Herbohn 2007

Abstract It is generally agreed that effective conservation requires the cooperation of private landholders to complement reserve-based efforts, but there is little agreement about how this can best be achieved. Various stakeholders lobby for tough regulations, for greater landholder freedom, and for incentives for activities or outcomes. A review of these alternatives suggests an emerging consensus that incentives are the most effective approach. Policy-makers should consider incentive-based approaches such as stewardship support to foster conservation outcomes on private lands. "... incentives are likely to be the most effective, equitable, and ultimately the most efficient, approach.... Policymakers should consider incentive-based approaches to achieve conservation outcomes on private lands."

## **NSW Koala Strategy**

The NSW Koala Strategy - the biggest commitment by any government to secure koalas in the wild - is supporting a range of conservation actions that will provide more habitat for koalas, support local community action, improve koala safety and health, and build our knowledge to improve koala conservation.

### Towards doubling koalas by 2050

Pillar 1

Pillar 2

Pillar 3

Pillar 4

#### Pillar 1: Koala habitat conservation



Under the NSW Koala Strategy, \$107.1 million is

being invested over 5 years to fund the protection, restoration, and improved management of more than 47,000 hectares of koala habitat.



#### Pillar 1 actions

1.1 Permanently conserving priority koala habitat vas national parks

1.2 Partnering with landholders to protect koala habitat on private land

Private landholders with high-quality koala habitat in populations for immediate investment will be supported to permanently conserve their koala habitat. Support will be targeted towards stronghold areas and will occur via 2 programs administered by the Biodiversity

Conservation Trust: Conservation Partners Program, and in-perpetuity conservation agreements with annual payments.

1.3 Retiring biodiversity credits



## Whose responsibility: Individual, State or Federal?

Individual 'Duty of Care' hasn't achieved desired results & has been problematic.

**State (NSW)** initiatives have proved ineffective so far...

**Federal Government** has some potential to lead, particularly since the Environment Protection and Biodiversity Conservation Act is supposed to "... ensure the conservation of Australia's biodiversity by protecting native species"

### 2020 Review of Environment Protection and Biodiversity Conservation Act

The EPBC Act ... is not fit for current or future environmental challenges ... does not facilitate a strategic or systematic approach to managing or restoring the environment.

#### Key reforms recommended by the Review are:

National Environmental Standards should focus on outcomes ...

The EPBC Act ... should shift to an *outcome-driven system* that maintains and enhances the environment.

### **Key reform directions**

Focus on *outcomes* rather than process.

Strong and transparent assurance that intended *outcomes are achieved*. Increase transparency of decision-making.

Improve quality of information,

Restore and expand habitat to support a healthy environment.

Independent Review of the EPBC Act

Independent Review of the EPBC Act – Final Report

October 2020

Professor Graeme Samuel AC



The Review acknowledges the Traditional Owners of Country throughout Australia and recognises their continuing connection to land, waters and community. We pay our respect to their cultures and their elders past, present and emember.

## How to get *outcomes* for forests & conservation?

- Better policy?
  Stronger enforcement?
  More extension advice?
  Financial incentives
  - Up-front lump-sum grants for promises
  - Annual payments for outcomes

Rewards for evidence of outcomes will deliver both *information* and *outcome* addressing two major concerns in the EPBC review

# Forest management & conservation can be mutually compatible

In 1788, Governor Phillip wrote "In all the country thro' which I have passed I have seldom gone a quarter of a mile without seeing trees which appear to have been destroyed by fire. ... the natives always make their fire, if not before their own huts, at the root of a gumtree which burns very freely..." Noeleen McNamara 'Australian Aboriginal Land Management: Constraints or Opportunities' (2017) James Cook University Law Review 26.



The crater of the dormant volcano Budj Bim (until recently Mount Eccles), in south-west Victoria, as depicted by Austrian-born painter Eugene von Guerard in 1865. STATE LIBRARY OF VICTORIA.

## Is it too late, or can we still influence public opinion?

Have Forest Services tried to remain a 'small target' for too long?

Can we change public opinion with evidence of good outcomes in managed forests, both PNF and State Forests?

Can we find PNF landholders willing to showcase good outcomes from management interventions in forests?

(and ensure no consequences if any codes of practice were overlooked)

### **Concluding remarks**

- Fauna & flora survive in *habitat*, not in places....
  - ... habitat deteriorates from ferals, weeds, fires, fragmentation, etc
  - ... most National Parks lack resources to maintain habitats adequately.
- Forests that are managed and harvested can play an important role in *complementing* National Parks by providing additional habitats, by efficiently providing disturbance similar to traditional cultural burning & by maintaining connectivity between other protected areas.
- Evidence-based annual payments are feasible, efficient and effective both for PNF, and for State Forests & National Parks.