

Australia

State of the Environment

2011

Australian committee of the IUCN - State of the environment 2011 workshop – summary notes

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PRODUCED BY Richard Mackay
FOR the Department of Sustainability, Environment, Water, Population and Communities
ON BEHALF OF the State of the Environment 2011 Committee



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Cover image

Kantju Gorge, Uluru-Kata Tjuta National Park, NT
Photo by Director of National Parks

Preface

This report was developed for the Department of Sustainability, Environment, Water, Population and Communities to help inform the Australia State of the Environment (SoE) 2011 report.

The Minister for Environment is required, under the *Environment Protection and Biodiversity Conservation Act 1999*, to table a report in Parliament every five years on the State of the Environment.

The Australia State of the Environment (SoE) 2011 report is a substantive, hardcopy report compiled by an independent committee appointed by the Minister for Environment. The report is an assessment of the current condition of the Australian environment, the pressures on it and the drivers of those pressures. It details management initiatives in place to address environmental concerns and the effectiveness of those initiatives.

The main purpose of SoE 2011 is to provide relevant and useful information on environmental issues to the public and decision-makers, in order to raise awareness and support more informed environmental management decisions that lead to more sustainable use and effective conservation of environmental assets.

The 2011 SoE report, commissioned technical reports and other supplementary products are available online at www.environment.gov.au/soe.

Department of Sustainability, Environment, Water, Population and Communities – Australian Committee for the International Union for the Conservation of Nature

State of the Environment 2011 Workshop

Bulun Bulun Room, Department of Sustainability, Environment, Water, Population and Communities, John Gorton Building, Parkes, Canberra, ACT

Monday 23 May 2011, 9.00am to 12.00 noon

Attendees List

PARTICIPANT	ORGANISATION
Penny Figgis	Vice Chair for Oceania of the IUCN World Commission on Protected Areas Director of the Australian Committee for IUCN
Martin Taylor	IUCN member Head of the Protected Area Program of the World Wide Fund for Nature (WWF)
Graeme Worboys	IUCN World Commission on Protected Areas Vice Chair for Mountains and Connectivity
Virginia Young	Chair of the Australian Committee of IUCN
Richard Mackay	Godden Mackay Logan Pty Ltd State of the Environment 2011 Committee - heritage
Steve Cork	State of the Environment 2011 Committee - biodiversity
Lynette Sebo	State of the Environment 2011 Secretariat Department of Sustainability, Environment, Water, Population and Communities

Summary Notes

Workshop Overview

Officials and members of the Australian Committee for the International Union for the Conservation of Nature participated in a briefing and workshop discussion as part of the preparation for the Australian State of the Environment (SoE) 2011 Report to the Commonwealth Parliament. The workshop was facilitated by Richard Mackay, in his role as a member of the State of Environment 2011 Committee. For the purposes of the SoE 2011 Report and the workshop, 'heritage' encompasses both natural and cultural heritage, whether formally listed or not, and both Indigenous and non-Indigenous heritage. Steven Cork, member of the State of Environment 2011 Committee responsible for reporting on Biodiversity also participated in the workshop to gather supplementary information inputs to inform Biodiversity content in the SoE Report.

This workshop had four purposes:

- to brief participants on the process for preparing the SoE 2011 Report and outline SoE Live intentions;

- to share the current version of an evolving draft chapter outline for the heritage section of the SoE 2011 report and to invite comment;
- to gather high level opinion on key messages, major issues, threats and potential responses for Australia's natural heritage through an interactive discussion; and
- to identify potential contacts who could provide information.

Introduction

The workshop opened with Richard Mackay providing an outline on the SoE reporting approach, including the Committee's intention to address drivers, risk assessment, management effectiveness and outlooks in the report.

Richard outlined that the aim of the workshop was to obtain the collegiate view on threats, pressures, risks and management responses as they relate to natural heritage, together with recommendations on suitable contacts and data sources. A draft chapter outline for the 'heritage' section of the SoE 2011 report was circulated for comment.

Participants outlined their skills and background and presentations were delivered by Richard Mackay and Martin Taylor.

Presentations by Richard Mackay and Martin Taylor

Richard Mackay delivered a presentation on proposed issues to be addressed in the SoE 2011 heritage chapter and addressed topics including:

- Heritage listings and representativeness of lists
- What is protected in parks and what should be in parks
- Natural and cultural divide in heritage management - resourcing and capacity building
- Heritage development dilemma - reactive response to heritage impact management
- Climate change impacts
- Focus on heritage – iconic vs local heritage
- Importance of Indigenous landscape management
- Erosion of intangible elements of heritage and loss of stories and tradition
- Absence of a national heritage strategy
- Quantum of heritage in Australia – number of, distribution, gaps
- Quantum of heritage listings – comparison of Australia, UK, US and China
- Market failure owing to lack of market incentives
- 2006 Productivity Commission message – government and private ownership
- Adaptive re-use
- Sustainability initiatives impact on historic heritage – Green Star rating system
- Rural depopulation leading to decline in condition of rural heritage
- Subsidiary in management of heritage and jurisdictional overlap

Martin Taylor delivered a presentation on current protected area targets and proposals for targets as outlined in the *Building Nature's Safety Net 2011: the state of protected areas for Australia's ecosystems and wildlife* report.

Standards for a National Reserve System

- IBRA CARR: what should be reported on isn't the same for every IBRA region
- system proxy – sub region report ecosystems
- Janis criteria were developed in the 1990s
- reserved or protected lands should comprise holdings of a minimum on 1000 ha and cover a 15% sample - total/gaps analysis is required to identify % of target attained

Possible graphics for the Heritage Chapter:

Chart 1

- NRS target percentage attainment – IPAs are strict, Australian reserves do not include all IUCN categories
- jurisdictions, biomes, main catchments all need to be considered
- uses NVIS to determine forests

Chart 2

- national breakdown of suggested reserved / protected lands targets (pie chart)

Chart 3

- proportion of nationally threatened species
- target attainment – on, over, and below
- Tiwi islands – clearing/regrowth, unsupervised broadscale clearing with no prosecution, Indigenous benefit – new growth, old growth forests

References

- Taylor, M F J, Sattler, P S, Fitzsimons, J, Curnow, C, Beaver, D, Gibson, L and G Llewellyn. 2011. *Building Nature's Safety Net 2011: The state of protected areas for Australia's ecosystems and wildlife*. WWF-Australia, http://wwf.org.au/news_resources/resource_library/?2750/Building-Natures-Safety-Net-2011-6jul11.pdf
- Mackey, Regionalisation of Australia (through Young)

Workshop discussion

Topics raised during the workshop discussion include:

- The National Reserve System
- Targets for protection of reserved lands – IBRA, CARR, etc.
- Connectivity, landscapes, representativeness and intactness
- Management of reserved lands
- Economic drivers
- Social drivers
- Environmental drivers and pressures – climate change, carbon farming, biome shifts, farming/grazing, invasive species, species decline, embodied energy
- Initiatives and responses
- Relevant references

Australian Committee for the International Union for the Conservation State of the Environment 2011 Workshop – identification of issues and potential information sources

Issue	Comment	Suggested information sources
<p>National Reserve System</p>	<ul style="list-style-type: none"> • aim should be the protection of conservation areas and key ecological processes that support life on the planet – the fundamentals that drive life. • NRS system could have a cultural overlay • There are a range of issues to be considered in determining what constitutes a comprehensive, adequate and representative reserved lands system 	
<p>Targets for protection of reserved lands</p> <ul style="list-style-type: none"> • Convention on Biological Diversity • Soule • Foley • IBRA 	<p>Different systems and methodologies use a range of proposed targets for protection of reserved lands:</p> <ul style="list-style-type: none"> • conservation biodiversity targets should aim for a minimum of 17% of protected lands • Australia signed on to 2020 targets, agreed at Nagoya - See target 11: protection of 17% of terrestrial and 10% of coastal and marine areas. Targets work at both the national and international level. Aims for bioregional representation and connected systems. • suggestion of 50% of nations conservation area as a minimum position (50% for mosaic approach; expert advocacy for higher than 17% for clear cut protected areas) • high represented areas in terms of percentages (Folley % formula) • IBRA formula useful 	<ul style="list-style-type: none"> • Convention on Biological Diversity: Target 11 http://www.cbd.int/sp/targets/rationale/target-11/ • argument for 50% (Michael Soule) • Wild Foundation • 'connectivity' report and data (via Worboys) • The Aitken Hill communiqué provides a reference for whole of landscape conservation targets (via Figgis)

<ul style="list-style-type: none"> • CARR value-adding 	<ul style="list-style-type: none"> • value-adding CARR by extending areas of protection, such as intermittent inland waterways that are not usually present but require protection when they occur eg. Lake Eyre when in flood • need large protected areas eg. Kimberley • need to get productivity back into protected areas 	
<p>Connectivity</p> <ul style="list-style-type: none"> • Importance of • Landscape approach • Elements and relationships • Representativeness in connectivity 	<ul style="list-style-type: none"> • Importance of connectivity in the bioterrestrial estate • need to integrate protected area into whole of landscape approach; large scale landscape connectivity activities and initiatives include Great Eastern Ranges, Kosciuszko to Coast, etc. • a whole-of-landscape approach could focus on the removal of threats from intact landscapes; damaged landscapes require a different focus • fundamental elements and relationships of connectivity include: <ul style="list-style-type: none"> - trophic relations - food chains - animal dispersion as a result of floods - fire - hydro electricity relationship to flows - coastal zone flexibility - species and evolutionary populations • 70% land tenure private • consensus that the wildlife corridors plan is the way forward for biodiversity conservation 	<ul style="list-style-type: none"> • NPCB conservation policy (via Taylor) • Mackey/Soule criteria, Relationship Connectivity report • also see <i>The role of connectivity in Australian conservation</i> www.wilderness.org.au/articles/pdf/Role_of_Connectivity_%20Australian_ConservationDec04.pdf

<ul style="list-style-type: none"> • Intactness 	<ul style="list-style-type: none"> • intact systems have high value. The more intact a system, the greater its capacity to resist threats, hence the need to manage known threats now 	<ul style="list-style-type: none"> • <i>Decision Point</i> latest edition
<p>Management</p> <ul style="list-style-type: none"> • Management goals • Administrative boundaries • Species conservation 	<ul style="list-style-type: none"> • a systems based approach can assist managers who need to manage in a dynamic environment; elements of a systems based approach include: <ul style="list-style-type: none"> i) ongoing scientific support ii) capacity to track iii) management resource allocation – there is a need to understand the resource so as to understand change in condition iv) integrated information systems • Management effectiveness is impacted by boundaries and the federation structure. There is a need to minimise the influence of administrative boundaries. A <u>national</u> response is required for long term management of protected areas • Cross-tenure identification of values, plus management which is focused on the values of the resource (not ownership) is required – and would be consistent with best practice globally • Comparison of decline of species inside and outside of protected areas. Kakadu has suffered a 60% collapse in species which is catastrophic. Cannot manage just within protected areas. 	<ul style="list-style-type: none"> • See SA framework case study – WCPA SA framework publication on adaptive management (Kruger National Park) • Reference: John Woinarski

<ul style="list-style-type: none"> • Capacity/responsibility • Fire management • Alternate management regimes • Dual accountability • Opportunity Cost 	<ul style="list-style-type: none"> • Natural heritage should not be left to manage itself. Managers are sometimes not able to manage owing to political intervention. eg. brumbies. Let managers manage - give reserve managers the capacity/responsibility to respond. • decisions around fire management - when should a fire be let go or stopped • pressure on park managers to meet burning quotas are depleting carbons stocks in soil • alternate and broader management regimes: Harvey Lock reverse paradigm - advocate of management of high impact small areas over low impact large natural areas • dual accountability by science community and managers needed • Great Barrier Reef is a good example of science and managers working together • notable management costs arise as a result of missed opportunities, inaction or poor implementation • costs of preventive measures are significantly less than the cost of reparation (endangered species cost more than vulnerable species, eg. birds) 	<ul style="list-style-type: none"> • perverse outcomes from climate change events (via Geoff Luscombe, NSW NPWS)
<p>Indigenous management</p> <ul style="list-style-type: none"> • Pests/invasives 	<ul style="list-style-type: none"> • pests/invasives do not feature as part of traditional land management problems, therefore, traditional land management practices are not necessarily the solution • outlook – need capacity building in Indigenous Land and Sea management – other solutions that supplement Indigenous land owner management need to be considered 	

<ul style="list-style-type: none"> • IPA framework • Social/cultural benefit • Unlisted/unrecorded natural heritage 	<ul style="list-style-type: none"> • IPA concept needs to be matured so long term investment can be made • a new type of management - large tracts of land now actively managed. West Arnhem land management project indicates recovery – biodiversity benefits already emerging from project • growing empirical evidence of an increase in traditional food supply for Indigenous communities • the practicing of cultural values leads to decline in social problems • The Burrup presents as an example of the cultural heritage that can be lost if not adequately recorded and managed 	<ul style="list-style-type: none"> • Gondwana Lix (Keith Bradbury) • Reference: Chrissy Grant data (SEWPaC Indigenous Advisory Committee) • Australian Art Review example on Burrup (Patricia Anderson (ed.))
<p>Economic Drivers</p> <ul style="list-style-type: none"> • Mining • Stewardship/grants systems 	<ul style="list-style-type: none"> • Perception that economic values outweigh heritage values • importance of establishing protected areas to counter threats from the economic value derived from industry or mining, eg. Kimberley Bauxite mine in Mitchell Plateau; • importance of mining restoration • economic drivers act as a blockage to success. The economic driver relationship to biodiversity management is lacking: <ul style="list-style-type: none"> - Competitive bidding for Caring for our Country - Competition between NHT and Caring for our Country - Limited employment opportunities for employment (train many, employ one) <p>Requirement for a 'future fund' to address these issues</p>	<ul style="list-style-type: none"> • bauxite leases; effectiveness of restoration; loss of species and woodland; 2009 (Sue Gould PHD) • Tetratena woodlands study report

<ul style="list-style-type: none"> Economic value of water/hydro 	<ul style="list-style-type: none"> system services – economic value of water from Alps catchment Mackey Great Eastern ranges. 93% value of eastern strip connectivity report 	<ul style="list-style-type: none"> <i>Caring For Our Australian Alps Catchments</i> <i>Connectivity Conservation Management</i>
<p>Social Drivers</p> <ul style="list-style-type: none"> Disconnect to natural environment Community engagement Healthy societies 	<ul style="list-style-type: none"> an increasingly urbanised population has led to a disconnect to the natural environment and social devaluation of conservation, reserves and natural heritage despite this trend there is still a high level of interest in natural heritage and there is a need for broader engagement with the community including students, tourists, etc. More tourism of the right kind required in national parks there is also a need for engagement with recreational stakeholder groups that consider parks management regimes as restrictive eg. 4WD groups, fishers, etc. A healthy society has exposure to the natural environment 	<ul style="list-style-type: none"> Great Barrier Reef is a good example of greater social engagement data from WWF (via Taylor) example: aggregation of sharks suffering infections from recreational fishing; cessation of recreational fishing eased this pressure on shark community <i>Healthy Parks, Healthy People</i> report
<p>Environmental drivers and pressures</p> <ul style="list-style-type: none"> Carbon farming 	<ul style="list-style-type: none"> UNCCC can allow perverse outcomes. Need to avoid perverse incentives, eg. carbon farming initiative: <ul style="list-style-type: none"> encourages more sinks, not the reduction of emissions forest definition allows clear and regrow regimes uses deserts and savannahs systems should value resistance to disturbance management of carbon stocks forest vs mono culture 	<ul style="list-style-type: none"> see ANU green carbon report 2008

<ul style="list-style-type: none"> • Carbon emissions • Biome shifts • Farming/grazing • Invasive species • Species decline • Embodied energy 	<p>need to alert government to perverse pressures</p> <ul style="list-style-type: none"> • degrading processes that emit carbon dioxide - fire, weeds, ferals, forest management? • what processes can be avoided? • parks can take action to reduce emissions • 21st Century issues present the need for a different management paradigm, eg. are park managers prepared to manage the shifting of biomes resultant from climate change? • land use patterns are a main driver for condition of land <ul style="list-style-type: none"> - Land clearing for stock [84%] - livestock producers use 70% of land for grazing (leads to compaction and water health threats) • impact of top order predators such as dingos, foxes and cats on other species • NT parks successfully fought black mussels, but despite quarantine laws and processes, pest species still get in • the wickedness of invasive species issue; difficult issue to resolve with many invasives/pests out of control • Many banksia and myrtacea species in decline • focus directed toward recycling rather than reuse sustainability initiatives need to account for the embodied energy of heritage structures; currently no green points awarded for embodied energy in heritage structures 	<ul style="list-style-type: none"> • Report on ecosystems of national significance (via Cork) • see Dunlop & Brown 2008 – fundamental report (via Taylor) • QLD protected in parts (dingos?) (Chris Dickman) case study/ vignette: black mussels in NT harbour. • concept that natural landscape is cultural heritage, ICOMOS report of World Heritage Committee, integrates natural and cultural landscapes (John Mulvaney)
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<p>Initiatives/Responses</p> <ul style="list-style-type: none"> • Great Eastern Ranges • Carbon funding initiative • NRM activities 	<ul style="list-style-type: none"> • Great Eastern Ranges program elements include: <ul style="list-style-type: none"> - standard GIS - investment - identification of hotspots - seamless - monitoring of 8200 km of corridors - threat responses based on best science forecast - goals achievable by 20105 • Carbon funding initiative <ul style="list-style-type: none"> - possibility for protection of natural environment through natural systems - focus on sequestration, plantations, etc. • number of recovery actions • differential targeting of effort in NRM and other areas • biodiversity assessment findings? 	<ul style="list-style-type: none"> • see Kimberley report – has received good feedback • key threats, management, cost effective management • Mackie, Nicks, Woinarski, Trail
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Suggested Information Sources

- Worboys, G.L. and Good, R.B. (2011) *Caring For Our Australian Alps Catchments*: Summary Report For Policy Makers, Department of Climate Change and Energy Efficiency, <http://www.climatechange.gov.au/~media/publications/water/australian-alps-catchments/Caring-for-our-Australian-Alps-catchments-20110922-PDF.pdf>
- Worboys, G.L. Francis, W.L. and Lockwood, L.. (eds.)(2010) *Connectivity Conservation Management*, Earthscan.
- Mackey B, Watson J and Worboys GL of ANU Enterprises Pty Ltd 2010, *Connectivity conservation and the Great Eastern Ranges corridor*, an independent report to the Interstate Agency Working Group (Alps to Atherton Connectivity Conservation Working Group) convened under the Environment Heritage and Protection Council/Natural Resource Management Ministerial Council.

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