RESPONSE TO QUESTIONS TAKEN ON NOTICE AT PUBLIC HEARING 1 FEBRUARY 2019

CHAIR: We've got the option in the EPBC Act now of threat abatement plans that are rarely if ever used; there may be some instances where they have been used. Could you outline what you would like to see in those threat abatement plans.

Threat abatement plans (TAPs) establish a national framework to guide and coordinate Australia's response to key threatening processes registered under the EPBC Act. They identify research, management and other actions needed to address key threatening processes that contribute to the endangerment of native species and ecological communities. These basic elements are sound.

CHAIR: Other submitters have noted the lack of plans for processes such as land clearing, fire regimes and climate change. What would those threat abatement plans look like and what would be the institutional framework that would be needed to make sure that those threat abatement plans are, first of all, prepared in their full glory and then implemented?

TAPs can be a very effective mechanism to deal with threats to a broad range of species and ecological communities. However, the EPBC Act does not require the development of a TAP for all key threatening processes. Rather, it is a matter of ministerial discretion whether or not to accept the advice of the Threatened Species Scientific Committee to prepare a TAP.
The role of TAPs in preventing extinction could be strengthened if the EPBC Act were amended to require a TAP for all key threatening processes.

Under current arrangements, once a TAP is prepared there is a lack of funding to effectively implement it, and no clear institutional framework for ensuring its adoption across all relevant jurisdictions and land tenures. The EPBC Act only obliges implementation of a TAP on Commonwealth land, and where a TAP applies outside Commonwealth areas the Commonwealth 'must seek the cooperation of the State' with respect to the TAP's implementation.
The implementation of TAPs could be strengthened by:

- **Undertaking coordinated planning and management – led by the Commonwealth – that involves all relevant jurisdictions and non-Government parties including indigenous communities, with clearly defined roles and responsibilities for all parties in implementing a TAP**
- **A funding strategy to ensure adequate resources for TAPs**
- **Amendments to the Act that make it an offence to act in contradiction to a TAP**

CHAIR: We've had some criticism of the shift to the common assessment method for listing threatened species and the species expert assessment panel process. Do you have any thoughts on those two processes?

The ESA strongly recommends that the process of referral, assessment and listing under the EPBC Act *must* remain focused on rigorous scientific assessment, solely on the basis of threat to

the species or community. The current EPBC listing and delisting processes are established on rigorous and transparent scientific processes, with criteria based on those developed internationally by the International Union for the Conservation of Nature (IUCN). Processes prescribed by the EPBC Act are overseen by an independent scientific advisory council who review documents and advise the Department and the Minister for the Environment. Decisions about action, economic impact and resourcing need to be transparently segregated from the listing process.

The introduction of the Common Assessment Method (CAM) and Species Expert Assessment Panel (SEAP) processes are initiatives designed to improve regulatory efficiency of the listing process, and to provide a more consistent approach across jurisdictions. While seeking a more efficient and consistent system is worthwhile, as noted in the ESA's original submission to this Inquiry the overall process of listing is still constrained by resources, particularly at a Commonwealth level where the Department of Environment and Energy has experienced substantial funding and staff cuts in recent years.

Senator Watt: In terms of the changes that you've recommended to the act itself, particularly around the need for stronger recovery plans and threat abatement plans, can you tell us anything about how standard those sorts of requirements are in the environmental legislation of other countries? Are those sorts of things pretty standard, and are we lagging, or would that be putting Australia in front of other countries?

The ESA believes that our recommendations regarding recovery plans and threat abatement plans are approaches consistent with those of other countries, based on a high level survey of environmental legislation in other OECD nations.

Adopting the ESA's recommendation to make it an offence to contribute to or cause extinction may put Australia 'in front' of other countries, however we have found precedence for this recommendation within the German criminal code that defines offences arising from damage to nature conservation areas, and also makes it an offence to 'permanently damage an existing population of animals or plants of species under threat of extinction'[1].

The ESA's core remit is ecological science, and we recommend that the Committee approach the Australia Panel of Experts on Environmental Law for further investigation of this issue if desired.

CHAIR: Have you got any examples that you could share with us as to where traditional knowledge had been put to good use for protecting and conserving our animal species?

Some examples of the use of traditional knowledge in species conservation include:

- Application of Martu traditional approaches to assessing country and traditional knowledge of beneficial fire regimes is supporting conservation action for Bilbies. The

[1] Translation of the German Criminal Code, accessed via https://ec.europa.eu/anti-trafficking/sites/antitrafficking/files/criminal_code_germany_en_1.pdf

Martu determination is one of the largest indigenous determinations in Australia and is a Bilby stronghold, meaning the Martu have a vital role to play in designing and implementing conservation actions for this species.[2]

- Use of traditional knowledge shared by traditional owners of the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands to inform conservation strategies for the endangered Warru rock wallaby. Traditional owners are actively involved in onground monitoring and management actions in support of Warru conservation.[3]
- Incorporation of traditional knowledge and partnership with indigenous custodians to manage endangered clay heath habitat has led to Arakwal NP becoming the first protected area in the world to be IUCN Green Listed, enhancing protection of the endangered Byron Bay Orchid.[4]
- Reinstating Olkola traditional fire regimes and recording Olkola traditional knowledge has enhanced conservation actions for the Golden-shouldered parrot.[5]

About a third of Australia is currently regarded as Indigenous lands and a third of Australia's National Reserve System is managed by Indigenous land managers through the Indigenous Protected Area system. Recent research found that three-quarters of Australia's terrestrial or freshwater vertebrate species cited as threatened have ranges that overlap with Indigenous lands[6]. They also found that this overlap represents 45% of the range of each threatened species on average. Thus, the contribution of indigenous communities is critical to ensure success in conserving Australia's threatened species and ecosystems.

CHAIR: Does the Ecological Society have any views on the adequacy or the issues associated with regional forest agreements for forest animals?

Empirical data suggests that native species have declined in areas under regional forests agreements. A detailed discussion of this topic is outlined in the Society's 2017 Hot Topic "Regional Forest Agreements fail to meet their aims" attached below.

Prepared by ESA Policy WG and Vice-President (Public Policy and Outreach), 4 March 2019

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[2] http://www.nespthreatenedspecies.edu.au/_images/Projects/3.2.2.2%20Martu%20Factsheet_web.pdf
[3] https://www.indigenous.gov.au/news-and-media/stories/saving-warru-black-footed-rock-wallaby
[4] http://www.nespthreatenedspecies.edu.au/6.2.1%20Arakwal%20Ranger%20factsheet_v4.pdf
[5] https://www.bushheritage.org.au/places-we-protect/queensland/olkola
[6] Renwick, A. R., Robinson, C.J., Garnett, S.T., Leiper, I., Possingham, H.P. & Carwardine, J. (2017) Mapping Indigenous land management for threatened species conservation: An Australian case-study. *PloS one* 12:e0173876.

Regional Forest Agreements fail to meet their aims

Pr. David Lindenmayer, ANU; Ann Jelinek, Nature Focus Victoria; Oisin Sweeney, National Parks Association of NSW

- The 20-year Regional Forest Agreements between State and Commonwealth governments are due for renewal. They aim to allow native forest harvesting while providing for conservation and future industry.
- RFA legislative framing precludes important federal legislation, reducing protection for native species of conservation concern.
- RFAs have comprehensively failed to achieve their key aims. Instead, vertebrate species declines, timber overharvesting, and forest instability is evident. Industry future is uncertain.

Species declines and unsustainable forestry evident under RFAs

Flea Creek coupe, Rubicon State Forest, Central Highlands, Victoria, previous habitat of Leadbeater's Possum (photo by J. Poppins) Inset: Greater Glider whose populations have declined in the last 20 years, in part due to logging of old trees with nesting hollows (photo by Steven Kuiter).

The Federal-State Regional Forest Agreements (RFAs) were signed from 1997-2001 and are due for renewal. However, the environmental and economic aims of RFAs have not been met despite mandatory review of progress at 5 and 10 years into the 20-year terms.

Claims by Governments that RFAs are sustainable lack supporting evidence. The Victorian Government reports 'efforts' rather than tangible outcomes for species conservation. Empirical data suggest that native species have declined significantly under RFAs. In the Victorian Central Highlands, Leadbeater's Possum has been up-listed to Critically Endangered and populations of the Greater Glider have declined by two-thirds since the establishment of RFAs.

RFAs transfer environmental protections from the Commonwealth to the States, reducing protection for threatened species. Freedom of Information documents show that the Tasmanian Government ignored advice about the impact of proposed logging activity on critically endangered Swift Parrots.

New knowledge of logging impacts has emerged since 1997. In addition to impacts on forest-dependent species, logging contributes to (1) decreased carbon stocks and increased greenhouse gas emissions of logged forests compared with forests managed for conservation, (2) elevated risk of high severity, crown-scorching fire, and (3) increased risk of forest ecosystem collapse.

RFAs have enabled forestry operations that are uneconomic. The corporate and business plan for VicForests states that forestry operations in the East Gippsland RFA have operated at considerable financial loss for many years. Furthermore, the economic value of forests for resources like water production is more than 25 times that of native forest timber ($310 m vs $12 m).

Taken together, the evidence suggests that renewing existing RFAs will see continued biodiversity and financial losses.

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Supporting Evidence

Title	Aim	Key Results
Australian Government Department of Environment 2016. Conservation Advice Petauroides volans - Greater Glider	Conservation advice for threatened species listing	Habitat loss and fragmentation, driven by the clearing, clearfell logging and the loss of old trees, are the key threat to the species
Burns, E. L., D. B. Lindenmayer, J. Stein, W. Blanchard, L. McBurney, D. Blair, and S. C. Banks. 2015. Ecosystem assessment of mountain ash forest in the Central Highlands of Victoria, south-eastern Australia. Austral Ecology 40:386-399.	Complete ecosystem assessment	Mountain Ecosystem classified as Critically Endangered
Campbell, R. and R. McKeon. 2015. Money doesn't grow on trees: the financial and economic losses of native forestry in NSW. The Australia Institute.	To analyse the economic performance of NSW Forestry Corporation	Native forest logging is loss-making and heavily cross-subsidised by the plantation sector
Dargavel, J. 1998. Politics, Policy and Process in the Forests. Australian Journal of Environmental Management 5: 25-30	An overview of the Comprehensive Regional Assessments and the Regional Forest Agreements	RFAs transferred environmental protection from Commonwealth to States
Department of Environment and Conservation NSW. 2006. Recovery Plan for the Large Forest Owls: Powerful Owl (Ninox strenus), Sooty Owl (Tyto tenebricosa) and Masked Owl (Tyto novaehollandiae)	Identify threats and recovery actions for large forest owls in NSW	Intensive logging can remove nest and roost sites for owls and dens for prey species. Intensive logging particularly affects occupancy by Masked Owl
Feehely, J., N. Hammond-Deakin and F. Millner. 2013. One Stop Chop: How Regional Forest Agreements streamline environmental destruction	To determine whether the transfer of environmental responsibility from Commonwealth to States under RFAs has delivered equivalent environmental protection	The transfer of responsibility has resulted in reduced environmental protection, including for species of National Environmental Significance
Keith, H., M. Vardon, J. Stein, J. Stein, and D. B. Lindenmayer. 2016. Experimental Ecosystem Accounts for the Central Highlands of Victoria. The Australian National Univesrity, Canberra.	Develop set of ecosystem accounts	Valuation of natural assets in terms of the value-added value contribution from Central Highlands region to State GDP
Keith, H.M., D. Lindenmayer, A. Macintosh and B. Mackey. 2015. Under what circumstances do wood products from native forests benefit climate change mitigation? PLoS ONE: 10	To analyse the circumstances under which wood products derived from native forests can help metigate climate change.	There are no circumstances under which the carbon stock in products can be sufficiently increased to exceed carbon stocks as a result of managing for conservation. International forest policies do not recognise the mitigation value of conserving forests
Kirkpatrick, J.B.1998. Nature Conservation and the Regional Forest Agreement Process. Australian Journal of Environmental Management 5: 31-37	To analyse the drivers and outcomes of the RFA process	RFAs were driven by conflict over forests. Although underpinned by a scientific process (the Comprehansive Regional Assesssments), the RFAs were a political compromise. There are thus many gaps between the aims and outcomes of the RFAs, particularly in security of the reserve system, protection of key elements of biological diversity and failure to assure that public native forests will not be converted to other land-uses
Lindenmayer, D. 2017. Halting Natural Resource Depletion: Engaging with Economic and Political Power. The Economic and Labour Relations Review http://journals.sagepub.com/doi/full/10.1177/1035304616685265.	Overview analysis of economic collapse	
Lindenmayer, D. B., and H. P. Possingham. 2013. No excuse for habitat destruction. Science 340:680.	Short overview of logging codes	Codes of practice are being watered down for the protection of biodiversity
Lindenmayer, D. B., D. Blair, L. McBurney, and S. C. Banks. 2015. The need for a comprehensive reassessment of the Regional Forest Agreements in Australia. Pacific Conservation Biology 24: 266-270.	Appraisal of RFAs	Critical need for re-appraisal of RFA process
Macintosh, A., H. Keith and D. Lindenmayer. 2015. Rethinking forest carbon assessments to account for policy institutions. Nature Climate Change 5: 946-949.	To determine which policy institutions can affect the outcomes of different types of forest management strategies	Several domestic and international policy institutions are relevant to forest management. Conservation of forests can result in negative carbon emissions when compared to harvest.

Title	Aim	Key Results
Pullinger, P. 2015. Pulling a swiftie: systemic Tasmanian Govenrment approval of logging known to damage Swift Parrot habitat. Environment Tasmania	To highlight regulatory failings in the protection of Swift Parrot	Decisions are being made to log Swift Parrot breeding habitat against recommendations of experts
Swann, T and B. Brown. 2016. Barking up the wrong trees: WA's Forest Products Commission (FPC) and the performance of its native forestry. The Australia Institute.	To analyse the financial performance of the Western Australia Forest Products Commission	FPC has received more in government support than it has generated profits, and the native forest sector is declining in output and value. Jobs in logging, forestry and support are few and declining.
Taylor, C., M. A. McCarthy, and D. B. Lindenmayer. 2014. Nonlinear effects of stand age on fire severity. Conservation Letters 7:355-370.	Assessment of relationships between forest age and fire severity	Young logged and regenerated forests are significantly more likely to be subject to high-severity crown-scorching fire
Taylor, C., N. Cadenhead, D. B. Lindenmayer, and B. A. Wintle. 2017. Improving the design of a conservation reserve for a critically endangered species. PLOS One 12:e0169629.	Assessment of the viability of reserve system based on PVA and GIS integration	
Todd, C. R., D. B. Lindenmayer, K. Stamation, S. Acevedo-Catteneo, S. Smith, and L. F. Lumsden. 2016. Assessing reserve effectiveness: Application to a threatened species in a dynamic fire prone forest landscape. Ecological Modelling 338:90-100.	Population viability analysis of Leadbeater's Possum	The entire Mountain Ash forest estate needs to be conserved to effectively protect Leadbeater's possum
VicForests. 2013. Corporate and business plans, 2013-2014 to 2015-2016. VicForests, Melbourne.	Economic assessment of industry	Future of industry uncertain in places e.g., East Gippsland.
Victoria's State of the Forests Report 2013	To report on the state of Victoria's forests in 2013.	The Victorian Government for example reports 'efforts' rather than species outcomes.
Woinarsky, J.C.Z., A.A. Burbidge, and P.L. Harrison. 2014. The action plan for Australian Mammals 2012	A snapshot of the conservation status and trends of Australia's mammals	Logging, in particular the impact on hollow-bearing trees is identified as a treat to a large number of forest mammals.