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19th February 2019

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Australia's Faunal Extinction Crisis

Firstly, I would like to thank the Senate Committee for accepting this late submission. I very much appreciate the opportunity to make comment on this most important but often overlooked subject, which is of crucial public interest importance especially to the species concerned, and to us all here now, as well as future generations, both human and animal.

Although I have sought to address the terms of reference (set out below) I have nonetheless as a priority sought to address what I see as the spirit of the inquiry.

> *"Terms of Reference*
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> *Australia's faunal extinction crisis, including:*
>
> *a) the ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species;*
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> *b) the wider ecological impact of faunal extinction;*
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> *c) the international and domestic obligations of the Commonwealth Government in conserving threatened fauna;*
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> *d) the adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes;*
>
> *e) the adequacy and effectiveness of protections for critical habitat for threatened fauna under the Environment Protection and Biodiversity Conservation Act 1999;*
>
> *f) the adequacy of the management and extent of the National Reserve System, stewardship arrangements, covenants and connectivity through wildlife corridors in conserving threatened fauna;*
>
> *g) the use of traditional knowledge and management for threatened species recovery and other outcomes as well as opportunities to expand the use of traditional knowledge and management for conservation;*

h) the adequacy of existing funding streams for implementing threatened species recovery plans and preventing threatened fauna loss in general;

i) the adequacy of existing monitoring practices in relation to the threatened fauna assessment and adaptive management responses;

j) the adequacy of existing assessment processes for identifying threatened fauna conservation status;

k) the adequacy of existing compliance mechanisms for enforcing Commonwealth environment law; and

l) any related matters."

Personal Information

I am an Australia citizen, having been born in Lindfield, Sydney in 1953. Today I live in rural northern Tasmania. It was not until I moved to Tasmania in 1988 that I became aware of the plethora of problems, confronting Tasmania's forest dependant fauna.

In 1991, I moved from the small city of Launceston to Reedy Marsh, a rural locality north of Deloraine, purchasing a mostly forested block of land of some 55 ha, adjoining what was then the Bradys Creek Recommended Area for Protection (RAP).

In about 1990, the Tasmanian Government, in seeking to honour its commitments within the 1988 Memorandum of Understanding into Export Woodchips, had done a scientific evaluation of areas considered by science to have representative values for conservation.

From about 1990, I became involved in advocating for the conservation of nature and in particular of biodiversity, on a volunteer basis. Over time I would become intensely aware of the deleterious impacts which some developments, especially forestry were having on species in Tasmania.

In the early 1990s, there was ongoing conflict over a raft of forestry matters, primarily on public land. This was the time of the Forest and Forest Industry Strategy (FFIS) in Tasmania. The problems surrounding that strategy caused the demise of the Field Labor Tasmanian Government. The significance of the FFIS is that its principals and the amended legislated Category One Sawlog Quota continued and were later simply embalmed in the Tasmanian Regional Forest Agreement (RFA). This skewed the RFA away from some of the National Forest Policy Statement (NFPS) conservation goals.

From 1995, I have worked voluntarily on a range of land use planning matters. I also became involved in the development of the Tasmanian Regional Forest Agreement (RFA) and its associated Comprehensive Regional Assessment (CRA). Local residents formed the Reedy Marsh Forest Conservation Group, which became a stakeholder of the Tasmanian RFA process.

The RFA itself effectively deregulated the Commonwealth's role, nullified the Commonwealth Export Control Act and therefore quashed the Commonwealth involvement in woodchip export license renewals, which had been a thorn, especially over National Estate listed forests.

Indeed the RFA effectively abolished the need for license renewals all together. It did this on the pretext that the Comprehensive Regional Assessment would provide for Ecologically Sustainable Forest Management (ESFM) and that the RFA would create an enlarged reserve system across Tasmania. I discuss the RFA and the adequacy thereof in some detail later as

its inadequacies have had significant consequences for fauna conservation in Tasmania, where a significant amount of EPBC Listed fauna is forest dependant.

During the first 20 years of the original RFA, I participated in both of its private land conservation programs, the first under the Private Forest Reserve Program for my original land in Reedy Marsh and the second, under the Forest Conservation Fund, when I purchased my neighbours land, which was being sold unwittingly for woodchips. The only way to reliably save nature on private land in Tasmania is to purchase it. As a consequence of the RFA conservation programs, about 90% of the 330 acres I own now is reserved via in-perpetuity conservation covenants, which both have management plans.

I mention such matters because, although I consider at a personal level I have sacrificed growth and development opportunity, and thus am significantly poorer, notwithstanding the Governments financial consideration payment, I observe and can document that Tasmania continues down a path of liquidating and degrading threatened habitats which are also of critical importance to threatened EPBC Listed fauna and our common future. These are matters of National Environmental Significance.

I make no apologies for my focus on Tasmanian forest based biological diversity and its threats in this submission.

I am especially aggrieved over the Tasmanian Regional Forest Agreement, which does not meet the National Forest Policy Statement of 1992. The Tasmanian RFA, which was renewed and extended late in 2017, occurred without any responsible updated assessment of the numerous conservation and ESFM issues, despite poor regulatory performance by Tasmania and by the forestry industry, remains deeply unsatisfactory. The renewal of the Tasmanian RFA, when EPBC Listed fauna species decline continues and where Tasmania is obviously failing Australia's international obligations, is hard to understand or accept. Indeed, it is not accepted. There is no social license for the liquidation of nature that is obviously occurring.

Introduction to Australia's faunal extinction crisis.

In regards to Australia's fauna, it would seem to me that there is a calamity, not a crisis. In this submission I argue that there is indeed an ongoing decline in the population and conservation status of Australia's native fauna. I discuss some of the reasons and obstacles as well as provide some recommendations.

Australia's faunal extinction crisis can simply be evidenced by the growing list of species listed under the EPBC Act and the rate and frequency of threatened species which are re-listed into categories of higher threat and endangerment, indicating that the threatening processes have not been abated, the developments and causal factors have not been mitigated or proceeded in a sustainable way and that the various species concerned have not been recovered or that recovery plans has not been adequately implemented or even prepared.

Minister Hunt stated in Australia's Threatened Species Strategy (July 2015):

> *"More than 80 per cent of our mammals and 90 per cent of our trees, ferns and shrubs occur nowhere else on earth. But since European settlement, in just over 200*

> *years, over 130 of Australia's known species have become extinct, lost to us and to the world forever. The list of those threatened with extinction continues to grow.*
>
> *Australia's threatened species are ours to protect and we all have a role to play. Clearly 'business as usual' for threatened plants and animals in Australia would mean more extinctions. …"*

The above statement is correct. Governments know! However this Threatened Species Strategy document focuses on improving a very limited number of EPBC listed species, yet it is fairly clear in 2019 with that limited focus of Australia's Threatened Species Strategy is simply not going to meet even its own targets. In the meantime, the replacement Minister for Mr Hunt, Mr Frydenberg, abrogated his responsibilities to implement the recommendations of the Threatened Species Scientific Committee in its professional independent operation of their part of the EPBC Act.

When governments and Ministers abrogate their responsibilities and perhaps more importantly, when the land use development system so completely favours development interests over the natural environment, in all States of Australia, it is hard to be at all positive about the survival of Threatened fauna and indeed the environments which are their habitat. Yet, we have moral, philosophical and international obligations to do so. It is a public interest matter.

So Mr Hunt, who may well have been well intentioned, in any case was right: "*Clearly 'business as usual' for threatened plants and animals in Australia would mean more extinctions. …"*

This (business as usual) approach is what is actually happening currently and it has been happening under the extended RFA in Tasmania. That is how the land use development system is designed in Australia. The inertia, which promotes *"business as usual"* happens at the local government level, at the State Government level, and at the Commonwealth Government level. At least a Commonwealth Minister identified a core part of the problem - *"business as usual"!* No matter what the Commonwealth knows, it has to change *"business as usual*" if it wants to prevent extinctions and honour our international obligations.

The ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species.

I would like to start discussing the ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species by providing some broad reasons and causes which may be summarised as *"business as usual*". Five hundred threatened fauna species is a shameful, appalling situation. The broad reasons for the ongoing decline are:

1. The destruction of natural habitat. Such destruction may be undertaken for a range of uses and purposes. The destruction of natural habitat for land clearance purposes will almost always be achieved in Tasmania by way of native forest logging and is more or less permanent. In Tasmania, land clearance almost always occurs as part of any dam development proposal and inundation is permanent. Land clearance leading to an alternate and exotic vegetation and use. Such land clearance may be undertaken for a range of uses and purposes including agriculture. Land clearance can occur for residential subdivisions at a range of densities and intensity and such development is considered a complete alienation. Land clearance is widespread is a Listed EPBC Threatening Process but it continues with disastrous effects.

2. The diminution and degradation of natural habitat. Such diminution and degradation may be undertaken again for a range of uses and purposes. In EPBC Listed fauna terms, a modified form of land clearance under forestry occurs where permanent clearance is not the goal but where logging still results in a substantial diminution of nature by way of a process broadly known as clearfell. Clear-felling, is actually a group of silvicultural standards where either none, or only a small proportion, of the original native forest is retained.

3. Financial reward: In all cases it is hard to conceive of any motivation for land clearance, forestry, subdivision or dam construction other than financial reward and/or greed, especially when it involves private land.

4. Regional jobs: In Tasmania on public land, jobs in rural areas may be a consideration and motivation. It has been strongly shown that the Tasmanian public forestry GBE has failed to be financially viable however and so this loss making approach to job creation is not sustainable.

Forestry in Tasmania

Certainly, on private land in Tasmania the primary intent of forestry in relation to the liquidation of nature is obviously the aim of financial gain from the sale of the timber arising from the logging operation.

The consequences for nature and its attendant decline under either a logging operation, is usually conducted with a Forest Practices Plan, a device created under state legislation, the Forest Practices Act 1985, including under a land clearance purpose, which would also involve a Planning Permit, under one of the 28 local government Interim Planning Schemes, which are currently in operation around Tasmania.

These local government Interim Planning Schemes are set to be replaced by the Tasmanian Planning Scheme, which will have a section of Local Provisions for all 29 Council areas and will be built on a similar template to the current schemes, albeit it would have the effect of further reducing the involvement and appeal rights of the Tasmanian public in land use development matters. This ongoing decline of appeal rights and hence participation brought about by way of State and local government regulation changes has been steadily going on since the start of the Regional Forest Agreement. It may not be connected to the RFA but in any case, the ongoing removal of rights of appeal for the public is in essence completely against the National Forest Policy Statement, which in its Vision states:

> *"and will participate in decision-making processes relating to forest use and management."*

The Forest Practices Act 1985 was never amended post the Tasmanian signing in 1995 of the 1992 National Forest Policy Statement, to allow appeal rights, nor was it ever amended to allow for ESFM even though ESFM was an RFA commitment. This Tasmanian Act has a raft of problems which impact on matters of National Environmental Significance.

The Tasmanian Planning Scheme process has also seen in 2018, the illegal rewriting of Regional Strategies by local governments, where they have avoided public consultation and even Council decisions, which I allege, appears to be the express goal of reducing protections and strategies, which if adhered to would have given rise to a more sustainable planning scheme and thus more sustainable development approvals.

Forestry in Tasmania has been gradually removed from the RMPS based Land Use planning approvals system in fact. Because of the considerable range of exemptions accorded to

forestry, any land use planning instrument, such as a Natural Assets Code does not apply and the illogical antiquated self-regulation of forestry which continues in breach of the National Forest Policy Statement, drawing down on matters of National Environmental Significance.

Other causes besides clearance and destruction of native vegetation and habitat, which are causing the decline of fauna species in Tasmania are (in no set order):

Biosecurity Matters: Tasmania's DPIPWE and PWS both ship and encourage the translocation of wildlife around the state. Especially this is done for injured and orphaned wildlife, which is relocated conveniently to a natural area. This is also done whenever a landowner requests the removal of a nuisance animal including fauna species listed under EPBC Act.

In the December 2018, the DPIPWE Newsletter 'Running Postman' (ISSN 2204-390X) had an article where Private Reserve owners have been encouraged to accept injured wildlife onto their reserves, which obviously and almost invariably are being translocated from another location. I claim this initiative needs to be rethought and indeed cancelled because it breaches the conditions of all private covenants, which deals with introduced plants and fauna as "Exotic" because they are introduced to the (covenanted) place. This is an issue for the Commonwealth as often it is a party to the conservation covenant. Personally, I think such relocations are an easy way for diseases and germplasm to be spread around Tasmania without an adequate understanding of the consequences. Were Tasmanian Devils moved around the State in an absence of biosecurity, thus spreading the disease? There is anecdotal information to suggest so.

Disease: Tasmanian examples, which come to mind would be the Orange-bellied Parrot Neophema chrysogaster (beak and feather virus disease) and the Tasmanian Devil with its Devil Facial Tumour Disease. One Government researcher admitted to me when discussing her research over Devil Facial Tumour Disease that, biosecurity precautions has not been sufficient early in her work. Tasmanian Devils are not adequately considered in logging operations.

Competition and predation from Exotic species: Examples such as cats, and on the mainland, foxes and cane toads are now famous but eradication is highly complex and expensive. I wish to add an unusual Tasmanian example: Genetic pollution of Eucalyptus ovata trees occurs by way of the introduction of the exotic Victorian tree species E. nitens in the establishment of artificial forestry plantations, which are sometimes in proximity to the naturally occurring, stands of E. ovata forest and woodland.

Contrary to advice the Commonwealth had prior to the RFA (from a group of Emeritus Professors, who were engaged by the Commonwealth), which was to not put intensive farmed tree plantations up against the secure reserve system, that is exactly what happened after the Commonwealth's JANIS criteria watered down their wise recommendations. I have seen nothing in Codes etc. that prevents this problem being expanded and replicated.

Now we have E. nitens planted in proximity to supposedly securely reserved E. ovata forest as well as next to unreserved E. ovata forest in Tasmania. Those plantations were inevitably established using land clearance and the reliance on 1080 poison. It was a simple unsustainable forestry recipe, which disadvantaged nature. These sorts of problems should have taken Governments to a more strategic design of the forest estate, not just the reserves but also the whole estate. Why does it impact on fauna? Well the Swift Parrot uses and relies on the E. ovata as a food source, especially in years when E. globulus doesn't flower. The conservation aspects of the Tasmanian forest estate are at risk because an overall design and plan has not been sufficiently attempted. The RFA was simply a wood supply

dominated artifice, which has failed to deliver sufficient outcomes for the flourishing of nature including EPBC Listed species.

Climate change and warming of the climate: This appears to be characterised by both an increasingly erratic climate and one where catastrophic events, such as droughts and floods and bushfires are becoming increasingly frequent. We fail to act now at our peril and certainly native species are at an increased risk and under increased pressure.

The design of the economy: This is an artificial social construct, currently predicated on achieving an almost endless cycle of growth and consumption and is obviously a strong contributing factor in an increasingly globalised world of market forces. That increased pressure demands a revised EPBC, which can better cope with unregulated market forces.

The ongoing increase in Australia's human population: Is a key part of the pressure, which exacerbates and causes an almost perpetual growth cycle and the expansion of development into natural areas.

The growth of the economy and consumption by more people: This is driving the economy and obviously occurring at the expense of nature, including areas of natural habitat, which support native fauna including but not limited to those fauna species which are listed under the EPBC Act. Perhaps this most closely equates with former Minister Mr Hunt's *"business as usual"* model.

Across Australia the growth and greed-based development pressures: Such aspirations are ostensibly controlled, mainly through various state and local government elements of the land use planning system. Although such development pressure is ostensibly controlled, it is clearly the case that developments, which are almost always for human purposes and financial gain, continue to cause a reduction in native fauna species habitat and almost always go ahead. They may be conditioned but they mostly proceed. One can see this from the Productivity Commission report titled: Performance Benchmarking of Australian Business Regulation: Planning, Zoning and Development Assessments (Two volumes) of April 2011, Commonwealth of Australia 2011, ISBN 978-1-74037-349-4 (Volume 1), ISBN 978-1-74037-350-0 (Volume 2), ISBN 978-1-74037-351-7 (Set).

The Tasmanian Land Use Planning System

In Tasmania, the land use planning system has been manipulated and redesigned to reduce the rights and ability of people to know about, to question and to appeal developments. This is especially the case regarding developments in the rural parts of the State where greater areas of nature liquidation are occurring and are evident on a daily basis. Rural lands currently in the Rural Resource Zone but under the Tasmanian Planning Scheme (TPS) would be either Agricultural Zone or Rural Zone where rural activities including forestry are grouped together as Rural Resource Development and are Permitted. This Permitted status means the development cannot be refused and it may not even need a Permit. Under the TPS, it may be able to be conditioned but that is all and forestry is exempted and thus unappealable. This sort of planning regime will not gain support in the community.

Whilst the legislation in Tasmania controlling land use planning, LUPAA, and its overarching system the RMPS, has laudable objectives around sustainable development, there is almost no connection between the day to day reality of land use planning including development approval by local governments and the Objectives of the Act. Thus although the land use planning system under the latest Tasmanian Planning Scheme has identified Natural Assets and has placed them in a Code in the scheme, it has also provided Permitted without Permit developments and also developed exemptions for some of the most damaging and degrading land use activities, which obviously should be constrained by the

Natural Assets Code. This of course meets no standards of a civilised society and the range of avoidances would potentially allow matters of National Environmental Significance to escape scrutiny at the Commonwealth level.

The only solution that I can think of is to list 'land use planning including forestry in Tasmania' as an EPBC Threatening Process. It may be that State planning law in all jurisdictions across Australia is deficient but I do not have the knowledge and experience to make such a pronouncement. Nonetheless, the inadequacy of State law of Tasmania that ostensibly controls and ensures ecologically sustainable development, is a relevant matter when it comes to a review of the decline towards extinction of Australia's fauna.

The lack of and reduction in appeal rights: Over time this has made it much harder to successfully advocate for the rights of nature to exist. This meets no social standards.

All these trends and problems are occurring in the one direction that benefits the developer at the expense of nature. Nature of course includes the listed EPBC Listed fauna species. All of these trends at present are against the Aichi goals and targets under the Convention on Biological Diversity.

Australia's EPBC Act is meant to be the federal law which protects the natural world, including the listed EPBC species, yet it exists in an environment of bilateral agreements which always lessen Commonwealth roles and rights, contains so many exemptions, weasel words, offsets and so forth all of which have the obvious consequence of reducing the federal power so that all that remains is a scant, thin veneer that props up an illusion that Australia is seeking to conserve and protect nature.

I noted in the third OECD review of Australia's environment that the OECD has assessed Australia's scant veneer over environmental responsibility and has thankfully not been fooled. Australia's environmental irresponsibility and its poor and worsening performance, over sustainable development, is deeply shameful and embarrassing.

The EPBC Act is administered by the Department of Environment, headed by the Minister for Environment, who has very substantial discretion to approve, reject or condition a development proposal where matters of National Environmental Significance are at stake and where one of the many weasel apologies or bi-lateral agreements do not apply. The fact is developments, which come before EPBC are rarely rejected. It would be more appropriate to consider EPBC as just a means for conditioning development. That is obviously not working to achieve the objectives of the Act and our international obligations...

I think it is reasonable to assert that all levels of Government across Australia basically consider that virtually all developments should proceed in some form. There are sometimes conditions and sometimes minor reservation imposts but generally developments are almost always approved including under the EPBC. This can be seen in departmental statistics and from the 2011 Productivity Commission report.

So, what we have in Australia in regards to development is an open slather system where the EPBC is only triggered when there is an issue of National Environmental Significance. It must not be forgotten that forestry under an RFA is exempt is always exempt.

It is the development proposal, which is referred to the department under the EPBC Act. Developments which cause the removal of habitat for listed EPBC species are obviously not ecologically sustainable developments. It could thus be considered that the ecological

sustainability aspect is not informing the notion of development sustainability in regards to Australia's developments.

One can reasonably claim that the Australian society in 2019, one year out from the Aichi deadline, remains obviously predicated on unrelenting growth and consumption and the liquidation of the natural world, which is currently present in Australia, including matters of National Environmental Significance. There is inadequate recognition by Governments and by society generally regarding this shameful fact.

Regarding the term of reference *"the ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species.",* referring I presume, to the species listed under the EPBC Act, it is my opinion that not all the species which are actually threatened with declining populations and distribution and thus which are headed on a trajectory towards extinction, are even Listed under the EPBC Act. The Committee should deliberate carefully on the reasons for this deficiency and attempt to consider the extent of the problem, as well as finding strategic and legislative solutions.

For example, are all the corals in that section of the Great Barrier Reef, north of Port Douglas, in Queensland, where it is reported that two thirds of all coral has now died, Listed under the EPBC as threatened fauna, perhaps at the Critically Endangered level?

Australia's Biodiversity Conservation Strategy 2010–2030

It is unclear whether Australia's Biodiversity Conservation Strategy 2010–2030 remains the current strategy. It states:

> *"The Strategy contains 10 interim national targets for the first five years. All governments will continue to work in the early years of the Strategy to evaluate the suitability of these targets for progressing implementation to meet the three priorities for action.*
>
> *The 10 national targets are as follows:*
>
> *By 2015, achieve a 25% increase in the number of Australians and public and private organisations who participate in biodiversity conservation activities.*
>
> *By 2015, achieve a 25% increase in employment and participation of Indigenous peoples in biodiversity conservation.*
>
> *By 2015, achieve a doubling of the value of complementary markets for ecosystem services.*
>
> *By 2015, achieve a national increase of 600,000 km2 of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments.*
>
> *By 2015, 1,000 km2 of fragmented landscapes and aquatic systems are being restored to improve ecological connectivity.*
>
> *By 2015, four collaborative continental-scale linkages are established and managed to improve ecological connectivity.*

By 2015, reduce by at least 10% the impacts of invasive species on threatened species and ecological communities in terrestrial, aquatic and marine environments.

By 2015, nationally agreed science and knowledge priorities for biodiversity conservation are guiding research activities.

By 2015, all jurisdictions will review relevant legislation, policies and programs to maximise alignment with Australia's Biodiversity Conservation Strategy.

By 2015, establish a national long-term biodiversity monitoring and reporting system."

Where are the current targets? What happed to the ones above?

The Comprehensive Regional Assessments (CRA) of the Regional Forest Agreements

The Comprehensive Regional Assessments (CRA) of the Regional Forest Agreements across Australia are intended to be an assessment which satisfied Federal Commonwealth obligations including under the convention of biological diversity.

Those CRA's, certainly in Tasmania's case, did not achieve an adequate competent or accurate assessment of the natural values, and including EPBC listed species, as well as ecological communities, at the time they were done. In Tasmania, this assessment was performed in the years 1996 and 1997.

The CRA, at least in Tasmania anyway, did not establish or achieve baseline data on most of the known forest dwelling fauna species including most of the EPBC listed fauna species. Sometimes an opinion was ventured.

The CRA's across Australia did not adopt an adequately diligent approach in assessing impacts of forestry and land clearance activities including landscape fragmentation, on fauna including EPBC listed species.

Indeed, in Tasmania CRA fauna assessment was obviously and manifestly inadequate for many species, as can be seen by the reports which comprise the RFA's CRA.

I would agree that this job is a challenging one and I would also agree that the work which was done has led to other targeted research, as it should. But there were glaring faults, certainly in the Tasmanian RFA and its CRA, which have had a profound impact on the adequacy of fauna conservation in Tasmania since that time.

Tasmania's Comprehensive Regional Assessment and Impacts on EPBC Listed Fauna species.

Tasmania's Comprehensive Regional Assessment (CRA) and of course the RFA, assumed that by reserving a representative amount of each forest vegetation community, which in themselves were aggregations (a dumbing down) of floristic communities already established by forestry in its Nature Conservation Area Plans, that the fauna, that is the priority fauna, (which includes state listed and EPBC listed fauna), would be adequately protected. This assumption was always faulty.

In doing this CRA work, the Interim Biogeographical Regional Area (IBRA) Version 4, bio-regional targets were not used in Tasmania. Instead, a surrogate state-wide system of targets was adopted. This had a number of consequences, including for the EPBC Listed fauna.

The result was an uneven distribution of secure reservation across the bio-regions of Tasmania. That is, an adequate secure reservation of types of vegetation communities in each region was not achieved.

To make matters worse, no sufficient consideration of the bio-regional distribution of EPBC Listed fauna occurred in the Tasmanian CRA. Indeed, it can be claimed that there was limited or no effort or scientific rigour applied to considering whether RFA Priority fauna, including EPBC Listed fauna, was adequately and securely reserved. It is indeed obvious that the RFA reservation was not adequate.

The Tasmanian CRA of 1996 had a number of other fundamental and crucial flaws, which continue to impact on the adequacy of the forest reservation in Tasmania and hence protection of EPBC Listed fauna here. Those fundamental and crucial flaws continue to not be rectified by the Commonwealth in the main.

The avoidance of a rectification type CRA at the time of the 2017 RFA renewal process and extension of the Tasmanian RFA, was obviously a strategy designed to allow the ongoing liquidation of native forest habitat, including that of EPBC Listed fauna species.

The most egregious Tasmanian CRA flaw, from the 1996 period remains the highly deficient Old Growth Forest mapping and hence the inadequate old growth mapped forest extent and therefore the amount of old growth forest which was reserved under the RFA.

It is widely and commonly accepted that old growth forest has a higher life supporting capacity and hence higher value for conservation of fauna, including EPBC Listed fauna. Because there was a Percentage reservation target for Old Growth based on current extent by conveniently not identifying all the old growth forest Governments simply reduced the amount reserved. It (the CRA) was simply a lie.

The methodology which was applied during the Tasmanian CRA prior to the 1997 RFA, did not adequately identify old growth forest obviously present across a range of forest vegetation and communities and thus a dishonest misdirection and underrepresentation occurred. This CRA process was in the main a desktop analysis from aerial photography and Forestry Tasmania's Photogrammetric Imaging (PI) maps. Forestry Tasmania was a Tasmanian GBE at the time and which under the RFA was often unviable and in any case has now been wound up.

In regards to the old growth reservation part of the Tas. CRA, it is highly likely that the deficient identification of old growth forest was a covertly pre-arranged strategy between Tasmania and the Commonwealth.

The 1996 Tas. CRA's inadequacy of the mapped extent of the old growth forest habitat reality was a massive and very deliberate blunder committed by both the state forest agency, Forestry Tasmania and the Commonwealth Department of the Environment.

A key issue for Forestry Tasmania in avoiding the identification of old growth forest at the time of the RFA in 1997 was its then current legislated obligation to supply category one sawlogs to Crown sawmillers reviewed in 1991. In 1997 that legislated category one Crown sawlog quota was set at 300,000 cubic metres. By 2010 it was abundantly clear that state forests were being over cut and the Managed Investment Schemes were all going bust, leaving thousands to lose their life's savings. In 2012, a new legislated category one Crown sawlog quota was agreed between the parties to the Tasmanian Forest Agreement and set at 137,000 m^3. The reduction in Tasmania Crown sawlog quota during the period of the RFA is surely an indicator of past unsustainable forestry under a Regional Forest Agreement. It was not sustainable economically or socially and certainly not environmentally.

During the first 20 years of the RFA in Tasmania, a scientist working for the Forest Practices Authority, Amelia Koch, did some scientific evaluation, mapping assemblages of hollow bearing trees across Tasmanian forests. One version: Recent Research Findings and Management Recommendations to Meet Objectives and Requirements of the Hollow Provisions of Tasmania's Forest Practices System. Prepared by Amelia Koch (on behalf of the Hollows Working Group) for the Biodiversity Expert Review Panel, 24 August 2007. Koch states:

> *"Hollow-bearing trees provide important habitat for 42 vertebrate species in Tasmania and an unknown number of invertebrate and fungal species. There is concern that the hollow resource is declining across the Tasmanian landscape. Off-reserve management is required to ensure a continual supply of this resource is available for native fauna."*

Koch, an officer of the FPA, clearly was not in a position to consider high level policy change. She made a number of recommendations around hollow bearing trees.

> *Key management recommendations*
>
> *Planning*
>
> *• The objective of the hollow provisions at the different management levels should be clearly stated in the Code.*
>
> *• The issues and tools related to hollow management should be provided in the Code.*
>
> *• Minimal specific prescriptions should be provided in the Code.*
>
> *• A detailed Hollow Management Technical Note should be developed which guides readers into how to select the best trees for retention while making it clear that there is flexibility in terms of how many retained clumps should be retained and where they should be placed.*
>
> *• Further work is required before prescriptions for hollow management at the landscape level can be delivered.*
>
> *• Wildlife Habitat Clump selection should occur in the planning stage and a decision process should be incorporated into the Fauna Special Values Evaluation sheet.*
>
> *• Pictures of suitable Habitat and Recruitment Habitat Trees should be incorporated into the Hollow Management Technical Note.*
>
> *• The hollow management of coupes larger than 100 ha should be referred to the Forest Practice Authority.*
>
> *• More biodiversity training should be provided within the industry.*
>
> *Implementation*
>
> *• Eight Habitat Trees and 16 Recruitment Habitat Trees should be retained per hectare in all logging operations.*
>
> *• Habitat Trees should be selected on the basis of hollow availability, tree size, tree age, fire scarring, amount of dead wood in the tree, and tree species.*

• All trees over 100 cm in diameter should be retained as Habitat Trees whenever practicable.

• All stags should be retained as Habitat Trees whenever practicable.

• Retained trees should capture the range of habitats found in the coupe.

• Details should be provided in the Hollow Management Technical Note on what to do when no suitable Habitat Trees are available.

• Wildlife Habitat Clumps should be at least 0.2 ha in size.

• All Wildlife Habitat Clumps should be marked around the outside with light blue flagging tape.

• All Habitat Trees should be marked in spray-paint with an 'H'.

• The recommendations for clump protection should be retained.

And these are only the key recommendations.

On the log trucks going to the woodchip mill in northern Tasmania, one can see clear evidence of the ongoing liquidation of massive old trees, split up into several segments so it meets the standards to go through the chipper.

This work by Koch, done under the auspices of the Forest Practices Authority, many years after the destruction of many old growth forests across State Forest in Tasmania, perhaps at the time of the FPA's biodiversity review which never completed, and thus has never informed an adequate forest reservation system for Tasmania and as far as I am aware has not informed the Forest Practices Code either, despite it being done in 2007. Not only is this a concerning biodiversity issue, it especially relates to hollow dependent EPBC Listed fauna species. Off-reserve management in the current Tasmanian RFA would not be sufficient in my view unless additional public reserves were incorporated.

The massive RFA deficiency around old growth forest identification and its original highly restrictive standard, which during the first 20 years of the RFA in Tasmania led to the liquidation of significant amounts of functional old growth forest, which had a higher life support capacity in habitat terms for EPBC Listed fauna species. These sorts of forests would, in any civilised place, be identified and known as Primary Forests and respected but here in Australia they were and are being liquidated to this day.

During the early years of the RFA, there was a systematic logging of areas, which had old growth values and which also had high biophysical naturalness. The CRA maps showing biophysical naturalness where again generated off baseline Forestry Tasmania PI mapping and the public GBE, Forestry Tasmania, knew exactly what to knock down.

There were some forested vegetation communities where the CRA mapping identified very little old growth forest. One glaring example is Damp Sclerophyll Forest, (DSC) or to use its full name: E. viminalis / ovata / amygdalina / obliqua damp sclerophyll forest. Because of the highly depleted nature of the mapped old growth component of DSC and because it contained several tree species, and because the CRA vegetation mapping used in the RFA was not at all accurate, it was possible and relatively easy for the public forest agency, which under the RFA rules had to reserve all DSC old growth forest, to liquidate such forest that was not correctly mapped in the CRA, either not shown as old growth, or mapped as something else altogether which did not require 100% reservation. It should be noted that

the EPBC Critically Endangered Swift Parrot uses old growth forest including forest containing Eucalyptus ovata species, which is a part of the DSC vegetation community.

The mapping of forest vegetation communities in the CRA for Tasmania, which was asserted to provide sufficient habitat for EPBC listed fauna species, was done primarily on the desktop, with an amount of drive-by roadside ground truthing. This was criticised at the time. Here in Reedy Marsh, we engaged a scientist, Dr Phill Cullen, to map an area the traditional way by ground truthing and compared it with the CRA desktop mapping. Needless to say, there were significant differences. The base layer in the CRA, was again based on the FT PI forestry maps. These are forestry tools not a forest vegetation conservation tool.

Bear in mind the CRA at this point, achieved an inadequate (in accuracy terms) identification of the broad RFA vegetation communities, which had been agreed upon by Governments. There was no, or very little, consideration of the adequacy of identified fauna distribution including Listed species across the several IBRA bio-regions in Tasmania. This may be the most important deficiency. These deficiencies I am discussing only briefly in this submission but they all compound. They all go to the inadequacies of the CRA and hence the RFA. The Tasmanian RFA is deeply flawed and should be discarded.

Why am I talking about a Comprehensive Regional Assessment (CRA), which was done in 1996? Well that is simple - this is the CRA which the Commonwealth has relied upon and which is claimed to be sufficient in renewing and extending the Tasmanian RFA for another 20 years. Since that 1996/7 time however, there has been three more versions of the mapping of Tasmania's vegetation. Tasmania calls this TASVEG III. I am not an expert on the technical aspects of TASVEG III, but in discussing this GIS system and its accuracy I was advised that currently, this third iteration of the vegetation, which arose out of the CRA, is about 65% accurate.

Why is this pertinent to the EPBC's listed 500 (or thereabouts) threatened fauna species? It is because the inaccurate CRA of 1996 was and remains the work which determined the level of reservation of useful sized areas of fauna Habitat across all the bio-regions of Tasmania.

In the first instance one could ask why such a manifest and horrendous deficiency came to be embedded into Tasmania's RFA and why is the Commonwealth now, as of 2017, or indeed in 2019, not insisting on updated assessments using better science, better mapping, better methodologies, more information, more records and a better system, as at 2017 over the 1997 work.

The avoidance of an updated CRA for any Tasmanian RFA, is absolutely an abrogation by the Commonwealth of its obligations regarding the conservation of biological diversity in regards to EPBC listed fauna and of Australia's international obligations under the Convention of Biological Diversity in my view.

The simple fact of the matter is that additional EPBC fauna listings for fauna in Tasmania, including fauna now extinct on the mainland and endemic Tasmanian fauna, continue to occur despite governments providing no initiation effort around listing of any species under EPBC. Indeed, it could be claimed that trying to have a species or an ecological community listed under EPBC is somewhat similar to sailing into the Sargasso Sea.

A current example of the massive EPBC Ministerial inertia, which abounds and which disadvantages the natural environment across Australia, is the stalling of the EPBC Listing, as Critically Endangered, of the ecological community: **'Tasmanian Forests and Woodlands Dominated by Black Gum or Brookers Gum (Eucalyptus ovata / E.**

brookeriana) Ecological Community', originally described as 'Eucalyptus ovata Forest and Woodland in Tasmania' and originally mapped in the RFA in part as 'Shrubby E ovata/viminalis'.

So the names of vegetation communities in the RFA's 1996 CRA bear, in some instances, very little relevance to current listings yet again, no updated assessment after 20 years. Why is this ecological community not yet listed under EPBC? What is the puerile reason? Why is this Critically Endangered ecological community currently suffering a wave of logging in Tasmania? What is the connection? Some answers please.

It has been known officially since November 1997, that E. ovata forest was more than 90% depleted and it was also known that the RFA standard of reservation meant that the target was to reserve 100% of the remaining E. ovata forest in Tasmania, on public land. But there was no compulsion on the private landowner to reserve or indeed to even not develop, including clearance.

In the case of E. ovata forest, this ecological community supports the EPBC Critically Endangered bird, the Swift Parrot. This is an EPBC Listed fauna Critically Endangered species, forecast to go extinct. It wasn't critically endangered in 1997 but the Tasmanian RFA ensured destruction of the Swift Parrot's habitat and thus saw caused the increased EPBC threat status of the Swift Parrot. There are some other causal factors too of course.

But the truth is that in Tasmania, everyman and his dog has been knocking down (logging) E. ovata forest since 1997. It is done for export woodchips for it is a poor timber species. So irreplaceable habitat and vegetation, often riparian vegetation I might add, is being knocked down for woodchips. Indeed the current listing hiatus, caused at the Commonwealth Environment Minister's discretion in the EPBC listing of 'Tasmanian Forests and Woodlands Dominated by Black Gum or Brookers Gum (Eucalyptus ovata / E. brookeriana) Ecological Community', is simply allowing a flurry of logging activity in Tasmania under a stupid, useless, harmful Tasmanian Regional Forest Agreement and under a massively deficient Tasmanian Forest Practices Code, over which I have no rights of appeal and over which I remain permanently aggrieved.

The Forest Practices Code is written and operated by the Forest Practices Authority who also deals with any complaints made in writing over logging breaches or allegations thereof. The Forest Practices Plans are drawn up by forestry operatives, who are trained as Forest Practices Officers. The Act claims it is a self-regulation, largely self-funding system. I claim and can substantiate the self-regulation amounts to a virtual absence of regulation and that the Forest Practices Officers who are foresters are not trained sufficiently in scientific subjects to conduct ecological assessments on Listed EPBC fauna species. These foresters are aided by a relatively crude piece of software housed at the Forest Practices Authority called a Fauna Advisor.

The fact is the Tasmanian Forest Practices Act makes it very difficult, actually impossible, to conserve more than about 10% of any given area without paying compensation and Tasmania claims to not have any funds. The fact is also that the Forest Practices Act makes making complaints also very difficult and contains no adequate appeal rights. This is a completely unacceptable situation requiring urgent reform.

The Critically Endangered Swift Parrot is continuing to have its habitat logged in Tasmania, including on the Porter's land, including with the tutelage and assistance of the FPA. Tasmania has a long history of exterminating threatened fauna. Without habitat, species die. It's that simple really.

Ovata forest occurs mainly on private land, remains seriously under reserved in all bioregions in Tasmania, is seriously depleted, yet there is no funded private land conservation program any more under the RFA in Tasmania. And what is worse perhaps is that any prohibition on any specific logging proposal in Tasmania requires Government payment of compensation under the rules of the Forest Practices Act 1985. This is an old Act, which does not even provide any definition of ecologically sustainable development or forest management.

The rules around the conservation of Australia's most important environmental assets need to be changed urgently, at all levels of Government and EPBC oversight and control over forestry needs to be reinstated for matters of National Environmental Significance without delay.

Almost all EPBC listings are generated out of a public interest concern of citizens and organisations across Australia. Now that fact alone can only be described as bizarre.

It thus needs to be determined what solutions and funding is necessary to ensure proper assessments and the proper and timely independent processing of those assessments, including scientific advice regarding species including fauna species and the ecological communities upon which they obviously rely.

It has to be said that the conservation of fauna is complex – much more complex than protecting vegetation. Under the Tasmanian CRA, governments decided to not attempt a

comprehensive and adequate and representative reserve system, which accurately took account of fauna across Tasmania, but instead headed down the path of pretending that a representative reserve system could be based on the adequate reservation of vegetation communities with a technique of Statewide targets, rather than the more precise IBRA bioregional targets, informally adjusted somehow, hoping to gain some sort of bio-regional representation. It can be seen now that this did not succeed and in some instances, that poor unscientific CRA process leading to the Tasmanian RFA will have impacted on EPBC Listed fauna species in Tasmania.

Therefore, with the old growth forest underrepresented in the Tasmanian RFA's Comprehensive Adequate and Representative (CAR) Reserve system because the CRA desktop identification under-identified the real extent and with fauna conservation effectively sidelined from any meaningful deliberation in the CRA but where priority species were nonetheless listed in Tasmanian RFA's agreement document (looking as if someone has done good work) as a consideration, Governments proceeded with the deception that the RFA was based on the science of the Comprehensive Regional Assessment and that a CAR Reserve system had been created when it had not. And in 2017, Governments perpetuated the dishonesty again. A shameful performance.

Under the Tasmanian CRA of 1996, no Critical Habitat for fauna including EPBC Listed fauna was identified at all. The Regional Forest Agreement could have set in place a number of Commonwealth listings, including Critical Habitat as a reasonable outcome of the CRA but failed to do so. I understand that under state legislation, the Threatened Species Act, that Critical Habitat is a mechanism which has been studiously and actively avoided, including to the detriment of EPBC Listed fauna.

The Tas. RFA's National Estate mapping of key fauna habitat for threatened species urgently needs to be updated via the DPIPWE Natural Values Atlas. Critical habitats are not identified under the Act. Indeed the mapping which was done by DPIPWE over private land forest vegetation values under the PFRP of the RFA remains un-entered into the DPIPWE Natural Values Atlas. I am willing to provide examples to show the disparity between the current mapping and actual mapped vegetation.

Recently the State of Tasmania failed to List the Eastern Quoll, an RFA Priority Species and one that scientists have determined has suffered a major decline (50% or so) in the last two decades. In my view, this was probably, purely a financial decision. Thankfully the Commonwealth listed it.

I wish to provide and enclose the document 'Tasmanian Threatened Species Prioritisation June 2010' written by the Threatened Species Section of Department of Primary Industries, Parks, Water & Environment (DPIPWE). Funding for the work described in this report was provided by the Tasmanian NRMs (Prioritisation of Threatened Flora and Fauna Recovery Actions for the Tasmanian NRM Regions – Contract No. FF209) and by the Australian Government Department of Environment, Water, Heritage & the Arts (Recovery Plan Implementation in Tasmania 2009).

You may wonder what the relevance of this document to the EPBC might be. The NRS and other conservation mechanisms including EPBC Recovery Plans are intended to ensure that Endangered and Threatened Species do not become extinct. This Tasmanian document places a priority on the conservation of Listed Species in Tasmania, flora and fauna. In List 1 of the report are all the Listed Species in order and states:

> *"Rank indicates the order in which projects should be initiated in order to minimise extinctions."*

The ranking is from one to 171 with 171 being the lowest priority. I have extracted from the list entries161 to 171. These species seemingly are regarded as the lowest of the very low:

161 Litoria raniformis Green and Golden Frog

162 Brachionichthys hirsutus Spotted handfish

163 Galaxiella pedderensis Pedder Galaxias

164 Beddomeia launcestonensis Hydrobiid Snail (Cataract Gorge)

165 Haliaeetus leucogaster White-bellied Sea-Eagle

166 Pseudomys novaehollandiae New Holland Mouse

167 Sarcophilus harrisii Tasmanian Devil

168 Niveoscincus palfreymani Pedra Branca Skink

169 Prototroctes maraena Australian Grayling

170 Galaxiella pusilla Dwarf Galaxias

171 Dasyurus maculatus maculatus Spotted-tailed Quoll

So. The bottom ten species on the DPIPWE List includes an Eagle, the Tasmanian Devil and the Spotted Tailed Quoll. This is Tasmania, Australia's Thylacine state!

Why is all this relevant? Well the reserve system, the NRS, should especially on private land but across all tenures address more of the threatened species issues by expanding and reserving the Critical Habitat priority areas for the threatened species now. If Tasmania cannot afford to deal with Threatened Species as this report suggests in fact, then Development in such habitat areas should cease. This problem is a matter of National Environmental Significance.

Where it involves private land, other mechanisms that provide alternatives to logging need to be developed as a matter of urgency. The Conservation movement's proposals for reservation are not sufficient or adequate. They should be adopted as they definitely assist. This is some 410,000 Ha of public land, which would reduce the pressure to further reserve private land but it simply would not solve the whole problem.

Since the 1997 RFA, when Woodchipping was deregulated, export Woodchipping increased from less than 3 million tons to about 5.5 million tons annually, before declining, post Global Financial Crisis (GFC). The RFA deregulated Woodchipping so twice the area of forest was logged and Woodchipping doubled with no increase in sawn timber and 42% less jobs. More jobs lost while more forest was destroyed. It is a fact that during the RFA, sawlogs were woodchipped and the whole situation drove recovery rates from sawlogs down.

The RFA cannot be relied upon by the Commonwealth to exempt forestry operations in Tasmania from assessment of impacts on EPBC Listed fauna species in my opinion and considering the above facts.

The issues regarding the Tasmanian Regional Forest Agreement, and probably all the other RFA's, including their supporting CRA's manifest deficiencies is relevant to this enquiry's

TOR including (d): *"The adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes."* And (e) *"The adequacy and effectiveness of protections for critical habitat for threatened fauna under the Environment Protection and Biodiversity Conservation Act 1999."* As well as a part of (f) *"The adequacy of the management and extent of the National Reserve System…"* as well as: (j) *"The adequacy of existing assessment processes for identifying threatened fauna conservation status."* And (k) *"The adequacy of existing compliance mechanisms for enforcing Commonwealth environment law."*

The National Forest Policy Statement

The 10 RFA's across Australia were created under the National Forest Policy Statement (NFPS). The 1992 NFPS obviously predates the EPBC legislation entirely.

The 1992 NFPS, a policy now about 27 years old, remains the basis of Regional Forest Agreement's and their Comprehensive Regional Assessments, upon which the Commonwealth relies to irrationally avoid taking any meaningful action over the increasingly threatened EPBC Listed fauna species when the said fauna species are obviously a matter of National Environmental Significance and in many instances are now Critically Endangered.

The NFPS was intended to honour Australia's commitment to the Global Statement of Principles on Forests and related conventions signed by Australia at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The reasons this has not been achieved are complex and in the main due to the RFAs and their deficient CRAs. I cover some of those, elsewhere.

Forestry in RFA regions proceeds under the RFA's absent the Commonwealth's involvement and as a result, unless it involves the complete destruction of natural ecologies in a place, the impact of forestry development is not dealt with by the Department charged with administering Australia's EPBC Act.

Australia's NFPS provides a number of standards which do not accord with the objectives of the EPBC.

It should be understood that Tasmania has not met the NFPS vision statements, nor all the national goals, nor all the specific objectives and policies with its RFA. The Commonwealth must know this fact yet it seems fails to ensure compliance.

It is hard to see that the RFA's across Australia meet the policy standards of the NFPS. Further, the NFPS would not meet Australia's current international obligations under the Convention on Biological Diversity. Certainly, the RFA's do not meet our national obligations under that Convention either.

Under the current *"business as usual"* model, mentioned by Minister Hunt, nature (including EPBC listed fauna species) is being liquidated and diminished. This would seem to be accepted. This *"business as usual"* is a process of decline in nature and biophysical naturalness is a part of the pathway to species extinction. Biophysical Naturalness of Tasmania's forests was mapped in 1996 as a part of the CRA but an updated map as at 2017, showing the serious decline of the last 20 years logging under the RFA, regarding biophysical naturalness, has not been produced by the State of Tasmania nor by the

Commonwealth. What is the reason for the avoidance and for the absence of Commonwealth scrutiny?

The current reserve system of Tasmania, which although appearing to be substantial and comprehensive (on public and private) nonetheless is not sufficient to "safeguard endangered and vulnerable species and communities" including EPBC Listed species.

The NFPS probably has a significant bias towards the reservation of wilderness forests. Wilderness reservation has in the Tasmanian context for example, translated into an avoidance of the reservation of forests supporting high conservation areas with higher levels of threatened fauna which are not located in a wilderness area, resulting in a bioregional imbalance in the National Reserve System (NRS).

The NFPS makes statements about the liquidation of old growth forests, which I wish to dispute.

Tasmanian public forest agencies certainly have had an old growth liquidation agenda. There is much more carbon rich wood in an old growth forest.

I therefore wish to dispute the statement by Department of Agriculture, in the document titled: Regional Forest Agreements – an overview and history. ISBN 978-1-7-6003-093-3 (online) ISBN 978-1-7-6003-092-6 (print) dated 2015.

> *"RFAs implement the Australian and state governments' commitment to ecologically sustainable forest management, as identified in the National Forest Policy Statement."*

The Tasmanian Forest Agreement process

In 2012, a community-led process, the Tasmanian Forest Agreement process, reached an agreement that sought to provide for changed wood supply and conservation outcomes for Tasmanian forests. The stakeholder's agreement was supported by a Tasmanian Forests Intergovernmental Agreement (IGA) between the Australian and Tasmanian governments signed in May 2013. A National Partnership Agreement (NPA) set out arrangements, agreed between governments, for implementing the measures agreed under the IGA.

These IGA outcomes were underpinned by Tasmanian legislation, the Tasmanian Forests Agreement Act 2013 (Tas) (the Act), which has now been rescinded. Under the IGA, the previous Australian Government provided significant funding to the Tasmanian Government to implement the agreement. On 8 May 2014, the Tasmanian Government introduced its Forestry (Rebuilding the Forest Industry) Bill 2014 to repeal the Tasmanian Forests Agreement Act 2013 (Tas) and amend forest management arrangements.

The area of public land in Tasmania, which remains under the Tasmanian Forest Agreement (TFA), intended for conservation, and under state Liberal reforms, earmarked for forestry after 2020, but being conserved until that time, is a substantial area of forest, being about 410,000 ha, with many of those areas containing significant EPBC Listed fauna species. These forests are now termed Future Potential Production Forest land (FPPF land) and Tasmania's current government desperately wants to log them. There is a Tasmanian government report, Conservation Assessment of Future Potential Production Forest land (FPPF land) A Report To The Department of State Growth, which I enclose to show the Commonwealth just how deficient such Tasmanian assessment on natural values can be in Tasmania.

The international and domestic obligations of the Commonwealth Government in conserving threatened fauna.

Australia's international obligations regarding the conservation of endangered and threatened fauna stem primarily from our signing of the Convention on Biological Diversity. Australia has not met its international obligations. (NB Underlining is my emphasis)

This Convention on Biological Diversity commits Australia to:

> *Preamble.*
>
> *Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components,*
>
> *Conscious also of the importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere,*
>
> *Affirming that the conservation of biological diversity is a common concern of humankind,*
>
> *Reaffirming that States have sovereign rights over their own biological resources,*
>
> *Reaffirming also that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner,*
>
> *Concerned that biological diversity is being significantly reduced by certain human activities,*
>
> *Aware of the general lack of information and knowledge regarding biological diversity and of the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures,*
>
> *Noting that it is vital to anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at source,*
>
> *Noting also that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat,*
>
> *Noting further that the fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings,*
>
> *Noting further that ex-situ measures, preferably in the country of origin, also have an important role to play,*
>
> *Recognizing the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components,*

Recognizing also the vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation,

Stressing the importance of, and the need to promote, international, regional and global cooperation among States and intergovernmental organizations and the non-governmental sector for the conservation of biological diversity and the sustainable use of its components,

Acknowledging that the provision of new and additional financial resources and appropriate access to relevant technologies can be expected to make a substantial difference in the world's ability to address the loss of biological diversity,

Acknowledging further that special provision is required to meet the needs of developing countries, including the provision of new and additional financial resources and appropriate access to relevant technologies,

Noting in this regard the special conditions of the least developed countries and small island States,

Acknowledging that substantial investments are required to conserve biological diversity and that there is the expectation of a broad range of environmental, economic and social benefits from those investments,

Recognizing that economic and social development and poverty eradication are the first and overriding priorities of developing countries,

Aware that conservation and sustainable use of biological diversity is of critical importance for meeting the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential,

Noting that, ultimately, the conservation and sustainable use of biological diversity will strengthen friendly relations among States and contribute to peace for humankind,

Desiring to enhance and complement existing international arrangements for the conservation of biological diversity and sustainable use of its components, and

Determined to conserve and sustainably use biological diversity for the benefit of present and future generations,

Have agreed as follows:

Article 1. Objectives

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Article 2. Use of Terms

For the purposes of this Convention:

"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

"Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

"Biotechnology" means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.

"Country of origin of genetic resources" means the country which possesses those genetic resources in in-situ conditions.

"Country providing genetic resources" means the country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country.

"Domesticated or cultivated species" means species in which the evolutionary process has been influenced by humans to meet their needs.

"Ecosystem" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

"Ex-situ conservation" means the conservation of components of biological diversity outside their natural habitats.

"Genetic material" means any material of plant, animal, microbial or other origin containing functional units of heredity.

"Genetic resources" means genetic material of actual or potential value.

"Habitat" means the place or type of site where an organism or population naturally occurs.

"In-situ conditions" means conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"In-situ conservation" means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"Protected area" means a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.

"Regional economic integration organization" means an organization constituted by sovereign States of a given region, to which its member States have transferred competence in respect of matters governed by this Convention and which has been

duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to it.

"Sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

"Technology" includes biotechnology.

Article 3. Principle

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Article 4. Juridictional Scope

Subject to the rights of other States, and except as otherwise expressly provided in this Convention, the provisions of this Convention apply, in relation to each Contracting Party:

(a) In the case of components of biological diversity, in areas within the limits of its national jurisdiction; and

(b) In the case of processes and activities, regardless of where their effects occur, carried out under its jurisdiction or control, within the area of its national jurisdiction or beyond the limits of national jurisdiction.

Article 5. Cooperation

Each Contracting Party shall, as far as possible and as appropriate, cooperate with other Contracting Parties, directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity.

Article 6. General Measures for Conservation and Sustainable Use

Each Contracting Party shall, in accordance with its particular conditions and capabilities:

(a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and

(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

Article 7. Identification and Monitoring

Each Contracting Party shall, as far as possible and as appropriate, in particular for the purposes of Articles 8 to 10:

(a) Identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I;

(b) Monitor, through sampling and other techniques, the components of biological diversity identified pursuant to subparagraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use;

(c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques; and

(d) Maintain and organize, by any mechanism data, derived from identification and monitoring activities pursuant to subparagraphs (a), (b) and (c) above.

Article 8. In-situ Conservation

Each Contracting Party shall, as far as possible and as appropriate:

(a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;

(b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;

(c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;

(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;

(e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;

(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies;

(g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;

(h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;

(i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;

(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

(k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations;

(l) Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities; and

(m) Cooperate in providing financial and other support for in-situ conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries.

Article 9. Ex-situ Conservation

Each Contracting Party shall, as far as possible and as appropriate, and predominantly for the purpose of complementing in-situ measures:

(a) Adopt measures for the ex-situ conservation of components of biological diversity, preferably in the country of origin of such components;

(b) Establish and maintain facilities for ex-situ conservation of and research on plants, animals and micro- organisms, preferably in the country of origin of genetic resources;

(c) Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions;

(d) Regulate and manage collection of biological resources from natural habitats for ex-situ conservation purposes so as not to threaten ecosystems and in-situ populations of species, except where special temporary ex-situ measures are required under subparagraph (c) above; and

(e) Cooperate in providing financial and other support for ex-situ conservation outlined in subparagraphs (a) to (d) above and in the establishment and maintenance of ex- situ conservation facilities in developing countries.

Article 10. Sustainable Use of Components of Biological Diversity

Each Contracting Party shall, as far as possible and as appropriate:

(a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;

(b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;

(c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;

(d) Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and

(e) Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

Article 11. Incentive Measures

Each Contracting Party shall, as far as possible and as appropriate, adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.

Article 12. Research and Training

The Contracting Parties, taking into account the special needs of developing countries, shall:

(a) Establish and maintain programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components and provide support for such education and training for the specific needs of developing countries;

(b) Promote and encourage research which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries, inter alia, in accordance with decisions of the Conference of the Parties taken in consequence of recommendations of the Subsidiary Body on Scientific, Technical and Technological Advice; and

c) In keeping with the provisions of Articles 16, 18 and 20, promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources.

Article 13. Public Education and Awareness

The Contracting Parties shall:

(a) Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and

(b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.

Article 14. Impact Assessment and Minimizing Adverse Impacts

1. Each Contracting Party, as far as possible and as appropriate, shall:

(a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures;

(b) Introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account;

(c) Promote, on the basis of reciprocity, notification, exchange of information and consultation on activities under their jurisdiction or control which are likely to significantly affect adversely the biological diversity of other States or areas beyond the limits of national jurisdiction, by encouraging the conclusion of bilateral, regional or multilateral arrangements, as appropriate;

(d) In the case of imminent or grave danger or damage, originating under its jurisdiction or control, to biological diversity within the area under jurisdiction of other States or in areas beyond the limits of national jurisdiction, notify immediately the potentially affected States of such danger or damage, as well as initiate action to prevent or minimize such danger or damage; and

(e) Promote national arrangements for emergency responses to activities or events, whether caused naturally or otherwise, which present a grave and imminent danger to biological diversity and encourage international cooperation to supplement such national efforts and, where appropriate and agreed by the States or regional economic integration organizations concerned, to establish joint contingency plans.

2. The Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter.

Article 15. Access to Genetic Resources

1. Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.

2. Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.

3. For the purpose of this Convention, the genetic resources being provided by a Contracting Party, as referred to in this Article and Articles 16 and 19, are only those that are provided by Contracting Parties that are countries of origin of such resources or by the Parties that have acquired the genetic resources in accordance with this Convention.

4. Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.

5. Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.

6. Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties.

7. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with

the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms.

Article 16. Access to and Transfer of technology

1. Each Contracting Party, recognizing that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the attainment of the objectives of this Convention, undertakes subject to the provisions of this Article to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment.

2. Access to and transfer of technology referred to in paragraph 1 above to developing countries shall be provided and/or facilitated under fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and, where necessary, in accordance with the financial mechanism established by Articles 20 and 21. In the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. The application of this paragraph shall be consistent with paragraphs 3, 4 and 5 below.

3. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, including technology protected by patents and other intellectual property rights, where necessary, through the provisions of Articles 20 and 21 and in accordance with international law and consistent with paragraphs 4 and 5 below.

4. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology referred to in paragraph 1 above for the benefit of both governmental institutions and the private sector of developing countries and in this regard shall abide by the obligations included in paragraphs 1, 2 and 3 above.

5. The Contracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives.

Article 17. Exchange of Information

1. The Contracting Parties shall facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, taking into account the special needs of developing countries.

2. Such exchange of information shall include exchange of results of technical, scientific and socio-economic research, as well as information on training and surveying programmes, specialized knowledge, indigenous and traditional knowledge as such and in combination with the technologies referred to in Article 16, paragraph 1. It shall also, where feasible, include repatriation of information.

Article 18. Technical and Scientific Cooperation

1. The Contracting Parties shall promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity, where necessary, through the appropriate international and national institutions.

2. Each Contracting Party shall promote technical and scientific cooperation with other Contracting Parties, in particular developing countries, in implementing this Convention, inter alia, through the development and implementation of national policies. In promoting such cooperation, special attention should be given to the development and strengthening of national capabilities, by means of human resources development and institution building.

3. The Conference of the Parties, at its first meeting, shall determine how to establish a clearing-house mechanism to promote and facilitate technical and scientific cooperation.

4. The Contracting Parties shall, in accordance with national legislation and policies, encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention. For this purpose, the Contracting Parties shall also promote cooperation in the training of personnel and exchange of experts.

5. The Contracting Parties shall, subject to mutual agreement, promote the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of this Convention.

Article 19. Handling of Biotechnology and Distribution of its Benefits

1. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, to provide for the effective participation in biotechnological research activities by those Contracting Parties, especially developing countries, which provide the genetic resources for such research, and where feasible in such Contracting Parties.

2. Each Contracting Party shall take all practicable measures to promote and advance priority access on a fair and equitable basis by Contracting Parties, especially developing countries, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Contracting Parties. Such access shall be on mutually agreed terms.

3. The Parties shall consider the need for and modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity.

4. Each Contracting Party shall, directly or by requiring any natural or legal person under its jurisdiction providing the organisms referred to in paragraph 3 above, provide any available information about the use and safety regulations required by that Contracting Party in handling such organisms, as well as any available information on the potential adverse impact of the specific organisms concerned to the Contracting Party into which those organisms are to be introduced.

Article 20. Financial Resources

1. Each Contracting Party undertakes to provide, in accordance with its capabilities, financial support and incentives in respect of those national activities which are intended to achieve the objectives of this Convention, in accordance with its national plans, priorities and programmes.

2. The developed country Parties shall provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention and to benefit from its provisions and which costs are agreed between a developing country Party and the institutional structure referred to in Article 21, in accordance with policy, strategy, programme priorities and eligibility criteria and an indicative list of incremental costs established by the Conference of the Parties. Other Parties, including countries undergoing the process of transition to a market economy, may voluntarily assume the obligations of the developed country Parties. For the purpose of this Article, the Conference of the Parties, shall at its first meeting establish a list of developed country Parties and other Parties which voluntarily assume the obligations of the developed country Parties. The Conference of the Parties shall periodically review and if necessary amend the list. Contributions from other countries and sources on a voluntary basis would also be encouraged. The implementation of these commitments shall take into account the need for adequacy, predictability and timely flow of funds and the importance of burden-sharing among the contributing Parties included in the list.

3. The developed country Parties may also provide, and developing country Parties avail themselves of, financial resources related to the implementation of this Convention through bilateral, regional and other multilateral channels.

4. The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties.

5. The Parties shall take full account of the specific needs and special situation of least developed countries in their actions with regard to funding and transfer of technology.

6. The Contracting Parties shall also take into consideration the special conditions resulting from the dependence on, distribution and location of, biological diversity within developing country Parties, in particular small island States.

7. Consideration shall also be given to the special situation of developing countries, including those that are most environmentally vulnerable, such as those with arid and semi- arid zones, coastal and mountainous areas.

The Convention document continues with a range of technical matters.

Aichi Biodiversity Targets

(NB Underlining is my emphasis)

Australia also signed the Aichi targets and goals which remain current and which state:

"The twenty headline Aichi Biodiversity Targets for 2015 or 2020 are organized under five strategic goals. The goals and targets comprise both aspirations for achievement at the global level, and a flexible framework for the establishment of national or regional targets.

Geographical coverage Global

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1

By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2

By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3

By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4

By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

Target 5

By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6

By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7

By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8

By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10

By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12

By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13

By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14

By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16

By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 17

By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18

By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19

By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20

> *By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties."*

When you read the Convention on Biological Diversity and the associated Aichi Goals and Targets, which Australia signed you can see just how deficient our current response the threat of faunal extinctions across Australia to be. This needs to change urgently.

The adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes.

Federal legislation over environmental matters of National Environmental Significance including Threatened Fauna is essential and should be strengthened rather than diminished, nullified, or avoided, delayed.

Retain federal legislation over the full range of environmental and biodiversity, including threatened fauna matters. Consider a redrafting of Commonwealth law and insist it applies over the Australian Environment. This is a matter of obvious national public interest and importance.

Improve public participation opportunities including appeal rights over the full range of environmental and biodiversity matters.

Make legislative change to remove the Environment Minister's ministerial discretion to defer or delay or oppose listings, acting against the advice of the Scientific Committee within federal environment law, such as is currently the case under EPBC.

Improve the rights of the environment in relation to development, such that more of nature survives and thrives.

Cancel all bilateral agreements that reduce or limit EPBC powers.

Ensure that no RFA is renewed without a new updated properly conducted Comprehensive Regional Assessment being completed including the opportunity for the public to have their say. In truth, my preference is that RFAs are so hopelessly inadequate that in themselves they should be subject to extinction.

The adequacy and effectiveness of protections for critical habitat for threatened fauna under the Environment Protection and Biodiversity Conservation Act 1999.

My understanding is that Critical Habitat listing for threatened fauna under either the EPBC or under the State legislation of Tasmania is either little used or not used at all in the case of Tasmania's legislation. Indeed, it can be safely said that the state of Tasmania has a deliberate avoidance strategy over the listing of Critical Habitat.

It can also be said that Tasmania doesn't like listing threatened species. Thus, it is quite possible that species which should be on the Tasmanian list are not. The lack of baseline data makes a firm deliberation very difficult. That absence of accurate and up-to-date baseline data for fauna, whether it is state listed, EPBC listed or indeed on any other list, such as the IUCN Red List, is very concerning and should be remedied.

Indeed it can be said, that so poor is the Tasmanian operation of its Threatened Species Act, under a departmental section containing some three or so staff, that it is quite clearly the case that Tasmania is failing its obligations regarding threatened species. In that context, the Environment Protection and Biodiversity Conservation Act 1999 should be more applicable to the whole of Tasmania, when it comes to EPBC listed species. Applying Critical Habitat listing for EPBC listed species may be one of the ways to strengthen EPBC protections.

The adequacy of the management and extent of the National Reserve System, stewardship arrangements, covenants and connectivity through wildlife corridors in conserving threatened fauna.

The management of the Tasmanian component of the National Reserve System by Parks and Wildlife Service (PWS) is not based on transparent management plans, in the majority of instances, because there are no Statutory Management plans for over 600 reserves on public land. Statutory Management Plans, which should have been tailored to each and every secure reserve created under the RFA, but which could be based on a common template should be created without delay.

The 1997 Tasmanian RFA committed Tasmania to establish management plans for both public and private conservation reserves. This has not occurred.

There are now (as of December 2018) in Tasmania, about 880 private land covenants, effectively reserving those places, circa 110,000 Ha and my understanding is that all of those conservation covenant reserves have management plans.

Apart from the private landowners who have management plans over their reserves, the State of Tasmania has failed to honour its obligations to develop a Statutory Management Plans for over 600 secure public gazetted reserves on public land.

This absence of sound conservation management planning, which would occur in the normal course of the process of creating Statutory Management plans, where PWS would invite public comment and input, including of course an opportunity for the Commonwealth to input, including over EPBC Listed fauna species and would mean that the EPBC Listed fauna, as well as the state listed Threatened Fauna could be adequately considered in management actions and the general management of the Tasmanian public reserve system.

This problem, this long-standing deficiency, this breach of the RFA, represents an abject management failure, which potentially, especially in the current policy climate of the Tasmanian government, may see development and increased visitation to places which are primarily intended for nature conservation and which may be unsuitable for the use being proposed or intended. This failure to astutely and openly manage the secure reserve estate of Tasmania outside of the TWWHA, is criticised.

I believe the Tasmanian PWS thinks it may even be adequate to create a single pro-forma style non-statutory Management Plan for over 600 reserves under its control. I think it may be trying to do this by stealth. It is hard to make any positive contribution or description over such an inadequate proposal. It is highly likely that a single non-statutory Management plan for over 600 secure conservation reserves in Tasmania out of about 816 reserves will completely or partially fail to sympathetically maximise the reservation opportunity in relation to EPBC Listed fauna.

I mentioned that I am the reserve manager for two relatively small private reserves on land that I own. It is unbelievable that I have a management plan for each of my small in perpetuity conservation reserves, yet the adjoining and much larger Reedy Marsh Conservation Area, which has significant public visitation issues, including camping, four-wheel drive use, campfires and so forth, especially around the fishing venue of Brushy Lagoon, which incidentally happens to be dominated by Eucalyptus ovata forest, right down to the edge of the impoundment foreshore. That is the same E. ovata forest, which is in the extremely slow and deferred process of being EPBC listed as Critically Endangered and which is habitat for the EPBC Critically Endangered listed Swift Parrot. Despite these sorts of very important values, the Parks and Wildlife Service, even though they have been asked to do so, are deliberately failing to provide a Statutory Management Plan for the Reedy Marsh Conservation Area.

For a number of years now, as an adjoining neighbour, I have been opposing a PWS proposal to burn in excess of 1,000 ha of the Reedy Marsh Conservation Area, for fuel reduction purposes. The Reedy Marsh Conservation Area contains habitat for a number of EPBC Listed fauna species. PWS propose, under their internal Reserve Activity Assessment, to burn this Conservation Area. It would use an aircraft and apply a Napalm based product across the area within the conservation reserve to be fuel reduced. This Napalm would be dropped in a grid and would have the effect of immolating many of the EPBC Listed fauna species residing or foraging in the area at the time of the napalm drop. Inappropriate Fire Regimes is an EPBC Listed Threatening Process.

This sort of deleterious activity (in terms of the EPBC listed fauna species), especially within the 600 or so reserves, which are currently without any management prescriptions and absent any management plans, across Tasmania, is hard to stop.

Without Statutory Management Plans as an opportunity for controlling and moderating PWS reserve management prescriptions, the fact is I, as a neighbour, and indeed other members of the public have few rights. PWS has their Reserve Activity Assessments but there are no third party rights; it is all internal.

I fail to see how and why I must manage my reserved land to the terms of my management plans, when the principal public land conservation agency in Tasmania cannot properly manage the adjoining reserve or indeed any one of over 600 other reserves across Tasmania under a Statutory Management Plan for each reserve. Indeed, it could be claimed that The State of Tasmania has not been able to draft suitable management plans for these public conservation reserves for some 20 years and meanwhile the problem just gets larger and larger.

I consider it vital and indeed essential and absolutely urgent that this matter is dealt with, if for no other reason than to stop a myopic Tasmanian Parks and Wildlife Service from turning the Tasmanian component of the National Reserve System into a series of firebreaks, simply because they got some funding to do so. It is immensely concerning that the public National Reserve System in Tasmania, which contains mature and old growth

forest is being fuel reduced, whilst wood production areas especially in regrowth forest are not.

This absence of over 600 Statutory Parks Management Plans in Tasmania is non-compliant with the National Forest Policy Statement and the RFA.

For each state jurisdiction, a joint Commonwealth/State program of secure in perpetuity private land reservation should be established, on an ongoing basis. Such programs, similar to the Tasmanian ones under the RFA should preferably enlist the cooperation of landowners and offer financial incentives for a secure reservation, targeting viable areas of the EPBC listed fauna and ecological communities.

The National Reserve System (NRS) of Australia should be expanded. The NRS needs to be expanded both on private land, leasehold land and public land in a bio-regionally strategic manner.

The National Reserve System especially and urgently needs to reinstate the funding processes, whereby the Commonwealth provides a significant contribution for the purchase of land containing useful and significant EPBC listed fauna species and habitat.

Each State, perhaps with Commonwealth's support, should reinstate or create secure conservation programs that provide an avenue and encourage private landowners who wish to conserve the natural values of their private land, to do so. The Tasmanian program, which was Commonwealth funded, was termed the Protected Areas on Private Land program (PAPL) and this fell in to abeyance some years ago, because the Commonwealth ceased funding and the State was clearly unwilling to fund such a public interest land use activity without Commonwealth support. Such an elementary conservation private land program should be available to citizens of Australia, even when the natural values do not include EPBC listed fauna species and communities. The reservation of any natural habitat has important value in the public interest, for future generations and so when a voluntary contribution is being offered, it would be negligent to not take it up in my view.

I believe that there needs to be a range of programs and approaches, especially regarding conservation of private land. The bottom line, regarding private land, especially where the owner intends to develop on top of and to the disadvantage of EPBC listed fauna species and listed ecological communities, is that there needs to be consistent Australia wide, Commonwealth mechanisms to not only stop the development but to also ensure that the developer has an alternate reimbursement for conserving those EPBC listed species and or communities. Without some sort of financial fee, attached to conservation and secure protection, there is rarely willingness by landowners who already have development goals to forego them, and in their terms make a loss.

I am aware that Tasmania considers, without it overtly saying so, that it does not have the resources to pay for Private land conservation. Tasmania is a poor place, with low standards of education and its government sadly reflects that circumstance. Many on the big degraded island consider that Tasmania is a basket case. But when it comes to the natural environment Tasmania, across its 335 islands has significant outstanding natural habitats, on both public and private land and these deserve to be reserved. Currently about 110,000 ha out of almost 900,000 ha of private land which is forested is reserved.

The design by Tasmania of generously sized viable wildlife habitat corridors covering both private and public land has not been undertaken by the Tasmanian government.

The adequacy of existing funding streams for implementing threatened species recovery plans and preventing threatened fauna loss in general.

In regards to preventing the loss of threatened fauna one needs to consider the loss of non-threatened fauna before it becomes threatened. Doing something about the loss of fauna habitat would seem the most sensible economic priority because when one takes action at an early stage it costs less.

Just look at what is being expended on the Orange Bellied Parrot (OBP) and the captive breeding may not recover the OBP. It may die out in the wild and simply become a caged bird prone to disease. How successful would that be?

The EPBC Act is currently not adequate in doing anything more than conditioning development permits where the proponent gets to fund the best experts to support its case to knock down nature. Conditioning development permits is manifestly inadequate and will not work.

The adequacy of existing assessment processes for identifying threatened fauna conservation status.

Without baseline data is would appear somewhat problematical to identify the degree and rapidity of decline and hence the severity of the threat.

Any related matters.

Climate change and warming of the climate:

In 2019, all around us, we now see the irrefutable impacts of a climate, with greater levels of CO2 in the atmosphere, causing about 1° C of warming.

Already in 2019, we have seen some 200,000 ha of Tasmania, including a significant portion of World Heritage burnt by wildfire, started by dry lightning. Tasmania it would seem from the 2016 and 2019 lightning storms, is likely to have much more such events in the future. In Tasmania, irreplaceable Gondwanic flora is clearly at risk and is being destroyed.

Also in 2019 we saw massive floods at Townsville in Queensland and in outback Queensland with some half a million head of cattle killed. This is unprecedented weather. Who knows the full environmental impact?

The Murray Darling in 2019 experienced catastrophic decline, with massive fish kills. Not just a weather event but because national policy and a national plan has failed. Australia has long known that environmental flows must be adequate, yet the Darling River and Menindee Lakes were sacrificed, it would seem. This sort of catastrophe leads to extinctions. This is an issue of river health and adequate environmental flow is of critical importance to native fauna species and without the removal of over allocation climate change will likely exacerbate other development pressures on such places, increasing vulnerability and making their conservation more difficult. Notable policy advisor, the late Peter Cullen made the situation with the Murray Darling Basin very clear. The water is over allocated. You can

read the late Peter Cullen's advice in the book: 'This land our Water, water challenges for the 21st century'. ISBN 9781921511042 (2011).

Apparently in 2019, the Australian community has been advised that two thirds of the section north of Port Douglas of the Great Barrier Reef, a World Heritage property, has died from bleaching due to ocean warming due to Climate Change, because of the raised levels of carbon dioxide in the Earth's atmosphere.

The statistic is given by climate scientists in 2012 that the globe's human population is contributing 800,000 tonnes of carbon dioxide into the Earth's atmosphere every second. I have little doubt that the rate of pollution is now higher.

Clearly, a much greater effort to halt Climate Change is urgently required.

Clearly, a much higher degree of precaution over threatened species is also indicated and is obviously urgent.

We ignore Climate Change and the pollution of our human developments and unsustainable occupation at our peril.

Offsets under the EPBC - Inadequate.

Offsets are surely an unsatisfactory idea. I consider EPBC Offsets to be a useless abomination where Critical Habitat Critically Endangered Species may be consigned to destruction; they are a part of the process of species extinctions.

When there is only 10% of the 1750 extent left who is going to guarantee that the Objective "to mitigate the risk of extinction" is being pursued by way of the destruction under the Commonwealth's poorly conceived Offset system of more of the remaining extant? An oxymoron.

I have seen no assessment of the sustainability of the EPBC Offsets, which have resulted in the removal of Threatened and Vulnerable vegetation. Have the offset funds or arrangements resulted in other forest being conserved in all cases? Are the offsets secure?

Do EPBC Offsets ensure that the same ecological function is being conserved and protected? What happens when a crucial piece of habitat is destroyed because it was offset by some consultant and the land developed rather than identified as Critical Habitat under EPBC. At a minimum, no offset mechanism should be used before Critical Habitat has been identified and listed and preferably protected.

Recommendations

A range of recommendations is proposed to the Senate Standing Committees on Environment and Communications.

1. Cease all development and use which involves land clearance across Australia. This should start with the immediate cessation of clearance over the habitat of Critically Endangered EPBC listed fauna species or ecological communities.
2. Cease all developments and uses, which cause the degradation and diminution of the habitat of Critically Endangered EPBC Listed fauna species or ecological communities.
3. Cease all developments and uses which cause the fragmentation of the habitat of Critically Endangered EPBC listed fauna species or ecological communities.
4. Expand the National Reserve System on both public and private land.

5. Hold a Royal Commission of Inquiry into Australia's National Forest Policy and the 10 Regional Forest Agreements and the ecological sustainability of the forestry operations conducted under them.

6. Abolish all the Regional Forest Agreements without renewing anymore and cancel Tasmania's abomination. There are currently 10 RFAs in four states: Western Australia, Victoria, Tasmania and New South Wales. Only one has been renewed - Tasmania.

7. Create a new National Forest Policy (NFPS) to replace the massively out of date, inadequate 1992 NFPS. Make sure it deals with climate change fully. After all trees sequester carbon and clean air polluted with CO2.

8. Conduct new Commonwealth controlled assessments of all the natural values of Australia's forests and Woodlands including the EPBC listed fauna and species which are suspected to be in decline, species which are hollow dependent, species which are at risk from global climate warming and species with very small distributions. I am sure there are other categories of vulnerable parts of nature. Such new assessments should create baseline data and some deliberation over the original extent of 1750 fauna should be attempted.

9. Significantly improve the baseline data for all listed EPBC Listed fauna species and ecological communities.

10. Conduct new assessments of all the natural values of Australia's forests and woodlands including the EPBC listed fauna and species.

11. Significantly increase the funding for the management of EPBC listed fauna species and ecological communities.

12. Significantly increase the number of recovery plans for EPBC listed fauna species and ecological communities increase the specific compliance requirements.

13. Abolish the discretionary power of the Environment Minister (Cwlth) to disregard, ignore, delay or obfuscate over any species or ecological community listing advice of the Threatened Species Scientific Committee.

14. Process all the EPBC Listing backlogs without delay.

15. The EPBC Act either should be significantly amended and the strength of its provisions significantly upgraded, or, preferably a new environmental conservation Act should be drafted.

16. Solve the problematic EPBC provision of offsets, which in essence allows development to destroy EPBC Listed fauna and Critically Endangered habitat. This should end without delay. End this mechanism. There may be a role for offsets with less endangered habitats but Australia should simply be conserving all remaining habitat of Critically Endangered species.

17. Design and initiate and establish, for each state jurisdiction, a joint Commonwealth/State program of secure in perpetuity private land reservation on an ongoing basis. Such programs, similar to the Tasmanian ones which ran under the RFA should preferably enlist the cooperation of landowners and offer financial incentives for a secure reservation, targeting viable areas of the EPBC listed fauna and ecological communities. By the way I do not support the current restrictive partnership between the Tasmanian DPIPWE and the TLC. It was never an openly advertised contract. My preference is that a wider range of practitioners should have access to drafting conservation covenants and providing conservation advice and that DPIPWE should remain in the role of vetting the detail before approval and the Minister's signature. It is my view that the Commonwealth should remain involved

and have oversight of any addition to the NRS. This conservation focused industry needs to expand and would or could work well with NRM organisations.

18. Cancel all bilateral agreements pertaining to EPBC obligations.
19. Reverse the recent job cuts to the Department of Environment especially where fauna and their habitats are the subject of work. Reemploy staff at Commonwealth Dept. Environment to work on threatened fauna and ecological communities issues.

I am not going to attempt a full and comprehensive set of suggestions to Australia's role in solving mitigating and adapting to Climate Change. I have already indicated my view of the urgency. It would seem that there are some obvious things Australia can do right now.

1. Put a price on Carbon and include carbon pricing for the carbon already growing in existing natural forest conservation reserves on public and private land. It is vital that we establish better encouragement to reserve and maintain high quality native forest habitats in perpetuity.
2. Establish new goals and targets for Australia which exceed by a substantial margin the goals and targets set out in the Paris Agreement (UNFCC). A deep and public decrease in emissions is needed urgently.
3. Do not build any new coal fired power stations.
4. Do not create any new coal mines.
5. Expand the encouragement and installation of renewable energy generation. Better regulate feed-in arrangements and tariffs.
6. Redesign the national electricity grid, so as to better accommodate a diverse range of generation sources.
7. Cease the liquidation of Australia's primary native forest.
8. Better research the impacts of a Climate Change of at least 1.5 degree C in the next decade without delay.
9. Australia may be a small emitter in global terms but on per capita terms it is amongst the highest polluter and that sets a poor example to poorer countries which have less capacity to make the necessary changes. If we can't afford to do it who can?
10.

Conclusion

I hope you find the information, suggestions and recommendations to be helpful. Thank you again for the opportunity to make this late submission.

If you wish me to make a personal representation to the enquiry I am willing to do so.

I look forward to your report.

Yours sincerely,

Andrew Ricketts