

# SUBMISSION TO THE EPBC ACT REVIEW

ANON-K57V-XQ1C-A

## **Name**

Yung En Chee

## **State or Territory**

Victoria

## **Areas of Interest**

The objects of the Act; Threatened species; International obligations; Indigenous Australians; Heritage; Matters of National Environmental Significance; Environmental Impact Assessments; Great Barrier Reef; Cumulative impacts; Climate change; Compliance and enforcement; Decision making; Public participation in decision making; Biodiversity; Conservation; Wildlife trade; Commonwealth national parks; Nuclear; Water;

## **Attachment provided**

Yes

## **Do you give permission for your submission to be published?**

Yes - with my name and/or organisation (if included)

## SUBMISSION RESPONSES

**This submission was provided as an attachment only. The attachment is provided on the following pages of this document.**

**Question 1 *Some have argued that past changes to the EPBC Act to add new matters of national environmental significance did not go far enough. Others have argued it has extended the regulatory reach of the Commonwealth too far. What do you think?***

I don't think past changes to add new Matters of National Environmental Significance (MNES) went far enough. In addition to retaining and strengthening the existing MNES, the Commonwealth's Constitutional powers should be used to expand the triggers to address key threats and activities, and protect biodiversity and heritage areas that Australian communities value. This is needed to ensure that the Act adequately addresses the most pressing environmental challenges that we face today and into the future.

Matters of national environmental significance should include six new and expanded triggers:

1. Ecosystems of National Importance (including High Conservation Value Vegetation, Key Biodiversity Areas and wetlands of national importance);
2. the National Reserve System (terrestrial and marine protected areas);
3. vulnerable ecological communities (alongside other threatened species and ecological communities);
4. significant land-clearing activities;
5. significant greenhouse gas emissions; and
6. significant water resources (expanded beyond coal and gas impacts).

I agree with the work of the Environmental Defender's Office, and their articulation of what each of these triggers is (outlined in more detail below).

#### 1. Ecosystems of National Importance trigger

The Act should apply to Ecosystems of National Importance. Ecosystems of National Importance are areas of outstanding ecological or scientific significance. They need not be threatened, and listing would aim to prevent them from becoming so.

By identifying and protecting exceptional concentrations of biodiversity, this new trigger will help the Commonwealth to protect the most species and valuable ecosystem services at the least management cost.

Ecosystems of National Importance would include the following examples – many of which are not currently eligible for protection under the EPBC Act:

- high concentrations of biodiversity such as Key Biodiversity Areas and biodiversity hotspots;
- High Conservation Value Vegetation;
- nationally important wetlands;
- Travelling Stock Reserves;
- significant wildlife corridors;
- wild rivers;
- outstanding representations of particular Australian landscapes or seascapes (which may later become protected under the National Reserve System); and
- climate refugia (current and potential)

#### 2. National Reserve System trigger

The National Reserve System (NRS) is Australia's network of protected areas and is made up of Commonwealth, state and territory reserves, Indigenous lands and protected areas run by non-profit conservation organisations.

The EPBC Act does not currently recognise the NRS as a matter of national environmental significance. Including a new NRS trigger would mean that, where an action is likely to have a significant impact on part of the NRS, it must be referred for Commonwealth assessment and approval under the Act. For actions affecting Indigenous Protected Areas, Traditional Owners and/or Indigenous land managers could be prescribed as the approval authority if they wish to have this responsibility.

The Act should also set national goals and targets to complete the National Reserve System as a comprehensive, adequate and representative array of Australia's terrestrial and marine ecosystems, and refer to strategic goals and targets under the Convention on Biological Diversity. New priority areas for the National Reserve System could be identified in the National Ecosystems Assessment and in bioregional plans.

### 3. Vulnerable ecological communities

The existing trigger for other listed threatened ecological communities, (i.e. endangered or critical), should be extended to include vulnerable ecological communities. This would be consistent with a precautionary approach.

### 4. Significant land-clearing trigger

There is currently no specific trigger in the EPBC Act to regulate the serious impacts of land-clearing and degradation, including deforestation. And we have witnessed the devastating and unacceptable impact of rampant, poorly-regulated land-clearing in Queensland and New South Wales on native biodiversity which is our collective natural heritage.

The Act should adopt a trigger to regulate significant clearing of native vegetation. Sensitive areas such as High Conservation Value Vegetation would be off-limits to clearing other than for identified conservation and emergency management purposes.

A comprehensive federal land-clearing trigger would ensure that Commonwealth efforts to preserve national biodiversity, reduce greenhouse gas emissions and achieve landscape-scale conservation are not undermined by a constantly changing patchwork of state land clearing laws and policies.

The new land-clearing trigger would include three elements, based on scale, sensitivity and high conservation value. Any of these would constitute significant land-clearing that requires Commonwealth assessment and approval to proceed, or outright prohibition:

- scale: proposals to clear 100 hectares or more of native vegetation in any two year period (designed to record and regulate cumulative impacts);
- sensitivity: a schedule of regulated activities, regardless of the scale of clearing proposed (e.g. low-level clearing in over-cleared catchments); and
- protected area prohibitions: a scheduled list of prohibited activities in nationally protected areas (for example – clearing, modification or degradation of native vegetation that is known critical habitat for endangered species or ecological communities; High Conservation Value Vegetation, Key Biodiversity Areas and other Ecosystems of National Importance; national heritage places and Ramsar wetlands).

## 5. Significant greenhouse gas emissions trigger

Human-induced climate change has been listed as a key threatening process to biodiversity for nearly two decades. Yet our regulatory systems still fail to respond effectively to climate change. This wilful inaction is unacceptable.

A national trigger to regulate high greenhouse gas emitting projects has long been a major gap in national environmental law. Our atmospheric, biogeochemical and biological life-replenishing and living systems are all inter-related. Australia needs to urgently ramp up its efforts to meet the Paris Agreement with an economy-wide legal framework and carbon budget that is consistent with limiting global temperature warming to 1.5 degrees.

While this should be dealt with via standalone climate change legislation, a new EPBC Act trigger would link Australia's carbon accounting and emissions reduction targets with impact assessment and development conditions.

The trigger could have two limbs:

- At a strategic level, the Act would require decision-makers to consider climate change mitigation and adaptation opportunities in strategic assessments and bioregional planning processes.
- At the project level, there would be a requirement for the federal government to assess projects with major greenhouse gas footprints, reject unacceptable climate impacts, and apply conditions and limits on other assessable projects.

## 6. Significant water resources trigger

Water resources are currently a matter of national environmental significance where a coal or coal seam gas (CSG) project would have a significant impact on them. This is important and appropriate, but still rather narrow. I am in favour of expanding the water trigger to assess significant impacts on other key surface and ground water resources, beyond coal or CSG projects.

**Question 2 *How could the principle of ESD be better reflected in the EPBC Act? For example, could the consideration of environmental, social and economic factors, which are core components of ESD, be achieved through greater inclusion of cost benefit analysis in decision-making?***

The Act should provide a modernised definition and framework for Ecologically Sustainable Development (ESD).

Genuine ESD requires the effective integration of short and long-term environmental, economic, social, and equitable considerations, including through the following principles (ESD principles) in public and private sector decision-making:

- Prevention of harm: Taking preventative actions against likely harm to the environment and human health.
- Precautionary principle: Taking precautionary actions against harm that would be serious or irreversible where scientific uncertainty remains about the likelihood of that harm; and engaging transparently with the risks of potential alternatives.

- Intergenerational equity: The present generation has an obligation to ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations
- Intra-generational equity: The present generation has an obligation to ensure that environmental costs, benefits and outcomes are borne equitably across society.
- Biodiversity principle: Ensuring that biodiversity and ecological integrity are a fundamental consideration in decision-making, including by preventing, avoiding and minimising actions that contribute to the risk of extinction.
- Environmental values principle: Ensuring that the true value of environmental assets is accounted for in decision-making – including intrinsic values, cultural values and the value of present and future ecosystem services provided to humans by nature.
- Polluter pays principle: Those responsible for generating waste or causing environmental degradation should bear the costs of safely removing or disposing of that waste, or repairing that degradation.

New and additional ESD principles worth considering and adopting, include:

- Environmental protection: Achieving high levels of environmental protection, including by requiring:
  - the use of best-available scientific information;
  - continuous improvement of environmental standards, and
  - the use of best-available knowledge, approaches and methods for environmental management (e.g. structured decision-making, systematic conservation planning, integrated rigorous monitoring and adaptive management).
- Non-regression principle: Non-regression in environmental goals, standards, laws, policies and protections.
- Resilience principle: Strengthening the resilience of biodiversity and natural systems to climate change and other human-induced pressures on the environment.

Embedding a modernised set of ESD principles in the Act will help ensure that decision-making is consistent with maintaining and strengthening the environmental systems that operate on a local, regional, national or global level, including to support the diversity of life on Earth.

Cost-benefit or cost-effectiveness analysis is simply a tool for improving transparency and rigour in comparative and evaluative analyses and is welcome in circumstances where it is appropriate. But there are important assumptions and limitations to consider. For example, the use of cost-benefit analysis assumes that all aspects of the environment can be reduced to a dollar value, and it is also difficult to accurately identify what value a future generation will place on a particular ecosystem, ecosystem service or other aspect of the natural environment. Any cost-benefit analysis must ensure that true environmental costs are included (to date, environmental values and costs are not adequately represented in cost-benefit analysis).

### Question 3 Should the objects of the EPBC Act be more specific?

I agree with the recommendations put forth in the Environmental Defender's Office community guide and outlined below.

The Act should establish:

- a new overarching object;
- secondary objects; and
- provisions to ensure objects are effectively operationalised.

#### Overarching object

The Act should include a primary object to the following effect:

The primary aim of this Act is to conserve and protect Australia's environment, its natural heritage and biological diversity including genes, species and ecosystems, its land and waters, and the life-supporting functions they provide.

This would elevate the protection of the environment as the primary object of the Act and would help ensure that biodiversity and ecological integrity are a fundamental consideration in decision-making. Social, economic and equitable issues will continue to be taken into account in decision-making as integrated, but secondary, considerations consistently with the principles of ESD.

#### Secondary objects

The Act should also include a limited number of secondary objects. For example:

(a) to provide national leadership and partnership on the environment and sustainability, and to achieve ecologically sustainable development;

(b) to recover and prevent the extinction or further endangerment of Australian plants, animals and their habitats, and to increase the resilience of native species and ecosystems to key threatening processes;

(c) to ensure fair and efficient decision-making; government accountability; early and ongoing community participation in decisions that affect the environment and future generations; and improved public transparency, understanding and oversight of such decisions and their outcomes;

(d) to recognise Aboriginal and Torres Strait Islander peoples' knowledge of Country, and stewardship of its landscapes, ecosystems, plants and animals; to foster the involvement of these First Australians in land management; and expand the ongoing and consensual use of traditional ecological knowledge across Australia's landscapes;

(e) to fulfil Australia's international environmental obligations and responsibilities; in particular to take all steps necessary and appropriate to achieve the purposes of the following international agreements (among others):

- the World Heritage Convention;
- the Convention on Biological Diversity;
- the Ramsar Convention on Wetlands of International Importance;
- the Bonn Convention on the Conservation of Migratory Species of Wild Animals
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- the United Nations Declaration on the Rights of Indigenous Peoples;
- the United Nations Framework Convention on Climate Change (as applicable to emissions reduction and carbon management under the Act); and

- special bilateral or multilateral conservation agreements (including agreements with Japan, China and the Republic of Korea to protect migratory birds in danger of extinction).

(f) to recognise and promote the intrinsic importance of the environment and the value of ecosystem services to human society, individual health and wellbeing.

Achieving the objects in practice

The Act should also include an introductory section that specifies how the objects are to be achieved. For example, Ministers and agencies should be required to exercise their powers and functions under the Act to achieve the Act's objects.

Please refer to the Environmental Defender's Office's full submission for more ideas on how the Act's aims can be achieved in practice.

**Question 4 *Should the matters of national environmental significance within the EPBC Act be changed? How?***

Please see my response to Question 1 above

**Question 5 *Which elements of the EPBC Act should be prioritised for reform? For example, should future reforms focus on assessment and approval processes or on biodiversity conservation? Should the Act have proactive mechanisms to enable landholders to protect matters of national environmental significance and biodiversity, removing the need for regulation in the right circumstances?***

I agree with the Environmental Defender's Office's view that in terms of reform, "An evidence-based comprehensive review of the strengths and weaknesses of the Act as a whole is required to ensure effective provisions are retained and resourced, and ineffective provisions are repealed or re-written."

It's fair enough to invite people to nominate elements of the EPBC Act that should be priorities for reform, and it would be interesting to document their reasons and justifications for elements proposed. But beyond that I would want a rigorous, evidence-based approach that documents, weighs up all the evidence available, and takes into account the Act as a whole.

It is therefore not a matter of focussing on either assessment and approval processes or on biodiversity conservation. The two issues are intrinsically related. Similarly, legislation needs both incentive mechanisms as well as regulatory controls. Best practice environmental legislation applies the appropriate tool or mechanism best fitted for delivering the desired outcome.

**Question 6 *What high level concerns should the review focus on? For example, should there be greater focus on better guidance on the EPBC Act, including clear environmental standards? How effective has the EPBC Act been in achieving its statutory objectives to protect the environment and promote ecologically sustainable development and biodiversity conservation? What have been the economic costs associated with the operation and administration of the EPBC Act?***

I have carefully read through and endorse the EDO's response to the multiple questions embedded in question 6 as set out below. (I have edited them to include my own comments in the paragraphs below.)

## High level concerns

We have identified the following high-level priority areas for reform.

### 1. Scope and national leadership

- The Act must elevate environmental protection and biodiversity conservation as the primary aim of the Act, consistent with Australia's international obligations.
- The Act must include clear duties on decision-makers to exercise their powers to achieve the Act's aims.
- The Act must effectively address the most significant environmental challenges: climate change, land clearing, and cumulative impacts with new triggers in the Act where required.

### 2. Governance and accountability

- Two new statutory environmental authorities should be established – a National Sustainability Commission and a National Environment Protection Authority.<sup>23</sup>
- There should be accountability mechanisms to hold the regulator and decision-makers to account including:
  - Access to information and data disclosure provisions to ensure greater transparency;
  - Public participation in decision-making and planning; and
  - Third party review rights (including merits review).
- Greater emphasis should be placed on Indigenous leadership and rights (including free prior informed consent requirements), land management and biodiversity stewardship, and formal legal recognition of Indigenous Protected Areas.

### 3. Outcomes and efficiency

- National standards should be enacted to drive best practice including:
  - a clear process for accreditation of assessment processes that meet strict national standards (e.g. biodiversity offsets), with retention of Commonwealth approval and call-in powers;
  - clear upfront guidance on assessment requirements (including red lights) to improve certainty;
  - clear objective decision-making criteria set out in legislation;
  - strengthened strategic assessment and bioregional planning provisions; and
  - independently appointed and accredited consultants to improve environmental assessment quality and information.

## The Act's effectiveness

In terms of the Act's effectiveness, the most recent State of the Environment Report (2016) confirms that many elements of Australia's environment are in decline. For example, in relation to biodiversity, report concluded:



Australia's biodiversity is under increased threat and has, overall, continued to decline. All levels of Australian government have enacted legislation to protect biodiversity... However, many species and communities suffer from the cumulative impacts of multiple pressures. Most jurisdictions consider the status of threatened species to be poor and the trend to be declining...

A similar prognosis is forecast for other environmental indicators.

The 2016 State of the Environment Report outlines six key barriers to effective national management of the environment:

- lack of an overarching national policy that establishes a clear vision for the protection and sustainable management of Australia's environment to the year 2050;
- poor collaboration and coordination of policies, decisions and management arrangements across sectors and between managers (public and private);
- a lack of follow-through from policy to action;
- inadequacy of data and long-term monitoring;
- insufficient resources for environmental management and restoration; and
- inadequate understanding and capacity to identify and measure cumulative impacts.

In short, the Act has not been and is not effective. This is not acceptable. The EPBC Act will need to be substantially amended or re-written to confront these challenges head-on.

#### Economic costs

In considering the issue of costs, the review needs to look beyond the departmental operational costs and costs relating to project approval processes. The review needs to ask what the economic, social and opportunity costs (including the losses of environmental assets without dollar values) are from the failings of the Act to meet its objectives.

Discussion of the EPBC Act too often focuses on project approval timeframes and costs, without appropriate contextual and comprehensive consideration of environmental externalities and values over the medium and long term. For example, the suggestion that EPBC Act causes 'unreasonable delays' is simplistic and needs to be examined further. This does not just involve looking at the length of the whole of the process but also at the procedural causes of delays such as the adequacy of the assessment reports and delays by proponents in responding to information requests etc.

#### **Question 8 *Should the EPBC Act regulate environmental and heritage outcomes instead of managing prescriptive processes?***

I agree with the assertion that the EPBC Act has not done enough to protect the environment. The claim that this "regulation is resulting in unnecessary uncertainty and delays with flow on impacts to industry, governments and the community" is illustrative of problems with, but also confusion about the intent and objectives of the Act.

A guiding object and design principle for the Act should be to achieve strong, meaningful environmental outcomes, especially for biodiversity. Strong, meaningful biodiversity outcomes will only be possible with a much greater clarity about objectives and desired outcomes, emphasis on front-end goal setting and coordinated, transparent monitoring, evaluation, reporting, compliance and enforcement systems.

The current EPBC Act lacks clear goals, aims and outcomes. Specific desired outcomes should be made clear in the Act. Examples include: no extinction of native flora and fauna, net gain of environmental values, recovery of threatened species, and net zero emissions. (Please refer to the full EDO submission that discusses these in more detail).

Desired outcomes should be developed and articulated by the Sustainability Commission with advice from expert bodies such as the Threatened Species Scientific Committee and expert advisory committees.

The Act should establish long-term biodiversity goals, standards, indicators and reporting to inform policy and decision-making. SMART goals and standards must be related to indicators and tracked via mandatory monitoring and reporting requirements in the Act.

Monitoring must be well-resourced and audited. Importantly, new and improved monitoring and reporting tools must be fully integrated with policy development, plan making, impact assessment and decision-making under the Act.

Some clear process requirements will still be needed to ensure outcomes are delivered in an effective, timely and accountable manner.

Key elements to oversee and ensure outcomes are being achieved should be:

1. Independent State of the Environment (SOE) and National Sustainability Outcomes (NSO) reporting – to improve public awareness, agency policy-making and implementation, and environmental performance.
2. National Environmental Accounts that track natural assets and their extent, condition and threat status over time.
3. An online monitoring and reporting hub for comparative reporting and easy public and professional access to public registers; licensing, compliance and enforcement data; bioregional plans, policies accredited under strategic assessments, and associated performance audits; periodic and annual reports (including SOE and NSO); and the National Environmental Accounts.

#### State of the Environment & National Sustainability Outcomes reporting

The Act should require the proposed Sustainability Commission to prepare or commission an independent State of the Environment (SOE) report and a National Sustainability Outcomes (NSO) report to be tabled in the Australian Parliament.

The Act should also require government responses to the SOE and NSO reports to be tabled by state, territory and Commonwealth governments.

SOE reports would provide a national snapshot of environmental outcomes, comparative performance, key threat assessments and emerging environmental management priorities. They would also provide a high-profile record for the Sustainability Commission to track outcomes and report progress against national environmental goals and standards.

SOE reports would include rigorous, comprehensive assessment and tracking of environmental baselines, outcomes and trends across a range of themes over time. For biodiversity, this could include threatened species and ecological community nominations, listings and trends, key threats to biodiversity, recovery plans, bioregional plans and protected area management plans.

NSO reporting refers to broad sustainability outcomes and human pressures related to urban settlements, consumption and production, transport, ecological and carbon footprints, economic and population growth.<sup>30</sup>

NSO reporting is an important tool for integrating environmental considerations with social, economic and equitable considerations to achieve Ecologically Sustainable Development. NSO reporting recognises that sustainability cannot be achieved by the environmental sector alone. Rather, it requires systemic economic and social changes, for example, to Australia's systems for production, consumption and waste.

### National Environmental Accounts

The EPBC Act should require the proposed Sustainability Commission or Environment Minister to establish a National Environmental Accounts framework, underpinned by a peer-reviewed scientific method.

National Environmental Accounts would assess the extent, condition and trends in key natural resources and environmental assets across Australia's states, territories and bioregions. Assets to be monitored would include, for example:

- landscape health (forests, grasslands, wetlands, estuaries etc);
- threatened and other biodiversity (terrestrial and aquatic);
- native vegetation cover and condition;
- urban and regional carbon footprints;
- estimated carbon storage and loss;
- salinity and soil health; and
- water quality

The system would track, by way of an annual series of accounts:

- the extent, condition (e.g. from very poor to excellent health) and threatened status of key environmental assets over time;
- stocks and flows of environmental assets and natural resources (i.e. whether they are being depleted, replenished or sustainably used) – enabling region by region comparisons across Australia); and
- the extent and impact of key threatening processes such as invasive species, habitat loss and degradation, disease and climate change.

Once established, National Environmental Accounts should lessen or automate reporting burdens. As a monitoring and reporting tool, the Accounts will support a range of functions under the EPBC Act: policy-making, bioregional planning, strategic environmental assessment, decision-making on project proposals and actions, as well as State of the Environment and Sustainability Outcomes reporting.

### Online hub and public registers for national environmental reporting

Repeated SOE reports have noted deficiencies in environmental data and the absence of joined-up environmental information across the jurisdictions which is hindering effective policy-making and environmental management in every jurisdiction.

The EPBC Act should require the Environment Minister to establish an online hub for national environmental reporting and public registers, including for biodiversity. This would consolidate a range of accessible, reliable and comparable environmental information across the Commonwealth, states and territories. For example:

- State of the Environment and National Sustainability Outcomes reports;
- performance audits of bioregional plans and strategic assessments;
- strategic environmental data from state and local governments (and the private sector where reliable and practicable);
- licensing information regarding Commonwealth threatened species; and
- project-level environmental impact assessment data, post-approval audits and compliance and enforcement records, including from the proposed National EPA.

A new online data hub would require a significant injection of funding from all jurisdictions, timeframes and responsibilities for its establishment and maintenance.

**Question 9 *Should the EPBC Act position the Commonwealth to take a stronger role in delivering environmental and heritage outcomes in our federated system? Who should articulate outcomes? Who should provide oversight of the outcomes? How do we know if outcomes are being achieved?***

Please see my response to Question 8.

**Question 10 *Should there be a greater role for national environmental standards in achieving the outcomes the EPBC Act seeks to achieve? In our federated system should they be prescribed through: - Non-binding policy and strategies? - Expansion of targeted standards, similar to the approach to site contamination under the National Environment Protection Council, or water quality in the Great Barrier Reef catchments? - The development of broad environmental standards with the Commonwealth taking a monitoring and assurance role? Does the information exist to do this?***

I have read and endorse the EDO's response to this question as set out below.

The lack of clear and consistent national environmental goals, standards, indicators and data is a major barrier to effective environmental decision-making in Australia.

The Act should require the establishment of national goals to achieve positive environmental outcomes under rolling National Environment and Sustainability Plans (National Plans).

National Plans would establish short and long-term environmental goals, standards, indicators and reporting to inform policy and decision-making, including for biodiversity conservation, air, land and water management (among other things). For example, biodiversity goals could include specific aims to:

- prevent extinction of native species and ecosystems;
- meet goals in recovery plans; and
- integrate and assess 'ecosystem services' and values in all levels of decision-making.

The goals should be specific. For example, no loss of species, no reduction in ecosystem extent beyond a particular limit (or recovery if already below standard), no detrimental/negative change in ecological character of Ramsar wetlands or the Great Barrier Reef.

National Plans would enable Australia to develop a shared environmental vision and a level of continuity and coordination beyond the political cycle. Reviews and updates would give National Plans the flexibility to adapt to emerging threats and new opportunities to mainstream sustainability.

To achieve this, the Act should set out processes to develop and implement National Plans, including requirements to set national environmental goals based on the best available science, and statutory duties to ensure non-regression and continuous improvement of environmental goals.

The Act must also require processes and oversight to ensure that nationally-agreed environmental goals and standards are given effect where necessary in Commonwealth, state/territory planning, environmental and natural resource management laws. Non-binding policy or guidance alone has proven insufficient to ensure environmental outcomes (eg: the NEPC model). Incentives and sanctions must ensure a highest common denominator standard is met across the jurisdictions.

I would add that the state of scientific understanding of environmental conditions is strong and methods for monitoring at appropriate (informative) scales and resolution exists and can be undertaken if there is adequate commitment and resources.

Question 11 How can environmental protection and environmental restoration be best achieved together? - Should the EPBC Act have a greater focus on restoration? - Should the Act include incentives for proactive environmental protection? - How will we know if we're successful? - How should Indigenous land management practices be incorporated?

Greater focus on restoration as compared with what? Environmental protection? The status quo level of focus on restoration? The relative emphasis on protection-restoration may vary depending on the nature and status of the ecosystem in question.

Restoration and incentives

Restoration of degraded and rare habitats is an important challenge that requires clear legislative provisions and land management incentives.

The Act should make it clear that adverse actions must not be approved in areas of critical habitat for threatened species or ecological communities. Further, NO biodiversity offsets should be available for critical habitat due to its essential role in preventing extinction. (Critical must mean something!)

I support clear legal duties to restore and repair environmental damage.

Instead, the Commonwealth must proactively seek conservation agreements or covenants with private landholders (or government authorities), to protect critical habitat. The Act should have its own conservation covenanting mechanism rather than relying on state or territory resources and agencies (recognising that state agencies are likely to have their own conservation investment plans). The Act should establish clear criteria, including for protection in perpetuity.

As discussed above, mechanisms to measure successful delivery of restoration outcomes need to be established under the Act including improved monitoring, reporting and environmental accounting.

Please see the EDO's submission for further detail on enhancing indigenous land management.

Capital Funds Conservation Program to deliver national & regional biodiversity outcomes

The Act should reinvigorate a national 'stewardship payments' fund for private landholders to achieve priority outcomes for national and bioregional biodiversity conservation.

The Act could establish a Capital Funds Conservation Program to receive capital contributions, and generate stewardship payments to landholders. The Fund and Program

would be directed to the recovery of listed threatened ecological communities, critical habitat management and other nationally protected matters – both for initial recovery actions and ongoing payments to secure conservation management in perpetuity.

This incentive program is consistent with the introduction of a land-clearing trigger that seeks to curb the destruction of threatened and High Conservation Value Vegetation and recognise the enduring national value of retaining it. Benefits include diversified income, restored and enhanced ecosystem services, co-benefits of biodiverse carbon storage, and resilience to key threats such as salinity, invasive species and climate change.

**Question 12 *Are heritage management plans and associated incentives sensible mechanisms to improve? How can the EPBC Act adequately represent Indigenous culturally important places? Should protection and management be place-based instead of values based?***

I have read and endorse the EDO's response to this question as set out below.

The Act should establish new mechanisms, in accordance with its objects, to better recognise and promote Indigenous environmental management and consensual knowledge-sharing. Subject to consultation, this could include:

1. an Indigenous Land and Waters Commissioner and an Indigenous Cultural Heritage Advisory Council to support the proposed Sustainability Commission;
2. Requirements for free prior informed consent informed by the UN Declaration on the Rights of Indigenous Peoples (to which Australia is a signatory); and
3. Formal legal recognition of Indigenous Protected Areas as matters of national environmental significance, with long-term funding.

Indigenous Protected Areas (IPAs) now make up a large proportion of the National Reserve System and make a significant contribution to Australia's international environmental obligations on protected areas. Along with other elements of the National Reserve System, IPAs should be recognised as matters of national environmental significance under the EPBC Act. Further detail is included in the full EDO submission.

**Question 13 *Should the EPBC Act require the use of strategic assessments to replace case-by-case assessments? Who should lead or participate in strategic assessments?***

The EPBC Act is best known for project assessments, decisions and site-based conditions of approval. Operating at this level remains important to address local impacts on national icons. But there is a definitely well-recognised need for biodiversity laws to expand beyond individual projects to approaches that take a whole-of-landscape approach to enable more strategic, systematic, comprehensive and efficient means of taking landscape and biodiversity characteristics, threatening processes and cumulative impacts into account.

Two important tools are bioregional planning and strategic environmental assessment.

#### Bioregional plans

Bioregional plans should be targeted documents that seek to achieve the environmental protection aims of the Act in practical ways at a regional level. They would integrate with, but not seek to replace, the multi-levelled urban and environmental planning instruments at the state and territory level.

Actions, authorisations and prohibitions in bioregional plans would be binding on Commonwealth Ministers and agencies, state and local governments, and the private sector.

A clearer legal framework for bioregional planning – in both procedure and desired outcomes – will improve certainty for Ecologically Sustainable Development and economic growth, address cumulative impacts upfront, and reduce future site-by-site land-use conflicts.

The Act should set out key elements for the bioregional planning process, including a legislated purpose tied to achieving positive biodiversity outcomes in the region (such as a maintain or improve requirement), community engagement, integrating with infrastructure planning and monitoring and reporting requirements.

#### Strategic assessment

Strategic assessment (SA) can be used to assess multiple future activities or projects upfront, under a government policy or environmental impact assessment system that is legally enforceable and objectively accredited to meet Commonwealth standards.

When done properly, strategic environmental assessment is a critical tool for addressing cumulative impacts (in a far more effective way than project by project assessment), but the EPBC Act must strengthen the rigour of strategic environmental assessment processes.

Strategic environmental assessment must be underpinned by rigorous, objective and transparent requirements set out in the Act and regulations. These should include criteria for accreditation by the proposed Sustainability Commission, requirements for responsible parties to demonstrate strong biodiversity and environmental outcomes from accredited laws and programs, and transparent compliance monitoring against Commonwealth standards by the proposed National EPA.

The Act should embed best practice strategic assessment by specifying:

- strong legislated standards, decision-making criteria and science-based methods, including a ‘maintain or improve’ environmental outcomes test and requirements to be consistent with recovery plans and threat abatement plans;
- cumulative impact assessment requirements, taking account of past, present and likely (approved) future activities at the relevant scale;
- guidelines to support integration of federal strategic assessment with state and local planning processes at the earliest possible stage;
- comprehensive and accurate mapping and baseline environmental data;
- mandating transparency and public participation at all phases of the process, including to verify post-approval compliance, to ensure community confidence and acceptable outcomes;
- requiring alternative scenarios to be considered, including for climate change adaptation, to enable long-term planning for realistic worst-case scenarios;
- ground-truthing of landscape-scale assessment via local studies and input;
- adaptive management and review once a program is accredited to respond to new discoveries, correct unsuccessful trajectories or implement best available technology;
- strategic assessment may complement site-level assessment where appropriate, not necessarily replace it; and
- robust oversight by the proposed National EPA, including via legislated, independent performance audit requirements, transparent verification of compliance, and ‘call-in’ powers for higher-risk actions.

In a 2011 report to the Dept of Sustainability, Environment, Water, Population and Communities (DSEWPaC), I and professors Kirsten Parris and Brendan Wintle drew on existing State and Territory Strategic Assessment and Program Report documents to identify areas of strength and weakness in extant strategic assessments. From this, we identified key tasks for strategic assessments from our perspective as conservation research scientists. These include the need to:

- (i) rigorously and adequately describe the full range of biodiversity values and ecological processes in the area affected by the proposed Policy, Plan or Program (PPP);
- (ii) scope a sufficiently broad range of PPP options to enable the identification of the lowest impact options;
- (iii) engage stakeholders in a substantive manner, most notably at the stage of identifying a range of PPP alternatives;
- (iv) utilise well-developed risk assessment methods and tools to systematically analyse and quantify direct and indirect impacts associated with PPP actions;
- (v) utilise existing and well documented conservation planning approaches to evaluate the spatial arrangement of impacts and identify alternatives with the lowest overall impact on biodiversity;
- (vi) adequately demonstrate how impact management, mitigation or offset measures would ensure that Matters of National Environmental Significance (MNES) in the affected region are maintained or improved; and
- (vii) properly characterise, quantify and address uncertainties that may affect the effectiveness of management measures and therefore on the confidence that biodiversity values would be maintained (or improved) during and after the PPP.

For each of these key tasks, we identified tools, techniques and software available for improving the environmental assessment standards in future SAs. Our report then went on to describe these



approaches and methods, focussing on their theoretical underpinnings, what they can do, what inputs are required, what other considerations are important in their use, their limitations and where possible, guidelines for when to choose one over another (Chee et al 2011). The point is that there are a range of tools and methods that can greatly improve the rigour and quality of strategic assessments.

Chee YE, Parris KM, Wintle BA. 2011. Methodologies and Tools for Strategic Assessments under the EPBC Act 1999. A Report to the Department of Sustainability, Environment, Water, Populations and Communities (DSEWPaC). Applied Environmental Decision Analysis, School of Botany, The University of Melbourne, Melbourne. pp 85

**Question 14 *Should the matters of national significance be refined to remove duplication of responsibilities between different levels of government? Should states be delegated to deliver EPBC Act outcomes subject to national standards?***

I would support measures to make national environmental law more efficient provided there is no reduction in levels of environmental protection and the Act demonstrably delivers improved environmental outcomes.

It is still government policy to create a “one stop shop” for environmental approvals to improve efficiency. This involves devolving federal approval responsibilities to states and territories. This is highly problematic and unlikely to achieve the desired efficiency due the difficulties of creating eight “one stop shops” and attempting to accredit state regimes that do not satisfy national standards. There are better ways to increase efficiencies without abrogating responsibilities.

EDO has done extensive analysis of state and territory biodiversity and planning laws. Their consistent finding is that state and territory laws do not meet the full suite of national standards. In some instances, the gap between state and national laws has increased.

In 2014, I along with my colleagues made submissions to

- the House of Representatives Inquiry into streamlining environmental regulation, 'green tape', and one stop shops, and
- the Senate Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Bilateral Agreement Implementation) Bill 2014 that examined these issues.

In both submissions, we detailed issues with devolving assessment and approval responsibilities to the states, their generally poor track record in upholding environmental standards (from supervision to monitoring, enforcement, rehabilitation and financial assurances), lack of evidence regarding purported efficiency gains and problems with conflicts of interest.

The need for national leadership is unavoidable and has been recognised by successive state of the environment reports. It is essential that the Australian Government retain a strong leadership role in setting standards and ensuring environmental outcomes are delivered, consistent with our international obligations.

Question 15 Should low-risk projects receive automatic approval or be exempt in some way? - How could data help support this approach? - Should a national environmental database be developed? - Should all data from environmental impact assessments be made publically available?

I have read and endorse the EDO's response to this question as set out below (with some of my own comments added).

A data hub, system of national environmental accounts and National Ecosystem Assessment should underpin the EPBC Act and inform decision-making. Collating, analysing, updating and applying this data should be a key role of a proposed Sustainability Commission (properly resourced).

I therefore support a national environmental database, and also strongly support data from EIA being made publically available. However, I would be very cautious about data being used for automated approvals. Under state laws various categories of exempt or complying development can still have significant cumulative impacts, and the use of private certifiers to 'tick off' on these developments has been problematic.

Rather, I support better up front guidance on whether a project requires assessment. There may be some scope (if data sets were comprehensive) for a proponent to confirm that there were no matters of national environmental significance or relevant impacts in the area of the development.

Currently, our laws are hampered by the lack of detailed mapping of nationally threatened species and ecological communities, and a lack of data and knowledge about the range and status of biodiversity across Australia. This need not be the case as the scientific capability exists to map this where appropriate data exists, and to quantify and explicitly represent uncertainty associated with data limitations.

Correcting this imbalance will require specific and dedicated information management programs and funding at the Commonwealth and all levels of government, including:

- listing of Ecosystems of National Importance;
- five-yearly National Ecosystems Assessment; and
- a new system of bioregional plans.

The Act should require the proposed Sustainability Commission or Environment Minister to establish a National Environmental Accounts framework, underpinned by a peer-reviewed scientific method. Decisions under the Act should be required to refer to natural resource management and biodiversity goals and be informed by reliable data. Environmental accounting is an important and complementary part of this approach, enabling adaptation to changes in environmental health, pressures and outcomes.

**Question 16 *Should the Commonwealth's regulatory role under the EPBC Act focus on habitat management at a landscape-scale rather than species-specific protections?***

No, we need both—it is not a question of habitat management at a landscape-scale rather than species-specific protections! Focusing on only one or the other would be a recipe for muddy/unclear objectives, goals and ultimately, poor environmental and biodiversity outcomes.

Please see my response to Question 13.

**Question 17 *Should the EPBC Act be amended to enable broader accreditation of state and territory, local and other processes?***

No. Please see my response to Question 14.

**Question 18 *Are there adequate incentives to give the community confidence in self-regulation?***

A resounding NO. There is no evidence that self-regulation regimes have adequate scope to address cumulative impacts.

There is also a significant question around the monitoring of self-regulation. Absence of an effective and active compliance regime can actually constitute an incentive for non-compliance, which in turn undermines the delivery of environmental outcomes. One only has to look to the sorry environmental and biodiversity outcomes associated with land-clearing regulations and regime in Queensland and New South Wales.

**Question 19 How should the EPBC Act support the engagement of Indigenous Australians in environment and heritage management? - How can we best engage with Indigenous Australians to best understand their needs and potential contributions? - What mechanisms should be added to the Act to support the role of Indigenous Australians?**

Please see my response to Question 12.

**Question 20 *How should community involvement in decision making under the EPBC Act be improved? For example, should community representation in environmental advisory and decision-making bodies be increased?***

I have read and endorse the EDO's response as set out below.

The Act must include a range of key safeguards to ensure public participation, transparency, accountability and access to justice. In particular:

- strong public participation provisions;
- merits review for key decisions;
- easily accessible, timely public information on actions and decisions;
- open standing to review legal errors and enforce breaches;<sup>51</sup> and
- protective costs orders.

### **Strong public participation provisions**

Community engagement should be at the centre of the Act. This would include early engagement and public participation provisions at all key stages to inform decisions under the Act. In particular:

- National Environment and Sustainability Plans;
- draft policies and standards made by the proposed **Sustainability Commission**;
- draft impact assessment guidelines by the proposed **National EPA**;
- nomination and listing of threatened biodiversity and heritage places;
- recovery and threat abatement planning;

- bioregional planning;
- strategic environmental assessments;
- project environmental assessment;
- wildlife licensing and trade;
- post-approval compliance; and
- performance monitoring and reporting.

The Act should require decisions to be informed by community engagement, including a requirement for decision-makers to take all public submissions into account, provide statements of reasons for decisions, and demonstrate how public feedback affected the final outcome.

### **Merits review for key decisions**

The Act must provide standing for interested parties to seek merits review of a limited set of key decisions that impact biodiversity in an arms-length court or tribunal. This anti-corruption and accountability measure is in keeping with various expert reviews and recommendations.

Merits review would apply equally to decisions made by the proposed **National EPA**, the proposed **Sustainability Commission**, the Minister or their delegate. All significant decisions would be published and accompanied by a statement of reasons. For example, decisions on whether an action is a controlled action; approval or refusal of an action, strategic assessment/program accreditations and licensing decisions.

In particular, merits review of decisions should be available on the following matters (within a limited time after the decision is publicly notified):

- decision not to list (or uplist) a nominated species, ecological community, national heritage, critical habitat, or protected area;
- whether a proposed activity is a 'controlled action', and if so, the assessment method required;
- the adequacy of a recovery plan made for a species or ecological community;
- permits affecting nationally-protected species; and
- international trade and movement of wildlife,<sup>54</sup> and
- advice about whether an action would breach a conservation order.

### **Accessible and timely public information**

The Act should require the publication of easily accessible, timely public information on actions, biodiversity assessments and decisions.

All relevant information about a proposed action or a decision must be transparent and readily available to the community. Examples include providing reasons for decisions; mandatory notice of decisions and appeals (or rights to appeal) to all interested parties; and avoiding information asymmetry between the community, development proponents and other stakeholders. This includes the areas that require public participation noted above, as well as habitat maps, government research and data, and compliance and enforcement information on an online environmental information hub.

The proposed **National EPA** and Environment Department should maintain a comprehensive set of public registers, accessible via the **online hub**, for transparency and effective public oversight of activities and outcomes post-approval. Public registers should include information about

issued licences and approvals, any penalty notices and enforcement actions, the location of offset and regeneration sites, and conservation covenants (subject to confidentiality protections for sensitive environmental information).

### **Open standing to seek review of legal errors and enforce breaches**

The Act must build-in mechanisms for the community to seek arms-length review of decisions, administrative processes and potential breaches of the Act and regulations. The proposed legal duties on the Environment Minister and other institutions would include a corresponding right for the community to enforce those duties where there is a failure to fulfil them.

Open standing for the public to seek judicial review of government decisions, and the right to take environmental breaches to court, means that any person can ensure that key decisions under the EPBC Act are made according to the law.

As the NSW Independent Commission Against Corruption notes, third party rights provide ‘an important check on executive government’.

Legal proceedings should be heard in a court or tribunal with specialist environmental expertise, independent of the executive government and regulatory agencies. As in NSW, there should be open standing so that any person can bring civil enforcement proceedings.

Legal proceedings are rarely commenced by the general community due to the threat of adverse costs orders, the significant cost of legal action and the lack of merits review options. This disproves the “floodgates” argument that is often used to justify restricting the community’s standing.<sup>59</sup> However, the mere existence of these rights can ensure that decision-makers are on notice to make proper and timely decisions, and that decisions are free from bias and corruption.

### **Protective costs orders**

To enable members of the community to use laws to protect biodiversity, the EPBC Act must provide for protective costs orders for public interest legal proceedings (as distinct from cases where the applicant’s predominant interest relates to private property, personal or financial gain).

This means the Act would need to:

- empower the Federal Court (using relevant environmental expertise) to decide whether a case is a public interest proceeding and, if so, determine the appropriate form of public interest costs order;
- prohibit security for costs orders in public interest proceedings under the Act; and
- not require a public interest applicant to give an undertaking as to damages as a pre-condition to granting an interim injunction, where the action is to urgently protect a matter of national environmental significance.

The aim is to enable community members to defend biodiversity against unlawful or inappropriate degradation, by ensuring the costs of access to information and civil enforcement are no barrier and are equitably distributed.

**Question 21 *What is the priority for reform to governance arrangements? The decision-making structures or the transparency of decisions? Should the decision makers under the EPBC Act be supported by different governance arrangements?***

I have read and endorse EDO's response to this question as set out below.

Public trust in government's capacity and integrity to implement best-practice biodiversity laws requires five elements:

1. Duties on decision-makers;
2. Clear decision-making criteria and accountability;
3. Independent, trusted institutions;
4. National environmental goals, plans and standards; and
5. Adequate resourcing.

### **Duties on decision-makers**

A significant limitation of the current EPBC Act is the widely discretionary ways it can be used (or not used) to protect biodiversity. High levels of discretion mean there is often little the community (or bureaucracy) can do to address poor implementation.

It is therefore important that the Act imposes duties on Ministers and agencies to:

- exercise their powers, functions and decisions under the Act to achieve the Act's objects;
- maintain or improve the environmental values and ecological character of protected matters under the Act; and
- make decisions in accordance with ESD principles.

Specific statutory obligations to be given effect in the Act should include:

- ensuring that mandatory recovery plans and threat abatement plans are established within legislative timeframes, maintained in force and up to date;
- requiring that critical habitat is designated on a Critical Habitat Register at the time a species is listed;
- requiring that lists of threatened species and ecological communities are kept up-to-date
- preparing and designating a list of **Ecosystems of National Importance**;
- ensuring a **National Ecosystems Assessment** is conducted, with an interim and final report within five years, and periodically as specified thereafter; and
- establishing and maintaining a system of national (or regional) environmental accounts.

### **Clear decision-making criteria and accountability**

In addition to enforceable duties, the Act should ensure that key decisions are made in accordance with clear criteria.

First, this can be done upfront by requiring decision-makers to exercise their functions to achieve the Act's objects.

Second, the Act must identify key decision-making points in the legislative framework (such as listing decisions, critical habitat identification, thresholds for controlled actions,<sup>63</sup> recovery planning and **bioregional planning**) and the objective criteria that decision-makers must apply to them.

Third, the Act should provide public and independent oversight once a decision is made by:

- maximising transparency and community input prior to the decision;
- requiring statements of reasons for decisions; and
- providing public access to the courts or independent tribunals for merits review and judicial review of government decisions and civil enforcement of breaches.

### **Independent, trusted institutions**

The Act should require or establish new institutions for effective implementation and administration of the Act.

New and re-invigorated institutions to support the Act should include:

- [National Sustainability Commission](#)
- [National EPA](#)
- Independent Scientific and Heritage Committees
- Advisory councils and expert taskforces

#### *National Sustainability Commission*

The proposed National Sustainability Commission would be responsible for developing national plans, strategies and standards, as well as having strategic oversight, advisory and reporting functions. The Commission would have its own staff and budget, advise the Environment Minister, the Department and other institutions on national priorities, be independent of departmental or ministerial direction, and report annually to the Parliament on the state of the environment and the achievement of ecologically sustainable development.

#### *National EPA*

The proposed National EPA should be established at arms-length from the Department of Environment to:

- undertake environmental impact assessment of projects and planning proposals that affect matters of national environmental significance;
- replace National Environmental Protection Measures and related legislation with more efficient, enforceable and coordinated national standards, based on continuous improvement and best available techniques;<sup>67</sup>
- coordinate and ensure implementation of environmental management standards; and
- include a separate unit responsible for post-approval project and plan compliance, audits, monitoring and reporting.

#### *Independent Scientific and Heritage Committees*

An expanded independent Scientific Committee should be empowered to assess and list nationally threatened species and important populations, ecological communities and ecosystems of national significance. A separate Australian Heritage Committee would assess nominations and list heritage areas and sites.

Both Committees could provide independent advice to Ministers, the proposed **Sustainability Commission**, the Environment Department and other decision-makers – including on recovery planning, key threatening processes, management plans and actions that positively or negatively affect Australia’s environment and heritage.

#### *Advisory councils and taskforces*

Advisory councils and taskforces should be established to support these institutions. For example an Indigenous Advisory Council and Biodiversity Expert Taskforce to assist with **bioregional planning**.

### **Adequate resourcing**

As successive State of the Environment reports have found, effective implementation of biodiversity protections requires significantly increased resources.

Yet state and federal environmental management resourcing and agency capacity is trending in the wrong direction, and is frequently disrupted by political cycles, stop-start program funding, agency restructures and ‘efficiency measures’. Meanwhile key threats like climate change, land clearing and invasive species accelerate.

The Act will need to enact and stimulate innovative, inter-governmental and multi-sector funding sources.

### **Investing in ecosystem services, databases and new tools**

Sustained beneficial investment in biodiversity conservation will require far greater public recognition of the ecosystem services that healthy biological systems provide to humans.

Ecosystem services assist food and fibre production, regulate water, soil and atmospheric systems, and support recreational, cultural and mental health.

*Estimating the value of ecosystem services can reveal social costs or benefits that otherwise would remain hidden. Once identified and understood, these values can be considered and accounted for in the policy and decision-making process.*

New tools, such as **National Environmental Accounts** and **bioregional planning**, will help to ensure environmental values are properly accounted for.

**Question 22** *What innovative approaches could the review consider that could efficiently and effectively deliver the intended outcomes of the EPBC Act? What safeguards would be needed?*

Please see my response to Question 8.

**Question 23** *Should the Commonwealth establish new environmental markets? Should the Commonwealth implement a trust fund for environmental outcomes?*

To what end does the Commonwealth seek to establish new environmental markets? What purpose(s) would that serve? What specific environmental outcomes would such markets deliver? What is the evidence that such new environmental markets are an appropriate means of cost-effectively delivering each of the specified desired outcomes? What is the cost of establishing and operating such markets? How would this be resourced? How would they be governed? How



would they be designed? Who gets to participate in design and governance? Will there be a process to pre-emptively identify potential perverse outcomes in new environmental markets, so that safeguards can be designed to avoid them?

With respect to investment in environmental outcomes, I support the EDO's idea of a fund for National Biodiversity Conservation and Investment, with clear criteria about how it works. The Act should require the Environment Minister to consult on, approve and coordinate implementation of a **National Biodiversity Conservation and Investment Strategy** (NBCIS). Unlike existing strategies, the NBCIS should be directly interwoven with the fabric of the Act and National Environment Plans.

**Question 24 *What do you see are the key opportunities to improve the current system of environmental offsetting under the EPBC Act?***

The Act should have clear science-based limits of what can be offset. There are multiple reasons why some biodiversity/environmental impacts simply cannot be offset and the Act should acknowledge these and disallow offsetting in situations such as the following (Chee 2015):

- the affected entity (e.g. species/community/ecosystem) occurs only at a few sites or populations and is effectively irreplaceable because there are too few viable offset sites outside the area affected by the development.
- the affected entity is endangered and close to the threshold of minimum viability (e.g. because the majority of the original population(s) and/or habitat has been lost).
- the affected entity is in good to excellent condition; and there are few, if any, opportunities to make gains at offset sites via enhancement.
- the background rates of loss for the affected entity are low; and there are few, if any, opportunities to obtain gains through averted loss.
- lack of knowledge or effective restoration techniques mean it is unclear if ecologically equivalent gains can be made at the offset site within an acceptable timeframe and level of certainty (e.g. attempting to restore 'full' floristic diversity or 'old-growth' habitat);
- the know-how exists, but the resources required to generate gains at offset sites is prohibitive.

Resort to biodiversity offsets, if any, should be minimised and require a precautionary approach given the long timeframes and current uncertainty as to whether biodiversity offsetting is capable of delivering successful outcomes. Any offsetting (such as for vulnerable, near-threatened or non-threatened biodiversity and ecological communities) would require a scientifically robust National Offsets Policy and consistent standards.

The National Offsets Policy and standards must:

- require that offsets are a last resort, after all efforts are made to avoid and minimise impacts;
- meet strict scientific like-for-like biodiversity principles and adopt a 'maintain or improve' standard to measure outcomes;
- ensure offsets are protected in perpetuity (offsets cannot be offset);
- be consistent with a precautionary approach;
- make clear that no offsets should be available for future mine remediation due to lack of evidence of success; and
- ensure that offsetting is consistent with recovery goals in recovery plans.

Chee YE. 2015. Principles Underpinning Biodiversity Offsets and Guidance on their Use. Pages 51-59 in van der Ree R, Smith DJ, and Grilo C, editors. Handbook of Road Ecology. John Wiley & Sons, Ltd, Chichester, West Sussex.

Question 25 How could private sector and philanthropic investment in the environment be best supported by the EPBC Act? - Could public sector financing be used to increase these investments? - What are the benefits, costs or risks with the Commonwealth developing a public investment vehicle to coordinate EPBC Act offset funds?

Please see my response to Question 11.