24 August 2008

ENVIRONMENT INSTITUTE OF AUSTRALIA AND NEW ZEALAND

The Secretary
Senate Standing Committee on Environment
Communications and the Arts
PO Box 6100
Parliament House
CANBERRA ACT 2600

RE: Submission to the Senate Inquiry into the operation of the Environment Protection and Biodiversity Conservation Act 1999

Dear Sir/Madam

This submission is from the Environment Institute of Australia and New Zealand (EIANZ). The Institute is the peak professional body for environmental practitioners in Australasia, and promotes independent and interdisciplinary discourse on environmental issues. EIANZ advocates that best environmental practice be delivered by competent and ethical environmental practitioners. More information on the Institute is provided below. We welcome the opportunity to provide our views on the Inquiry into the EPBC Act.

The Institute welcomes the opportunity to provide our views on the Inquiry into the EPBC Act. This submission is made by practitioners who are experienced in working with the provisions of the Act to achieve its objectives on development proposals. It is made with the intention of highlighting those areas where the Act could be strengthened to improve its effectiveness.

Our submission is based on data collected from a survey of Members conducted on 11-12 August 2008. The survey results represent the views of 172 qualified environmental practitioners, most of whom are ecologists with affiliations to professional associations including EIANZ. The survey was the initiative of EIANZ Ecology, a Special Interest Section of the Institute. EIANZ Ecology currently operates a correspondence network with ecologists throughout Australia and with other professional associations.

Summary of survey results

The survey asked respondents how well they thought the EPBC Act was protecting biodiversity and threatened species.

- 59% of respondents thought that the EPBC Act was failing to protect biodiversity and threatened species
- 41% of respondents did not think that the EPBC Act was failing to protect biodiversity and threatened species

Respondents who believe the Act is failing were asked to list what they believed were the three main reasons for this failure. Of the 59% who thought the EPBC Act was not working, the reasons most commonly cited (in descending order) were:

- Over-emphasis on protected species rather than biodiversity (structure, function, composition)
- Lack of accountability/enforcement
- Lack of strategic planning, leading to cumulative impacts from lots of small approvals
- Lack of expectation from regulator for relevant detail in assessment, suggesting inexperience

50 Cardigan Street Carlton VIC 3053
Ph: 03 9654 7473 Fax: 03 9650 1242
www.eianz.org
ABN 39 364 288 752

- Ministerial powers too easily over-ride statutory objectives
- Not enough referrals/approvals rejected
- Approval conditions insufficiently robust, targeted or geared to guarantee outcomes
- Insufficient listing process
- Undervaluing of biodiversity in economic and social terms when weighed against development
- Lack of recognised standards in profession or policy

Details of the survey methodology and results are provided at Attachment 1. A discussion of each of the above 10 reasons is given in Attachment 2.

Implications of survey results for the EPBC Act

Respondents were split on whether the EPBC Act was actually failing. This could be interpreted as suggesting that the Act is fine as a piece of legislation but is being poorly applied, thereby failing to protect biodiversity and threatened species. We believe, therefore, that the solution is not necessarily to reform the Act but realise its objectives through better and stronger policy and enhanced implementation.

The EPBC Act is a potentially powerful piece of legislation that has many good qualities of a modern statute. Lack of resources for administration of the Act is clearly a problem but that was number 16 in the list of concerns and it is not clear whether it would simply work better if there was more efficient use of available skills and resources, more political ambition and a better understanding of why biodiversity management is important.

More effective *guiding* policy would help, particularly if the legislation was used to require processes to be followed and demonstrate accordance with approval conditions. Care needs to be taken though, to ensure that additional policy does not make things more complicated. Environmental practitioners are already used to working in the way such policy would be written and many project proponents are already comfortable with the approach. As a result, conflict can be created if policy-makers try to impose standards on the profession without consultation. One option for policy-makers is take examples of best practice, document these with appropriate skilled advice so they remain targeted but flexible, and set those as the standard.

It is encouraging that many of the problems inherently come down to this single issue: *lack of basic* standards, because this implies that many of the problems can be readily addressed. This is something that the State of New South Wales has taken a lead in. However, there is a need for nationally recognised standards as much of the biodiversity loss occurs over vast areas of land that are not effectively regulated. In many areas planning systems are inconsistent and many grass-root decisions are made by regional and local councils with little experience in managing biodiversity, and who in some cases are more heavily motivated by the short-term economic contribution of development proposals, and who fail to see the impacts of development on the environment and biodiversity conservation, particularly at the cumulative level.

A strongly held belief is that the scope of the EPBC Act is being interpreted too narrowly to address Australia's obligations for biodiversity conservation. Threatened species do not exist in isolation, they are components of its ecology. Any part of the landscape that would trigger the Act due to presence of a threatened species is important and notable. The only way the Act can hope to reverse or manage loss of biodiversity is to protect the landscape structure, function and composition of any place that supports threatened species or communities. To achieve the Act's objectives, high standards of assessment and biodiversity management should apply holistically to any site that triggers the Act. This is rather like the way that Ramsar works.

Although sites are selected (e.g. "triggered") based on criteria such as numbers of specific wetland species, it is the "ecological character" of the site that is protected. This can mean any wetland-dependent species or community that forms part of the site's ecology is material to ongoing decision-making, regardless of how common or otherwise.

Irrespective of the results of our survey, there is clear and strong evidence for national and bio-regional declines in threatened species from nationwide data gathering by Birds Australia and the Australian State of the Environment reports, that have been equally concerned about changes in the distribution and abundance of many other taxa.

Species abundance and distribution is ultimately the best test for success or failure of biodiversity management (and thereby the Commonwealth objectives in respect of national and international legislation and treaties) but not singly appropriate for deciding where, or how to focus efforts for biodiversity management. It is really important that the agencies learn to differentiate threatened species issues from issues of biodiversity management.

There is undoubtedly scope for greater leadership by the Commonwealth and numerous ways this can be done. Below we have listed some key recommendations that could be discussed.

Recommendations

The following series of over-arching recommendations arise from a more detailed discussion of topic areas in Attachment 2.

- To find a way to substantially improve recognition, at the senior-management and office-floor level, of the true relationship between threatened species and overall biodiversity management, as it relates to the objectives of the EPBC Act. Ultimately, this needs to underpin a 're-education' of the public, as to the real economic value of biodiversity.
- To find a way to identify and implement basic policy needed to make the Act work. These policies are far-ranging and in many cases, do not need to be particularly prescriptive. They should mostly be geared towards identifying appropriate needs, requirements and standards where this is not readily available to planners and the public. EIANZ Ecology is particularly interested in any opportunity to develop national guidelines for ecological impact assessment. This process has been achieved recently by the Institute of Ecology and Environmental Management and the UK government.
- To consider how the implementation of the Act could be made more efficient, by a cross-pollination of experience and ideas between public administrators and the private consulting sector, who work daily within the planning legislation and have either very strong academic or practical experience credentials.
- The profession is just as concerned about poor standards within the consulting trade, as much as lack of skills in the public sector. The success of environmental legislation like the EPBC Act depends on us as much as it does on the government. We would like to consider how minimum qualifications / experience, as reflected through Full and Association membership of Institutes like EIANZ and the Certified Environmental Practitioner (CEnvP) process, could be better recognised.
- To consider how the scope of Australia's commitments to the Convention on Biological Diversity (CBD) could be realised through more over-arching biodiversity controls. Our members believe the Act fails because the scope is limited to threatened species, whilst biodiversity management is more holistic. In order to protect threatened species, the EPBC Act cannot only apply to them alone – even though they may be triggers to decide at which *locations* the Act should apply. In accordance with Part 3 and Part 3A of the Act, it exists to maintain and enhance biodiversity as a whole, consistent with Australia's obligations to the CBD. If a threatened species is relevant, then it survives due to its relationship with whole-site ecology (all species are linked together in the landscape). Perhaps once triggered, the regulations and policy should apply to the landscape in question, not simply the controlling provisions.

If this were to occur, it could begin to address another concern of members that is the limited scope of Commonwealth intervention in major projects.

- To consider how the current listing process can be strengthened, drawing on independent data and becoming more proactive, rather than reactive to species decline.

We thank the Senate for the opportunity to provide our views on this important matter and would welcome the chance to discuss any of this submission in greater detail if required.
Yours sincerely,

William Haylock, President,
Environment Institute of Australia and New Zealand

Acknowledgements
Special thanks to the 172 Institute Members who responded to the questionnaire and especially to the following people, for assistance in drafting the submission:

Simon Mustoe, Convenor, EIANZ Ecology SIS, BSc (Hons) Ecology CEnvP, MEIANZ

Andrew Sedger, B.App.Sc. (NRM), M.Nat.Res.Law, Grad Dip (Comms), MEIANZ

Judith Rawling, BA Dip. Ed., Dip Envtl. Stud. MSc Envtl. Stud. MEIANZ, MECANSW, ESA, AIB

Lawrie Conole, Grad. Cert. Ornith., MEIANZ

Dr Matt Edmunds, BSc (Hons) Marine Freshwater and Antarctic Biology, PhD Zoology.

EIANZ Ecology was formally approved as a Special Interest Section (SIS) of the Institute in April 2008, to strengthen the Institute's focus on ecologically sustainable development and biodiversity matters.

EIANZ Ecology currently operates a correspondence network with ecologists throughout Australia and with other professional associations. The network was used to gather information for this submission. The qualifications and affiliations of respondents indicate a strong emphasis on ecology and high level of experience.

ATTACHMENT 1: Details of the survey

Qualifications and Experience of Respondents

Fifty six percent (98) of respondents were Australian ecologists and 35% of these have more than five years of professional consulting experience (Figure 1). Seventy six percent were members of professional / academic associations for ecologists including:

- The Environment Institute of Australia and New Zealand
- Ecological Consultants Association of New South Wales
- Ecological Society of Australia
- New Zealand Ecological Society
- The Institute of Ecology and Environmental Management
- Australian Marine Sciences Association
- Australia New Zealand Society for Ecological Economics

Ten percent were Certified Environmental Practitioners (see www.cenvp.org). Another 11 percent were members of non-ecological professional associations (mostly planning, law and industry) with only 13 percent non-affiliated.

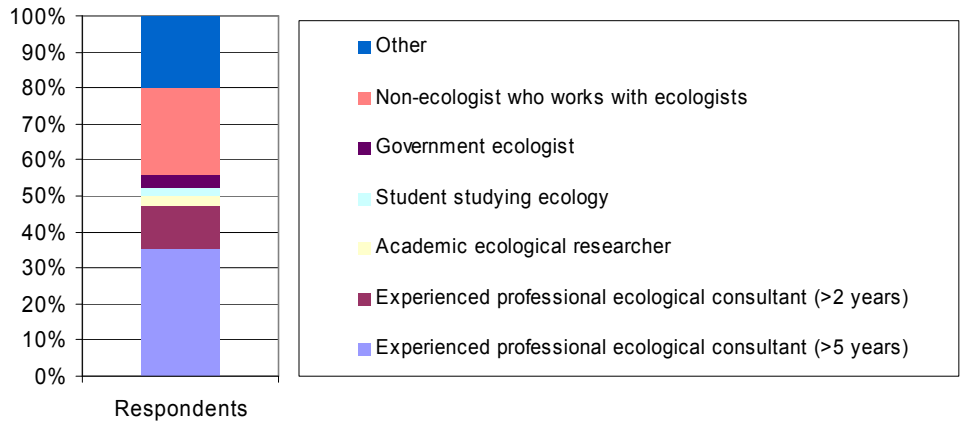

Figure 1: Skills and `experience of respondents

Survey Approach

The simple survey asked first whether the respondent believed the EPBC Act was failing to protect biodiversity and threatened species. If the answer was "yes", the respondent was asked to list what they believed to be the three main reasons in decreasing order of importance. The results were put into a database and similar responses were grouped under topic headings. These topics were then scored with the first answers given a value of 1.5, second answers a value of 1.2, and third answers a value of 1.0. The main topic areas are presented below, followed by a discussion of the relevant responses.

Survey Results

When asked whether respondents felt the EPBC Act was failing to protect biodiversity and threatened species, 59% thought this was the case, whilst 41% thought this was not (Figure 2). There was no substantial difference in the response between ecologists (58% yes, n=141) and non-ecologists (61% yes, n=31).

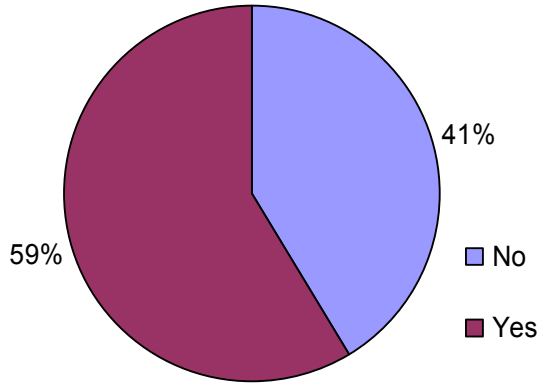

Figure 2: Results of question asked: do you think the EPBC Act is failing to protect biodiversity and threatened species?

Of the 59% who thought the EPBC Act was failing, 271 reasons were given. Most but not all respondents chose to list three reasons.

Seventy two percent of the total score applied to 10 topics (Table 1). The full list is given in Figure 3. Inappropriate application of biodiversity principles and inappropriate emphasis on threatened species was the most serious problem, closely followed by lack of accountability and enforcement, lack of strategic planning leading to gross cumulative impacts and over-riding political powers to circumvent statutory process. These 10 topics are discussed below, with a more detailed discussion of the reasons given by respondents in Attachment 1.

Table 1: Top 12 reasons given for failure of the EPBC Act to protect biodiversity and threatened species

Reason for Failure	Score
Over-emphasis on protected species rather than biodiversity (structure, function, composition)	41.4
Lack of accountability / enforcement	30.3
Lack of strategic planning, leading to cumulative impacts from lots of small approvals	28.1
Lack of expectation from regulator for relevant detail in assessment, suggesting inexperience	27.6
Ministerial powers too easily over-ride statutory objectives	24.9
Not enough referrals / approvals rejected	17.1
Approval conditions insufficiently robust, targeted or geared to guarantee outcomes	16.8
Insufficient listing process	16
Undervaluing of biodiversity in economic and social terms when weighed against development	14.8
Lack of recognised standards in profession or policy	12.9

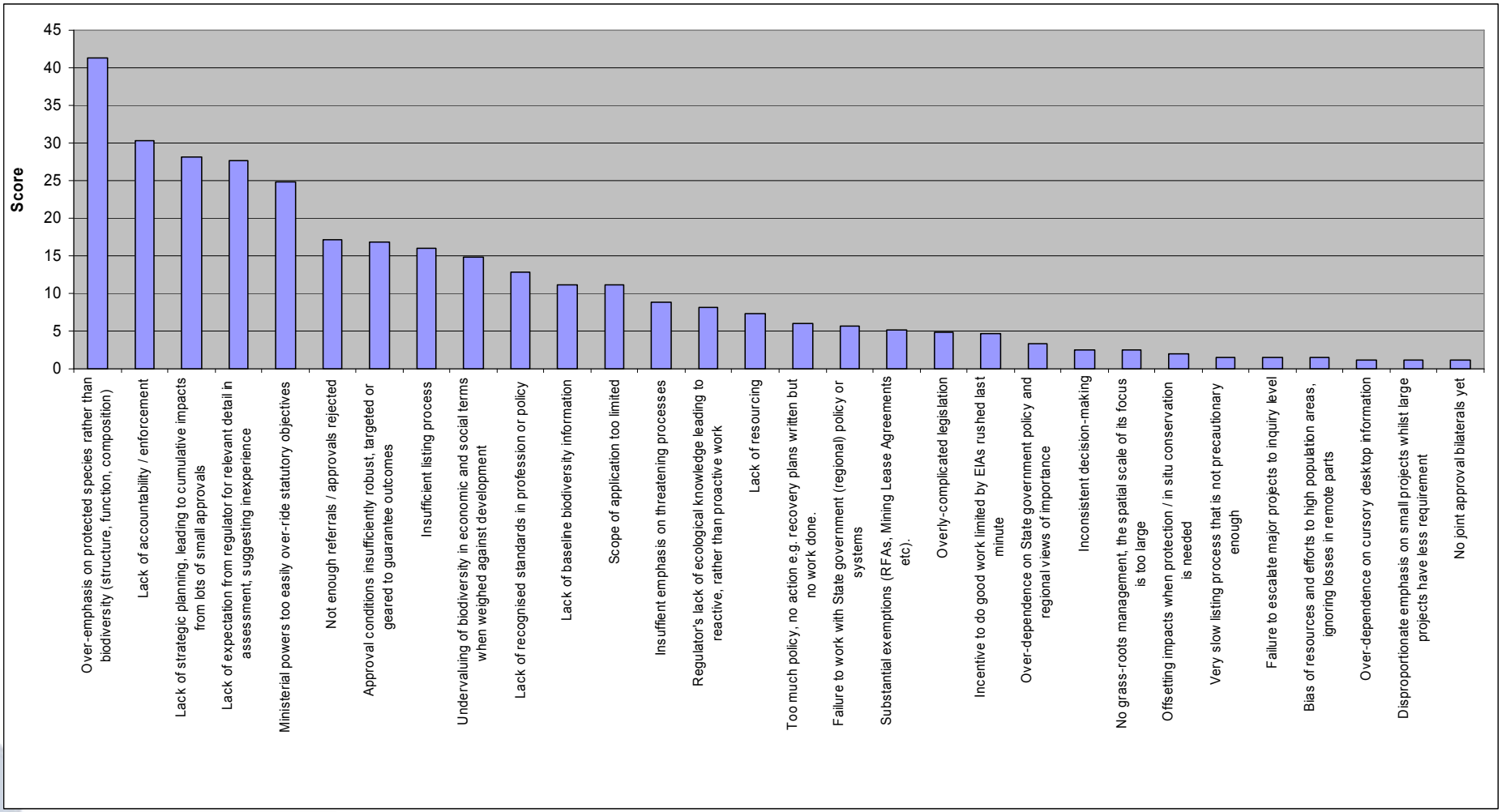

Figure 3: Reasons given for failure of the EPBC Act to protect biodiversity and threatened species

ATTACHMENT 2

1. Over-emphasis on protected species rather than biodiversity (structure, function, composition)

The EPBC Act adopts threatened species as one of the key triggers for controlled actions but threatened species are notoriously inappropriate as the sole focus for biodiversity management (Noss, 1990; Lindenmayer *et al.* 2002). The Commonwealth has broader obligations to international conventions and treaties to manage biodiversity, which according to the Convention on Biological Diversity are measured in more holistic terms (UNEP-WCMC, 2002).

To begin with, there is concern that the triggers are too limited in scope. This is partly a problem with an "insufficient listing process" (number 8) and the limited scope of application of the Act (response number 12). Even if it is appropriate to use threatened species to identify actions that are controlled under Part 3, it is often inappropriate to base all subsequent management conditions on these species alone. (Lindenmayer *et al.* 2002). To a large degree, local Councils are at the front line of deciding whether EPBC Act enforcement is required but argue that this is outside their jurisdiction. In the absence of a clear indication that a threatened species is present, local Councils will often let matters pass without further consideration. This profoundly limits the Act's benefit at a basic strategic level (see response number 4, below).

Respondents believe it is too easy to avoid any post-approval management on the basis that rare species are difficult to manage or find. In many cases, the habitat for rare species may be present but when the species themselves are not found, further emphasis may not be put on maintaining site condition. One respondent put it as like fighting a bush fire with a bucket of water. Whilst conserving threatened species is important, it is a waste of effort if the habitat around them is being simultaneously destroyed or rendered less suitable for the wider suite of dependant species.

All species are threatened to an extent and the challenge we face is not to focus just on those species that are heavily threatened, but to make sure those more commonly occurring do not become increasingly uncommon. BirdLife International, the IUCN's advisor on birds of the world, ranks birds from Critically Endangered down to Least Concern. Recent publications by Birds Australia indicate heavy declines in the distribution and abundance of even common birds like Common Emu (-50%) (Barrett *et al.* 2003). Similar declines are reported for many countries around the world. As early as the mid-1990s in the UK, non-governmental organisations created policy, listing species not on scarcity but on the rate of decline. These types of policies are now commonly adopted by government agencies in the UK and the US (FWS 2002, UK government and non-governmental organisations 2008). The US Fisheries and Wildlife Service says "The National list should be viewed as a barometer of the status of continental bird populations, providing an "early warning" of birds that may decline to levels requiring ESA protection unless additional conservation measures are taken."

A sensible approach to addressing these macro-environmental impacts is to understand and manage the environment based on other biodiversity indicators, including vegetation communities and suites of species. As stated in the Convention on Biological Diversity (CBD): "it is essential to take an holistic view of biodiversity and address the interactions that species have with each other and their non-living environment, i.e. to work from an ecological perspective." These fundamental units of biodiversity (structure, function and composition) and the basic science of ecology have become obscured in EPBC Act *regulatory practice*.

There are some useful models that are being used in the State systems, such as the Victorian Habitat Hectare scheme and the New South Wales Biometrics system, to instigate more effective biodiversity management. Even these schemes have come under some criticism for failing to address certain matters but are good examples of the type of model that should be formally or informally applied to any site so that the outcome of all activities can be maximised and decisions made on an appropriate basis.

Until we acknowledge that biodiversity cannot be managed by focusing on threatened species alone, the EPBC Act's benefits to the environment of Australia will be constrained. This is not just a failure of the Act itself, as its objectives are suited to this type of approach. It is more a question of lack of policy and experience, and in some cases lack of willingness to implement the Act effectively.

2. Lack of accountability / enforcement

One of the main outcomes identified in a forum run by EIANZ Ecology in April 2008 was the need for more accountability for failures to meet environmental obligations. Many ecological consultants welcome more accountability of their own work. At present, it is very difficult for specialist practitioners to compete on the basis of high standards. There is a fear expressed by both the consulting and legal profession of a bias away from good standards, resulting from a lack of expectation by the regulator. This is to do with both inexperience of decision-makers and occasionally, high level political interference (see numbers 4 and 5). Unfortunately, consultants who insist on setting high standards often miss out on work in favour of those who provide a simpler and cheaper option. For those authorities who adopt guidelines for ecological survey and assessment, this problem is less likely to arise.

Respondents were generally in agreement that there needs to be more prosecutions (or civil action for damages) for clear breaches of the Act by developers. Most consultants have examples where at the "spirit" if not the requirements of the Act have not been addressed. There are also many examples of actions that it is believed, should have been referred to the Commonwealth, but were not; and of projects that have been approved and failed to meet conditional outcomes, although in many cases such outcomes have not been well defined (number 7).

3. Lack of strategic planning, leading to cumulative impacts from lots of small approvals

Respondents were concerned about the number of referrals and approvals that were being considered in isolation and that it is too easy to approve small projects, when the sum total of small projects is significant. For example, in NSW, councils may grant consent to a subdivision on the proviso that the purchaser commissions an ecological assessment. The outcomes of the State "seven-part-test" will be insignificant when considered on a Lot by Lot basis. Although this legislation is not of direct relevance to the EPBC Act, an overall failing to protect biodiversity at this landscape level is what causes a failure to address international obligations. What this proves is that the operation and success of the EPBC Act is not and cannot be independent of the operation of State and local legislation.

Without a strategic planning framework, no environmental planning system can avoid cumulative impacts. Planning infrastructure already exists to some extent at the State and Territory level but the quality and applicability to biodiversity issues varies. If the Commonwealth was in a position to exercise powers to enforce the Act's objectives more generally, this could require the States to follow suit. However, accordance with obligations under the Convention on Biological Diversity has been thwarted in recent examples of Regional Forest Agreements in Tasmania (number 18 on the list of concerns given by respondents).

Strategic planning is also hampered by a lack of national performance data. For instance, the Commonwealth is presently rectifying a database that should accurately record the location and geographic scale of environmental impacts from all projects since the Act started. Even this basic information would enable the Commonwealth to look at its historic performance. The bigger problem is the lack of integrated knowledge of Australian landscape systems, biodiversity, vegetation and species across the whole continent (respondent number 11). It is very difficult for consultants to know or persuade regulatory agencies that effects on one area are important in the context of the wider environment.

The only way to solve this problem is to invest in more baseline survey work and expect developers to invest more in proper ecological survey prior to submitting assessment. In many cases, the standard of scientific method for baseline surveys is poor, leading to inexact assessments. This results partly from a lack of expectation for referrals to be backed with environmental assessments based on adequate levels of effort, conducted at an appropriate time, for the appropriate duration, and with adequate resources.

4. Lack of expectation from regulator for relevant detail in assessment, suggesting inexperience

Many of the respondents share concern that responsible approval authorities in charge of approvals lack the knowledge and foresight to make well-informed decisions. The responses given were varied, reflecting a general concern that inexperience of decision-makers is leading to arbitrary decision-making and lack of consistency.

Respondents were concerned that implementation of the Act is often in a "letter of the law" fashion, rather than in the manner it was intended. They are also concerned that regulators do not know what questions to ask when receiving documents from consultants; that proper clarification of issues is not being provided by case officers; and that assessments are being poorly led due to lack of understanding about what constitutes credible science. All this has considerable impact on ability of the profession to support high standards. It also greatly limits the quality of the terms of reference being written for development bilaterals under the Act, which are often put together not by experienced practising ecologists, but by bureaucrats and solicitors.

Problems apply as much to referrals as they do to approvals. Concern was raised that many projects were being approved by local Councils unaware that Commonwealth provisions applied. This is a considerable problem that the Commonwealth could address with better policy and promotion. Perhaps rightly, Local Councils do not see Commonwealth matters as anything to do with them but their decisions in some cases are having considerable impact on matters of national environmental significance. For example, a great deal of residential and industrial development is approved on the edge of Ramsar sites without referring the projects to the Commonwealth, even where there are obvious hydrological effects occurring, that could have a significant downstream impacts on the character of the sites. Where such areas are experiencing rapid growth (e.g. the shores of Western Port in Victoria), the cumulative impacts are considerable and clearly go beyond the EPBC Act's threshold for control.

In many, if not most cases referred to the Commonwealth, decisions are made without first-hand site knowledge. Almost no site visits are undertaken to assess the issues in a holistic biodiversity context and decisions often rely on information contained in reports or submissions made by unqualified or (at times) biased personnel. At present, there is little or no policy that clearly identifies the need for independent expert advice on ecological matters.

Overall, the somewhat abstract nature of decisions means some problems are of direct detriment to developers. The best example is the Bald Hills Wind Farm project, which caused unnecessary and costly delays. Most consultants seem to agree that rejection of this project was inappropriate. In the current regulatory environment, there are fears that, it is just as likely to have a good project rejected as it is to have a poor project approved.

In another example, an honest, unavoidable but not significant breach of compliance was reported to the Commonwealth. It was done because the incident could easily be repeated elsewhere and it was considered important that the Commonwealth were aware, so contingencies could be placed on future operations. Instead of accepting the company and consultant's honesty, the Commonwealth decided to pursue prosecution.

The consultant got no further work from that company. In another example, a company that had been doing wind farm work for many years and had been instrumental in setting a standard for ecological assessment lost clients (and lost face) when the government suddenly decided to advise that such material would not be necessary for any subsequent project.

The latter examples indicate a level of inexperience in the agencies and possibly lack of appreciation for the positive role that consultants play in shaping the activity of developers.
Better understanding of these processes and a knowledge of scientific best practice would greatly assist the EPBC Act's performance.

5. Ministerial powers too easily over-ride statutory objectives

Respondents were very concerned at how easily State and Federal politics interferes in the decision-making process and how, in some cases, it is over-ridden entirely. Although there must be scope to over-ride matters in the case of public interest, it is felt that these powers are abused and go too far by minimising the need for even reasonable biodiversity consideration and management.

Respondents were similarly concerned about the corresponding low level of political will to realise the Act's intentions and that interference had jeopardised the Act's credibility in the eyes of the public and profession. This could have implications for the Act's performance. The Commonwealth relies heavily on community groups to engage on environmental problems. On paper, the Act is relatively strong but if community groups become disillusioned by a lack of enforcement (which seems to be the case now), they may not choose to pursue matters through the Act's process and instead, look to other politically less desirable methods of opposition.

6. Not enough referrals / approvals rejected

Respondents were concerned that the EPBC Act is viewed as a rubber stamping exercise and that, irrespective of the apparent lack of acceptability of some projects, there is rarely a point at which projects would be rejected outright. There is certainly a lack of recognised 'landmark' cases preventing development.

One of the problems is the poor information that often accompanies referrals. Referrals are intended to inform a decision about whether an action is controlled or not. There are many examples where this information is lacking and the responsible authority may not be acutely aware of the shortfall or the extent of the shortfall (for reasons, see number 4). There is then a perception amongst developers that such projects that are not controlled have been "approved". The concern ranked number 20 in the results was that assessments are often rushed. Despite its ranking, this is an extremely important point. Timely consideration of environmental matters is a basic tenet of assessment (Raff 1997) and is one of the reasons why incomplete information is presented. Some respondents complained that it is even common, in their experience, for projects to be approved with incomplete information pending its collection at a later stage.

Whilst ideal to have surveys carried out over a period of years, we also must be realistic. Developers have often invested considerable money, sometimes on behalf of shareholders, and cannot afford to wait and pay interest for several years to allow such studies to be undertaken. Nevertheless, seasonality and scientific survey constraints mean that most baseline ecological work must begin at least a year and for large projects, maybe two or more years before completion of an assessment. Consideration of ecological issues is often the last thing that is done and in many cases, happens after detailed design, limiting the scope for designing real mitigation measures.

A national planning policy framework could make these kinds of suggestions, indicating that better timing and more complete information is needed for decision-making. A two-year lead-up period to most developments is not out of the question but until there is a broad recognition of this basic need, there will continue to be a lack of baseline work to properly inform decisions.

7. Approval conditions insufficiently robust, targeted or geared to guarantee outcomes

Respondents were concerned that the approval of projects with conditions was not always geared towards meeting the Act's objectives, in some cases altogether lacking and in others, ill-defined or difficult to measure. Also, conditions of consent imposed by consent authorities often lack common sense and practicality of implementation, meaning money that could have been better spent, gets wasted. They more often than not fail to address the objectives of the biodiversity strategy by focusing too squarely on threatened species.

Offset plans in some States were both commended and criticised. Whilst they can create a net beneficial outcome, they may also be used as an excuse to avoid actions leaving an unacceptable residual impact. For example, although the project was eventually discarded (not for ecological reasons), offsets were planned to mitigate impacts on threatened Mallee Emu-wrens in northwest Victoria. The species is scarce, depends on long (50 year) unburnt *Triodia,* is declining rapidly and is a social bird that survives with the need for population flow between remnant patches. Replanting of mallee vegetation elsewhere could not guarantee the immediate replacement of habitat, for a species rapidly vanishing from the Australia landscape. As discussed in number 1, a range of methods or approaches may in fact be needed to address all matters of importance.

One of the difficulties with obtaining post-condition monitoring requirements comes from the expectation that measures can always be determined mathematically and that the only way to do this is to measure numbers of threatened organisms. With an over-emphasis on scarce species, we tend to assume that it is impossible to obtain the "statistical power" to determine a gain or loss. The Victorian Habitat Hectare scheme and NSW Biometrics get around this by using a more broadly based suite of biodiversity measures. Where species are concerned, some advocates of monitoring suggest behavioural cues are used instead of species richness or number (Lindell 2008). This is just one of many ways that assessments can be done by understanding the biodiversity whilst drawing on a variety of ecological principles. Our over-emphasis on single measures greatly constrains our options for assessing outcomes. There are better ways of establishing conditions but they are not well understood by planners or regulators and difficult to get agreement on, as the results are less immediately and simply measurable.

8. Insufficient listing process

Respondents were concerned that the listing process is inadequate. The EPBC Act limits its scope to species that are considered "Vulnerable" or above, whilst for reasons explained in number 1 (above) species of less concern are also declining. The listing process is slow and the Minister has discretion over whether to list a species or not, irrespective of whether Australia has an international obligation to conserve it. Getting species listed is difficult and because of a lack of integrated biodiversity monitoring at the national level, the process of reconsidering the status of species is even slower.

Australia already has a series of national action plans, which document the range of threatened species as well as those which are on the cusp of moving from non-threatened to threatened status (i.e. undergoing known or suspected declines). The process of movement from national threatened species lists to the relevant EPBC schedules has in the past been at ministerial whim as much as independent scientific review. Arguably, all species listed as nationally threatened or near threatened in the Commonwealth's range of national action plans should be immediately prioritised for EPBC listing, giving a more realistic national catalogue of threatened entities, and reinforcing the concept of changing status of species over time – species recently regarded as non-threatened are moving to threatened status as a consequence of poor overall biodiversity conservation planning, policy and management.

At the same time, moves are being made right now to consider dropping some species from the migratory bird lists. For example, Lesser and Greater Frigatebirds may be dropped from JAMBA and CAMBA on account of the fact they do not occur in Japan or China other than as vagrants.

This is a quite reasonable move for scientific reasons. However, this renders neither species with any protection, when they occur in isolated areas sometimes at extremely high densities. For example, a globally unique mainland roost site at a mine in Weipa is unprotected and likely to support almost the entire Australian population of one or perhaps both species. At this site, lack of protection also has to do with an apparent exemption under existing statutory agreements dating back to the 1950s. Although they are also marine species, there is no policy on marine species protection under Part 3, as components of the Commonwealth Marine Area ecosystem.

As discussed above, Australia's obligations to biodiversity protection at the international level extend beyond species that are currently threatened. To meet the obligations to the CBD, above all else, consideration needs to be given to managing biodiversity in situ. This requires a greater level of commitment and political will to conserve matters that are unique biodiversity assets within an area. It does not necessarily mean stifling economic development.

9. Undervaluing of biodiversity in economic and social terms when weighed against development

Respondents were concerned that the value of biodiversity was under-represented in decisions. This may have to do in part with the emphasis on threatened species, which tend to be equated more with their intrinsic importance as opposed to their role as indicators of ecosystem integrity. Perhaps better emphasis on biodiversity management (as an integral component of ecologically sustainable development) could help alter perceptions. At the moment, "wildlife protection" is seen as a burden to development. Political recognition that secure wildlife is a by product of a healthy and sustainable environment, and that this is economically valuable, may help people better understand the role that threatened species play under the Act.

10. Lack of recognised standards in profession or government policy

This subject was the focus of an EIANZ Ecology forum in April 2008. From the point of view of the profession, it was agreed that:

1. Although the legal system can respond to, uphold and shape standards, it cannot be expected to decide what standards are for other industries, especially as they can evolve quickly and often apply to very specific matters.
2. In other professions, standards of best practice are often developed by the members. There is often the naïve view that he development of standards fall to the government or courts but those are not always in the interest of professionals or the environment. Standards are better set by the profession as a whole and in the absence of other suitable guidelines, recognised professional standards are given great weight by the legal profession.
3. Membership of professional organisations, professional certification and continued professional development are important ways to progress the profession and recognise its role in long-term environmental management and ecologically sustainable development.

As a profession, we admit being complicit in failings to present standards of our own, though this is beginning to be addressed. The Certified Environmental Practitioner program is one example. At the same time, the profession can only present its standards and for reasons discussed in number 4 (above) there is generally considered to be a bias against good working practice, due to inherent failings at the regulatory level. A better synthesis of experience in the regulatory and professional domains would help improve this, especially if it resulted in the formation of joint policy e.g. setting out the manner in which ecological impact assessment should be done and government recognising the need for project managers to have minimum skill and qualification. Some such policies do exist in NSW, but it would still be desirable to have more input from consultants and extend these out across the continent. Better communication between government bodies and associations like EIANZ and its members, would also help build capacity and experience amongst the regulators, partly addressing concerns raised in number 4 (above).

References

Barrett, G., Silcocks, A., Barry, S., Cunningham, R. & Poulter, R. (2003) *The New Atlas of Australian Birds* Royal Ornithologists Union.

UK government and non-governmental organisations (2008). *The Population Status of Birds in the UK 2002-2007.*

Fisheries and Wildlife Service US (2002) *Birds of Conservation Concern 2002*. U.S. Fish and Wildlife Service Division of Migratory Bird Management. Arlington, Virginia December 2002.

Noss, R.F. (1990) Indicators for Monitoring Biodiversity: A Hierarchical Approach. Conservation Biology 4 (4) 355-364

Lindell, C.A. (2008) The Value of Animal Behavior in Evaluations of Restoration Success. Restoration Ecology. 16 (2) 197-203

Lindenmayer, D. B., Manning, A. D., Smith, P. L., Possingham, Hugh P., Fischer, J., Oliver, I., McCarthy, M. A., (2002) The Focal-Species Approach and Landscape Restoration: A Conservation Biology 16(2) 338-345

Raff, M. (1997) Ten Principles of Quality in Environmental Impact Assessment. Environment and Planning Law Journal, 14, 207.

UNEP-WCMC (2002) Strategic Plan for the Convention on Biological Diversity. Annex to the CBD. [Agreed to at the Conference of the Parties, "2010-The Global Biodiversity Challenge" convened in London, UK, from 21-23 May 2003]. https://www.cbd.int/sp/ & http://www.iisd.ca/download/pdf/sd/sdvol85num1e.pdf