

Review of the EPBC Act

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Abstract

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) is by no means a panacea for Australia's environmental problems but it has made an important contribution to environmental protection and sustainable development in Australia during its first 5 years of operation. It is difficult to quantify the effectiveness of the Act but it appears to be achieving at least some good, though mixed, results in terms of environmental outcomes beyond what would otherwise be achieved under State and Territory laws. It has greatly improved public accountability and access to information about proposed development. The positive outcomes that are being achieved under the Act are counteracted by several negative aspects of its framework and implementation. The absence of a trigger for greenhouse gas emissions is a very significant gap in the regulatory framework of matters of national environmental significance. Inclusion of a greenhouse trigger in the Act is recommended to complement other greenhouse initiatives of the Australian Government. A negative aspect of implementation has been the length of time (in some cases, several years) taken in the listing of many threatened ecological communities and some threatened species of commercially exploited fish. Recent policy changes in listing threatened ecological communities may alleviate some of these problems, but a procedure for merits review of listing decisions would improve the public accountability and transparency of the operation of the Act.

Introduction

The purpose of this review is to evaluate the operation of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ("EPBC Act") for the 2006 Australian State of the Environment Report. It is structured in five main parts: introduction; methodology; results; discussion; and conclusion. Five specific issues are addressed in the discussion:

- has the EPBC Act been effective in terms of environmental outcomes?
- what has been achieved "on the ground"?
- has public accountability and access to information been improved?
- have there been flow-on effects to State/Territory processes?
- have there been changes in behaviour among proponents?

Chris McGrath,¹ a barrister practicing in environmental law, conducted the review on behalf of the Australian State of the Environment Committee. The opinions expressed in the review are his opinions and do not necessarily reflect the views of the Committee, the Australian Government Department of the Environment & Heritage (“DEH”), or the Australian Government.

The review is limited in scope, length and detail. Two factors that particularly limited the review are that the Committee originally requested that it be no more than 1,000 words in length and be completed within 6 weeks. Despite these limitations the review is intended to provide a valid “snapshot” of what is, and is not, being achieved under the EPBC Act using key data and references.

Methodology

This review adopts the research philosophy and methodology of a “real world enquiry” espoused by Colin Robson.² Thereby, it seeks to say something sensible about a complex, relatively poorly controlled and generally messy situation in the real world. This research cannot be conducted in a laboratory but a “scientific attitude” is adopted by conducting the research systematically, sceptically and ethically for the purpose of seeking the “truth” about the subject. Particular attention is given to avoiding personal bias and reaching conclusions that are objectively justified.

Two main research methods are used in the review to provide an objective understanding of the operation of the EPBC Act and the range of opinions expressed about the Act by academics, stakeholders and others. These are a literature review and case studies of referrals, listings and compliance activity under the Act. The case studies are a sample of the referrals, listings and compliance activity under the Act. To obtain a representative sample of positive and negative opinions about the effectiveness of the Act, DEH and several environmental non-government organisations were asked to suggest a limited number of cases for the review.³ Sampling and consultation was limited to what was feasible within the time and resources available. This method was considered preferable to a random sample of referrals in the context of this review. Some cases not referred to by DEH or the environmental groups are considered in the discussion where relevant to particular issues. Detailed analysis of individual cases (and the merits of decisions made by DEH in those cases) is not generally undertaken in this review and is an important issue for future research.

The most important and complex of the issues considered in the discussion section is the effectiveness of the EPBC Act and the methodology used to evaluate this issue requires explanation and justification. In a legal context, “effectiveness” can be seen as a measure of how successful law is in solving the problem it was designed to address.⁴ Evaluation of the effectiveness of the EPBC Act comes within a field of learning referred to as “evaluation

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² Robson C, *Real World Research: A Resource for Social Scientists and Practitioner - Researchers* (2nd ed, Blackwell Publishers, Oxford, 2002).

³ Comments were received from DEH, the Environmental Defenders Office Network, EPBC Unit, Gold Coast Environment Council, Queensland Conservation Council, and the Humane Society International.

⁴ Zaelke D, Kaniaru D, and Kružiková E (eds), *Making Law Work - Environmental Compliance & Sustainable Development* (Cameron May Ltd International Law Publishers, London, 2005), p 22.

research.”⁵ It is also an exercise in policy analysis, noting that evaluation is an important part of the policy cycle (the process whereby government policy is created, implemented and evaluated).⁶

Evaluating the effectiveness of the EPBC Act involves analysing how well the Act achieves its objects. The objects of the EPBC Act are wide, but section 3 and the structure of the Act make it clear that the protection of matters of national environmental significance is the principal object of the Act. This is confirmed in section 3(2)(a) by the recognition that an “appropriate role” for the Australian Government in relation to the environment is to focus on matters of national environmental significance, Commonwealth actions and Commonwealth areas.

As this review forms part of the state of the environment (“SoE”) reporting process,⁷ the SoE reporting method is used as the framework for evaluating how well the EPBC Act achieves its objects. The environmental indicators recognised by the SoE report form the appropriate criteria for the evaluation. The environmental indicators used as the criteria for the evaluation may be limited to a small number of key indicators to limit the scope of the review to what is feasible but still capable of yielding justifiable conclusions.

The evaluation of the effectiveness of the EPBC Act in the review is based upon how well the EPBC Act has contributed to improving two environmental indicators that are of critical importance for protecting matters of national environmental significance. The two environmental indicators used are:⁸

- rate of clearing, in hectares per annum, of terrestrial native vegetation; and
- annual greenhouse gas emissions, in carbon dioxide equivalents.

Native vegetation clearing and human-induced climate change (of which greenhouse gas emissions is an indicator) were recognised by the 2001 SoE report as two of the most important issues affecting the conservation of biodiversity in Australia.⁹ Rates of clearing and greenhouse gas emissions are, therefore, critical indicators of the protection of matters of national environmental significance under the EPBC Act. The destruction of habitat by human activities remains the major cause of biodiversity loss in Australia.¹⁰ Land clearance and climate change have also been listed as key threatening processes under the EPBC Act since 4 April 2001. In these circumstances, limiting the discussion to how effective the EPBC Act has been in improving these indicators is appropriate.

⁵ See generally, Robson, n 2, pp 202-215. In the terminology of evaluation theory, the assessment of the effectiveness of the EPBC Act in this review is a “summative” or “outcomes evaluation”.

⁶ See generally, Dovers S, *Environment and Sustainability Policy: Creation, Implementation, Evaluation* (The Federation Press, Sydney, 2005), Chapters 4 and 8.

⁷ Section 516B of the EPBC Act requires a state of the environment report to be prepared every 5 years.

⁸ Adopting the definitions in ANZECC, *Core Environmental Indicators for Reporting on the State of the Environment* (Environment Australia, Canberra, 2000), pp 17 and 27. A different principal indicator for vegetation cover will be used in the 2006 SoE report, namely, “proportion and area of native vegetation, and changes over time.” While consistency with the 2006 SoE report is preferable, the data most readily available for this review relates to the previous indicator and, therefore, it has been retained.

⁹ See Williams J, Read C, Norton A, Dovers S, Burgman M, Proctor W, and Anderson H, *Biodiversity: Australian State of the Environment Report 2001 (Theme Report)* (CSIRO Publishing, Melbourne, 2001), pp 44-57 and 96-100.

¹⁰ Williams *et al*, n 9, p 7.

Results

Literature review

In terms of the theory of effective environmental policy and regulation, the EPBC Act is generally consistent with the regulatory design principles proposed in the leading work of Neil Gunningham and Peter Grabosky.¹¹ For example, the Act incorporates a broad range of policy instruments (from command and control regulations to voluntary conservation agreements and information strategies through to publication of referrals on the internet) and institutions (DEH as the regulator, State Governments in bilateral agreements, and third parties are given enforcement and judicial review rights).

In terms of practice, however, there is little published literature concerning the effectiveness of the EPBC Act.¹² There have been major reviews of the procedural efficiency and economic impact of the Act,¹³ but these are not directly relevant to this review. The annual reports of DEH provide useful administrative data and case studies of actions taken in implementing the EPBC Act.¹⁴

The first of the main independent authors to assess the operation of the EPBC Act was Sophie Chapple, who assessed the first year of the operation of the EPBC Act and suggested that:¹⁵

“[The EPBC Act] is proving to be a dramatic improvement on previous Federal environmental legislation in many ways. However, effective implementation and enforcement of the legislation will be crucial if the Act’s significant potential is to be realized.”

Commenting on the implementation and enforcement of the EPBC Act, Nicola Beynon, Michael Kennedy and Alistair Graham suggested:¹⁶

“While the authors remain convinced that the EPBC is a legal instrument fully capable of meeting modern day environmental management needs, it is clear to us that the Commonwealth has failed miserably to live up to the EPBC’s immense protective potential. ... In many key

¹¹ Gunningham N and Grabosky P, *Smart Regulation: Designing Environmental Policy* (Oxford University Press, Oxford, 1998), Ch 6. See also Dovers, n 6, in terms of environmental policy generally.

¹² There is a growing body of academic and professional literature regarding the EPBC Act, including (in addition to literature cited in other footnotes): Branson C, “The EPBC Act: Some key constitutional and administrative issues” (1999) 6(1) *AJNRLP* 33; Hughes L, “Environmental Impact Assessment in the EPBC Act” (1999) 16 *EPLJ* 401; McGrath C, “Bilateral Agreements: Are they enforceable?” (2000) 17 *EPLJ* 485; Scanlon J and Dyson M, “Will practice hinder principle? – Implementing the EPBC Act” (2001) 18 *EPLJ* 14; Kennedy M, Beynon N, Graham A and Pittock J, “Development and Implementation of Conservation Law in Australia” (2001) 10(3) *RECIEL* 296; McGrath C, “The Fraser Island Dingo Case” (2001) 18 *EPLJ* 269; Bates G, *Environmental Law in Australia* (5th ed, Butterworths, Sydney, 2002), pp 78-83; Fisher DE, *Australian Environmental Law* (Lawbook Co, Sydney, 2003), pp 290-293; McGrath C, “Key concepts of the EPBC Act” (2005) 22 *EPLJ* 20; Haigh D, “Australian World Heritage, the Constitution and international law” (2005) 22 *EPLJ* 385; Boer B and Wiffen G, *Heritage Law in Australia* (Oxford University Press, Melbourne, 2006), Part 3.

¹³ Australian National Audit Office, *Referrals, Assessments and Approvals under the Environment Protection and Biodiversity Conservation Act 1999 – Audit Report No 38 2002-2003* (ANAO, Canberra, 2003); Productivity Commission, *Impacts of Native Vegetation and Biodiversity Regulations – Inquiry Report No 29* (Productivity Commission, Melbourne, 2004), pp 77-96.

¹⁴ See <http://www.deh.gov.au/about/annual-report/index.html> (viewed 25 October 2005).

¹⁵ Chapple S, “The EPBC Act: One Year Later” (2001) 18 *EPLJ* 523 at 523.

¹⁶ Beynon N, Kennedy M and Graham A, “Grumpy Old Greenies – lament waiting lists, wasted opportunities and wayward pork barreling in Australia’s biodiversity programs” (Humane Society International, Sydney, 2005), available at <http://www.hsi.org.au> (viewed 25 October 2005), pp 1-3.

areas, there has been a serious failure to implement critical provisions of the Act that would substantively improve biodiversity protection and coherent environmental impact assessment. Where commendable protective measures have been taken, all too often they have been undermined or nullified by exemptions or wholly inadequate implementation procedures. ... [For example] despite literally thousands of threatened ecological communities meeting the criteria for EPBC protection, only 31 are listed.”

Beynon, Kennedy and Graham also commented on the funding provided to DEH to implement the EPBC Act:¹⁷

“DEH have barely enough resources to keep the impact assessment provisions of EPBCA going – Part 3 – the front end of the EPBC Act. They have paltry funds with which to chase compliance and no education program to let landholders know of their conservation responsibilities and legislative liabilities.”

Andrew Macintosh and Debra Wilkinson went considerably further than these criticisms in reviewing the first 5 years of the operation of the EPBC Act. They suggested that the Act “has failed to produce any noticeable improvements in environmental outcomes” and is “a waste of time and money”.¹⁸ As will become apparent, while some of the criticisms of the EPBC Act made by these authors are justified, overall their assessment is too harsh and their claims of failure too broad.

Finally, the Australian Network of Environmental Defender’s Offices (“ANEDO”) made a noteworthy submission to a recent review conducted under section 28A of the EPBC Act of the adequacy of the existing matters of national environmental significance.¹⁹ ANEDO suggested there is a need for six new matters of national environmental significance to be provided under the Act for greenhouse, land clearing, dioxins, water extraction, wild rivers and wilderness areas.

Case studies

DEH noted that, during the first 5 years of operation of the EPBC Act: 1591 referrals were received covering a very broad range of sectors; 1528 controlled action decisions were made; 354 referrals were determined to be controlled actions; and 212 referrals were determined to be not-controlled actions if taken in a particular manner.

DEH provided six case studies of referrals in which it considered positive environmental outcomes had been achieved under the EPBC Act. It is useful to set out a full case study provided by DEH as an example of the positive outcomes that are being achieved under the EPBC Act:

¹⁷ Beynon, Kennedy and Graham, n 16, p 10.

¹⁸ Macintosh A and Wilkinson D, “Environment Protection and Biodiversity Conservation Act: A Five Year Assessment” (Discussion Paper No. 81, The Australia Institute, Canberra, 2005). This discussion paper reflects an earlier article: Macintosh A, “Why the Environment Protection and Biodiversity Conservation Act’s referral, assessment and approval process is failing to achieve its environmental objectives” (2004) 21 EPLJ 288. An open letter in reply to the discussion paper by the author of the current review is published at <http://www.tai.org.au/> (viewed 18 October 2005).

¹⁹ ANEDO, “Possible new matters of national environmental significance under the EPBC Act” (ANEDO, Sydney, 2 May 2005).

EPBC 2005/2001 - Iluka Resources Mineral Sands Mine, Western Australia

This project involved the construction and operation of a mineral sands mine in the Cataby region of Western Australia, along the Brand Highway. The Department was concerned about the potential loss of known habitat for the Carnaby's cockatoo, a listed endangered species under the EPBC Act. As part of its referral documentation the company provided a report on the cockatoo usage of the area, including the area's likely significance for breeding and feeding and the potential for increased habitat fragmentation as a result of the company's proposal.

On the basis of this report, and through extensive consultation with relevant stakeholders (including the Carnaby's Cockatoo Recovery Team, Birds Australia, the Dandaragan Shire Council, and state agencies such as the WA Department of Conservation and Land Management and the WA Department of Environment), the company then developed a detailed management plan that identified the likely impacts of its activity on the listed species, and outlined a range of avoidance, mitigation and management measures to minimise possible impacts.

These measures included using buffer zones; suspending mining adjacent to nest areas during the breeding season; relocating two known nest trees; salvaging suitable natural hollows and providing artificial hollows; controlling competitors (honey bees, galahs, corellas and wood ducks); developing a detailed revegetation plan coupled with a conservation covenant on restored and rehabilitated areas post-mining; and continuing consultation with key stakeholders.

It was determined that the proposal was not a controlled action provided it was taken in a particular manner that required full implementation of the comprehensive management plan. The company welcomed the particular manner decision as recognition of the substantial work undertaken to identify and adequately manage the potential for impacts on the Carnaby's cockatoo. The work also improved understanding of this listed species' distribution in the area and will enable an analysis over time of the mitigation measures' effectiveness.

DEH also referred to several other referrals as examples of good outcomes achieved under the EPBC Act:

- EPBC 2001/174 – Koolyanobbing Iron Ore Expansion Project, Western Australia, particularly the extra protection provided to the critically endangered *Tetratheca paynterae* population (a small leafless shrub that only grows on the cliffs and hills of the Windarling Range in Western Australia).
- EPBC 2002/629 – expansion of an open cut coal mine, Warkworth Coal Mine, Hunter Valley, NSW, particularly the requirement for retention of 1,092 ha of habitat on adjacent sites for the Regent Honeyeater and Swift Parrot to offset habitat loss due to the mine.
- EPBC 2003/1106 – Coral Sea Pearls Ltd aquaculture development, Queensland, particularly the protection of marine species such as humpback whales.

DEH noted the introduction in 2004 of a specialized Environment Investigations Unit and provided the following case studies of compliance activities:

- EPBC 2003/930 – Arthur River Road Upgrade, Tasmania, in which (as a result of compliance action and later referral of an upgrade of an existing road) speed limiting

measures, physical slow points and wildlife underpasses were incorporated into the road design.

- The Greentree Case (discussed below), in which civil action was taken against NSW wheat farmers for clearing and ploughing 100ha of a Ramsar Wetland resulting in an injunction, rehabilitation order and \$450,000 pecuniary penalty.

DEH considered that an important aspect of the operation of the EPBC Act is the comprehensive assessment of fishery operations and management undertaken under the Act. These assessments review issues such as overall management structures, target and by-product species management and recovery of over-fished stocks, by-catch and protected species interactions and general ecosystem impacts of fisheries. By the end of 2005, 113 fisheries had been assessed under the EPBC Act. DEH considered that these assessments are driving positive environmental changes, including a move towards ecosystem based management in Australian fisheries.

In response to a specific question on the staff and budget allocated to the administration of the EPBC Act, DEH stated that:

“63 people work in the referrals, assessments and approvals area of the Approvals and Wildlife Division. The total budget for the Approvals and Wildlife Division is \$15.6 million for 2005-06. This includes not only the resources for referrals, assessments and approvals work, but also resources for administering the threatened species and wildlife trade aspects of the EPBC Act, policy and compliance activities, and administrative functions. Other areas of the Department administer other parts of the EPBC Act, such as the Heritage Division and the Parks Division.”

A number of conservation groups provided examples of poor outcomes (in their opinions) under the EPBC Act. The Humane Society International (“HSI”) cited its recent report²⁰ and, upon request, provided further details of the delays in listing processes for threatened ecological communities and some threatened species of commercially exploited fish. HSI referred to numerous ecological communities, such as Coolabah / Black Box Woodlands, that it had nominated for inclusion on the list of threatened ecological communities in 2002 or earlier that were still awaiting decisions or had been resubmitted after ambiguous decisions under section 184.²¹ HSI also referred to several species of commercially exploited fish (such as Orange Roughy (*Hoplostethus atlanticus*)) which were nominated in 2003 or earlier, for which no decision had been made under section 184. HSI considered that such timeframes represent unreasonable delays in the listing processes under the Act.

In response to HSI’s comments regarding the slowness of listing threatened ecological communities, DEH explained there had been a problem with identifying ecological communities properly and that had delayed the listing process. DEH recognised the problem

²⁰ Beynon, Kennedy and Graham, n 16.

²¹ Including the following ecological communities submitted in March 2002 for which a decision is still pending: Basalt Plateau Lagoons of NSW Northern Tablelands; Robertson Rainforest in NSW; NSW Southern Highland Shale Woodlands; *Stipa aristiglumis* grassland of the Liverpool Plains; New England Peppermint (*Eucalyptus nova-anglica*) woodland on basalt; and Ribbon Gum (*Eucalyptus pauciflora*) open forest - tall open forest with a grassy understorey on basalt.

(which also affects NSW legislation²²) and held an expert workshop in Orange in June 2004 to try to resolve it. As a result of this workshop, DEH has adopted a “new approach” to ecological communities which takes into account regional variation in widespread ecological communities and the impact of degradation. DEH is now holding expert and community workshops to assist in the listing processes. DEH also noted that 6 ecological communities have been listed since April 2005, including quite controversial ones like the Upland Wetlands of New England and the Monaro, which are mostly on private farming lands. Consequently, while acknowledging the perceived slowness of listing threatened ecological communities, DEH considers that the story is much more positive.

In response to HSI’s comment that there have been unreasonably long delays in the assessment process for a number of commercially exploited marine species nominated for listing, DEH stated:

“the Threatened Species Scientific Committee has required adequate time to consider the nature of the available population data, the application of that data to the eligibility criteria under the Act, and to undertake comprehensive public and expert consultation. ... As part of undertaking a complex and thorough assessment process, extensions to the statutory timeframes for consideration of these nominations have been sought from, and granted by the Minister on a number of occasions.”

The Queensland Conservation Council (“QCC”) referred to numerous referrals in which it considered poor outcomes had been achieved under the EPBC Act. QCC expressed concern that the East Point tourist and residential development at Mackay (EPBC 2003/1262) failed to properly take into account the effects of the loss of habitat particularly for migratory species such as the Rainbow Bee-eater (*Merops ornatus*). QCC also expressed concern about the fact that coal mining applications for new mines and expansions in the Bowen Basin of inland Central Queensland are assessed individually and not regionally for their impacts on listed species. QCC’s view is that the long-term ecological sustainability of the region is not being addressed or protected under the EPBC Act (nor under State processes).

QCC also strongly criticized the listing process under the EPBC Act for the Queensland lungfish (*Neoceratodus forsteri*) as well as the approval of the Walla Weir (EPBC 2001/188 and 2001/420) and Paradise Dam (2001/422). QCC considers that these projects will “inevitably result in extinction of the [lungfish] species in the wild” and destroy essential habitat for the Fitzroy River Tortoise (*Elseya sp.*).

The Gold Coast Environment Council (“Gecko”) raised similar concerns about the operation of the EPBC Act, but noted the Act played a part in the refusal of the Naturelink Cableway at Springbrook by the Queensland Government, which ultimately led to the EPBC Act referral (EPBC 2000/26) being withdrawn. Apart from some praise for the Act in relation to the Naturelink Cableway, Gecko raised concerns about a number of referrals in the Gold Coast region, particularly the Tugun Bypass (EPBC 2004/1861). Gecko’s view is that the EPBC Act process has been inadequate for failing to address the ongoing and cumulative impacts of the road.

²² See Preston BJ and Adam P, “Describing and listing threatened ecological communities under the Threatened Species Conservation Act 1995 (NSW)” (2004) 21 EPLJ 250 and (2004) 21 EPLJ 372.

The EPBC Unit referred to a number of referrals in which poor outcomes resulted under the EPBC Act. One example concerned a lack of enforcement action taken in relation to the Cooloola Cove Airpark (EPBC 2003/1283). For legal reasons this example will not be discussed further here.

The Environmental Defender's Office of Northern Queensland ("EDONQ") referred to the following positive improvements in relation to the Port of Airlie Marina (EPBC 2001/298) due to the EPBC Act:

"An EIS was conducted by [the Queensland Department of] State Development. It was only when this process was declared a controlled action by the Commonwealth Minister for Environment pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) that further important assessments were undertaken and a supplementary EIS was drafted by State Development to meet the assessment standards under EPBC Act.

The Supplementary EIS suggested a number of conditions, which were in turn reflected in the conditions attached to the decision of the Commonwealth Minister for Environment and Heritage. None of these conditions were made pursuant to the *Integrated Planning Act 1997* (Qld) (IPA), nor would they have come about but for the EPBC Act process. The Commonwealth conditions required extensive management plans to manage the effects on threatened species, migratory species and World Heritage Values. The conditions also included an independent audit of compliance with the Plans within six months of construction.

One important condition was that seagrass monitoring needed to be conducted for at least 18 months prior to the commencement of development so that adequate baseline studies were available to monitor the impacts of the development on the seagrass in the area. The Commonwealth is still negotiating about adequate management plans for the threatened and migratory species in the area and also the effect the development will have on the World Heritage Values of the Great Barrier Reef Marine Park.

The IPA process did not result in such extensive conditions. This shows the importance of having some other checks and balances in place to ensure that State Development is not the key to ensuring the appropriate approvals because their emphasis is ultimately on economic growth rather than ecologically sustainable development."

EDONQ commented in relation to the False Cape – Reef Cove Resort near Cairns (EPBC 2003/1179):

"In approving the development at Reef Cove Resort, the Federal Minister for the Environment and Heritage attached several conditions on the approval, which were directed towards reducing the potential impacts on the Great Barrier Reef World Heritage Area and listed threatened and migratory species, and planning for the protection and management of the area.

A significant condition is the prohibition on the construction of any boating facilities as part of the development, such as wharves or marinas. Conditions contain measures including a maximum building height and level of site cover for building works.

These conditions would not have resulted through the Cairns City Council code assessment process. While obviously the outcome is not in accordance with what CAFNEC [the Cairns and

Far Northern Environment Council] and other environmentalists would want, it is still an improvement upon the State approvals.”

EDONQ also provided positive comments on the operation of the EPBC Act in relation to the construction and operation of a high voltage electricity line in Far North, Queensland between Tully and Innisfail (EPBC 2001/232).

Despite noting these positive outcomes, EDONQ commented that, on balance, the outcomes achieved under the EPBC Act are still not outstanding improvements, merely better than what would have resulted under State laws. EDONQ considered the real problems are that the DEH does not consider cumulative impacts on threatened species or World Heritage values (that is, each development is looked at in isolation) and DEH does not seek to condition or regulate the footprint of development.

Discussion

Has the EPBC Act been effective in terms of environmental outcomes?

In attempting to assess the effectiveness of the EPBC Act there is a danger of over-simplifying both the nature of problems the EPBC Act seeks to address and the nature of the solution it represents. Environmental policy is a truly messy thing and merely ascribing “success” or “failure” on narrowly defined grounds is rarely useful for improving policy-making in spite of the messiness.²³ The EPBC Act deals with what has been described in other contexts as “patently tangled, wicked environmental policy problems”²⁴ for which there are no simple solutions. It is, therefore, difficult to quantify the effectiveness of the EPBC Act.

The EPBC Act was not intended to be, nor could any single piece of legislation realistically be, a panacea for Australia’s environmental problems. The Act operates as part of a much wider legislative and policy response to the pressures and conditions of the Australian environment.²⁵ Importantly, however, it provides a distinct level of national decision-making to integrate international environmental legal obligations into Australian domestic law that did not exist generally or in any coherent form previously. The fact that decisions are made by the Minister for Environment and Heritage (or his/her delegate), rather than other Ministers with development orientated portfolios, is also a very important administrative change from the previous legislation. Any evaluation of its effectiveness must view the Act in this context.

As explained in the methodology section above, to limit the scope of the present review the discussion of the effectiveness of the EPBC Act will be restricted to evaluating the contribution that the Act has made to the improvement of the following two environmental indicators:

- rate of clearing, in hectares per annum, of terrestrial native vegetation; and
- annual greenhouse gas emissions, in carbon dioxide equivalents.

²³ Bartlett RV, “Evaluating Environmental Policy Success and Failure”, Ch 8 in Vig NJ and Kraft ME, *Environmental Policy in the 1990s* (2nd ed, CQ Press, Washington, 1994), p 183.

²⁴ Bartlett, n 23, p 182.

²⁵ See generally Bates, n 12, and Fisher, n 12.

Despite the difficulties of evaluating the effectiveness of the EPBC Act, the literature review and case studies indicate that the Act is achieving at least some good, though mixed, results in terms of land clearance and effectively no improvement in relation to annual greenhouse gas emissions.

Clearing of native vegetation

The literature review and case studies provide examples of how the EPBC Act is reducing the extent and rate of clearing, and improving rehabilitation of cleared land. One example is the Iluka Resources Mineral Sands Mine (EPBC 2005/2001) in which consultation by DEH with stakeholders led to the proposal excluding an area of 62 ha from mining activities due to its high conservation values including as nesting sites for Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) (which is listed as endangered under the EPBC Act). The Greentree Case is another example of the role of the EPBC Act in reducing vegetation clearing.²⁶ In that case the Federal Court granted an interim injunction, final injunction, rehabilitation order and pecuniary penalties totaling \$450,000 for deliberate clearing and ploughing of 100 hectares of a Ramsar wetland in northern NSW in preparation for the planting of a wheat crop in contravention of s 16 of the EPBC Act. The pecuniary penalties are record fines for tree clearing offences and nearly the largest fines imposed under any Australian environmental law to date.²⁷ The Greentree Case is an example where the operation of the EPBC Act achieved important environmental outcomes that would not have been achieved under State legislation in relation to vegetation clearing.

However, despite exceptions, generally the EPBC Act appears to have had little effect on reducing the rate of land clearing during the past five years. For example, the rates of vegetation clearing in Queensland remained high during 2001-2003, at 528,000ha/year.²⁸ That rate, however, is likely to be reduced dramatically with the phase-out of broadscale land-clearing in Queensland at the end of 2006 under major changes to State vegetation management laws.²⁹ The failure of the EPBC Act to reduce clearing rates, therefore, appears to be compensated for by improvements in State laws.

Annual greenhouse gas emissions

The EPBC Act appears to be having no positive effect in relation to annual greenhouse gas emissions.³⁰ Two referrals under the EPBC Act provide examples of how the Act does not

²⁶ The case involved a series of trial decisions and an appeal: *Minister for the Environment & Heritage v Greentree (No 1)* [2003] FCA 857; *(No 2)* (2004) 138 FCR 198; [2004] FCA 741; *(No 3)* [2004] FCA 1317; *Greentree v Minister for the Environment and Heritage* [2005] FCAFC 128.

²⁷ See McGrath C, "Federal issues: appeal lodged from Greentree (No 3)" (2005) 22 EPLJ 5.

²⁸ Queensland Department of Natural Resources and Mines, *Land cover change in Queensland 2001-2003: a Statewide Landcover and Trees Study (SLATS) Report* (Department of Natural Resources and Mines, Brisbane, 2005). Available at <http://www.nrm.qld.gov.au/slats> (viewed 30 October 2005) (This was the most recent SLATS report available at the time of writing, but clearing rates are likely to be similar in 2004-2005).

²⁹ See generally <http://www.nrm.qld.gov.au/vegetation/index.html> (viewed 30 October 2005) and McGrath C, "Queensland's new vegetation management regime" (2004/2005) 10 (46) QEPR 26.

³⁰ The AGO, *Tracking to the Kyoto Target 2004* (AGO, Canberra, 2004), states that Australia is on-track to meet its Kyoto target of a 108% increase in 1990 levels of greenhouse emissions. This fact, however, does not alter the need to take all reasonable and practicable measures to reduce greenhouse emissions to mitigate the potential impacts of climate change. In relation to this topic, see Pittock AB, *Climate Change* (CSIRO Publishing, Collingwood, 2005).

regulate even large greenhouse gas emitters. The recent referrals of the Isaac Plains Coal Project (EPBC 2005/2070) and the Sonoma Coal Project (EPBC 2005/2080) involved open cut coal mines that are expected to produce 48 million tonnes (“Mt”) of coal over the next 15 years.³¹ Using the methodology of the Australian Greenhouse Office,³² the greenhouse gas emissions from the full fuel cycle³³ of this amount of coal for electricity production (thermal or steaming coal) or steel production (coking coal) is 121-161 Mt of carbon dioxide equivalent (“Mt CO₂-e”).³⁴ This is roughly equivalent to 25% of Australia’s greenhouse gas emissions³⁵ and 0.6% of global emissions from fossil fuels³⁶ in 2003. The Sonoma Project alone (30 Mt of coal) is roughly equivalent to 16% of Australia’s greenhouse gas emissions and 0.4% of global emissions from fossil fuels in 2003.³⁷ Despite these massive emissions of greenhouse gases, both referrals were determined not to be controlled actions. The emissions from the use of the coal from the mines are not regulated under other State or Australian Government laws, which indicates an important gap in the Australian environmental legal system.

Despite the fact that other programs for reducing Australia’s greenhouse emissions are expected to allow Australia to meet its Kyoto target in the short term, the lack of any general regulatory system for major new emitters of greenhouse gases is a deficiency in the response to climate change. Were projects such as the Isaac Plains and Sonoma Coal Project regulated under the EPBC Act, the greenhouse gas emissions both within Australia and overseas could be regulated by conditions requiring the use of low emissions technology. Such an approach would complement the other greenhouse emission reduction programs currently being undertaken by the Australian Government. Use of the EPBC Act would also be consistent with the objective of promoting of low emissions technology in the recently signed *Asia-Pacific Partnership on Clean Development and Climate*.

On the basis of these considerations, a greenhouse trigger should be included in Part 3 of the EPBC Act or in the EPBC Regulations.³⁸ The trigger should be based on the annual greenhouse gas emissions that a project (directly or indirectly) is expected to produce (for example, annual

³¹ The majority of the greenhouse emissions from these projects will occur overseas when the coal is used. The bulk of emissions would, therefore, not be accounted for as part of Australia’s greenhouse emissions; however, as indirect impacts of the mines the emissions can still be regulated under the EPBC Act in accordance with the principle in the Nathan Dam Case (*Minister for the Environment & Heritage v Queensland Conservation Council* (2004) 139 FCR 24).

³² AGO, *Australian Greenhouse Office Factors and Methods Workbook*, (AGO, Canberra, August 2004). Available at <http://www.greenhouse.gov.au/workbook/pubs/workbook.pdf> (viewed 30 October 2005).

³³ Total emissions resulting from the use of a fuel including those emissions associated with the production and transport of the fuel.

³⁴ Based on the formula, Greenhouse Gas Emissions (GHG) (t CO₂-e) = Q x EC x EF/1000; where: Q = the quantity of fuel burnt in tonnes; EC = the energy content of fuel in GJ/tonne or GJ/kL; EF = the relevant emissions factor. According to Table 1, p 6 of the AGO workbook, the energy content of washed black coal for Queensland electricity generation is 27.0 GJ/t and the full fuel cycle emissions factor is 93.9 kg CO₂-e/GJ. The energy content of coal used in the steel industry is 30.0 GJ/t and the full fuel cycle emissions factor is 112.8 kg CO₂-e/GJ.

³⁵ Total greenhouse gas emissions, including landuse change, in Australia in 2003 were 550 Mt CO₂-e. Source: Australian Greenhouse Emissions Information System (AEGIS). Available at <http://www.greenhouse.gov.au> (viewed 30 October 2005).

³⁶ Total global greenhouse gas emissions from burning of fossil fuels in 2003 were 24,983 Mt CO₂-e. Source: International Energy Agency, *Key World Energy Statistics 2005* (IEA, 2005), pp 44-45. Available at <http://www.iea.org> (viewed 30 October 2005).

³⁷ See the previous three footnotes for the background data for these figures.

³⁸ This recommendation is made acknowledging the facts that the Australian Government investigated a greenhouse trigger in 1999-2001 and decided not to provide such a trigger.

emissions of 100,000t of CO₂-e). Note also in relation to this matter: the DEH consultation paper and draft regulations on the greenhouse trigger released in 1999–2000;³⁹ the submission by ANEDO on new EPBC Act triggers;⁴⁰ and the *Avoiding Dangerous Climate Change (Climate Change Trigger) Bill 2005*.⁴¹

What has been achieved “on the ground”?

Again, it is difficult to quantify what has been achieved “on the ground” by the EPBC Act but the literature review and case studies provided by DEH and EDONQ indicate the Act is achieving some important positive results. The Greentree Case, in particular, is a good example of changes being achieved “on the ground”.

An additional example of positive environmental outcomes being achieved “on the ground” is the Flying Fox Case.⁴² The enforcement action taken by a conservationist under the EPBC Act in that case, together with the later decision⁴³ of the Minister to refuse approval of the operation of the electric grid to kill Spectacled Flying Foxes (*Pteropus conspicillatus*) stopped a major source of mortality that was severely impacting on the species. Without the existence of the EPBC Act an action to halt the operation of the grids would have faced a great hurdle under Queensland law for lack of standing⁴⁴ (although the State laws have since been amended to bring them in line with the widened standing provided in the EPBC Act).⁴⁵ In response to this case the Queensland Government also announced that it would no longer issue permits for the operation of electric grids, effectively outlawing their operation.⁴⁶ This illustrates that the existence of the EPBC Act has made a major contribution to protecting a threatened species and the world heritage values of the Wet Tropics World Heritage Area to which the species contributes.

Despite examples of positive outcomes shown in the case studies provided by DEH and EDONQ, as well as the Greentree Case and the Flying Fox Case, the “on the ground” results of the EPBC Act should not be overstated. State and Territory laws and local government planning schemes continue to provide the bulk of environmental regulation in the Australian

³⁹ A DEH consultation paper on a possible greenhouse trigger was released in December 1999, a model trigger design was released in May 2000, and a draft regulation released on 16 November 2000. Under the draft regulation the trigger proposed was more than 0.5 Mt CO₂-e in any 12 month period. See <http://www.deh.gov.au/epbc/about/amendments/greenhouse.html> (viewed 23 November 2005)

⁴⁰ ANEDO, n 19, pp 22-28. ANEDO recommended a trigger based on 100,000t CO₂-e per annum for all greenhouse emissions (that is, including existing emitters and not merely new emitters).

⁴¹ The Bill proposes a new s 25AA of the EPBC Act to provide a trigger based on emissions of 500,000t CO₂-e and an additional threshold of establishing a “significant impact” on the environment. The Bill also proposes a new s 141 of the EPBC Act whereby greenhouse actions would be assessed against best practice environmental management and low emissions technology. The major criticism of the trigger proposed in the Bill is that establishing a “significant impact” from any individual project is virtually impossible and would nullify the operation of the trigger.

⁴² *Booth v Bosworth* (2001) 114 FCR 39. See McGrath C, “The Flying Fox Case” (2001) 18 EPLJ 540.

⁴³ EPBC Referral No 2002/571.

⁴⁴ In light of the decision in *Central Queensland Speleological Society Inc v Central Queensland Cement Pty Ltd (No 1)* [1989] 2 Qd R 512 (the Mt Etna Bat Caves Case).

⁴⁵ See sections 173A-173E and 173O of the *Nature Conservation Act 1992* (Qld) and sections 111-116 and 140 of the *Marine Parks Act 2004* (Qld). Such amendments are further examples of the positive effects of the EPBC Act on environmental law in Australia generally.

⁴⁶ Wells D, *Queensland Parliamentary Hansard*, 8 August 2001, pp 2331-2333. However, enforcement of this ban is difficult.

environmental legal system. The EPBC Act forms only an important component of an overall system responding to many strong pressures on the environment.

Has public accountability and access to information been improved?

Greatly improved access to information about proposed development is a major, practical benefit that has undoubtedly been achieved under the EPBC Act. Public access to information on the EPBC Act website at <http://www.deh.gov.au/epbc> is outstanding.⁴⁷ The public notices webpage for referrals provides most⁴⁸ referral documents, thereby allowing members of the community across Australia immediate and free access to information about referrals. The EPBC Unit (an initiative of several conservation groups supported by DEH funding) provides weekly email bulletins, free of charge to any person who wishes to subscribe, of new referrals and other matters concerning the Act.⁴⁹ The combination of the EPBC Act website together with weekly email bulletins is particularly useful for day-to-day access to information and monitoring of the operation of the Act by the public. No State, Territory or local government approval process provides such access to information.

In addition to greatly improved access to information, there have been major improvements to public accountability. For example, the requirements for annual reports from DEH and other Australian Government departments in sections 516 and 516A of the EPBC Act are very significant improvements in public accountability regarding environmental matters. The requirement for Commonwealth agencies to consider and document the effect of their activities on the environment in their annual reports is particularly important. The triggers for actions involving Commonwealth land and actions by the Commonwealth having a significant impact on the environment⁵⁰ are also major improvements in public accountability that are provided under the EPBC Act. Referrals under the EPBC Act of military exercises by the Department of Defence illustrate how fundamental these changes to public accountability have been.

The public accountability of the operation of the EPBC Act is also greatly assisted by the wide standing provisions for enforcement and judicial review under the Act. There have been numerous court actions taken by conservationists concerning the operation of the EPBC Act during the past five years.⁵¹ For example, in the Nathan Dam Case, two conservation groups were successful in obtaining judicial review of decisions made by the Minister that had failed to consider the downstream impacts of the use of water from a major dam.⁵²

⁴⁷ Sections 170A and 515A of the EPBC Act require publication of information relating to assessments and public notices on the internet.

⁴⁸ If the proponent states he/she or it believes the action is a controlled action, the referral document is not placed on the website and public submissions are not requested. This is an odd situation that DEH should avoid by publishing all referral documents on the website.

⁴⁹ Any person may subscribe by sending a blank email to subscribe-epbnotices@wwf.org.au.

⁵⁰ Sections 26-28 of the EPBC Act.

⁵¹ Including: *Booth v Bosworth* (2001) 114 FCR 39; *Schneiders v State of Queensland* [2001] FCA 553; *Mees v Roads Corporation* (2003) 128 FCR 418; *Humane Society International Inc v Minister for the Environment & Heritage* (2003) 126 FCR 205; *Mees v Kemp* [2004] FCA 366; [2005] FCAFC 5; *Save the Ridge Inc v Commonwealth of Australia* [2004] FCA 996; [2004] FCA 1167; [2004] FCAFC 209; [2004] FCA 1289; [2005] FCA 17; [2005] FCA 157; [2005] FCAFC 203; *Humane Society International v Kyodo Senpaku Kaisha Ltd* [2004] FCA 1510; [2005] FCA 664.

⁵² *Minister for the Environment & Heritage v Queensland Conservation Council* (2004) 139 FCR 24.

However, a major limitation to the public accountability of decision-making under the EPBC Act is the lack of a general ability to seek merits review of decisions (particularly decisions about controlled actions under Parts 7-9). The Administrative Review Council has provided guidelines for the broad question of what Australian Government decisions should be subject to merits review.⁵³ As explained more fully in a recent conference paper and forthcoming article, applying these guidelines, merits review should be provided for both applicants and third parties for decisions under Parts 7-9 of the EPBC Act.⁵⁴ Merits review would better ensure that such decisions are correct and preferable. A similar conclusion appears correct for decisions under section 184 of the EPBC Act to amend the lists of threatened species, threatened ecological communities and key threatening processes.

The lack of merits review of decisions under section 184 of the EPBC Act contributes to listing processes not being fully accountable. A number of controversial species and ecological communities have been listed under the EPBC Act,⁵⁵ which is a credit to the Threatened Species Scientific Committee, DEH and the Minister. However, the evidence presented by Beynon, Kennedy and Graham⁵⁶ indicates that there have also been long delays in the listing of some threatened ecological communities (such as Coolibah / Black Box Woodlands) and some threatened species of commercially exploited fish (such as Orange Roughy (*Hoplostethus atlanticus*)). The reasons for the time taken in assessing some nominations (several years in some cases) are not clear. DEH acknowledges the delays but points to the difficulty in properly identifying ecological communities as a reason for the slow listing and says it has adopted a new approach based on regional factors and condition classes that will alleviate this problem. In relation to the species of commercially exploited fish, DEH states that the delays in deciding the nominations are because of the “complex and thorough assessment process” that is being undertaken. There appears to be some improvement in the listing processes as a result of the policy and procedural changes made by DEH, however, merits review of the Minister’s decisions on listing would greatly improve the public accountability and transparency of this process. In addition to a procedure for merits review, publication of the advice given to the Minister from the Threatened Species Scientific Committee under section 189 of the Act prior to the Minister’s decision, or simply notification that the advice has been given to the Minister (thereby triggering a 90 day time limit for a decision⁵⁷), would also greatly assist in the listing process being more publicly accountable.

In addition to these problems with public accountability, one difficulty that has been encountered with public access to information stems from that fact that there is no express

⁵³ Administrative Review Council, *What decisions should be subject to merit review?* (AGPS, Canberra, 1999). Available at <http://www.ag.gov.au/agd/www/archome.nsf> (viewed 8 May 2005).

⁵⁴ McGrath C, “Flying foxes, dams and whales: using federal environmental laws in the public interest”, conference paper presented at the EDO Conference 2005, “Public Interest Environmental Law in Australia”, Sydney, 13-14 May 2005, pp 18-20. The article will be published in (2006) 23 EPLJ.

⁵⁵ For example, the listing of Grey-headed Flying-foxes (*Pteropus poliocephalus*) and Spectacled Flying-foxes (*Pteropus conspicillatus*) as vulnerable to extinction in 2001 and 2002 was politically controversial as these species damage commercial fruit crops. The listing in 2001 of Brigalow (*Acacia harpophylla* dominant and co-dominant) and Bluegrass (*Dichanthium* spp) dominant grasslands of the Brigalow Belt Bioregions (North and South) as endangered ecological communities was politically controversial because these listings affected farming of land on which these ecological communities occurred.

⁵⁶ Beynon, Kennedy and Graham, n 16.

⁵⁷ Under section 189(5) of the EPBC Act.

requirement to provide copies of information on public display under the EPBC Act. On at least two occasions proponents have refused to allow members of the public to copy documents on public display under the Act.⁵⁸ The proponents have cited “copyright” issues and DEH has acquiesced to this approach because the EPBC Regulations do not require copies of documents to be provided. This situation is ridiculous and brings both the EPBC Act and DEH into disrepute. The EPBC Regulations should be amended to remove any doubt that documents submitted under the EPBC Act for public display must be made available to members of the public (subject to paying the reasonable cost of copying) or published on the internet.

Have there been flow-on effects to State/Territory processes?

The EPBC Act was ground-breaking in imposing a new tier of federal decision-making and requiring higher levels of integrity and rigour in environmental impact assessment than were required under previous State, Territory or Commonwealth laws.⁵⁹ This is particularly significant for State/Territory infrastructure projects which are now subject to the EPBC Act. A good example of these points is *Mees v Roads Corporation* (2003) 128 FCR 418 in which the Victorian Government was found to have provided misleading information to gain approval under the EPBC Act.

The fact that environmental impact assessment under the EPBC Act requires high levels of integrity and rigour is of great practical significance for development assessment nationally and is also directly influencing State assessment processes. In Queensland, the desire to accredit State environmental impact assessment processes in a bilateral agreement under the EPBC Act has directly led to major legislative improvements in State development assessment laws.⁶⁰ Western Australia also amended its laws to achieve accreditation of a bilateral agreement under the EPBC Act.

The decision in the Nathan Dam Case, that under the EPBC Act impacts of an action include both direct and indirect impacts, has had important flow-on effects for State/Territory environmental impact assessment laws. The most direct example of this flow-on effect is the decision in *Australian Conservation Foundation v Minister for Planning* [2004] VCAT 2029, in which the Victorian Civil and Administrative Tribunal cited the approach taken in the Nathan Dam Case in support of a finding that a planning scheme amendment to allow an expansion of a coal mine must consider the indirect impacts of greenhouse gas emissions resulting from the burning of coal at a power station. In other States and Territories the decision in the Nathan Dam Case sets a new benchmark for environmental impact assessment. This benchmark applies through bilateral agreements and through the fact that proponents who need

⁵⁸ Radical Bay development on Magnetic Island (EPBC 2002/713) and Port Hinchinbrook (EPBC 2003/1246).

⁵⁹ See generally Raff M, “Ten Principles of Quality in Environmental Impact Assessment” (1997) 14 EPLJ 207; Raff M, “Environmental impact assessment and transitional provisions of the EPBC” (2001) 18 EPLJ 5; and McGrath C, “Applying the EPBC Act: A case study of the Naturelink Cableway” (2001/2002) 7 (33) QEPR 123.

⁶⁰ Noting the criticisms of Brown AL and Nitz T, “Where have all the EIAs gone?” (2000) 17 EPLJ 89, the Queensland Assessment Bilateral directly led to new statutory EIA processes in the *Integrated Planning Act 1997* (Qld) and the *Environmental Protection Act 1994* (Qld). New standing rules for public interest litigation were also introduced into the *Nature Conservation Act 1992* (Qld), in 2003, and the *Marine Parks Act 2004* (Qld), in 2004, modeled on sections 475 and 487 of the EPBC Act.

approval under State/Territory laws and the EPBC Act must address indirect impacts for the latter.

Have there been changes in behaviour among proponents?

Changes in behaviour among proponents are, again, difficult to measure or quantify. The published literature and the case studies considered above do not address this issue. However, based on the author's experience as a lawyer advising clients on EPBC Act referrals and from attending numerous public seminars and conferences⁶¹ in which the Act has been discussed by proponents and their advisors, the following changes in behaviour of both proponents and environmental consultants are apparent:

- increased environmental impact assessment for projects generally;
- increased focus on matters of national environmental significance;
- increased consideration of environmental matters from the beginning of project planning and specific planning for EPBC Act approval, including designing projects to avoid significant impacts on matters of national environmental significance;
- improved corporate accountability and education of managers due to the criminal liability for executive officers for offences committed by corporations and government entities against the Act; and
- proponents of large projects refer their projects under the EPBC Act as a matter of course to avoid the risk of later delays at the construction stage.

Conclusion

The EPBC Act has made an important contribution to environmental protection and sustainable development in Australia during its first five years of operation. It is difficult to quantify the effectiveness of the Act but it appears to be achieving at least some good, though mixed, results in terms of environmental outcomes beyond what would otherwise be achieved under State and Territory laws. Greatly improved public accountability and access to information about proposed development are major, practical benefits that have undoubtedly been achieved under the EPBC Act.

The positive outcomes that are being achieved under the Act are counteracted by several negative aspects of the framework and implementation of the Act. The absence of a trigger for greenhouse gas emissions is a very significant gap in the regulatory framework of the matters of national environmental significance. Inclusion of a greenhouse trigger in the Act is recommended to complement other greenhouse initiatives of the Australian Government. A negative aspect of implementation has been the length of time taken in assessing nominations for listing of many threatened ecological communities and some threatened species of commercially exploited fish. Recent policy changes in listing threatened ecological communities may alleviate some of these problems, but a procedure for merits review of decisions would improve the public accountability and transparency of the operation of the Act.

⁶¹ A particularly useful discussion occurred at the Environmental Manager Conference held in Sydney on 27 August 2004, "Dealing with the EPBC Act: The procedures, the pitfalls and tips for success".

Something may also be said at this point in relation to further research. As noted in the introduction, this review is limited in scope, length and detail. Further analysis of the operation of the EPBC Act is an important area of future research for Australian environmental law and policy. There is particularly a need for multi-disciplinary studies of decision-making in the referral process under the EPBC Act. Detailed case studies of controversial, large referrals such as the Paradise Dam (EPBC 2001/1262) will significantly improve the understanding of how effectively the EPBC Act is operating and potentially lead to improvements in its operation. Such further research may build upon the methodology and findings of this review.

A final comment is appropriate to make about the implementation of the EPBC Act by DEH. The staff and budget allocated to the administration of the Act are small in comparison to the scale and complexity of the issues that the Act seeks to regulate. The implementation of the EPBC Act has not been perfect but in general DEH should be congratulated for the difficult task it has undertaken with limited resources and the many positive results it has achieved through the EPBC Act.