Ecocentrism involves taking a nature-centred rather than a human-centred approach, where the earth is valued not as a commodity belonging to us but a community to which we belong. Development of an earth jurisprudence requires the internalisation of ecocentrism in environmental law. It involves listening to the earth and adapting law to ecology. It values and gives voice to the environment. This paper surveys some ways in which environmental law can embrace ecocentrism.

Introduction and itinerary

This conference has as its theme “Earth Jurisprudence – Building Theory and Practice”. My contribution to the conference involves positing some ways in which a nature-centred approach, ecocentrism, may be incorporated into environmental law. I do not propose to articulate the case for adopting an ecocentric approach. I will make the assumption that those attending this conference are aware of the philosophical and jurisprudential arguments in favour of ecocentrism. It will suffice if I simply describe ecocentrism as taking a nature-centred approach rather than a human-centred approach, where the earth is valued not merely instrumentally as a commodity belonging to us but also intrinsically as a community to which we belong.

My survey of ways in which the law might embrace ecocentrism cannot be comprehensive; my allocated time for speaking does not permit such an exhaustive approach. So I will be selective, focussing on what appears to me to be two key topics. The topics are broad but in discussing the topics I will address particular aspects.

The first topic I will look at is the statutory approaches that are characteristic in Australia to regulating the use and exploitation or the conservation of the environment. I will identify five aspects of regulation: statutory objects; relevant considerations; burden of proof; substantive rights, duties and obligations; and implementation and enforcement. I will suggest ways in which these aspects of regulation could embrace an ecocentric approach.

The second general topic I wish to address is access to justice, including access to environmental justice. Under this topic I will note some of the features needed to facilitate access to justice. These include the institutions, funding, procedures and remedies.
The theme of my speech could also have warranted an examination of particular branches of the law, such as criminal law, property law, tort law and contract law, to identify ways in which substantive law can adopt an ecocentric approach and align with the laws of ecology. Elsewhere, I have started to sketch the influence of the environment on the law.¹ However, time does not permit these ideas to be developed here.

This is the itinerary for our journey around the world of earth jurisprudence in the limited time available.

Statutory approaches to environmental regulation

The objects clause

I turn now to my first topic, statutory approaches to environmental regulation. Virtually all modern statutes contain an objects clause stating the objects of the statute. This statement can be merely an historical explanation of the background leading up to the passing of the statute, a form of recital, or it can be a statement of the purpose of the statute. The former statement will not be particularly helpful, other than perhaps assisting in understanding the motive of the legislature or the mischief which the statute was intended to address.

The latter statement is more helpful but it is still limited to being an interpretative tool to resolve uncertainty and ambiguity in the meaning of other provisions of the statute. An objects clause does not control clear statutory language or command a particular outcome of exercise of discretionary power under a provision of the statute. This was highlighted, to the dismay of the challengers, in the judicial review challenges to the Bengalla coalmine in the Hunter Valley² and the residential subdivision and development on the flood constrained coastal plain at Sandon Point on the New South Wales south coast.³ Both cases held that consideration of a particular object, increased opportunity for public involvement and participation in environmental planning in the first case and encouragement of ecologically sustainable development (“ESD”) in the second case, did not command a particular outcome of exercise of the discretionary power in question.

Objects clauses in environmental statutes are often drafted at a high level of generality and are hortatory and aspirational. They are objects for all seasons. An object of conservation, for example, is so wide as to embrace the sustained development as much as ESD. It embraces utilitarianism as much as, or more likely more than, ecocentrism.

The objects enumerated in an objects clause may also be potentially conflicting, such as by encouraging economic development but also environmental protection. Indeed, even a single object, such as encouragement of ESD, in fact may involve multiple objects, because the concept of ESD involves multiple principles, which may pull in different directions.

What can be done to improve the efficacy of objects clauses in environmental statutes? The first step would be to identify with greater precision what is the intended purpose of including an objects clause in the environmental statute and then draft the objects clause to articulate that purpose.

Secondly, the language used to describe each object in the objects clause must be sufficiently specific to identify with precision what falls within and without the ambit of each object. If ecocentric considerations, such as the intrinsic value of the environment and its components, are to be included, these need to be specified.

Thirdly, if there is potential for conflict, either within an object or between objects, the clause should state how such conflict is to be resolved. This could be done by assigning weight or priority to matters within an object or between objects. If it is intended that any one of the principles of ESD should take precedence over others in any particular situation, this should be stated. Similarly, if one or more objects should take priority over other objects, this should be stated. For example, s 9(1) of the Water Management Act 2000 (NSW) states that as between the principles for water sharing set out in s 5(3), priority is to be given to those principles in the order in which they are set out in that subsection. A second example is s 3(2) of the Fisheries Management Act 1994 (NSW) which provides that the objects of the Act are to pursue three objects relating to environmental protection and then specifies four other objects relating to economic and other user resources which are to be pursued “consistently with those objects”.

A third example is the recast clause recommended by the Australian Environment Act: Report of the Independent Review of the Environment Protection and Biodiversity Conservation Act 1999 (October 2009). The report recommended that the objects clause in the Environment Protection and Biodiversity Conservation Act 1999 (“EPBC Act”) clearly articulate and prioritise the objects of the EPBC Act in part as follows:

“(1) The primary object of this Act is to protect the environment, through the conservation of ecological integrity and nationally important biological diversity and heritage.

(2) In particular, this Act protects matters of national environmental significance and, consistent with this, seeks to promote beneficial economic and social outcomes.”

Fourthly, the objects clause should influence the exercise of discretionary powers under the statute. There can be seen to be a gradient of influence. Least influentially, the objects clause can be used in statutory interpretation to resolve uncertainty and ambiguity. More influentially, the statute could provide for repositories of power to consider or have regard to the objects in the exercise of powers and functions under the statute. The statute may decide that a decision-maker must consider the principles of ESD in determining whether or not to grant or refuse an approval. The Report of the Independent Review of the EPBC Act

---

recommended, after articulating the primary object of the Act of protecting the environment, that:

"(3) The primary object is to be achieved by applying the principles of ecologically sustainable development as enunciated in the Act.

(4) The Minister and all agencies and persons involved in the administration of the Act must have regard to, and seek to further, the primary object of this Act."5

Most influentially, the statute could provide for repositories of power to exercise powers and functions under the statute so as to achieve the object. One example is s 2A(2) and (3) of the National Parks and Wildlife Act 1974 (NSW) which provides:

"(2) The objects of this Act are to be achieved by applying the principles of ecologically sustainable development.

(3) In carrying out functions under this Act, the Minister, the Director-General and the Service are to give effect to the following:

(a) the objects of this Act;

(b) the public interest in the protection of the values for which land is reserved under this Act and the appropriate management of those lands."

However, such a provision could go further. For example, the statute could provide that a decision-maker must not grant an approval unless to do so is consistent with achieving ESD.

Another example is s 5 of the Environmental Protection Act 1994 (Qld) which provides:

"If, under this Act, a function or power is conferred on a person, the person must perform the function or exercise the power in the way that best achieves the object of the Act".

The object of the Act is stated in s 3 to be “to protect Queensland’s environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).”

Relevant matters to consider

The second aspect under the topic of statutory approaches I wish to consider is the statement of relevant matters that a repository of power is bound to consider in the exercise of powers and functions under the statute. The relevant matters a decision-maker is bound to consider in the exercise of powers and functions are determined by statutory construction of the statute conferring the discretion. Statutes might expressly state the matters that need to be taken into account or they can be

5 Ibid.
determined by implication from the subject matter, scope and purpose of the statute.\textsuperscript{6}

There has been a trend for legislatures to reduce both the number of matters expressly stated in the statute to be considered as well as the specificity of the matters stated; the expressly stated, relevant matters have become fewer and more general. An illustration of this trend was when the lengthy and detailed list of relevant matters to be considered by a consent authority in determining a development application under the \textit{Environmental Planning and Assessment Act 1979} (NSW) ("EPA Act") was omitted (from the former s 90) and a smaller and more general list was inserted instead (in s 79C).

The reasons for this trend have not been clearly articulated. One reason may be to increase flexibility and agility in decision-making. Another reason, however, may be to prevent, or at least make more difficult, judicial review by the courts of the exercise of powers under the statute by the executive. A decision-maker commits no reviewable error warranting intervention by the courts by not considering a matter that the decision-maker is not bound to consider.

This is what occurred in \textit{Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources},\textsuperscript{7} where the particular matter alleged by the challenger (that greenhouse gas emissions resulting from the coalmine would contribute to the loss to climatic habitat) was held not to be a relevant consideration that the Commonwealth Minister was bound to take into account in making a determination under s 75 of the EPBC Act about whether the action was a controlled action.

Hence, the fewer matters expressly stated in a statute to be relevant matters, the less scope for review.

Expressing the relevant matter at a level of generality, rather than at a level of particularity, also reduces the risk of judicial review. A decision-maker is more likely to have had regard to some facts and issues under the rubric of a generally stated relevant matter than a particular one. Again, this was discovered to the applicants' dismay in various challenges to decisions on the ground of failure to consider the relevant matter of the principles of ESD. The principles of ESD are so broad that proving that a decision-maker has failed to consider them is difficult in practice.\textsuperscript{8}

The reduction in the number of expressly stated matters does not necessarily exclude other matters, not expressly stated, from being relevant matters. As I have said, a matter might be impliedly relevant by reference to the subject matter, scope and purpose of the statute. However, this involves statutory interpretation and there is an increased risk that a matter will not be held to be relevant. An example is the difficulty encountered in \textit{Minister for Planning v Walker}\textsuperscript{9} in implying the principles of

\textsuperscript{6} \textit{Minister for Aboriginal Affairs v Peko-Wallsend Ltd} (1986) 162 CLR 24, 39–40, 55.
\textsuperscript{7} (2007) 159 LGERA 8, 20–21.
\textsuperscript{9} (2008) 161 LGERA 423, 454.
ESD to be relevant matters to be considered by the Minister in approving a concept plan under the former Part 3A of the EPA Act.

The solutions to these problems I have identified are similar to those which I have suggested in relation to objects clauses. First, desired ecocentric considerations need to be expressly and specifically identified as relevant matters which must be taken into account in the exercise of powers and functions under the statute.

Secondly, if there is potential for conflict within or between relevant matters, the priority or relevant weight to be accorded to each matter needs to be stated.

Thirdly, if the relevant matter involves an outcome or standard to be achieved, then the statute needs to be drafted so as to require the decision-maker to exercise the relevant power or function so as to achieve that result and not merely to consider the matter in the exercise of the power or function. I return to the example that I gave earlier: a statutory provision should state that powers and functions are to be exercised to achieve ESD and not merely to consider the principles of ESD in the exercise of a power or function.

Another weakness often found in Australian environmental statutes is the omission of a requirement on a repository of power to consider the cumulative effects of an exercise of a power or function. There is a tendency for proposed activities to be assessed in a self-contained manner, independently of other past, present and future activities. This failure to deal with cumulative environmental effects is particularly encountered in the fields of biodiversity, water and climate change regulation.  

The absence of an expressly stated requirement to undertake cumulative impact assessment has lead to challengers arguing that such assessment is impliedly required. In Gray v Minister for Planning, a requirement for cumulative impact assessment was found to be inherent in the EPA Act’s reference to principles of ESD, including the principle of intergenerational equity and the precautionary principle. However, this resort to implication carries risks. In a challenge in the Federal Court to the same project as in Gray, the Federal Court rejected the challenger’s contention that the likelihood of the coalmine having a significant impact on matters of national environmental significance under the EPBC Act should be assessed, among other things, by comparison to other actions that might reasonably be assessed under the EPBC Act.

A solution is for the statute to require expressly cumulative impact assessment. An example is the US National Environmental Policy Act 1969 ("NEPA") which requires preparation of a detailed environmental impact statement for proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. The statement’s assessment of the environmental impacts of

---

13 42 USC §§ 4321–4370.
14 National Environmental Policy Act 1969 § 102(C), 42 USC § 4332(C).
the proposed action is assisted by the regulations made by the Council of Environmental Quality implementing the procedural provisions of NEPA. These regulations define cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

Burden of proof

The third aspect under this topic of statutory approaches I wish to consider concerns the burden of proof. A common regulatory approach under environmental statutes is to prohibit some activity which uses, exploits or harms the environment but then permit persons to apply for some form of statutory approval enabling them to undertake such activity. The statute may also provide for a dissatisfied applicant for approval to appeal to a court or tribunal which undertakes a merit review of the decision and re-exercises the power to determine whether to grant or refuse approval to the activity.

Typically, the statute is silent as to the burden of proof, both in the original application for approval and on any merits review appeal. Judicial decisions have held that there is no legal burden of proof on an applicant for approval. There is, no doubt, a persuasive burden – the applicant needs to persuade the approval authority to exercise the power to grant the approval - but this falls short of a legal burden. The statutes also do not typically impose a burden on the applicant for approval to establish an absence of a particular type of environmental harm (such as a significant impact on threatened species, populations or ecological communities) or that the proposed activity will achieve some acceptable environmental outcome or standard (such as ESD), or that the economic or social benefits of the proposed activity will outweigh the environmental cost.

In practice, especially for larger and more significant activities, there seems to be a presumption that approvals ought to be granted unless good reason is demonstrated to the contrary. This effects a transfer of the burden to those opposing an activity to prove that the approval should not be granted in the particular circumstances of the case.

The economic cost and inconvenience of taking measures to prevent environmental harm have also been used as reasons for not undertaking or postponing such measures where there is a lack of full scientific certainty as to the efficacy of such measures. This approach has led to the promotion of the precautionary principle. This principle provides that “if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.” The precautionary principle, once invoked, effects a transfer of the evidentiary burden to

16 See, for example, Protection of the Environment Administration Act 1991 (NSW) s 6(2).
a proponent of an activity to prove that a threat of environmental damage does not in fact exist or is negligible. ¹⁷

The issue of the burden of proof arises in another way. Persons who consume or exploit the environment will prevail over persons who do not consume or exploit the environment. This is simply because consuming users by exercising their demands foreclose non-consuming users from exercising theirs, but the contrary does not hold true. This results in a loaded system. Even in a system with laws regulating the use and exploitation of the environment, the leverage inherent in consuming users of the environment mean that they can continue until they are sued and restrained by court order. Consuming users will, therefore, be defendants and non-consuming users or persons wishing to preserve the environment will be plaintiffs. In our legal system, plaintiffs bear the burden of proving that the defendants’ conduct is in breach of the law. In cases of doubt, the plaintiff will not succeed and use or exploitation of the environment will prevail. ¹⁸

The solution to these problems concerning burden of proof is to allocate the burden to those who propose to use, exploit or harm the environment. This involves applicants for approval for an activity to use, exploit or harm the environment having to bear the burden of proving that: the activity will not cause particular types of environmental harm which have been specified as material; the activity will achieve some environmental outcome or standard specified to be acceptable; the economic or social benefits of the proposed activity outweigh the environmental costs; and the approval ought to be granted for the proposed activity.

The precautionary principle should be specified to be applicable in the exercise of powers and functions under environmental statutes, including in the assessment and approval of applications to carry out proposed activities.

In court proceedings, the burden of proof should be allocated to an applicant in merits reviews appeals to establish the same matters I have suggested above, which an applicant should be required to establish before the original decision-maker, including that approval ought to be granted to undertake the activity. In civil enforcement proceedings to remedy and restrain a breach of environmental statutes, statutory provisions can raise certain evidentiary presumptions, such as the absence of lawful authority, unless rebutted by evidence to the contrary. This allocates the burden of proof to the defendant to rebut the presumptions raised. One example is under s 1703(1) of the Michigan Natural Resources and Environmental Protection Act of 1994. When a plaintiff in an action has made a prima facie showing that the conduct of the defendant has polluted, impaired or destroyed, or is likely to pollute, impair or destroy, the air, water, or other natural resources or the public trust in these resources, the defendant may rebut the prima facie showing by submission of evidence to the contrary. The defendant may also show, by way of an affirmative defence, that there is no feasible and prudent alternative to the defendant’s conduct and that the conduct is consistent with the promotion of the public health, safety and

¹⁷ See, Telstra Corporation Ltd v Hornsby Shire Council (2006) 67 NSWLR 256, 273; 146 LGERA 10, 43.
welfare in light of the State of Michigan’s paramount concern for the protection of its natural resources from pollution, impairment or destruction.

**Substantive rights, duties and obligations**

The fourth aspect under this topic of statutory approaches I wish to address concerns substantive rights, duties and obligations under environmental statutes. I will start with statutory duties on regulatory authorities. A striking feature of environmental statutes in Australia is that they prescribe conditional, but not absolute, rules of what can and cannot be used or exploited in the environment. Consider statutes concerning threatened species, populations and ecological communities. These statutes adopt the typical regulatory approach of first prohibiting the harming of listed threatened species, populations and ecological communities but then giving power to the regulatory authority to grant approval to persons who wish to harm a particular threatened species, population or ecological community. The statutes prescribe the process for making, considering and approving the application to harm the threatened species, population or ecological community. At no point do the statutes state that approval cannot be granted. There is, therefore, no absolute rule protecting all or some particularly significant threatened species, populations and ecological communities against all or some particularly significant harm in all or particular circumstances. The prohibition on harming threatened species, populations and ecological communities is entirely conditional and provisional.

The solution to this problem is for the legislature to enunciate in the statute some absolute rule. This may be identifying those areas or components of the environment that are unconditionally to be protected from all harm. It may involve identifying environmental outcomes or standards that are not to be compromised or are to be achieved, as the case may be. An ecocentric approach could inform the enunciation of these unconditional outcomes and standards. One example might be to enunciate the outcome of the maintenance of biodiversity and ecological integrity, including ecosystem processing and functioning.

A related feature of environmental statutes is that they are replete with discretionary powers but barely burdened by duties and obligations. As I have noted, the typical regulatory approach is to start with a prohibition on an activity causing some environmental harm but then give power to the regulatory authority to relax that prohibition by applications being made, considered and approved. There is rarely a duty on the regulatory authority either of a positive nature, to achieve some environmental outcome or standard, or of a negative nature, to ensure that some environmental outcome or standard is not compromised. One rare instance of a public duty on a regulatory authority was judicially enforced in the Manila Bay case. The Supreme Court of the Philippines issued a continuing mandamus compelling the Manila Bay Development Authority to perform its statutory duties in cleaning up and preserving the polluted Manila Bay and obliged the authority to submit quarterly progress reports to the court for monitoring.

---

Reform may, therefore, be usefully focused on statutes imposing more duties on regulatory authorities to achieve or to prevent the compromising of specified environmental outcomes or standards.

Next, I will deal with statutory obligations on persons regulated by the statute. Under the typical environmental statute, the obligations imposed on persons are usually of a negative nature, that is to say, obligations that a person not do certain acts. These may be obligations not to carry out an activity at all, not to carry out an activity in a certain way, or not to carry out an activity with a certain consequence such as causing environmental harm of some kind. If persons wish to be relieved of this obligation, they need to apply for some form of approval authorising the activity. However, positive obligations do exist in some statutes and, if an ecocentric approach is to be adopted, could be more frequently employed. Landowners may be under positive obligations to conserve land and things on or attached to it.

A landowner may be required, in relation to a listed heritage item on the land, to undertake a minimum standard of maintenance and repair to avoid demolition of the heritage item by neglect. A landowner may enter into a private property agreement, whereby the landowner undertakes to conserve the land and things attached to it. Examples are heritage agreements in relation to heritage items on land, conservation agreements in relation to flora and fauna, and property vegetation plans. An owner of land may also be under a positive obligation to control noxious weeds or prescribed alien species of fauna.

Positive obligations will also arise where the land is the subject of a carbon offsets project or a biobanking agreement. The owner of the land sells a credit for the native vegetation growing on the land either to an emitter of greenhouse gases (such as a coal-fired, electricity power station) for the benefit the vegetation affords as a sink for the sequestration of carbon or to a person who causes the loss of biological diversity in the course of development of other land. The owner, having sold the credit, will be obliged to maintain the vegetation on the land.

Positive obligations may arise by consent authorities, in granting development consent, imposing conditions requiring the preservation or improvement of the environment on the land the subject of the development or requiring the carrying out of works on adjoining land.

---

21 Heritage Act 1977 (NSW) Pt 3B.
22 National Parks and Wildlife Act 1974 (NSW) Pt 4 Div 12; Threatened Species Conservation Act 1995 (NSW) s 126A.
23 Native Vegetation Act 2003 (NSW) Pt 4; see also heritage agreements under Native Vegetation Act 1991 (SA) ss 23, 23A.
24 Noxious Weeds Act 1993 (NSW) s 12; Natural Resources Management Act 2004 (SA) s 182.
25 See, for example, Threatened Species Conservation Act 1995 (NSW) Pt 7A, which provides for biodiversity credits and Carbon Credits (Carbon Farming Initiative) Bill 2011 (Cth) ss 90–91, which require individuals to relinquish carbon credits if there has been an unmitigated reversal of the removal of carbon dioxide from the atmosphere and Pt 8 concerning carbon maintenance obligations.
26 Environmental Planning and Assessment Act 1979 (NSW) ss 80, 80A(1)(f).
An increasing recognition of the first law of ecology — that everything is connected to everything else — and that the Earth’s ecosystem is, in a sense, a spaceship, may necessitate more sweeping positive obligations on landowners. Sax argues that “property owners must bear affirmative obligations to use their property in the service of habitable planet.” Sax recommends that:

“We increasingly will have to employ land and other natural resources to maintain and restore the natural functioning of natural systems.

More forest land will have to be left as forest, both to play a role in climate and as habitat. More water will have to be left instream to maintain marine ecosystems. More coastal wetland will have to be left as zones of biological productivity. We already recognise that there is no right to use air and water as waste sinks, and no right to contaminate the underground with toxic residue. In short there will be – there is being – imposed a servitude on our resources, a first call on them to play a role in maintaining a habitable and congenial planet …

We shall have to move that way, for only when the demands of the abovementioned public servitude of habitability has been met will resources be available for private benefits. To fulfill the demands of that servitude, each owner will have to bear an affirmative responsibility, to act as a trustee insofar as the fate of the earth is entrusted to him. Each inhabitant will effectively have a right in all such property sufficient to ensure servitude is enforced. Every opportunity for private gain will have to yield to the exigencies of a life-sustaining planet.”

Sax’s call for private gain to yield to the existences of a life-sustaining planet is encapsulated in the concept of ecologically sustainable development. The Australian National Strategy of Ecologically Sustainable Development defines the concept as “development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.” Statutes could enhance implementation of ESD by imposing positive obligations on landowners to achieve ESD, including by the conservation of biological diversity and ecological integrity.

Finally, I will deal with statutory rights afforded under environmental statutes. Overwhelmingly, environmental statutes, insofar as they afford rights, afford rights to humans. The environment, and components of it such as flora and fauna, have no rights under the statute. Historically, this is entirely understandable. The environment has instrumental, utilitarian value — value for the benefits its use and exploitation yields to humans. But the environment also can be seen, and an ecocentric approach demands it to be seen, as having intrinsic value — value for its own sake quite apart from any instrumental or utilitarian value to humans. A statute can recognise this intrinsic value of the environment and afford it rights. The

---

30 Sax, above n 29, 13–14.
constitution of Ecuador does just this. Article 71 provides that nature has “the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes” and Article 72 provides that nature has a right to be restored, a right stated to be apart from the obligation of the State and natural persons and legal entities to compensate individuals and communities that depend on affected natural systems.

Implementation and enforcement

The fifth and final aspect of this topic of statutory approaches that I want to address is implementation and enforcement of environmental statutes. Implementation involves the relevant regulatory authority exercising powers and functions under the statute. Enforcement involves taking action to ensure compliance with the statute by both the regulatory authority and others whose conduct is regulated by the statute. There are a variety of means of enforcing environmental statutes, including criminal prosecution for offences, civil enforcement proceedings to remedy or restrain statutory breaches, proceedings to impose a civil pecuniary penalty for statutory breaches and administrative orders such as stop work orders and directions for remedial works.31

Implementation and enforcement of environmental statutes are critical to good governance. Good governance is itself a component of achieving ecologically sustainable development.32

Implementation will be enhanced by having dedicated, competent, knowledgeable (including ecologically literate), and well resourced (adequate human, financial and material resources) regulatory authorities exercising powers and functions under the statute. Imposing more duties and obligations, rather than merely discretionary powers, and specifying desired environmental outcomes and standards to be achieved or not to be compromised in the exercise of powers and functions, as recommended earlier, will also enhance implementation.

Good governance will be assisted by measurement, monitoring and reporting on performance in the implementation of the statute. The primary responsibility for measurement, monitoring and reporting should reside with the regulatory authority. Accountability, transparency and responsiveness will be promoted by publication of reports on measurement and monitoring. Integrity will be enhanced if there is an independent audit, from time to time, such as by an Auditor General or by an Environmental Ombudsman. The availability and utilisation, from time to time, of merits review and judicial review of the regulatory authority’s conduct and decisions will also improve its performance and good governance.

Enforcement of environmental statutes is enhanced by empowering not only the regulatory authority but also citizens to have access to a court or tribunal to enforce the law. Open standing provisions which allow any person to bring civil proceedings to remedy or restrain the statutory breach are a hallmark of most environmental

statutes in New South Wales. They empower citizens to enforce environmental statutes against individuals in breach of the statute where the regulatory authority has failed to act and even to bring proceedings against the regulatory authority itself in respect of conduct and decisions in breach of the statute. As I will come to in a moment, an eccentric approach would extend the right of standing to the environment and components of it, exercisable by a legally recognised representative for the environment.

**Access to justice**

I turn now to deal with my second general topic of access to justice in environmental matters. Access to justice includes citizens having effective access to judicial and administrative proceedings, including redress and remedy. In order for access to be effective, there needs to be appropriate institutions to whom access for review is available, appropriate procedures for review, financial and other assistance to persons seeking access, and adequate and effective remedies.

**Reviewing institutions**

As to the first aspect, the reviewing institutions, access for review should be provided to a court of law or another independent and impartial body established by law. Access to justice in environmental matters may be improved by establishment of specialist environmental courts and tribunals. There are many benefits that environmental courts and tribunals can yield. However, three benefits are of particular significance to the theme of this speech: responsiveness to environmental problems; facilitating access to justice; and development of environmental jurisprudence.

On responsiveness to environmental problems, I have said elsewhere:

> “An environmental court is better able to address the pressing, pervasive and pernicious environmental problems that confront society (such as global warming and loss of biodiversity). New institutions and creative attitudes are required to address these problems. Specialisation enables use of special knowledge and expertise in both the process and substance of resolution of these problems. Rationalisation enlarges the remedies available.”

33 For example, *Environmental Planning and Assessment Act 1979* (NSW) s 123.


36 Preston, above n 35, 406–408.

37 Preston, above n 35, 406.
An environmental court or tribunal can facilitate access to justice both by its substantive decisions and by its practices and procedure. Substantive decisions can uphold fundamental constitutional, statutory and human rights of access to justice, including statutory rights of public access to information, rights to public participation in legislative and administrative decision-making and public rights to review and appeal legislative and administrative decisions and conduct.\(^{38}\)

An environmental court or tribunal is more likely to adopt practices and procedures to facilitate access to justice, including removing barriers to public interest litigation. An environmental court or tribunal is better able to ensure the just, quick and cheap resolution of proceedings, thereby ensuring that rights of review and appeal are not merely theoretically available but are actually available to all who are entitled to seek review or appeal. An environmental court or tribunal can better address the inequality of alms between parties. Specialisation and the availability of technical experts in an environmental court or tribunal can redress in part inequality of resources and access to expert assistance and evidence.\(^{39}\)

An environmental court or tribunal has more specialised knowledge, has an increased number of cases and hence more opportunity, and is more likely to develop environmental jurisprudence. An environmental court or tribunal by its decisions may develop aspects of substantive, procedural, restorative, therapeutic and distributive justice. The Land and Environment Court of NSW, for example, has displayed leadership in developing jurisprudence in relation to the principles of ESD (principle of integration, precautionary principle, intergenerational equity, conservation of biological diversity and ecological integrity, and internalisation of external environmental costs, including the polluter pays principle), environmental impact assessment, public trust, and sentencing for environmental crime.\(^{40}\)

Other institutions may also be useful in promoting an environment-centred approach. Some jurisdictions have established an environmental ombudsman or commissioner. New Zealand, for example, has a Parliamentary Commissioner for the Environment, established under the *Environment Act* 1986 (NZ). The Commissioner has wide powers to investigate and report on any matter where the environment may be or has been adversely affected, and advise on preventative measures and remedial action to protect the environment. An environmental ombudsman or commissioner has the capacity to represent the environment and components of it and thereby value and provide a voice for the environment.

*Procedures*

The second aspect under this topic of access to justice in environmental matters is the procedure by which access to justice is to be gained. Where access is to the courts, court practices and procedures can act as barriers to access to justice. Barriers to plaintiffs seeking to preserve the environment include procedural rules governing standing to bring proceedings, requiring an undertaking for damages as a prerequisite for granting interlocutory injunctive relief, requiring the giving of security for costs of proceeding, summary dismissal of proceedings on the ground of laches.


\(^{39}\) Preston, above n 35, 407.

\(^{40}\) Preston, above n 35, 407–408.
and ordering an unsuccessful plaintiff in public interest litigation to pay the defendant’s costs of the proceedings. These procedural rules particularly act as barriers to access to justice for citizens seeking to enforce environmental law. The consequence is that the public interest in environmental protection risks being unrepresented or, at least, under-represented in the courts.\textsuperscript{41} The procedural rules need to be reformed to remove or reduce these barriers to access to justice.\textsuperscript{42}

The provision of open standing to any person to bring proceedings to remedy or restrain breaches of statutes removes the standing barrier. An ecocentric approach would extend standing to the environment and components of it, such as non-human biota. The fact that the environment and non-human biota are not able to vocalise their claims and concerns is not an insuperable problem. A representative can be appointed to speak on their behalf. Stone, in arguing that natural objects, such as rivers, forests and trees, should have legal rights to make claims to protect against damage or to seek compensation and reparation for damage, has explained how natural objects can vocalise their claims through appointed legal spokespersons.\textsuperscript{43}

The other procedural rules I have referred to can be reformed so as to reduce their effect as barriers. For example, the Land and Environment Court Rules 2007, Pt 4 r 4.2, allows the Court, if it is satisfied that proceedings have been brought in the public interest, not to make an order for payment of costs against an unsuccessful plaintiff in the proceedings, not to make an order requiring the plaintiff to give security for the defendant’s costs and to grant an interlocutory injunction or order without requiring the plaintiff to give an undertaking for damages.

Access to justice also requires access to information on governmental decision-making affecting the environment.\textsuperscript{44} Courts can assist parties’ access to justice by adopting procedures that facilitate parties’ access to information. Court Rules and Practice Notes can require regulatory authorities to provide access, at an early stage in proceedings, to all relevant documents and information\textsuperscript{45} and to give reasons for decisions.\textsuperscript{46}

Financial assistance

The third aspect under this topic of access to justice is provision of financial assistance. It has been said that there is little point in opening the doors to the court

\begin{footnotesize}
\begin{enumerate}
\item Caroona Coal Action Group Inc v Coal Mines Australia Ltd (No 3) (2010) 173 LGERA 280, 289.
\item Christopher Stone, ‘Should Trees have Standing: Towards Legal Rights for Natural Objects’ (1972) 45 Southern Californian Law Review 450; Christopher Stone, ‘Should trees have standing? Revisited: How far will law and morals reach? A pluralist perspective’ (1985) 59 Southern Californian Law Review 1; Christopher Stone, Earth and other ethics – the case for moral pluralism (Harper and Rowe, New York, 1987).
\item See, Aarhus Convention recitals and arts 4, 5.
\item See, for example, Land and Environment Court of New South Wales, Practice Note – Class 1 Residential Development Appeals, para 19; Practice Note – Class 1 Development Appeals, para 11; Practice Note – Classes 1, 2 and 3 Miscellaneous Appeals, para 6; Practice Note – Class 3 Valuation Appeals, para 10.
\item See, for example, Land and Environment Court Rules 2007 (NSW) Pt 4 r 4.3; Land and Environment Court of New South Wales, Practice Note – Class 4 Proceedings, para 14.
\end{enumerate}
\end{footnotesize}
if the litigants cannot afford to come in.\textsuperscript{47} There is a great disparity in the resources (financial, human and material) available to persons seeking to enforce the public interest in environmental protection compared to those promoting economic and social development, being typically government and industry. Consideration needs to be given to establishment of appropriate assistance mechanisms to remove or reduce these financial and other barriers to access to justice.\textsuperscript{48}

Various mechanisms have been suggested, including the establishment and operation of public interest, environmental legal centres, such as the Environmental Defender’s Offices, to provide advice and assistance; the provision of legal aid for environmental, public interest litigation; and intervenor funding for persons representing the public interest of environmental protection to participate in and access administrative processes, such as public hearings and inquiries.\textsuperscript{49}

\text\textit{Remedies}

The fourth and final aspect of this topic of access to justice is remedies and redress. The availability of adequate remedies and redress is fundamental to achieving effective access to justice. Environmental statutes typically empower courts to restrain breaches as well as remedying breaches by injunctive orders, both prohibitory and mandatory. Where the environment has been altered, the order may require reinstatement or remediation to the condition before the breach was committed.\textsuperscript{50}

Courts lack, however, power to grant other remedies. Unlike in the United States, courts are unable to make awards for natural resource damages. Natural resource damage assessment involves calculating the monetary cost of restoring injuries to natural resources that result from some statutory breach such as the release of hazardous substances or discharge of oil. Damages to natural resources are evaluated by identifying the functions or services provided by the natural resources, determining the baseline level of the services provided by the injured resources, and quantifying the reduction in service levels as a result of the injuries (such as by contamination).

Natural resource damage assessment and restoration of natural resources affected by injuries such as release of hazardous substances or oil are undertaken in the US under the \textit{Comprehensive Environmental Response, Compensation and Liability Act 1980} ("CERCLA") or the \textit{Oil Pollution Act 1990} ("OPA") respectively.

Natural resources include “land, fish, wildlife, biota, air, water, groundwater, drinking water supplies and other such resources” belonging to, managed by or held in trust

\textsuperscript{48} Aarhus Convention, art 9(5).
\textsuperscript{50} See, for example, \textit{Environmental Planning and Assessment Act 1979} (NSW) s 124(2).
by federal, state or local governments or an Indian tribe.\textsuperscript{51} Natural resource damages are for injury to, destruction of or loss of natural resources including the reasonable cost of a damage assessment.\textsuperscript{52} The measure of damages is the cost of restoring natural resources to their baseline condition, compensation for the interim loss of injured natural resources pending recovery and the reasonable cost of a damaged assessment.\textsuperscript{53}

Under both CERCLA and OPA, responsibility for protection of natural resources falls on designated federal, state and tribal trustees. This recognises that natural resources are held in trust for the public. Trustees are given responsibility for restoring injured natural resources. The two major areas of trustee responsibility are assessment of injury to natural resources and restoration of natural resources injured or services lost due to a release or discharge. One of the mechanisms by which trustees can meet these responsibilities is to sue in court to obtain compensation from potentially responsible parties for natural resource damages and the cost of assessment and restoration planning. If a designated trustee sues a potentially responsible party in court to recover compensation, a natural resource damage assessment done in accordance with the relevant regulations creates a rebuttable resumption. This means that the burden of proof shifts to a potentially responsible party to disprove the trustee’s assessment.\textsuperscript{54}

The trustees use the compensation awarded for restoration and replacement of natural resources injured or services lost due to release or discharge or for acquisition of an equivalent natural resource.\textsuperscript{55}

Restoration actions are primarily intended to return injured natural resources to baseline conditions but they may also compensate the public for the interim loss of injured natural resources from the commencement of injury until baseline conditions are established.\textsuperscript{56}

Such action for compensation for damage to natural resources could be useful in Australia, giving value and voice to natural resources through natural resource trustees.

\textbf{Conclusion}

This brings me to the conclusion of my speech today. I have endeavoured to raise for consideration ways in which environmental law can beneficially embrace ecocentrism. These ways involve extending legal considerateness to all of the

\textsuperscript{53} 43 CFR § 11 (2010); 15 CFR § 990 (2011).
\textsuperscript{55} Comprehensive Environmental Response, Compensation and Liability Act § 107(f)(i), 42 USC § 9607(f)(i) (2008); Oil Pollution Act § 1006(c), 33 USC 2706(c) (2010).
\textsuperscript{56} Environment Protection Authority, ‘Natural Resource Damages: A Primer’ (accessible at \texttt{http://www.epa.gov/superfund/programs/nrd/primer.htm} (last viewed 12 September 2011)).
earth’s community of life, not just its human members. It also involves taking a holistic view of the community, of its processes and functioning, its integrity and interconnectedness, rather than engaging in Cartesian reductionism. The goal is for law to serve both people and planet.