2017 Sir Frank Kitto Lecture

“What’s equity got to do with the environment?”

by

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What does equity have to do with the environment?

The title of my address for the 2017 Sir Frank Kitto Lecture derives from an adaptation of the lyrics of a popular song by Tina Turner:

“What’s equity got to do with the environment?
What’s equity but a second hand emotion?
What’s equity got to do with the environment?
Who needs environment when it can be broken?”

It is apt that the topic of my address concerns equity. As Michael Kirby noted, in giving the Sir Frank Kitto Lecture in 1998, “Kitto was a master of the law of equity”. But the principles of equity that I wish to address today were not ones that formed the body of law of equity that Kitto knew. They have more recent origins. And they are still evolving.

Equity as a general concept, and not the body of law that Kitto knew so well, concerns evenness, fairness and justice. The equity I wish to address in this lecture concerns achieving evenness, fairness and justice in the sustainable development of the environment.

The development of the environment benefits some, burdens others and bypasses many. The distribution of the benefits and burdens of developing the environment raises issues of equity. Who are to benefit from developing the environment? Who are to be burdened? Who will miss out? Answering these questions involves identifying who are the members of the community of justice to whom equity is to be afforded. The members of the community of justice comprise people of the present generation, people of future generations and non-human nature, both present and future. Extending equity to these members involves intragenerational equity, intergenerational equity and interspecies equity.

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1 The Hon Justice Michael Kirby AC CMG, ‘Kitto and the High Court of Australia – Change and continuity’ (Sir Frank Kitto Lecture, University of New England Union, Armidale, 22 May 1998).
These three principles of equity fix not only the process of decision making concerning development of the environment but also the results of decision making. The results include maintaining a healthy, diverse and productive environment, now and in the future. The three principles of equity call for distributive justice, which is to be achieved by affording procedural justice: a fair result reached by a fair process. This is what equity has to do with the environment. And this is what I will address in my lecture.

I will start by elaborating on the concept of ecologically sustainable development and these principles of equity.

The concept of ecologically sustainable development

The concept of ecologically sustainable development (ESD) has been around for at least three decades. In the international arena, the concept has appeared under various names, in multilateral environment agreements, soft law instruments, and international policies, plans and programmes. Nation states have incorporated the concept into domestic legislation and articulated some of its constituent principles. Executive governments have applied the concept and its principles in decision making concerning the environment. The judiciaries of the world have, through their decisions, cast some light on the concept and have answered some of the questions about the concept of ESD and the principles of ESD and how and when they should be applied. In these ways, judicial decisions are developing a body of jurisprudence on ESD.

Domestic legislation that incorporates ESD typically describes ESD in general terms. Sometimes, the actual concept of ESD is not defined at all, although the principles of ESD may be defined. The Protection of the Environment Administration Act 1991 (NSW) simply refers to the object of “the need to maintain ecologically sustainable development” 3 The Threatened Species Conservation Act 1995 (NSW) refers to the object to “promote ecologically sustainable development”. 4 Both Acts leave unspecified what is it that is to be maintained or promoted.

Alternatively, there may be a definition of ESD but the definition speaks in general terms of what ESD requires or how ESD is to be achieved without actually defining what ESD is. Consider three examples. First, there are legislative and policy instruments that define ESD in the terms used by the World Commission on the Environment and Development (WCED) in its report, Our Common Future, as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. 5 Second, there is legislation, such as

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3 s 6(1)(a).
4 s 3(a).
the Environmental Planning and Assessment Act 1979 (NSW), that says that ESD requires the effective integration of economic and environmental considerations in decision making processes. Third, there is legislation, such as the Environment Protection and Biodiversity Conservation Act 1999 (Cth), that says that ESD can be achieved through the implementation of specified principles which may be defined to be principles of ESD. These include the principles of sustainable use; the principle of integration of economic, environmental and social considerations; the precautionary principle; the principle of intergenerational equity; the principle of conservation of biological diversity and ecological integrity; and the promotion of improved valuation, pricing and incentive mechanisms, including the polluter pays principle and the user pays principle.

The definition of sustainable development in the WCED’s report, Our Common Future, namely that development that meets the needs of the present without compromising the ability of future generations to meet their own needs, was elaborated on in Principle 3 of the Rio Declaration on Environment and Development. That principle provides that “the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”.

These two articulations of the principle contain two ethical elements: concern for the poor – intragenerational equity – and concern for the future – intergenerational equity.

**Three principles of equity for ecologically sustainable development**

Intragenerational equity describes equity within the present generation while intergenerational equity describes equity between the present generation and future generations. The needs that are to be equitably shared relate to the three components of ESD: economic development, social development and environmental protection. Equity is not limited to the use or exploitation of natural resources. It extends to maintenance and enhancement of the environment. The Supreme Court of Canada referred to:

> “the growing concern on the part of legislatures and of society about the safeguarding of the environment. That concern does not reflect only the collective desire to protect it in the interests of the people who live and work in it, and exploit its resources, today. It may also be evidence of an emerging sense of intergenerational solidarity and acknowledgment of environmental debt to humanity against the world of tomorrow.”

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6 s 4(1). See also Protection of the Environment Administration Act 1991 (NSW) s 6(2); Threatened Species Conservation Act 1995 (NSW) s 4(1).
7 For example, Environment Protection and Biodiversity Conservation Act 1999 (Cth) s 3A; Protection of the Environment Administration Act 1991 (NSW) s 6(2); Environmental Planning and Assessment Act 1979 (NSW) s 4(1); Threatened Species Conservation Act 1995 (NSW) s 4(1).
9 Imperial Oil Ltd v Quebec (Minister of the Environment) [2003] 2 SCR 624, 640 [19].
The importance to ESD of the component of environmental protection is made clear in Australia where intergenerational equity is legislatively defined, such as in the Environment Protection and Biodiversity Conservation Act 1999 (Cth)\(^{10}\) and the Protection of the Environment Administration Act 1991 (NSW),\(^ {11}\) to require “that the present generation shall ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations”. Similarly, intragenerational equity was judicially recognised in *Telstra Corp Ltd v Hornsby Shire Council* as involving “people within the present generation having equal rights to benefit from the exploitation of resources and from the enjoyment of a clean and healthy environment”.\(^ {12}\)

Edith Brown Weiss suggests that there are three fundamental principles forming the basis of intergenerational equity.\(^ {13}\) First, the “conservation of options principle” requires each generation to conserve the diversity of the natural and cultural resource base in order to ensure that options are available to future generations in solving their problems and satisfying their needs.\(^ {14}\) This principle rests on the premise that diversity contributes to robustness. It is argued that, while diversity may lead to change in the biological population, biodiverse ecosystems remain robust. Thus, destructive activities – such as clear felling of tropical forests, developing crop monocultures and exhausting non-renewable resources such as fossil fuels – must be avoided to ensure that future generations have a diverse, natural and cultural base comparable to the status quo. Future generations are more likely to survive, attain their goals and be capable of solving problems as they arise – if they have a variety of options available.\(^ {15}\)

Second, the “conservation of quality principle” holds that each generation must maintain the quality of the natural and cultural environments such that they are passed on in no worse condition than they are received.\(^ {16}\) Klaus Bosselmann argues that this principle requires the preservation of the integrity of the planetary ecosystem – the natural stock – as well as of knowledge about natural resources and ways to use them – the capital stock.\(^ {17}\)

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\(^{10}\) s 3A(c).

\(^{11}\) s 6(2)(b).


\(^{16}\) Ibid, 404–5.

Third, the “conservation of access principle” requires that each generation should give its members equitable rights of access to the legacy of past generations and should conserve this access for future generations. This principle holds that the present generation should have a reasonable and equitable right of access to the natural and cultural resources of the Earth. Provided the present generation upholds its duties to future generations, each member of the present generation ought to be entitled to the resources that could improve their own economic and social wellbeing. In this way, this principle of intergenerational equity encompasses the principle of intragenerational equity.

Bosselmann argues that a third element needs to be added to the two elements of intergenerational equity and intragenerational equity: namely, concern for the non-human world – interspecies equity. He argues that anthropocentrism has dominated the debate surrounding sustainable development, and an ecocentric conception which recognises the intrinsic values of nature is necessary to ensure ecological sustainability and ecological justice.

These three principles of equity are intertwined. As I have noted, sub-principles of the principle of intergenerational equity raise issues of intragenerational equity. So too, the distribution of benefits and burdens from the development of the environment raises equitable issues for the non-human environment. The distribution of the benefits of development of the environment to people of present and future generations will come at a cost to, or burden, the non-human environment.

These three principles of equity – intergenerational, intragenerational and interspecies equity – fix not only the process of consideration in decision making concerning development of the environment but also the outcomes or results of such decision making. These results include maintaining a healthy, diverse and productive environment, now and in the future. The three principles of equity call for distributive justice which is to be achieved by according procedural justice – a fair result reached by a fair process.

**Achieving a fair result**

Let me start with the objective of achieving a fair result. What is the fair result? WCED’s report, *Our Common Future*, described the fair result as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Principle 3 of the Rio Declaration on Environment and Development described the fair result as being to equitably meet developmental and environmental needs of present and future generations. In each of these descriptions of the result there is reference to “the needs” of present and future...
generations, both developmental and environmental needs. What is meant by needs?

Answering this question is critical to achieving intergenerational, intragenerational and interspecies equity. Environmental justice involves the distribution of both environmental benefits and burdens. Particular environmental features, materials or activities can be viewed as both benefits or burdens depending upon the claimant for distributive justice and the context of the claim. For example, energy consumption can be viewed as a benefit in providing essential energy services and a burden in contributing to carbon emissions and climate change. Flooding can be a benefit for agriculture (by replenishing water storages and renewing soil for fertility by alluvium disposition) and non-human nature (such as for wetlands and riparian areas) and a burden (by damage to public infrastructure and private property, interruption of business activity, and loss of life).

The concepts of benefits and burdens are also relative both as concepts and with respect to any particular group of potential resource users. There are also issues in defining what is to be distributed and concerning the evidence needed to make evaluative decisions. Naming and giving meaning to any particular benefit or burden is a social process, and is therefore particular rather than universal.

Environmental laws tend not to allow multiple contexts or viewpoints. Each law, by its nature, scope and purpose, fixes the claims for distributive justice that can be made and the context for viewing environmental resources, features and activities and hence for characterisation of them as benefits or burdens. Natural resource laws view the particular resources the subject of the laws as the benefit to be consumed or exploited; non-human nature dependent on those resources is a burden – it has the potential to prevent or restrict the consumption or exploitation of the resources. Environmental laws do not generally permit a holistic evaluation of the distributive justice question but rather confine evaluation according to the law concerned.

Achieving distributive justice is not simply a matter of ensuring distributions of primary environmental goods that are just in themselves, but also of ensuring that such distributions enable individuals and communities to lead fully functioning and flourishing lives. Distributive justice is not solely concerned with the amount of primary goods distributed, but also with what those goods do for individuals and communities. This is the capabilities approach of Sen and Nussbaum. The

28 Walker, above n 26, 43.
29 Ibid, 44.
30 Ibid, 45.
32 Martha Nussbaum and Amartya Sen (eds), The Quality of Life (Clarendon Press, 1993); Martha Nussbaum, Frontiers of Justice: Disability, Nationality, Species Membership (Harvard University Press, 2006); Amartya Sen, The Idea of Justice (Allen & Lane, 2009).
capabilities approach is concerned with what is needed to transform primary goods into a fully functioning life and what it is that interrupts that process.  

The central feature of wellbeing is the ability to achieve valuable functionings. Functionings refer to various activities and states of existence or being. The capabilities approach concentrates on the opportunity to be able to have combinations of functions. The individual is free to make use of this opportunity or not. A capability reflects the alternative combinations of functions from which an individual can choose one combination. The central measure of justice is not just how much primary goods individuals might have, but whether they have what is necessary to enable a fully functioning life.  

The capabilities approach can be applied to an extended community of justice that includes non-human nature. Schlosberg argues that the capabilities approach can be applied to what is needed for the flourishing of individual organisms of different species, and of populations of organisms of the same species, as well as of ecological communities and ecosystems. The focus would be on the capabilities necessary for the organisms, populations, ecological communities or ecosystems to fully function. Schlosberg extends his argument to include the broader environment as part of the capability set required for individual organisms to flourish. The environment includes the ecological systems, relations and functionings. The focus on capabilities would include the larger systems which contribute to individual capabilities. Furthermore, systems can be viewed as agents for the work they do in providing the various capabilities for their parts to function, such as purifying water, providing nutrition and sustaining temperature. In this case, the central issue of ecological justice would be the interruption of the capabilities and functionings of a large living system (which contributes to individual capabilities) – what keeps the system from transforming primary goods into capabilities, functionings and the flourishing of the whole system.  

It can be seen, therefore, that the needs of present and future generations and of non-human nature are difficult to determine. But they at least should include, according to a capabilities approach, what is needed for the flourishing of people of present and future generations and of non-human nature.  

The next question in determining the equitable distribution of benefits and burdens of development of the environment concerns the criteria to be used for distribution. Many different criteria have been suggested for achieving distributive justice. Generally, the criteria can be grouped as goal based, rights based or duty based. Goal based criteria take some goal, like improving the general welfare, as fundamental; rights based criteria take some right, like the right to liberty, as

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33 Schlosberg, above n 31, 4.  
35 Schlosberg, above n 31.  
37 Ibid, 148.  
38 Ibid, 148–149.
fundamental; and duty based criteria take some duty, like the duty to obey some commandment or moral quality, as fundamental.39

Goal based criteria for distribution are concerned with the welfare of any member of the community of justice only insofar as this contributes to some state of affairs stipulated as good quite apart from the member’s choice of that state of affairs. Goal based theories include the various forms of utilitarianism. The best known form of utilitarianism is the individualistic utilitarianism of Bentham. Jhering proposed an alternative form of social utilitarianism. This emphasises social purposes and the valuation of individual purposes in terms of social purposes.40

The concept of ESD might be considered to be a social purpose to be secured and protected by methods of reward (such as economic incentives) and methods of coercion (by the law). Fisher has suggested that ESD is beginning to emerge as a fundamental norm of the environmental legal system,41 invoking Kelson’s Grundnorm concept.42 ESD could, therefore, be a goal of distributive justice in determining the rightness of allocations of environmental resources.

Instead of goal based criteria for achieving distributive justice, the criteria for distribution of environmental resources could be rights based. Rights based criteria are concerned only with particular rights and interests of individuals and not how the welfare of each individual contributes to some desired state of affairs, including the interests of society. Rights based theories include those propounded by Rawls and Dworkin.43

Rawls proposed two principles of justice. First, each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all.44 Secondly, social and economic inequalities are to be arranged so that they are both: (a) attached to offices and positions open to all under conditions of fair equality of opportunity, and (b) to the greatest benefit of the least advantaged, consistent with the just savings principle (the difference principle).45 The first principle is prior to the second and, in the second principle, fair equality of opportunity is prior to the difference principle.46 Rawls extended his difference principle to extend justice to future generations by suggesting a savings principle: “Saving is achieved by accepting as a political judgment those policies designed to improve the standard of life of later generations

42 Hans Kelsen’s concept of Grundnorm is of a basic norm generally accepted and the validity of which cannot be derived from any higher one: Walker, above n 40, 37, 699.
44 Rawls, Justice as fairness: a restatement, above n 43, 42.
46 Rawls, A Theory of Justice, above n 43, 302–303; Rawls, Justice as fairness: a restatement, above n 43, 43.
of the least advantaged, thereby abstaining from the immediate gains which are available".\textsuperscript{47}

Rawls’ theory and principles of justice have attracted criticism.\textsuperscript{48} Of critical relevance to environmental issues is the concern that Rawls prioritises individual liberties over all else, including social goods; unlike Jhering, there is no deference to social interest. The critical environmental problems faced today are to a large extent a product of prioritising individual interests over broader social interests.

Duty based theories are concerned with the moral quality of the acts of individuals, which fail to meet certain standards of behaviour. Kant’s categorical imperatives are a duty based theory.\textsuperscript{49} Duty based theories use codes of conduct which set the morally accepted standards of behaviour. These codes of conduct may be set by society for the individual or by the individual for himself. The individual at the centre must conform to the code or be punished or corrupted if the individual does not do so.\textsuperscript{50}

Duty based criteria might be seen in Aldo Leopold’s land ethic: “a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise”;\textsuperscript{51} or in Baxter’s principle: “we must do right by other life forms, but in a precise kind of way, namely by recognising their claim to a fair share of environmental resources which all life forms need to survive and flourish”;\textsuperscript{52} or in Wissenberg’s duty of restraint: “whenever there is a choice between destroying a good, thus depriving others of personal future options to realise legitimate plans, or merely using it without limiting other peoples’ options, we have a duty to do the latter”.\textsuperscript{53}

Some of the principles of ESD incorporate duty based criteria. The principle of intergenerational equity that the present generation shall ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations; the polluter pays principle that those who generate pollution and waste should bear the cost of containment, avoidance or abatement; and the user pays principle that the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste, pronounce duties that can be used in distributive choices.\textsuperscript{54}

**Achieving a fair process**

I turn now to a fair process. The fair result in the distribution of benefits and burdens of developing the environment needs to be achieved by a fair process.


\textsuperscript{48}See the summary of criticism in M D A Freeman, *Lloyd’s Introduction to Jurisprudence* (7th ed, Thomson Sweet & Maxwell, 2001) 528–534.

\textsuperscript{49}Dworkin, *Taking Rights Seriously*, above n 43, 172.

\textsuperscript{50}Ibid, 172.

\textsuperscript{51}Aldo Leopold, *A Sand County Almanac* (OUP, 1949) 262.


\textsuperscript{54}See, eg, *Protection of the Environment Administration Act 1991* (NSW) s 6(2).
At the outset, in order for the process of distribution to be fair, the entities to whom the benefits and burdens are distributed must be able to participate meaningfully in decision making about the distribution. The entities who can participate will be, firstly, the members of the community of justice and, secondly, amongst those members, those who are recognised and valued. This involves procedural justice and recognition justice.

Recognition justice is concerned with who is given respect and who is and is not valued. Access to justice as recognition is promoted by the law not only giving substantive and procedural rights but also by affording recognition of different social groups and communities, and of the natural environment and components of it.

Next, procedural justice involves meaningful participation by those entities in the decision making concerning the distribution of benefits and burdens. Meaningful participation involves access to environmental information, public participation in decision making and access to justice. Access to justice includes giving standing to entities to challenge in courts and tribunals actions and decisions infringing procedural justice or distributive justice.

Principle 10 of the Rio Declaration on Environment and Development provides that:

“Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”

The UNEP Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters recommend norms and principles for facilitating access to information, effective public participation and access to justice.

Judicial application of the principles of equity

With this background on the concept of ecologically sustainable development, the three principles of equity, and the notions of distributive justice, procedural justice and recognition justice, I turn to discuss how courts have considered the three

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56 Ibid, 34.
principles of intergenerational, intragenerational and interspecies equity. As Sir Frank Kitto said in his essay, “Why Write Judgments?”:

“I would certainly include in the proper function of the Judge the right and duty to give effect as existing law to such developments of the case law as principles already enunciated by the courts imply or justify by reason of their inherent capacity for extension by logical processes, including in those processes not only inference and deduction but also analogy where analogy is sound.”

The following judicial decisions give effect to the three principles of equity, as established in international and domestic law and policy.

**Judicial application of intergenerational equity**

I will start with intergenerational equity. As I have noted, intergenerational equity involves three sub-principles concerning conservation of options, conservation of quality and conservation of access.

The principle of intergenerational equity and the conservation of options sub-principle underpinned the Land and Environment Court of New South Wales’ decision in *Hub Action Group Inc v Minister for Planning* to refuse development consent for a waste disposal facility on prime agricultural land. The development would have precluded an area of prime crop and pasture land from being able to be used sustainably now and in the future for agricultural production. The Court noted:

“...the principle of inter-generational equity involves the right of the present generation to use and enjoy the resources of the earth but without compromising the ability of future generations to do likewise. The present generation needs to ensure that the health, diversity and productivity of the environment are maintained and enhanced for the benefit of future generations. This obligation of intergenerational equity would be breached by the carrying out of development which has an adverse effect on the long term use, for sustainable agricultural production, of prime crop and pasture land. Such development compromises future generations’ ability to use and enjoy to the same degree as the present generation the prime crop and agricultural land.”

Similarly, in *Taralga Landscape Guardians Inc v Minister for Planning*, the Land and Environment Court of New South Wales decided to approve a large wind farm, recognising that achieving intergenerational equity involved a consideration of the conservation of options sub-principle:

“The attainment of intergenerational equity in the production of energy involves meeting at least two requirements. The first requirement is that the

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mining of and the subsequent use in the production of energy of finite, fossil fuel resources need to be sustainable. Sustainability refers not only to the exploitation and use of the resource (including rational and prudent use and the elimination of waste) but also to the environment in which the exploitation and use takes place and which may be affected. The objective is not only to extend the life of the finite resources and the benefits yielded by exploitation and use of the resources to future generations, but also to maintain the environment, including the ecological processes on which life depends, for the benefit of future generations. The second requirement is, as far as is practicable, to increasingly substitute energy sources that result in less greenhouse gas emissions for energy sources that result in more greenhouse gas emissions, thereby reducing the cumulative and long-term effects caused by anthropogenic climate change. In this way, the present generation reduces the adverse consequences for future generations.\textsuperscript{63}

The principle of intergenerational equity and the conservation of quality sub-principle have underpinned many judicial decisions in cases where development would significantly impair the quality of the environment, particularly the clearing of forests, mining and contributing to climate change.

The Supreme Court of the Philippines, in \textit{Minors Oposa v Secretary of the Department of Environment and Natural Resources},\textsuperscript{64} upheld the right of children to bring judicial review proceedings which challenged governmental decisions to grant and renew timber licences that authorised large scale deforestation and environmental damage. The Court held:

\begin{quote}
“\text{We find no difficulty in ruling that they can, for themselves, for others of their generation and for the succeeding generations, file a class suit. Their personality to sue on behalf of the succeeding generations can only be based on the concept of intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned. Such a right, as hereinafter expounded, considers the ‘rhythm and harmony’ of nature. Nature means the created world in its entirety. Such rhythm and harmony indispensably include, \textit{inter alia}, the judicious disposition, utilization, management, renewal and conservation of the country’s forests, mineral, land, waters, fisheries, wildlife, off-shore areas and other natural resources to the end that their exploration, development and utilization be equitably accessible to the present as well as future generations. Needless to say, every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology. Put a little differently, the minors’ assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come.}”\textsuperscript{65}
\end{quote}

\textsuperscript{63} \textit{Taralga Landscape Guardians Inc v Minister for Planning} (2007) 161 LGERA 1 [74].
\textsuperscript{64} (1994) 33 ILM 173.
\textsuperscript{65} \textit{Minors Oposa v Secretary of the Department of Environment and Natural Resources} (1994) 33 ILM 173,185.
The decision of the Supreme Court of the Philippines ensured not only distributive justice by the conservation of quality of the environment for present and future generations, but also procedural justice by enabling future generations to have access to the courts to conserve that environmental quality.

Similarly, the Supreme Court of India has set aside governmental decisions to approve factories for the manufacture of katha that required the cutting down of khair trees. The establishment of katha manufacturing units would have led to “indiscriminate felling of khair trees which would have a deep and adverse effect upon the environments and ecology of the State” of Himachal Pradesh. In State of Himachal Pradesh v Ganesh Wood Products, the Court held that the governmental approval of each proposed manufacturing units not only violated relevant national and state forest policies, it was also:

“contrary to public interest involved in preserving forest wealth, maintenance of environment and ecology and considerations of sustainable growth and intergenerational equity. After all, the present generation has no right to deplete all the existing forests and leave nothing for the next and future generations. Not keeping the above considerations in mind, it is obvious, has vitiated the approvals granted [by the Government]...the obligation of sustainable development requires that a proper assessment should be made of the forest wealth and the establishment of industries based on forest produce should not only be restricted accordingly but their working should also be monitored closely to ensure that the required balance is not disturbed.”

The Supreme Court of India has repeatedly held that forests in India are an important part of the environment and constitute a national asset. Consequently, “if deforestation takes place rampantly, then intergenerational equity would stand violated”. In Canada also, the principle of intergenerational equity has been invoked to declare invalid forest management plans that failed to comply with legal obligations to ensure the sustainability of the forests for future generations.

In relation to mining, the Supreme Court of India ordered the suspension of the illegal mining of iron ore and allied minerals in the State of Karnataka when that was causing loss of scarce natural resources and wide scale land and environmental degradation. The Court found that the environment and ecology are natural assets subject to intergenerational equity.

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66 State of Himachal Pradesh v Ganesh Wood Products, AIR 1996 SC 149, 152 [10].
67 AIR 1996 SC 149, 163 [51].
68 Glanrock Estate Pvt Ltd v State of Tamil Nadu [2010] 12 SCR 597, 624; Court On Its Own Motion v Union of India [2012] INSC 783 [1], [14]; see also TN Godavarman Thirumulpad v Union of India (valuation of forests case), AIR 2005 SC 4256, 4259 [1]–[3], 427–4280 [89]–[92].
70 Samaj Parivartana Samudaya v State of Karnataka, AIR 2013 SC 3217, 3237 [31], 3242 [41]; see also AP Pollution Control Board v Prof MV Nayudu AIR 1999 SC 812, 824 [51]; Tirupur Dyeing
The Queensland Land Court in *New Acland Coal Pty Ltd v Ashman & others and Chief Executive, Department of Environment and Heritage Protection (No. 4)*\(^7^1\) recommended that the stage three expansion of a coal mine should be rejected on numerous grounds, including that the expansion would breach the principle of intergenerational equity and the conservation of quality sub-principle. The Court held that there was a real risk that the conservation of quality sub-principle will be breached by the expansion because of the real possibility that land holders will suffer a depletion of groundwater supplies, and the potential for that loss to continue for hundreds of years, if not indefinitely.\(^7^2\)

In relation to climate change, many cases around the world have refused developments that would cause adverse climate change consequences. Courts have applied the principle of intergenerational equity in deciding climate change cases. In *Gray v Minister for Planning*, the Land and Environment Court of New South Wales held that the failure to consider greenhouse gas emissions from the mining of coal – that is scope 1 and 2 emissions – and from the burning of coal – that is scope 3 emissions – in the environmental assessment of a proposed open cut coal mine involved a failure to take into account the principle of intergenerational equity.\(^7^3\) In *Hunter Environment Lobby Inc v Minister for Planning*, the Land and Environment Court based its decision to impose conditions on an approval of another coal mine to offset greenhouse gas emissions from the mining of coal on the principle of intergenerational equity.\(^7^4\) The Hague District Court in the Netherlands found the principle of intergenerational equity relevant in establishing the scope of the duty of care of the Dutch Government to take measures to reduce greenhouse gas emissions in *Urgenda Foundation v The State of the Netherlands (Ministry of Infrastructure and the Environment)*.\(^7^5\)

In one of the atmospheric public trust cases, *Juliana v USA*, brought by youth plaintiffs challenging government action and inaction regulating greenhouse gas emissions, an Oregon court denied a motion to dismiss and held that, depending on the facts presented at trial, it was open for the plaintiffs to succeed in a claim that government action and inaction denied future generations the protections afforded to previous generations and denied future generations access to essential natural resources. The trial will commence on 5 February 2018.\(^7^6\)

Courts have applied the principle of intergenerational equity together with the sub-principle of conservation of access to cultural heritage. In *Anderson v Director General, Department of Environment and Conservation*\(^7^7\) and *Anderson v Director Factory Owners Association v Noyyal River Ayacutdars Protection Association* AIR 2010 SC 3645, 3651 [17].

\(^7^1\) [2017] QLC 24.p
\(^7^2\) New Acland Coal Pty Ltd v Ashman & others and Chief Executive, Department of Environment and Heritage Protection (No. 4) [2017] QLC 24 [1337]–[1338].
\(^7^3\) (2006) 152 LGERA 258 [126]; see also *Thornton v Adelaide Hills Council* (2006) 151 LGERA 1 [47].
\(^7^4\) [2011] NSWLEC 221 [19]–[21], [100].
\(^7^5\) C/09/456689/HA ZA 13-1396 (Rechtbank Den Haag) (24 June 2015) [4.8], [4.56], [4.57].
\(^7^6\) (D Or, No. 6:15-cv-1517-TC, 10 November 2016).
\(^7^7\) (2006) 144 LGERA 43, 91–92 [199]–[200].
General, Department of Environment and Climate Change,\textsuperscript{78} the Land and Environment Court of New South Wales upheld the principle of intergenerational equity in relation to Aboriginal cultural heritage, including Aboriginal objects. The Supreme Court of India has recognised the applicability of the principle of intergenerational equity in relation to two, historical, drinking water tanks that had been used for over 500 years by local villages and pilgrims.\textsuperscript{79} The Supreme Court of Sri Lanka applied the principle of intergenerational equity in restraining the exploration and mining of phosphate and associated minerals at Eppawela. The mining operations were likely to affect adversely monuments and irrigation schemes, including tanks and canals, of great historical significance.\textsuperscript{80}

**Judicial application of intragenerational equity**

I turn now to intragenerational equity. Judicial decisions have recognised intragenerational justice and applied the conservation of access sub-principle. The Supreme Court of India ordered a municipal government to abate the nuisance caused by inadequate sewage and drainage systems that disproportionately affected the poor, thereby causing social injustice.\textsuperscript{81} The Supreme Court of India has also taken judicial notice of the intragenerational injustice occasioned by the lack of necessary facilities and essential amenities and of the risk to the lives of pilgrims en route to and around a holy cave. The Court gave directions and orders for measures to be undertaken to improve facilities and amenities for pilgrims.\textsuperscript{82} Similarly, the Supreme Court of India made various orders restraining and regulating mining of limestone that was adversely affecting the forests and ecology of the Doon Valley area and the health and wellbeing of rural villages.\textsuperscript{83} The Court found the forest “are a bequest of the past generations to the present”.\textsuperscript{84}

In *Prafulla Samantray v Union of India*,\textsuperscript{85} the National Green Tribunal of India recognised that the intragenerational injustice occasioned by the proposed construction of an integrated steel plant with a service seaport that would result in the forced migration of thousands of people had not been adequately considered by the administrative decision maker. As Gita Gill notes, “the Tribunal sought to reconcile environmental considerations to ensure sustainability, social equity and an inclusive interpretation of ‘development’, particularly for tribal and poor people”.\textsuperscript{86} The Tribunal held that:

> “we have kept in mind the need for industrial development, employment opportunities created by such projects that involve huge foreign investment, but at the same time we are conscious that any development should be within

\textsuperscript{78} (2008) 163 LGERA 400, 160–161 [85]–[92].
\textsuperscript{79} Intellectuals Forum Tirupathi v State of Andhra Pradesh, AIR 2006 SC 1350.
\textsuperscript{80} Bulankulama v Secretary, Ministry of Industrial Development 2000 (3) SLR 243.
\textsuperscript{81} Ratlam Municipal Council v Vardhichand, AIR 1980 SC 1622, 1629 [15]–[16].
\textsuperscript{82} Court On Its Own Motion v Union of India [2012] INSC 783.
\textsuperscript{83} Rural Litigation and Entitlement Kendera v State of Uttar Pradesh AIR 1988 SC 2187.
\textsuperscript{84} Ibid, 2196 [21]; see also 2197 [24].
the parameters of environmental and ecological concerns, and satisfying the principles of sustainable development and precautionary measures”.87

The Tribunal ordered a fresh review of the proposed development, including the feasibility of reducing the land requirement of the project and building its own water resource facility rather than diverting water that is currently used for drinking water and irrigation from local towns.88

Climate change cases also involve intragenerational injustice. The Lahore High Court’s decision in Asghar Leghari v Federation of Pakistan89 to establish a Climate Change Commission to implement the Pakistan Government’s policies for adaptation to climate change addressed the climate change injustice caused by the Government’s inaction, delay and lack of seriousness in addressing the challenges and meeting the vulnerabilities associated with climate change. The Court recognised that climatic variations resulting in heavy floods, droughts and concerns regarding water security and food security called for the protection of the “fundamental rights of the citizens of Pakistan, in particular, the vulnerable and weak segments of the society who are unable to approach this Court.”90

**Judicial application of interspecies equity**

In relation to interspecies equity, judicial decisions have mainly concerned procedural justice to address inequality for non-human nature. The judicial development of interspecies equity is still in its infancy; it is slowly evolving in recognition of the intrinsic value of nature as well as the ecosystem services it can provide. Two judicial decisions have extended standing to sue to the environment or components of it. One judicial decision takes an ecocentric approach and applies a “species best interest standard” to establish a suitable habitat for a critically endangered species.

The Uttarakhand High Court in India recognised the Ganga River and Yamuna River as “juristic/ legal persons/ living entities having the status of a legal person with all corresponding rights, duties and liabilities of a living person in order to preserve and conserve river Ganga and Yamuna”.91 The High Court gave legal status as a living person/ legal entity to the rivers under Articles 48-A and 51A(g) of the Constitution of India.92 Although the High Court was moved to do so for anthropocentric reasons, to protect the Hindu faith of society, it nevertheless held that the government was bound to promote the health and well-being of the rivers. The Court said:

“All the Hindus have deep Astha in rivers Ganga and Yamuna and they collectively connect with these rivers. Rivers Ganga and Yamuna are central

89 W.P. No. 25501/2015 (4 September 2015)(Lahore High Court).
90 Asghar Leghari v Federation of Pakistan W.P. No. 25501/2015 (4 September 2015)(Lahore High Court) [6].
92 Ibid [18].

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to the existence of half of Indian population and their health and well-being, The rivers have provided both physical and spiritual sustenance to all of us from time immemorial. Rivers Ganga and Yamuna have spiritual and physical sustenance. They support and assist both the life and natural resources and health and well-being of the entire community. Rivers Ganga and Yamuna are breathing, living and sustaining the communities from mountains to sea.”

The Court declared the Director of NAMAMI Gange, the Chief Secretary of the State of Uttarakhand and the Advocate General of the State of Uttarakhand as “persons in loco parentis as the human face to protect, conserve and preserve the Rivers Ganga and Yamuna and their tributaries. These officers are bound to uphold the status of Rivers Ganges and Yamuna and also to promote the health and well-being of the rivers”. The Court directed the Advocate General to be the representative of the rivers at all legal proceedings to protect the interests of the rivers.

The High Court did not specify the rights that the rivers held, other than to say that they included all of the rights of a living person. These rights of a living person would include the right to life (see Article 21 of the Constitution of India) but also a right to dignity. The right to dignity requires beings to be valued, respected and receive ethical treatment. The Uttarakhand High Court’s decision to recognise the Ganga and Yamuna Rivers as legal entities with corresponding rights, gives the rivers recognition and respect and values them.

In Resident Marine Mammals of the Protected Seascape Tanon Strait v Secretary Angelo Reyes, the Supreme Court of the Philippines upheld the standing of marine mammals, through their stewards, to bring proceedings challenging the legality of a service contract allowing a petroleum company to conduct oil exploration in marine waters that are the habitat of the mammals. The Supreme Court, although declining to extend the principle of standing beyond natural and juridical persons, held that “the need to give the Resident Marine Mammals legal standing has been eliminated by our Rules, which allow any Filipino citizen, as a steward of nature, to bring a suit to enforce our environmental law”. The Rules referred to were the special Rules of Procedure for Environmental Cases promulgated by the Supreme Court in 2010.

The Supreme Court of India, in Centre for Environmental Law, WWF-I v Union of India, made orders for the translocation of a pride of Asiatic Lions from existing habitat to alternative suitable habitat to ensure the species long term survival and to protect the species from extinction in India. The population of the Asiatic Lions in India had been reduced to its habitat in the Gir National Park and Gir Sanctuary in

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93 Ibid [17].
94 Ibid [19].
96 GP No 180771, 21 April 2015.
97 Resident Marine Mammals of the Protected Seascape Tanon Strait v Secretary Angelo Reyes GP No 180771, 21 April 2015, 16–17.
Gujarat alone. There they face threats due to human-animal conflict, outbreak of a possible epidemic or any natural calamity. Such actions, if they eventuate, may wipe out the whole population. The need for alternative habitat, a second home, for the Asiatic Lions was felt. Suitable habitat was identified in Kuno Wildlife Sanctuary in Madhya Pradesh, which was a historical habitat of Asiatic Lions. The State of Gujarat opposed the translocation of a pride of lions from the population at Gir. Amongst the reasons for opposition advanced by the State of Gujarat were the anthropocentric reasons that the Asiatic Lions were part of “our family” in Gujarat and part of the Indian culture and civilisation, and were the pride of the State.

The Supreme Court rejected the State of Gujarat’s reasons. The Supreme Court held that:

“We re-iterate that while examining the necessity of a second home for the Asiatic lions, our approach should be eco-centric and not anthropocentric and we must apply the ‘species best interest standard’, that is the best interest of the Asiatic lions. We must focus our attention to safeguard the interest of species, as species has equal rights to exist on this earth. Asiatic Lion has become critically endangered because of human intervention. The specie originally existed in North Africa and South-West Asia formerly stretched across the coastal forests of northern Africa and from northern Greece across south-west Asia to eastern India. Today the only living representatives of the lions once found throughout much of South-West Asia occur in India’s Gir Forest. Asiatic lion currently exists as a single sub-population and is thus vulnerable to extinction from unpredictable events, such as an epidemic or large forest fire etc. and we are committed to safeguard this endangered species because this species has a right to live on this earth, just like human beings.

…

Approach made by SWBL and the State of Gujarat is an anthropocentric approach, not eco-centric though the State of Gujarat can be justifiably proud of the fact that it has preserved an endangered specie becoming extinct. We are, however, concerned with a fundamental issue whether the Asiatic lions should have a second home. The cardinal issue is not whether the Asiatic lion is a ‘family member’ or is part of the ‘Indian culture and civilization’, or the pride of a State but the preservation of an endangered species for which we have to apply the ‘species best interest standard’. Our approach should not be human-centric or family-centric but eco-centric. ‘Scientific reasoning’ for its relocation has to supersede the family bond or pride of the people and we have to look at the species best interest especially in a situation where the specie is found to be a critically endangered one and the necessity of a second home has been keenly felt. We, therefore, find it difficult to agree with the reasoning of SBWL, Gujarat and the State of Gujarat that the Asiatic lion is a family member and hence be not parted with.”

An integrated judicial approach

99 Centre for Environmental Law, WWF-I v Union of India [2013] INSC 427 (15 April 2013) [40], [49].
Courts can also take into account all three principles of equity. The Land and Environment Court of New South Wales considered each of the three principles of equity — intergenerational, intragenerational and interspecies justice — in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd*. The Court refused approval for a large, open cut coal mine that would have had significant and unacceptable impacts on biological diversity, including endangered ecological communities, as well as noise and social impacts on local villagers. The Court found that the economic analyses that justified the project had not considered issues of equity or distributive justice. Rather, they were concerned only with the aggregation of costs and benefits and not how or why these were allocated. The Court noted that distributive injustice would be caused by the distribution of the burdens of the project in several ways: first, on local villagers, by limiting their ability to live in a clean and healthy environment — intragenerational equity; second, on future generations by not maintaining the health, diversity and productivity of the local environment — intergenerational equity; and third, on components of biological diversity, such as endangered ecological communities and threatened fauna, by disturbing the integrity, stability and beauty of the biotic community — interspecies equity.

**In closing: The circle of life**

It is now time to conclude. Sir Frank Kitto said on the occasion of his being sworn in as a Justice of the High Court of Australia that:

“We are all in our several ways the servants of a great and fast-growing nation. Its future will be influenced in no small degree by the quality of the work we do in upholding the rule of law and proving its worth and effectiveness in the development of a nation in whose righteousness must lie its greatness.”

So too the legislature, executive and judiciary are, in their several ways, the servants of the nation, its people and its environment. The future of the nation, its people and its environment, and the future of the Earth, will be shaped, in no small degree, by the distribution of the benefits and burdens of developing the environment. It is the task of legislators, administrative decision makers and judicial decision makers to apply the principles of intergenerational equity, intragenerational equity and interspecies equity to ensure that these benefits and burdens are distributed equitably and result in the maintenance of a healthy, diverse and productive environment, now and in the future.

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100 *(2013) 194 LGERA 347.*
101 *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347. An appeal was dismissed by the NSW Court of Appeal in *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375.
102 Ibid, 449 [485].
I started this lecture with an adaptation of the lyrics of a popular song. I will end with the sage advice in a Disney film of the Lion King, Mufasa to his son, Simba:

"Mufasa: Everything you see exists together in a delicate balance. As king, you need to understand that balance, and respect all the creatures, from the crawling ant to leaping antelope.

Simba: But Dad, don't we eat the antelope?

Mufasa: Yes, Simba. But let me explain. When we die, our bodies become the grass. And the antelope eat the grass. And so, we are all connected in the great Circle of Life."