ARTICLE

LISTEN TO THE EARTH: LAW AS IF NATURE MATTERED

BRIAN J PRESTON[1]

Abstract: Environmental laws are not achieving desired environmental goals, and the environment is getting worse, not better. Environmental law-making is not fit for purpose because we are not listening to the earth. We are imposing preconceived, top-down solutions, whereas we need a bottom-up approach that starts with understanding the details of the environment that need to be conserved. Drafting of environmental laws should be responsive to the environment and threats to the environment. Environmental law-making is mostly anthropocentric and utilitarian in its framing of rights and duties. Deficiencies in such framing have led to calls to accord rights to nature itself, and examples are provided where such rights are being recognised in constitutions, statutes, and judicial decisions around the world. There is a risk, however, that these reforms could end up as yet another top-down, anthropocentric solution. To mitigate this risk, four changes in approach are proposed. First, identifying the components of nature to be conserved and to which legal status is to be given. Second, conferring legal status on these components of nature by imposing duties on humans towards them, from which correlative rights against humans will flow, rather than conferring rights on them, from which correlative duties on humans towards them will flow. Third, framing the duties to be responsive to the needs of the particular components of nature sought to be conserved. Fourth, identifying the correlative rights of the components of nature to which the duties are owed. Such reforms better develop laws that are responsive to and meet the needs of the environment.

Keywords: Rights of nature, environmental law reform, environmental rights and duties

I INTRODUCTION

Albert Einstein is attributed (or likely misattributed) with observing that insanity is doing the same thing over and over again and expecting different results. On this definition, our environmental laws reveal the insanity of our body politic. We repeatedly make environmental laws with the same structure, concepts, functions and operation, expecting them to achieve the desired environmental goals, although they rarely achieve these goals in practice. On all environmental quality indicia, the environment is getting worse, not better. Climate change and its consequences are escalating towards tipping points of

[1] Chief Judge of Land and Environment Court of New South Wales. This article was presented as the keynote address to *AgLaw at 20: Leadership, Legacy, and the Future of Agricultural Law*, a symposium at the University of New England, Armidale, New South Wales, Australia, 11-12 September 2025.

biosphere instability. Biodiversity loss is spiralling into a vortex of extinction. Pollution is choking our seas, air, and land.[2]

A reason for these planetary crises, I suggest, is that we are not listening to the earth. We are imposing our preconceived, top-down solutions, but these are proving not to be fit for purpose. We need to adopt a different approach, a bottom-up approach rather than a top-down approach, to craft environmental laws that effectively address the environmental crises facing our planet.

A bottom-up approach would start with collecting the data and understanding the details of the environment that is sought to be conserved. These data and details would include the environment's biotic and abiotic components as well as the ecological and earth system processes and functioning of that environment. Collection of these data and details would inform a deeper and broader understanding of the environment in question and allow the drafting of environmental laws that are responsive to the environment and the threats to the environment. The resultant laws would embody bottom-up solutions that are fit for purpose in addressing the environmental problems. Climate laws in tune with climate science that address the causes and consequences of climate change. Biodiversity laws in tune with ecological science that address the causes and consequences of biodiversity loss. Pollution laws that address the whole lifecycle of the goods and services that cause pollution.

To provide effective, bottom-up solutions to environmental problems, environmental laws need to regulate the legal relations between humans, who cause the problems, and the environment, which suffers the consequences of the problems. At the risk of over-simplification, the law uses two tools for regulating the legal relations between humans and the environment: rights and duties. Laws give people rights to something or to do something and rights not to have something done to them. Environmental laws give people rights to property, especially land; rights to use that property, including rights to exploit the land's natural resources; and rights not to have their use and enjoyment of their land unreasonably interfered with by others. Laws impose duties on people not to do something, or more rarely, to do something. Environmental laws impose duties not to use land or exploit its natural resources or not to cause certain environmental impacts such as air, water or land pollution, without first obtaining some form of statutory approval, as well as duties not to interfere unreasonably with other people's use and enjoyment of private or public land.

These formulations of the rights and duties are human-centred. Not only are people the right-holders and duty-bearers, but the nature and content of the rights and duties are anthropocentric and utilitarian. As a consequence, current environmental laws' framing of the rights and duties suffers from the deficiency I have identified earlier of imposing a

[2] See eg, New South Wales Environment Protection Authority, *NSW State of the Environment 2024* (Tabled Report, April 2025); Commonwealth of Australia, *Australia State of the Environment 2021* (Report, 2021) <https://soe.dcceew.gov.au/>; University of Exeter, *The Global Tipping Points Report 2025* (Report, 2025) <https://global-tipping-points.org/>; Intergovernmental Panel on Climate Change, *Climate Change 2023 Synthesis Report* (Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2023); Australian Climate Service, *Australia's National Climate Risk Assessment* (Report, 2025) <https://www.acs.gov.au/pages/national-climate-risk-assessment>.

top-down solution conceived of by humans instead of a bottom-up solution developed from listening to the environment.

The deficiency of environmental laws' framing of rights and duties has led to calls for reform of the law to accord rights to nature itself.[3] Recognising nature as being a holder of rights is not only seen to be morally correct but also needed to achieve ecological sustainability. Nature would have a right to be conserved so as to maintain the ecological processes and functioning of the environment. This reform of the law has already begun. Authoritative legal texts, such as multilateral environmental agreements[4] and national constitutions and statutes,[5] and judicial decisions,[6] have recognised nature as having intrinsic value and not merely instrumental value for humans and have conferred rights on nature.

Although this law reform is inspired by ecocentrism, it often ends up as yet another top-down, anthropocentric solution. An example is the recognition that components of nature have the same rights as people – human rights – rather than having non-human rights.[7] As such, the reform has the seeds of failure within it. Recognition of the rights of nature is patchy and poor. Patchy, because authoritative legal texts and judicial decisions recognising rights of nature are unevenly distributed across the legal systems of the world. Poor, because there is little evidence that such recognition of the rights of nature has led in practice to improved outcomes for nature.[8]

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[3] David R Boyd, *The Rights of Nature: A Legal Revolution that Could Save the World* (ECW Press, 2017).

[4] For example, Convention on Biological Diversity, 1st Recital; Paris Agreement, 13th Recital; and Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its 5th session, held in the United Arab Emirates from 30 November to 13 December 2023, Decision 1/CMA.5, UNFCCC Doc PA/CMA/2023/16/Add.1 (15 March 2024), Decision 1/CMA.5, 10th Recital.

[5] The right to a healthy environment enjoys constitutional protection in over 110 countries and is recognised in legislation, regional agreements or court decisions in over 165 countries: see United Nations Environment Program, *The Right to a Healthy Environment in Practice: A Decade Before the Courts (2015-2025)* (Report, 2025) 4 ('*UNEP*'); David Boyd, *The Human Right to a Clean, Healthy and Sustainable Environment: A Catalyst for Accelerated Action to Achieve the Sustainable Development Goals,* UN Doc A/77/284 (10 August 2022), [24]-[26]; David Boyd, 'Catalyst for Change: Evaluating Forty Years of Experience in Implementing the Right to a Healthy Environment' in John Knox and Ramin Pejan (ed), *The Human Right to a Healthy Environment* (Cambridge University Press, 2018) 17-18. For example, Ecuador and Bolivia have enacted constitutional protections and statutes to recognise and confer rights on nature. See Article 71 of the *Constitution of the Republic of Ecuador*, for the full text in English, see <https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>. Also, refer to Bolivia's Law of the Rights of Mother Earth, Law No. 071 for the full text in English, see <https://static1.squarespace.com/static/5e3f36df772e5208fa96513c/t/5fbd121959465c722a5727c7/1606226459629/Bolivia+Rights+of+Mother+Earth+Law+2010+English+%281%29.pdf>.

[6] See eg, *Climate Emergency and Human Rights (Advisory Opinion)* (Inter-American Court of Human Rights, OC-32/25, 29 May 2025), [284]-[286] ('Inter-American Court of Human Rights Advisory Opinion') and the judicial decisions referred to in footnotes 532 and 533 as well as the judicial decisions referred to in Part 3 below.

[7] Alexis Alvarez-Nakagawa, 'Who is the Subject of (Non) Human Rights?' in Alexis Alverez-Nakagawa and Costas Douzinas (eds), *Non-human Rights: Critical Perspectives* (Edward Elgar, 2014).

[8] Although there have been recent moves to look at empirical evidence of how rights of nature are working in practice: see, eg Philipp Wesche, 'Rights of Nature in Practice: A Case Study on the Impacts of the Colombian Atrato River Decision' (2021) 33 *Journal of Environmental Law* 531.

This does not mean, however, that recognition of nature as holding rights is without merit. Recognition of nature as a subject within the law has the capacity to re-orientate environmental laws towards meeting the needs of nature in addition to the needs of humans, and achieving ecological sustainability. The problem, therefore, lies not in the idea, but in the execution of the idea. We need to frame the rights of nature and the duties towards nature in environmental laws in ways that respect and respond to the rhythm of life on earth.[9]

This will involve four changes in approach. First, environmental law needs to identify the components of nature to be conserved and to which legal status is to be given. Second, environmental laws need to confer legal status on these components of nature by imposing duties on humans towards them, from which correlative rights against humans will flow, rather than conferring rights on them, from which correlative duties on humans towards them will flow. Current calls for law reform are the inverse of this approach. As I have noted, however, the current approach is not yielding improved outcomes for nature in practice. Third, environmental laws need to frame the duties to be responsive to the needs of the particular components of nature sought to be conserved. Fourth, environmental laws need to identify the correlative rights of the components of nature to which the duties are owed.

This is the purpose of this paper. I seek to evaluate how environmental laws can be reformed to better regulate the legal relations between humans and nature. I structure the balance of the paper in five parts.

I start in Part 2 with the basal question of what is the 'nature' to which environmental laws ought to give legal status. Current calls for the law to recognise rights of nature often overlook this basal question. Environmental laws habitually confer legal status on the components of nature which Western scientific, philosophical and legal thinking recognise as subjects or objects in the law. We select from nature those components that we are conditioned to see as distinct components of nature and to believe have instrumental value. Animal cruelty laws isolate higher-order, sentient animals capable of suffering and feeling pain. Endangered species laws isolate species of plants and animals that have been listed as being endangered. Place-based nature conservation laws identify and protect natural areas that have been recognised as valuable, such as rainforests, wetlands or coral reefs. Western thinking also conceives of nature as consisting of static things, rather than dynamic processes. I suggest that we need greater legal imagination in identifying the components of nature that are to be recognised as subjects and objects in the law. This calls for ecological literacy. The components of nature to be afforded such legal status should include not only components of the biotic and abiotic environments, but also ecological and earth system processes that create and shape these biotic and abiotic environments.

Part 3 addresses the question of the legal status that should be afforded to the components of nature sought to be conserved. Existing laws and legal thinking traditionally frame the choice of what legal status is to be given to nature. The two best known categories of legal status are rights and duties. Calls for recognition of the rights of nature focus on the

[9] Cormac Cullinan, *Wild Law* (Siber Ink, 2nd ed, 2011).

category of rights. The method the law uses to recognise rights of nature is to extend the existing category of rights using the techniques of extensionism and fictionism:

> Extensionism treats the environment and ecosystems as persons in the same way as other entities are afforded legal personality. Fictionism is the device by which a status is afforded to the environment or an ecosystem by deeming it to have rights which it would not otherwise have.[10]

Extensionism and fictionism, however, can lead to the deployment of ill-fitting categories of legal status. For example, components of nature such as rivers or animals have been recognised by laws and judicial decisions as having the same rights as people, but this conferral of human rights has largely been ineffective in conserving these components of nature. We need to re-think what and how rights are to be conferred on the components of nature sought to be conserved.

In Part 4, I elaborate on the problems identified in Part 3 that arise by conferring generic rights of people on nature, without identifying what is the nature and content of the right that is conferred. As Hohfeld observed over a century ago, the term 'right' is used loosely and ambiguously in legal language. It may refer to a claim, a privilege, a power, or an immunity. The conferral of a right on nature will only be meaningful and effective in practice if the right is a claim-right, as the correlative of a claim-right is a duty. The law must impose a duty on humans towards nature if any right of nature is to be legally enforceable.

In Part 5, therefore, I address the importance of imposing legal duties on humans towards nature, from which enforceable, correlative claim-rights of nature can flow, rather than recognising generic and unenforceable rights of nature. The duties can be positive, a duty to do something, or negative, a duty not to do something. The duties can be specific, tailored to a particular aspect of nature, or general, such as a general duty of care for the environment. Howsoever the duties are framed, they need to be ecologically literate and responsive to the needs of the components of nature to be conserved. I bring this exploration of the legal status of nature to a close in Part 6.

II WHAT IS 'NATURE'?

In order to confer legal status on nature, it is necessary to identify what is the 'nature' on which legal status is to be conferred. Yet this basal step is often overlooked in calls to recognise nature as having rights. In these calls, the word 'nature' is used to describe a composite concept but its denotation and connotation, and its constituent components, are unidentified. There seems to be an unstated assumption that we know what nature is, rendering any explication of the concept unnecessary. Yet, nature is a culturally constructed concept.[11] We perceive and conceive nature in ways that our culture and tradition have conditioned us to perceive and conceive nature. That is especially evident in Australia. The British colonists brought with them their interpretations of the environment and biota of northern Europe developed over a few thousand years, which

[10] Douglas E Fisher, *Australian Environmental Law: Norms, Principles and Rules* (Lawbook Co, 2nd ed, 2010) 38 ('Fisher').

[11] Nicole Graham, *Lawscape: Law, Property, Environment* (Routledge, 2011) ('Graham').

they applied in their understanding of Australia's environment and biota. Some of their ideas still underlie the laws, policies and practices of environmental management in Australia today.[12] Western society's conception of nature is framed by Western scientific, philosophical and legal thinking, and tradition in at least four ways.

First, Western science divides nature into biotic and abiotic environments. Plants, animals, fungi, bacteria and other biota are placed into the category of the biotic environment. Rocks, soil, air and waters are placed into another category of the abiotic environment. This division ignores the integral interrelationship between the biotic and abiotic environments, each dependent on and shaping the other. This integral interrelationship between the biotic and abiotic environments inspired Lovelock and Margulis' Gaia Hypothesis, which proposes that Earth's living organisms and their inorganic surroundings form a single, self-regulating system that maintains conditions suitable for life.[13] Nevertheless, the traditional division between the biotic and abiotic environments reflects a Western scientific way of 'knowing' nature, which is carried through into the law. Environmental law regulates the biotic environment and its components, the plants and animals, differently to how it regulates the abiotic environment and its components, the lands and waters. The interrelationship between the biotic and abiotic environments is poorly understood and regulated by the law.

Secondly, Western science employs taxonomical classification of biota as a way of knowing nature. Linnaeus devised a system of taxonomy for classifying and naming organisms.[14] He developed a hierarchical system of classification of nature. Today, there are eight taxa: domain, kingdom, phylum, class, order, family, genus and species. Organisms are classified and named within this classification system.[15] For example, the endangered native plant, the Black-eyed Susan, has the scientific name *Tetratheca juncea*. *Tetratheca* is the genus and *juncea* is the species. It is in the plant family of Elaeocarpaceae. A botanist scientifically described and published a paper identifying the distinguishing characteristics of *Tetratheca juncea* as a unique species of plant. This allows for all plants exhibiting these characteristics to be classified as being of that species. Such taxonomical classifications of organisms have an air of certainty that may be elusive in the field. The taxon of a species is sufficiently wide as to embrace organisms with a range of genetic and morphological characteristics. At either end of the range, however, there will be uncertainty as to whether an organism meets the taxonomic classification for that species. There will also be organisms that have yet to be scientifically classified.[16]

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[12] Paul Adam, 'Biodiversity and the Land and Environment Court of New South Wales' in Elizabeth Fisher and Brian Preston (eds), *An Environmental Court in Action: Function, Doctrine and Process* (Hart Publishing, 2022) 135 ('Adam').

[13] James Lovelock and Lynn Margulis, 'Atmospheric Homeostasis By and For the Biosphere: The Gaia Hypothesis' (1974) 26(1-2) *Tellus* 2.

[14] Carolus Linnaeus, *Systema naturae*, tr MSJ Engel-Ledeboer and H Engel (HES & De Graaf Publishers, 1964) [trans of: *Systema naturæ, sive regna tria naturæ systematice proposita per classes, ordines, genera, & species* (1735)].

[15] See Adam (n 12) 138-141.

[16] Ibid 139-140.

The concept of an endangered ecological community is even more problematic. An ecological community is an assemblage of species occupying a particular area.[17] An endangered ecological community is an ecological community that a scientific committee lists as endangered.[18] To do this, the scientific committee must describe the ecological community, including describing the assemblage of species and the particular area in which it is to be found. This description may refer to both abiotic conditions, such as the soils, and biotic conditions, such as fauna dependent on the vegetation community.[19] At the boundaries of an area, such as in ecotones, uncertainty may exist as to whether the ecological community meets the description of the listed endangered ecological community.[20]

Such taxonomical classifications of organisms and ecological communities have a constitutive effect. The taxonomical classifications frame our conceptions of nature – we conceive of nature and its components through the lens of the taxonomical classifications. These taxonomical classifications are the fundamental basis of nature conservation laws. Through these taxonomical classifications, components of nature are recognised as objects in law.

Thirdly, environmental laws conceive of, and regulate, nature as being static rather than as being dynamic. We observe the physical manifestations, at any moment in time, of the ecological and earth system processes that create the biotic and abiotic environments. We see the volcanic plug of Mount Warning or the wild Franklin River, the Antarctic beech forests of the Gondwanan rainforests of Australia, or the endangered plant of the Black-eyed Susan. These current manifestations of nature are the objects of environmental law to be conserved. But we overlook the underlying processes that have created and are still creating these objects. The evolutionary biologist, JBS Haldane, declared that he benefited from viewing nature as consisting 'of processes, not things', and from the knowledge that 'even in what appears to be most stable such as mountains or a long-established state, there are internal conflicts which are bound to lead to their transformations'.[21] We need to recognise and value the processes that create the objects in nature, in addition to the objects that result from the processes.

Nature does not stand still. The biotic and abiotic environments are always changing. The natural environment here today is different to the environment which existed in the past and will be different to the environment that will exist in the future. Organisms and ecological communities continue to evolve. This poses challenges not only for

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[17] See, eg, the definition of 'ecological community' in *Biodiversity Conservation Act 2016* (NSW) s 1.6(1).

[18] In New South Wales, the Scientific Committee makes a final determination to list a species or ecological community as endangered and publishes the determination on the New South Wales legislation website: see *Biodiversity Conservation Act 2016* (NSW) ss 4.15 and 4.16.

[19] For an explanation of the process of listed an endangered ecological community, see Brian J Preston and Paul Adam, 'Describing and Listing Threatened Ecological Communities Under the *Threatened Species Conservation Act 1995* (NSW) Part 1: The Assemblage of Species and the Particular Area' (2004) 21 *Environmental and Planning Law Journal* 250; Brian J Preston and Paul Adam, 'Describing and Listing Threatened Ecological Communities Under the *Threatened Species Conservation Act 1995* (NSW) Part 2: The Role of the Supplementary Descriptors' (2004) 21 *Environmental and Planning Law Journal* 372.

[20] Adam (n 12) 140, 143.

[21] Oliver Hill-Andrews, 'Hit by Donald Duck' (2018) 49 *London Review of Books* 37, 38.

taxonomical classification, but also for legal classification. What is the thing in nature to which the law is to give legal status? Is it the current manifestation of the species of organism or the ecological community? Should allowance be made for the evolution or adaptation of that species or ecological community? If allowance is to be made for evolution and adaptation, over what time frame and to what extent should allowance be made?

This conception of nature as static, rather than dynamic, causes environmental laws to respond poorly to the temporal dimensions of environmental governance. Richardson advocates that the law must become more flexible to respond to the dynamic nature of natural systems. He suggests that the law can make connections between the times of different eras. An example is for ecological restoration projects to reconnect the past and present in nature and reconnect fragmented landscapes into better functioning ecosystems that enable movement of species and evolution of biodiversity.[22] McCormack too advocates reform of environmental laws to facilitate adaptation-oriented approaches to biodiversity conservation.[23]

Bosselmann suggests that a greater understanding of nature as a process could better inform environmental governance by addressing these temporal issues:

> Effectively, such [ecological] awareness leads to an expansion of space and time. The local becomes the global (and vice versa) and the present is linked to the future (and vice versa) … Awareness of interconnections and interrelationships is the key to understanding ecological complexity and in this sense provides accessible knowledge that ought to inform democratic processes.[24]

Whilesoever environmental governance remains confined to political cycles instead of natural cycles, the law will fail to represent nature effectively in the legal system.

Fourthly, Western philosophies frame and confine both our conceptions of nature and the legal regulation of nature based on those conceptions. Central to these philosophies is the separation of human and non-human nature. One reason for this separation of humans and nature that has often been suggested is the Judeo-Christian religion that underpins Western philosophy and laws. In Lynn White's famous essay on the historical roots of our ecological crisis, he blames the Genesis creation story.[25] The Bible asserts humans' dominion over nature and Judeo-Christian theology distinguishes between humans (made in God's image) and the rest of creation (which has no soul and is inferior to humans). That is one particular way of knowing nature, and it has been adopted over time because it is convenient for humans to have dominion over nature and to subordinate nature to our needs.

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[22] Benjamin J Richardson, 'It is About Time: Understanding the Textures of Time in Australian Environmental Law' (2018) 35 *Environmental and Planning Law Journal* 299, 311; Benjamin J Richardson, 'Timescapes of Ecological Restoration' in A Aktar-Khavari and BJ Richardson (eds), *Ecological Restoration Law: Concepts and Case Studies* (Routledge, 2019) 50.

[23] Phillipa C McCormack, 'The Legislative Challenge of Facilitating Climate Change Adaption for Biodiversity' (2018) 92 *Australian Law Journal* 546.

[24] Klaus Bosselmann, *Earth Governance* (Edward Elgar, 2015) 35 ('Bosselmann').

[25] Lynn White Jr, 'The Historical Roots of Our Ecologic Crisis' (1967) 155(3767) *Science* 1203.

It is not, however, the only way of understanding the teachings of the Judeo-Christian religion. St Francis of Assisi challenged the dominant view and argued that there were other ways of understanding our relationship with nature.[26] St Francis tried to depose humans from their self-imposed monarchy over creation and instead establish a democracy of all of God's creatures. Passmore has also argued for an interpretation of Genesis as giving a mandate for humans to take responsibility for nature.[27]

Nevertheless, the dominant Western view has been that nature is a commodity which we are entitled to exploit and not a community to which we are privileged to belong. This ethic of humans' dominion over nature underpins Western laws, as Blackstone explained in detail in his commentaries on the common law.[28] This ethic has been crucial to the economic development of those colonising nations that have wrought ecological destruction upon much of the world. England, Spain, Portugal, the Netherlands, France, Belgium, Germany and the other colonising nations are all nations founded on the Judeo-Christian religion. Their world view is that nature was created for humanity's benefit and rule, a viewpoint that enabled the colonising nations to exploit the natural resources of the colonised countries so as to yield enormous wealth and prosperity for the colonising nations.

Western philosophers have built upon this ethic of humans' dominion over nature. Descartes, for example, viewed nature as something separate and apart from humans, to be transformed and controlled at will.[29] Descartes divided the world into two parts: conscious, thinking substances – or minds – and 'extended', mechanically arranged substances – the rest of nature. This sharp ontological division resulted in the alienation of humans from the natural world. Descartes' mechanistic conception of nature leads to the view that it is possible in principle to obtain complete mastery and technical control over the natural world.

Another philosopher who encouraged humans' domination of nature is John Locke. The Lockean way of looking at nature was influenced by the Protestant work ethic that things can be made good and valuable by a person's labour. A person who removes something from nature and mixes his or her labour with it (such as cutting timber or hunting game), thereby makes it his or her own property. Labour generates a proprietary title where the acts involved improve the resource acted upon.[30] Labour 'puts the difference of value on everything'.[31] Labour is the source of use-value or utility of a thing.

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[26] See, eg, Roger D Sorrell, *St. Francis of Assisi and Nature Tradition and Innovation in Western Christian Attitudes Toward the Environment* (Oxford University Press, 2009).

[27] John Passmore, *Man's Responsibility for Nature: Ecological Problems and Western Traditions* (Scribner, 1974).

[28] William Blackstone, *Commentaries on the Laws of England* (Clarendon Press, 2nd ed, 1766) 2-8 ('Blackstone').

[29] René Descartes, *A Discourse on the Method of Correctly Conducting One's Reason and Seeking Truth in the Sciences*, tr Ian Maclean (Oxford University Press, 2006) [trans of: *Discours de la méthode* (1637)].

[30] John Locke, *Two Treatises of Government* (Cambridge University Press, 1689) ('Locke'). See also Sean Coyle and Karen Morrow, *The Philosophical Foundations of Environmental Law: Property, Rights and Nature* (Hart Publishing, 2004) 48-49 ('Coyle and Morrow'); Becky Mansfield, 'Privatization: Property and the Remaking of Nature-Society Relations' (2007) 39 *Antipode* 393, 396-397.

[31] Locke (n 30) 296. See further Coyle and Morrow (n 30) 54-55; Helena Howe, 'Lockean Natural Rights and the Stewardship Model of Property' (2013) 3 *Property Law Review* 36.

We can see this Lockean labour theory of value manifested in how governments in Australia granted leases of Crown land to the early European settlers on the condition that they 'improve' the land. If they did not improve the land, they lost the lease. To improve the land, they cleared the trees or ringbarked them so that they died. The clearing of the trees by felling or ringbarking was considered an improvement. The labour practice of felling or ringbarking the trees gave value to (ie 'improved') the land. Of course, from an ecological perspective, far from improving the land, the wholesale clearing of trees wrought ecological destruction.[32]

The dominant Western philosophical view of the separation of humans from nature, and the dominion of humans over nature, frames Western laws. I will give one example in relation to property law. A great deal of how Western legal systems classify the natural world in property terms comes from Roman law. Roman law divided things (*res*) into various categories.[33]

One of the significant classifications was between those things that were capable of individual appropriation and alienation (*res in patrimonio*) and those that were not.[34] Those things that were capable of individual appropriation could be put into private property. The owner of the private property, such as land, had a right to use it and exploit its natural resources, including fruits and crops grown on the land. In contrast, there were the things that were incapable of being owned by private individuals. These fell into two categories: public property and *res nullius,* property belonging to no one.[35] There were three categories of public property. First, there were things that belonged to everybody that were part of the commons, such as the air, flowing water, the open sea and the seashore (*res communes).* Second, rivers, ports, bridges and public roads belonged to the state (*res publicae).* Third, things such as theatres, stadiums and racecourses, where public entertainment occurred, belonged to the local citizen body or city (also *res publicae).*[36] There were three categories of things that belonged to no one. First, things dedicated to the gods, such as temples, shrines and churches, that belonged to the churches, orders of priests and the like (*res sacrae*). Second, tombs and land used for burial (*res religiosae*). Third, things important to the welfare of the community, such as a city's defensive walls and gates (*res sanctae*).[37]

Another significant classification concerned animals. Roman law distinguished wild animals (*ferae naturae*) and domestic animals (*mansuetae naturae*). The test was whether the animal belonged to a species designated as wild or tame, not whether it was wild or tame in its habits.[38] A person could take ownership of a wild animal by capturing it so

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[32] See eg, Geoffrey Bolton, *Spoils and Spoilers: Australians Make Their Environment 1788-1980* (George, Allen & Unwin, 1981), particularly 42-44.

[33] See eg, Andrew Borkowski, *Textbook on Roman Law* (Blackstone Press, 1994), Chapter 6 ('Borkowski').

[34] Arthur R Emmett, *Roman Law Under the Southern Cross: Sidere Ius Civile Mutato* (Federation Press, 2025) 137 ('Emmett').

[35] Ibid 138-139.

[36] Ibid 138; Borkowski (n 33) 143.

[37] Emmett (n 34) 138; Borkowski (n 33) 143-144.

[38] Emmett (n 34) 146; Borkowski (n 33) 175.

long as the person retained control of it (*occupatio*, acquiring ownership by taking possession).[39] However, if the person lost physical control of the wild animal, they lost ownership. In contrast, a person retained ownership of their domestic animals even if they lost control of the animals, unless the animals were abandoned by the owner (so as to become *res derelicta*).[40] Ownership of domestic animals could not, therefore, be acquired by *occupatio.* This distinction in Roman law between wild and domestic animals is carried into modern legal systems.[41]

This classification of the natural world in property terms is used by Western environmental laws to frame the legal relations between humans and nature in at least five ways. First, the holder of the right to use land and its natural resources is people, not nature. Second, the right is to use particular components of nature on the land, what humans describe as natural resources. Third, the right is to use natural resources, not to conserve them. Fourth, the right is a privilege not a claim-right. Fifth, the right to use natural resources is subject to obligations. This framing of the legal relations between humans and nature exhibits anthropocentrism and utilitarianism. Nature is valued and hence permitted to be used for the utilitarian benefits it yields to humans. Overuse, however, would be counterproductive, as it would lead to diminishing marginal utility. Husbandry of natural resources is therefore wise to ensure ongoing sustainability of use by humans.

I have identified four ways in which Western scientific, philosophical and legal thinking and tradition have framed and constrained Western conceptions of nature and hence the components of nature to which Western law can confer legal status. We identify and limit the components of nature to those components that Western scientific, philosophical and legal thinking have conditioned us to believe can be made the subject of legal status. This results in only parts and not the whole of nature as being recognised as having legal status, which impedes the conservation of all of nature.

A fresh approach is required. The identification of the things in nature that are to be afforded legal status needs to employ ecological literacy. The things in nature afforded legal status should include components of the biotic environment, such as species and ecological communities, and the ecological processes and systems that create and shape these components of the biotic environment, as well as components of the abiotic environment, the inorganic surroundings of organisms, and the earth system processes that create and shape these components of the abiotic environment. This bottom-up, environmentally responsive approach challenges and reforms conventional Western laws and legal thinking.[42] This was recognised recently by the Inter-American Court of Human Rights in its advisory opinion:

> Ecosystems are complex and interdependent systems in which each component plays an essential role for the stability and continuity of the whole. The degradation or alteration

[39] Emmett (n 34) 145-146.

[40] Ibid 146.

[41] See eg, Blackstone (n 28) 403; Henry John Stephen, *Stephen's Commentaries on the Laws of England* (Butterworth and Co, 15th ed, 1908) 16.

[42] Graham (n 11); Nicole Graham, 'This is Not a Thing: Land, Sustainability and Legal Education' (2014) 26(3) *Journal of Environmental Law* 395.

> of these components may have a negative cascading effect with impacts on other species as well as human beings, as part of such systems. Recognition of Nature's right to conserve its essential ecological processes contributes to strengthening a truly sustainable development model that respects planetary limits and ensures the availability of crucial resources for present and future generations. Making progress towards a paradigm that recognizes rights inherent in the ecosystems is fundamental for the protection of their long-term integrity and functionality, and it provides coherent and effective legal tools in relation to the triple planetary crisis to prevent existential harm before the latter becomes irreversible.
>
> This recognition allows us to transcend inherited legal concepts that conceived Nature exclusively as an object of ownership or an exploitable resource. Recognition of Nature as a subject of rights also emphasizes its structural role in the vital balance of the conditions that make this planet inhabitable. This approach reinforces a paradigm focused on the protection of the ecological conditions that are essential for life and empowers local communities and Indigenous peoples, who have historically been the guardians of the ecosystems and possess deep-rooted traditional knowledge of their functioning.[43]

As the Inter-American Court of Human Rights recognises, environmental laws and decision-making need to respect planetary boundaries. The planetary boundaries model, developed by earth system scientists Johan Rockström and Will Steffen, proposes nine factors that influence the stability of the earth system, which are used to define ecological sustainability.[44] The boundaries represent nine thresholds, the crossing of which would result in ecological instability and potentially catastrophic changes to the earth system.[45] Two of the nine factors, climate change and biodiversity loss, are core boundaries that are affected by, and affect, each of the other factors and could cause significant destabilisation of the earth system if crossed.[46] Current assessments show that seven of the nine boundaries have already been crossed.[47]

An environmentally responsive approach would involve environmental laws transposing planetary boundaries into planetary quotas, which set limits on the use of natural resources so as not to exceed the planetary boundaries.[48]

III WHAT 'LEGAL STATUS' IS TO BE CONFERRED ON NATURE?

Having identified the components of nature to which legal status is to be afforded, the next question concerns what legal status should be afforded to these components of nature. There are of course different categories of legal status, but the categories of right-holder and duty-bearer are the most commonly used in the law. The recognition of rights

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[43] Inter-American Court of Human Rights Advisory Opinion (n 6), [279]-[280].

[44] Johan Rockström et al, 'A Safe Operating Space for Humanity' (2009) 461 *Nature* 472; Brian J Preston, 'The Right to a Clean, Healthy and Sustainable Environment: How to Make it Operational and Effective' (2024) 42(1) *Journal of Energy and Natural Resources Law* 27, 33 ('Preston 2024a').

[45] Ibid (Rockström et al)

[46] Ibid.

[47] Stockholm University, 'Planetary Boundaries' *Stockholm Resilience Centre* (Web Page) <https://www.stockholmresilience.org/research/planetary-boundaries.html>.

[48] Valérie Dupont et al, 'The Role of Quota Systems in Realising Planetary Boundaries' (2024) 36(2) *Journal of Environmental Law* 203.

of nature involves nature becoming a right-holder. In order to confer rights on nature, the law uses the devices of extensionism and fictionism.[49] Extensionism involves extending the legal personality of persons to natural objects. Fictionism involves deeming natural objects to have rights that they would not otherwise have. Both devices deploy existing categories of legal personality and status to recognise nature as becoming the holder of rights.

This use of existing legal categories of legal personality and status is understandable. We perceive environmental problems, and conceive of the solutions to the problems, through the lens of legal tradition and culture. As Cardozo observed: 'We may try to see things as objectively as we please. Nonetheless, we can never see them with any eyes except our own'.[50] A society's legal tradition is 'a set of deeply rooted, historically conditioned attitudes about the nature of law, about the role of law in the society and the polity, about the proper organization and operation of a legal system, and about the way law is or should be made, applied, studied, perfected, and taught'.[51] A society's legal tradition comprises the core of its legal culture and is inherently enduring.[52]

The devices of extensionism and fictionism have been used by Indian courts in two cases to confer on natural objects the legal personality and status of being a holder of the rights of people.

In the first case, the Ganga and Yamuna Rivers case, the High Court of Uttarakhand recognised two rivers, the Ganga and Yamuna Rivers, to be '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'.[53] 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. The rights of a living person would include the right to life (see Article 21 of the *Constitution of India*) as well as the right to dignity. The right to dignity requires beings to be valued, respected, and receive ethical treatment. The 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 the second case, the Glaciers case, the High Court of Uttarakhand recognised the legal status of a far broader class of natural bodies. The High Court declared 'the Glaciers

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[49] Fisher (n 10) 38.

[50] Benjamin N Cardozo, *The Nature of the Judicial Process* (Yale University Press, 1921) 13.

[51] John Henry Merryman and Rogelio Perez-Perdomo, *The Civil Law Tradition* (Stanford University Press, 3rd ed, 2007).

[52] Paul A Barresi, 'The Role of Law and the Rule of Law in China's Quest to Build an Ecological Civilization' (2017) 1 *Chinese Journal of Environmental Law* 9, 12-13, 28-29.

[53] *Mohd Salim v State of Uttarakhand* Writ Petition (PIL) No. 126 of 2014, 20 March 2017, [19] ('*Mohd Salim*') <https://ecojurisprudence.org/wp-content/uploads/2022/02/IN_Second-Opinion-Salim-v.-State-of-Uttarakhand_126.pdf>; See also *Human Rights and Peace for Bangladesh v Government of Bangladesh and Ors* Writ Petition (WP) No. 13989/2016, 3 February 2019 in which the Bangladesh Supreme Court granted the Turag River and all other rivers in Bangladesh the status of a 'legal person' and *Shri Ram and Ors v Yashpal Saini and Ors* Civil Writ Petition (CWP) No. 2613 of 2013, 2 March 2020 in which the High Court of Punjab Court declared, at [137], that the Sukhna Lake is a 'legal entity/ legal person/ juristic person/.juridical person/ moral person/ artificial person for its survival, preservation and conservation'.

including Gangotri [the source of the River Ganga] and Yamunotri [the source of the River Yamuna], rivers, streams, rivulets, lakes, air, meadows, dales, jungles, forests, wetlands, grasslands, springs and waterfalls' to be 'legal entity/legal person/juristic person/juridical person/moral person/artificial person having the status of a legal person, with all corresponding rights, duties and liabilities of a living person, in order to preserve and conserve them. They are also accorded the rights akin to fundamental rights/legal rights'.[54] The High Court declared the Chief Secretary of the State of Uttarakhand, Director of the NAMAMI Gange Project, Advocate General of the State of Uttarakhand, and other persons, including the renowned public interest lawyer, MC Mehta, to be 'the persons in loco parentis as the human face to protect, conserve and preserve' all these natural bodies and bound these officers 'to uphold the status of these bodies and also to protect their health and wellbeing'. The High Court held that: 'The rights of these legal entities shall be equivalent to the rights of human beings and the injury/harm caused to these bodies shall be treated as harm/injury caused to the human beings'.[55]

In these cases, the High Court of Uttarakhand took the existing legal category of a juristic or legal person, and although conventionally only people and corporations have been put into that category, the Court put something else in that category, being certain rivers, glaciers, other water bodies, forests, and other terrestrial ecosystems. Interestingly, although it was innovative for the Court to put a river and other natural bodies into the category of a juristic or legal person, the Court did not change the rights that flow from being in that category. The rivers, for example, were given the same rights as a human, not the rights of a river.

There are two problems here: first, the Court used the existing legal category of rights of people and, secondly, the Court viewed that category with the same eyes and ways of thinking as courts conventionally have viewed that category. It is difficult to ascertain how making a river a legal person and giving it the rights of human beings can work in practice. What human rights does a river want to exercise? In the Glaciers case, the High Court found that:

> Rivers and Lakes have an intrinsic right not to be polluted. Polluting and damaging the rivers, forests, lakes, water bodies, air and glaciers will be legally equivalent to harming, hurting and causing injury to person.[56]

But is this human-centred right not to be polluted the only right that a river wants to enjoy? Maybe a river just wants to be a river and do what rivers do. Maybe a river wants to flood from time to time, break its banks and flow wild and free. But none of these wants is a human right.[57]

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[54] *Lalit Miglani v State of Uttarakhand* Writ Petition (PIL) No. 140 of 2015, 30 March 2017, 64, order 2 ('*Lalit Miglani*').

[55] Ibid 64-65, orders 3 and 5.

[56] Ibid 61.

[57] See Robert MacFarlane, *Is a River Alive?* (Hamish Hamilton, 2025); James C Scott, *In Praise of Floods: The Untamed River and The Life it Brings* (Yale University Press, 2025).

The High Court appeared to recognise that the rivers and other natural bodies may have rights concerning ecological functions and integrity that are not human rights. The Court found:

> Rivers, Forests, Lakes, Water Bodies, Air, Glaciers and Springs have a right to exist, persist, maintain, sustain and regenerate their own vital ecology system. The rivers are not just water bodies. These are scientifically and biologically living.
>
> The rivers, forests, lakes, water bodies, air, glaciers, human life are unified and are indivisible whole. The integrity of the rivers is required to be maintained from Glaciers to Ocean.[58]

But that recognition did not change the nature or content of the rights that the Court recognised the rivers and other natural bodies have. The natural bodies were recognised as only having the legal personality and rights of persons, not any non-human legal status and rights.[59]

The Court's extension of the legal personality and rights of persons to the natural bodies overlooked the fact that with such legal personality and rights come responsibilities. The Uttarakhand High Court in the Glaciers case did note that the: 'Glaciers … rivers, streams, rivulets, lakes, air, meadows, dales, jungles, forests, wetlands, grasslands, springs and waterfalls' have 'the status of a legal person, with all corresponding rights, duties and liabilities of a living person'.[60] But the Court did not explain what 'duties and liabilities' of a living person rivers and other natural bodies could have. For example, what is the responsibility or accountability of the rivers for natural events such as floods?

This question was raised by the State of Uttarakhand in its Special Leave Petition to the Supreme Court of India in the Ganga and Yamuna Rivers case. The state government asked, in the event of human casualties in a flood, can the affected people file a suit for damages or compensation against the Chief Secretary of the State of Uttarakhand (one of the persons declared to be persons in loco parentis) and would the state government be able to bear such a financial burden?[61] It also raised in its Special Leave Petition questions regarding the extent of the government's responsibilities as guardians of the rivers.[62] The state government was particularly concerned that the geographic boundaries of the rivers, as defined by the court, extend beyond the borders of Uttarakhand, adding to the uncertainty of the government's responsibilities under the ruling. On 7 July 2017, the

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[58] *Lalit Miglani* (n 54) 61.

[59] See also, *A. Periyakaruppan v The Principal Secretary to Government and Another* Writ Petition (WP) No. 18636 of 2013 and 3070 of 2020, 19 April 2022, in which the Madras High Court declared 'Mother Nature' to be a 'Living Being' having 'all corresponding rights, duties and liabilities of a living person' and 'rights akin to fundamental rights / legal rights / constitutional rights'. The Court directed the State and Central governments to take appropriate steps to protect 'Mother Nature' in 'all possible ways'.

[60] *Lalit Miglani* (n 54) 64, order 2.

[61] Gagandeep Kundu, 'Can Rivers Be Legal Entities? A Critical Analysis' (2017) 1 *The World Journal on Juristic Polity* 6; Erin L O'Donnell, 'At the Intersection of the Sacred and the Legal: Rights for Nature in Uttarakhand, India' (2018) 30 *Journal of Environmental Law* 135, 142-143.

[62] Erin O'Donnell and Julia Talbot-Jones, 'Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India' (2018) 23(1) *Ecology and Society* 7, 12.

Supreme Court of India agreed to hear the appeal and so halted the effect of the case.[63] Ultimately, the Supreme Court of India overturned the High Court's ruling on the basis that the original public interest litigation addressed issues of illegal mining, not the legal personhood of rivers.[64] By declaring the Ganga and Yamina rivers 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 the rivers',[65] the High Court overstepped its writ jurisdiction.[66]

These two Indian cases recognising natural bodies as having the legal personality and rights of persons can be contrasted with four Indian cases about animals. The first case was about the Asiatic wild buffalo. The Supreme Court of India, in *TN Godavarman Thirumulpad v Union of India*,[67] ordered the State of Chhattisgarh to take various actions to save the wild buffalo from extinction, including giving effect fully to the Centrally Sponsored Scheme (Integrated Development of Wildlife Habitats) to develop wildlife habitats and protected areas; ensuring interbreeding between wild and domestic buffalos does not take place and the genetic purity of the wild species is maintained; undertaking research and monitoring of wild buffalo populations; initiating wildlife training programmes for officials of the State Forest Department for managing areas where wild buffalos are found; and submitting an annual plan of operations detailing the actions taken. The Supreme Court noted that:

> Environmental justice could be achieved only if we drift away from the principle of anthropocentric to ecocentric … Ecocentrism is therefore life-centred, nature-centred where nature includes both humans and non-humans. National Wildlife Action Plan 2002-2012 and Centrally Sponsored Scheme (Integrated Development of Wildlife Habitats) is centred on the principle of ecocentrism.[68]

The second case concerned Asiatic lions. The Supreme Court of India, in *Centre for Environmental Law, WWF-I v Union of India*,[69] made orders for the translocation of a pride of Asiatic lions from their existing habitat to an alternative suitable habitat to ensure the long-term survival of the species 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 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. There was a need for alternative habitat, a second home, for the Asiatic lions. 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

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[63] Ibid 12.

[64] Deepak Parvatiyar, 'Legal Personhood for Rivers: A 2025 Debate', *Global Bihari* (Online, 28 August 2025) <https://globalbihari.com/legal-personhood-for-rivers-a-2025-debate/> ('Parvatiyar').

[65] *Mohd Salim* (n 53) [19].

[66] Parvatiyar (n 64).

[67] (2012) 3 SCC 277; [2012] INSC 114, 13 February 2012.

[68] Ibid [14].

[69] (2013) 8 SCC 234; [2013] INSC 427, 15 April 2013.

anthropocentric reasons that the Asiatic lions were part of 'our family' in Gujarat and part of Indian culture and civilisation, and were the pride of the State.

The Supreme Court again distinguished 'anthropocentric versus ecocentric' approaches and upheld the need to adopt an ecocentric approach in order to achieve sustainable development. The Court said:

> 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 … we are committed to safeguard this endangered species because this species has a right to live on this earth, just like human beings.[70]

We can see in these two cases that the Supreme Court extended the existing legal category of rights of people to animals, applying a species-oriented approach. The Supreme Court's approach considered what is in the best interests of the Asiatic wild buffalo and the Asiatic lion, not what is in the best interests of the people or the government of India.[71]

The Supreme Court of India again applied this species-oriented approach in *Animal Welfare Board of India v A Nagaraja*[72] to recognise the rights of bulls and to ban their use as performing animals for Jallikattu events or bullock-cart races. The Supreme Court held that the duties on humans under ss 3 and 11 of the *Prevention of Cruelty to Animals Act 1960* ('*PCA Act*') to ensure the wellbeing of an animal and prevent the infliction of unnecessary pain and suffering (s 3) and not to treat an animal cruelly (s 11) confer correlative statutory rights on animals.[73] The Supreme Court held that these statutory rights have to be read along with Article 51A(g) and (h) of the *Constitution of India*. Article 51A(g) provides that it is the duty of every citizen 'to protect and improve the natural environment including forests, lakes, rivers and wild life, and have compassion for living creatures' and Article 51A(h) provides that it is the duty of every citizen 'to develop the scientific temper, humanism and the spirit of inquiry and reform'. Humanism designates an 'inclusive sensibility for our species' and having 'benevolence, compassion, mercy, etc':

> Citizens should, therefore, develop a spirit of compassion and humanism which is reflected in the Preamble of the PCA Act as well as in Sections 3 and 11 of the Act. To look after the welfare and well-being of the animals and the duty to prevent the infliction of pain or suffering on animals highlights the principles of humanism in Article 51A(h).[74]

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[70] Ibid [40].

[71] The best interests of nature approach was also adopted by the Supreme Court of Panama in *Juan Ramón Svillano Callejas v El Estado y la Sociedad Minera Panamá* (Supreme Court of Justice of Panama, 27 November 2023) at 215-216. The Supreme Court explained that Panama's recent legislation declaring nature as a subject of rights 'implies that the Panamanian State must have the necessary public policies in place to ensure 'the best interests of nature,' is now based on its intrinsic value and independently of the utilitarian value it may have for human beings'.

[72] (2014) 5 SCC 547 ('*Animal Welfare Board of India*').

[73] Ibid [27], [29], [30], [32], [60].

[74] Ibid [57], [58].

The Supreme Court went further to extend the constitutional right to life (in Article 21 of the *Constitution of India*) to all forms of life:

> Every species has a right to life and security, subject to the law of the land, which includes depriving its life, out of human necessity… So far as animals are concerned, in our view, 'life' means something more than mere survival or existence or instrumental value for human-beings, but to lead a life with some intrinsic worth, honour and dignity.[75]

The Supreme Court also discerned in the *PCA Act* other rights akin to human rights, able to be enjoyed by animals:

> Animals' well-being and welfare have been statutorily recognised under Sections 3 and 11 of the Act and the rights framed under the Act. Right to live in a healthy and clean atmosphere and right to get protection from human beings against inflicting unnecessary pain or suffering is a right guaranteed to the animals under Sections 3 and 11 of the PCA Act read with Article 51A(g) of the Constitution. Right to get food, shelter is also a guaranteed right under Sections 3 and 11 of the *PCA Act* and the Rules framed thereunder, especially when they are domesticated. Right to dignity and fair treatment is, therefore, not confined to human beings alone, but to animals as well. Right, not to be beaten, kicked, overridden, over-loading is also a right recognized by Section 11 read with Section 3 of the *PCA Act*. Animals have also a right against the human beings not to be tortured and against infliction of unnecessary pain or suffering.[76]

Critical to the Supreme Court's reasoning was its recognition that the bulls not only have instrumental value to humans but also have intrinsic value.[77] The intrinsic value of the animals underpinned the Court's recognition of the rights of the animals.[78]

The Supreme Court's recognition in these three cases that the animals in question, the wild buffalos, lions and domestic bulls, have rights depended on the animals being higher-order, sentient organisms. This species-specific, animal rights approach differs from ecocentrism, which recognises and respects the intrinsic value of all living organisms, not just animals and especially sentient animals. Animal rights differ from rights of nature in this respect. The Supreme Court's characterisation of its approach as involving ecocentrism was thereby misplaced.

The fourth animal rights case, *Narayan Dutt Bhatt v Union of India*[79]*,* began as a case concerning horses but ended up concerning the entire animal kingdom. A writ petition was filed *pro bono publico* in the High Court of Uttarakhand for the protection and welfare of horses pulling horse carts or *tongas* between Nepal and India. The petitioner sought orders regulating and restricting the movement of *tongas* between Nepal and India, to prevent cruelty to the horses. The writ petition was later enlarged in the public interest to promote the protection and welfare of the animals. The petitioner sought that the entire

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[75] Ibid [62].

[76] Ibid [62].

[77] Ibid [67], [32], [62].

[78] Ibid [49]-[54].

[79] *Narayan Dutt Bhatt v Union of India* Writ Petition (PIL) No. 43 of 2014, 4 July 2018 ('*Narayan Dutt Bhatt*').

animal kingdom be conferred the status of a legal entity/legal person. The High Court of Uttarakhand referred to many judicial decisions, religious works and academic writings on the rights of nature, including the Supreme Court of India's decision in *Animal Welfare Board of India v A Nagaraja*. The High Court considered that the protection and welfare of animals would be best advanced by declaring all animals as juristic persons or legal entities.[80] The High Court ordered:

> The entire animal kingdom including avian and aquatic are declared as legal entities having a distinct persona with corresponding rights, duties and liabilities of a living person. All the citizens throughout the State of Uttarakhand are hereby declared persons in loco parentis as the human face for the welfare/protection of animals.[81]

The High Court made various mandatory directions to government agencies and officials for the regulation of the movement of horse carts/tongas between Nepal and India, including regulating the weight of vehicles and the time period that animals can travel, and requiring medical examination of horses and other draught animals. The breathtaking breadth of the Court's recognition of rights of the entire animal kingdom as juristic persons or legal entities will make practical application and enforcement of its decision difficult, if not impossible.

Moving from India to Colombia, the Constitutional Court of Colombia and the Supreme Court of Colombia have also recognised rivers and forests as the subjects of rights. The first case is known as the *Atrato River Case*.[82] Disadvantaged ethnic communities brought a *tutela* action[83] before the Constitutional Court of Colombia seeking to protect the fundamental rights to life, health, water, food security, a healthy environment, and the culture and territory of the active ethnic communities. In determining the plaintiffs' claim, the Constitutional Court construed authoritative constitutional texts as embodying ecological constitutionalism and guaranteeing a sustainable mode of development.

The Court construed the *Colombian Political Charter of 1991* as being an 'Ecological Constitution'.[84] About 30 provisions of the Charter 'consecrate a series of principles, mandates and obligations focused on a double dimension aimed at: (i) protecting the environment in an integral manner, and (ii) guaranteeing a model of sustainable development, on which the concept of the 'Ecological Constitution' has been built'.[85] The

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[80] Ibid [82]-[84], [98].

[81] Ibid [99], subsection A.

[82] Judgment T-622/16 ('*Atrato River Case*') Constitutional Court of Colombia (2016) (English translation by Dignity Rights Project, Delaware Law School, USA <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2016/20161125_T-62216_judgment.pdf>).

[83] A tutela action is brought in accordance with the right granted under Article 86 of the *Political Constitution of Colombia* (1991), which states that 'Every individual may claim … the immediate protection of his/her fundamental constitutional rights when the individual fears the latter may be jeopardized or threatened by the action or omission of any public authority …': see Álvaro Pereira, 'Judicial Independence and Accountability in Colombia: A Brief Contextual Reflection', *UC Berkeley Law* (Blog Post) <https://www.law.berkeley.edu/research/the-robbins-collection/judicial-independence-and-accountability-in-colombia-a-brief-contextual-reflection/>.

[84] *Atrato River Case* (n 82) [5.3].

[85] Ibid [5.3].

result is that in Colombian constitutionalism, 'the environment and biodiversity have progressively acquired valuable socio-legal connotations'.[86]

The Court explained that this Ecological Constitution sets the parameters within which 'the relations of the State and society with nature must be regulated'.[87] The Court had earlier held, and reaffirmed in this case, that 'the defense of the healthy environment constitutes a fundamental objective within the current structure of the Colombian SRL [Social Rule of Law]'.[88] The Court elaborated:

> In this way, the Constitution and constitutional jurisprudence, in harmony with international instruments, have opted for the defense of the environment and biodiversity, for the benefit of present and future generations, thereby consecrating a series of principles and measures directed to the protection and preservation of such legal assets, objectives that must be achieved not only through concrete actions of the State, but with the participation of individuals, society and other social and economic sectors of the country. In this sense, the Charter recognizes, on the one hand, the protection of the environment as a constitutional right, intimately linked with life, health and physical, spiritual and cultural integrity; and on the other, as a duty, inasmuch as it demands from the authorities and from the private actions directed to its protection and guarantee.[89]

The Court identified three theoretical justifications for this defence of the environment and biodiversity: an anthropocentric approach, where natural resources are viewed as simple objects at the service of humans; a biocentric approach, which involves 'more global and solidary conceptions of human responsibility which advocate – in equal measure – for the duties of man with nature and future generations'[90]; and an ecocentric approach, which conceives of 'nature as a true subject of rights'.[91] The Court went on to adopt and elaborate on the ecocentric approach. This discussion culminated with an order that the 'Atrato River, its basin and tributaries will be recognized as an entity subject to rights of protection, conservation, maintenance and restoration by the State and ethnic communities …'.[92]

The Colombian Constitutional Court's decision in the Atrato River case was followed by the Colombian Supreme Court's decision in *Future Generations v Ministry of the Environment*.[93] The youth plaintiffs brought a suit against the Colombian government, municipalities and corporations seeking to enforce their right to a healthy environment which they alleged was being infringed by the failure of the government to address the

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[86] Ibid [5.3].

[87] Ibid [5.4].

[88] Ibid [5.5].

[89] Ibid [5.5].

[90] Ibid [5.6].

[91] Ibid [5.6].

[92] Ibid [10.2].

[93] *Future Generations v Ministry of the Environment and others* (Colom Sup Ct, 11001-22-03-000-2018-00319-01, 5 April 2018) ('*Future Generations'*) (unofficial English translation of excerpts by Dejusticia <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2018/20180405_11001-22-03-000-2018-00319-00_decision.pdf>). For a further discussion on the case see PA Alvarado and D Rivas-Ramirez, 'A Milestone in Environmental and Future Generations' Rights Protection: Recent Legal Developments before the Colombian Supreme Court' (2018) 30 *Journal of Environmental Law* 519.

deforestation of the Colombian Amazon, and the consequential impacts of climate change. The Colombian Supreme Court held that a direct consequence of deforestation of the Amazon is emissions of carbon dioxide to the atmosphere, producing the greenhouse gas effect, which in turn 'transforms and fragments ecosystems, affecting water sources and the water supply for population centres and land degradation'.[94] The Supreme Court stated that:

> The principle of solidarity, for the specific case, is determined by the duty and co-responsibility of the Colombian state to stop the causes of the GHG emissions from the abrupt forest reduction in the Amazon; thus, it is imperative to adopt immediate mitigation measures, and to protect the right to environmental welfare, both of the plaintiffs, and to the other people who inhabit and share the Amazonian territory, not only nationals, but foreigners, together with all inhabitants of the globe, including ecosystems and living beings.[95]

The Supreme Court determined that the appropriate remedy was to recognise the Colombian Amazon as a 'subject of rights':

> Therefore, in order to protect this ecosystem vital for our future, just as the Constitutional Court declared the Atrato river, the Colombian Amazon is recognised as a 'subject of rights,' entitled to protection, conservation, maintenance and restoration led by the State and territorial agencies.[96]

The Court made orders against all levels of government to enforce compliance with these substantive duties, included the creation of plans to reduce deforestation, with the aim of reaching zero deforestation.[97]

These Colombian judicial decisions, like the Indian judicial decisions, leave unidentified the precise subject in nature that is declared to be the holder of rights, instead merely identifying generically rivers or forests as a whole as being right-holders. What are the boundaries of the Atrato River, its basin and tributaries, or the Colombian Amazon, which are said to be right-holders? Are any components of the biotic and abiotic environments within these boundaries right-holders themselves or are only the rivers and forests as a whole right-holders? The decisions also fail to articulate the precise content of the rights, again merely expressing generically the rights as being an entitlement to protection, conservation, maintenance and restoration led by the state and territorial agencies in Colombia. But what action do such rights demand of the state and territorial agencies? In what timeframe must such action be taken? The judicial decisions do not answer these questions. The action that needs to be taken, whether protection, conservation, maintenance or restoration action, will vary depending on the component of nature that is the subject of rights. Not only do rivers and forests demand different action, but different components of rivers or forests demand different action. The action demanded by one component of nature may also compete and be inconsistent with the action

[94] Ibid 34.

[95] Ibid 34 [11.3].

[96] Ibid 34 [14].

[97] Ibid 3. Decision.

demanded by another component of nature. As Darwin observed, nature evolves through a process of survival of the fittest.[98]

This discussion of judicial decisions conferring on nature the legal status of being a right-holder exposes the practical limitations of recognising nature as having the legal personality and rights of people, rather than non-human legal status and rights. There are, however, other limitations in recognising rights of nature, which flow from the ambiguity as to what, if any, right is conferred by the law or judicial decision. This requires a deeper analysis of what is the nature and content of the right that is sought to be conferred on nature. This is the purpose of the next part.

IV RECOGNISING NATURE AS A SUBJECT IN LAW – THE RECOGNITION OF RIGHTS

Much of the discussion about rights of nature avoids describing either the form of the rights, the internal structure and content of the rights, or their function, what the rights do for their holders. This is not a new problem. Over a century ago, Wesley Hohfeld was critical of the looseness of language in which the term 'right' is used in the law. Hohfeld identified that the term 'right' is used to refer to four different legal relations, what he referred to as four basic incidents or elements of rights: claim, privilege, power, and immunity.[99]

A claim is a right in the limited and proper sense of an affirmative claim against another person.[100] The correlative of a right in this sense of a claim is a duty.[101] Hohfeld gives as an example a landowner's right against other persons that they stay off his or her land, so that other persons are under a duty towards the landowner to stay off the land.[102] The distinguishing characteristic of this incident of a right is that the holder is entitled in law to make a legal claim to uphold and enforce the right against another person, hence the common reference to this incident as a claim-right.

A privilege is a right that entitles the holder to do something, so that the correlative is not a duty but 'no-right'. A privilege is the person's freedom from the right or claim of another person.[103] In Hohfeld's example, the landowner, by reason of ownership of the land, has the privilege of entering on and using the land. This is distinct from the right or claim against other persons that they stay off the land.[104]

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[98] Charles Darwin, *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life* (John Murray, 1859).

[99] Wesley Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning ' (1913) 23 *Yale Law Journal* 16, 30.

[100] Ibid 55.

[101] Ibid 30.

[102] Ibid 32.

[103] Ibid 55.

[104] Ibid 32.

A power is the ability of a person to effect a change of legal relations, or in Hohfeld's language, 'one's affirmative "control" over a given legal relation as against another'.[105] The correlative of power is liability.[106] There are private and public powers. In environmental law, relevant private powers include proprietorial powers to create or extinguish legal interests in property, such as to grant a lease, licence, easement, profit à prendre, or profit à rendre in relation to land. Relevant public powers in environmental law include the grant of statutory approval to use land or exploit its natural resources.

An immunity is a person's 'freedom from the legal power or "control" of another as regards some legal relation'.[107] The correlative of immunity is disability or no power.[108] Hohfeld gives the example of a landowner who exercises the power to alienate some legal interest in land to another person, but that other person being under a disability, ie has no power, so far as the landowner shifting the legal interest to him or her.[109]

In Hohfeld's conception of legal relations, a right bears the same general contrast to a privilege as a power does to an immunity:

> A right is one's affirmative claim against another, and a privilege is one's freedom from the right or claim of another. Similarly, a power is one's affirmative 'control' over a given legal relation as against another; whereas an immunity is one's freedom from the legal power or 'control' of another as regards some legal relation.[110]

These incidents of rights, and their respective correlatives, are employed in environmental law to different degrees and in different ways.

In the common law of torts, what might be seen as the original environmental law, persons have claim-rights as the correlatives of the duties that the law imposes on other persons. The law of trespass and nuisance, for example, imposes duties on landowners not to enter or cause harm to neighbouring land, whether directly or indirectly. Those duties give rise to a correlative claim-right of the neighbouring landowner against the duty-bearer to enforce performance of the duties or to seek compensation for breach of the duties.

In statutory environmental law, claim-rights are few and far between. The proprietary, common law rights of landowners to use their land and its natural resources without approval largely have been taken away by statute without compensation and been replaced with an entitlement to seek statutory approval to use the land and exploit its natural resources.[111] The statutory approval confers a privilege, not a claim-right, to use the land and its natural resources in accordance with the terms of the statutory approval. The privilege of the approval-holder is to use the land and its natural resources in freedom

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[105] Ibid 55.

[106] Ibid 30, 44-46.

[107] Ibid 55.

[108] Ibid.

[109] Ibid.

[110] Ibid.

[111] *Lloyd v Robinson* (1962) 107 CLR 142, 154; *Western Australian Planning Commission v Temwood Holdings Pty Limited* (2004) 221 CLR 30, 52-53.

from the right or claim of another person. Statutory environmental laws give power to public authorities to grant statutory approval. The grant of statutory approval gives the approval-holder immunity from the legal power or control of the public authority to prevent the use of the land or its natural resources without approval.

Only in recent times have constitutions and statutes conferred claim-rights in the form of human and environmental rights. Initially, these rights were conventional human rights, such as the right to life and right to privacy and family life. These human rights have been construed by courts as encompassing a right to a quality environment. More recently, laws have recognised a stand-alone right to a healthy environment.[112]

These human and environmental rights are claim-rights. The correlative duty is usually owed by government. This is to say, the right-holder has a claim-right against the government that it will perform its duty towards the right-holder. The content and timing of performance of the duty varies depending on the claim-right. For example, a government may need to fulfill rights in the nature of civil and political rights immediately but may have longer to fulfil rights in the nature of economic, social and cultural rights.[113]

As I have noted, there is a growing movement calling for constitutional or statutory recognition of the rights of nature. An increasing number of countries are recognising in constitutions and statutes that nature has rights.[114] Argentina, Brazil and Mexico have conferred rights of nature by statute.[115] In 2008, Ecuador ratified a new national constitution which states: 'Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes'.[116] In 2010, Bolivia passed the Law of Rights of Mother Earth, recognising rights such as right to life, diversity of life, water, clean air, equilibrium, restoration, and pollution-free living.[117] In New Zealand, legislation has recognised the rights of rivers[118] and natural areas, such as

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[112] Brian J Preston, 'The Evolving Role of Environmental Rights in Climate Change Litigation' (2018) 2 *Chinese Journal of Environmental Law* 131; Preston 2024a (n 44); Brian J Preston, 'The Nature, Content and Realisation of the Right to a Clean, Healthy and Sustainable Environment' (2024) 36 *Journal of Environmental Law* 159 ('Preston 2024b').

[113] Preston 2024b (n 112) 178-185.

[114] See, for example, the countries referred to in [286] of the Inter-American Court of Human Rights Advisory Opinion (n 6).

[115] United Nations, 'Rights of Nature Law and Policy', *Harmony with Nature* (Web Page) <http://www.harmonywithnatureun.org/rightsofnature>.

[116] Available at: Centre for Democratic and Environmental Rights, 'Ecuador', *Rights of Nature Law Library* (Web Page) <https://www.centerforenvironmentalrights.org/rights-of-nature-law-library>; Article 71 of the *Constitution of the Republic of Ecuador*, for full text in English, see <https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>. Article 71 is quoted in footnote 535 of the Inter-American Court of Human Rights Advisory Opinion (n 6).

[117] World Future Fund, 'Law of Mother Earth: The Rights of Our Planet, A Vision from Bolivia', (Webpage) <https://www.worldfuturefund.org/projects/indicators/motherearthbolivia.html>, Chapter III, Article 7, Rights of Mother Earth.

[118] The *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ) recognises the rights of the Whanganui River.

a national park.[119] In 2017, Victoria protected the Yarra River by special legislation.[120] Courts have subsequently utilised the rights of nature as recognised in constitutions and legislation to justify decisions refusing or stopping environmentally harmful projects.[121] Likewise, a number of courts have by their judicial decisions, such as those discussed in Part 3 above, conferred on nature certain human rights, such as the right to life.[122]

These rights of nature, conferred by law or judicial decision, are not readily classifiable according to Hohfeld's fourfold categorisation of rights. Insofar as laws and judicial decisions have recognised that components of nature have the same human rights as people, the right might be considered to be a claim-right. But the precise nature and content of the right conferred and any correlative duty on humans towards nature are unarticulated. The component of nature that is recognised as a right-holder can only have a claim that some human individual or body do or not do something if that human individual or body owes a duty to the component of nature to do or not to do that thing. That is to say, every claim-right must correlate to a duty on a duty-bearer, so that the duty-bearer's duty is owed to the right-holder. Yet, the conferral of rights on nature by laws and judicial decisions has fallen short of imposing this necessary correlative duty, first on any particular human individual or body (who is to be the duty-bearer), secondly, to refrain from doing any particular thing (the content of the duty) and thirdly, that is directed at or owed to the component of nature (who is to be the right-holder).

I suggest that this failure of laws and judicial decisions that purport to confer rights on a component of nature to perfect the conferral of a claim-right might result in no conferral of a right at all. The component of nature would not have a definable, affirmative claim-right against an identifiable human individual or body. Not only might these laws and judicial decisions not confer a claim-right, they also might not confer any other Hohfeldian incident of a privilege, a power or an immunity. There is not a privilege in the sense that the component of nature has freedom from the right or claim of a human individual or body. There is not a power in the sense that the component of nature has affirmative control over a given legal relation as against a human individual or body. There is not an immunity in the sense that the component of nature has freedom from the legal power or control of a human individual or body regarding some legal relation.

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[119] The *Te Urewera Act 2014* (NZ) recognises the rights of the Te Urewera National Park.

[120] *Yarra River Protection (Willip-gin Birrarung Murron) Act 2017* (Vic).

[121] *UNEP* (n 5) 16. See eg, Case No 1149-19-JP/21 (*Los Cedros Decision*) (Constitutional Court of Ecuador, 10 November 2021), where rights of nature enshrined in the *Constitution of Ecuador* were utilised by the Constitutional Court of Ecuador to halt mining operations in the Los Cedros protected forest; Seth Epstein, Victoria Enkvist, Marianne Dahlén, 'Contesting the National Interest in Ecuador: The Role of Rights of Nature in Mining Conflicts' (2025) 16 *Journal of Human Rights and the Environment* 49, 62-66.

[122] *UNEP* (n 5) 16; see also *Residents of the Villa Altabe Neighbourhood v Municipality of Resistencia (Laguna Francia Case)* (Civil and Commercial Court No 21 of Resistencia, Amparo Case No 4085/2019-1-C, 29 November 2024), *Celia Fasabi Pizango v Ministry of the Environment (On Loreto River)* (Superior Court of Justice of Loreto, No 00010-2022-0-1901-JM-CI-01, 8 March 2024); *Delegate Attorney for Environmental and Agrarian Affairs and Another v Ministry of Environment and Sustainable Development and Ors (Lake Tota)* (First Civil Court of the Circuit of Sogamoso, Boyacá, No. ST-0047, 1 December 2020).

This means that, although well-intentioned, the purported conferral of rights on nature by law or judicial decision may be ineffective in establishing the generic legal relation of rights and duties between nature and humans.

The problem, I suggest, stems from starting with the conferral of rights on nature rather than the imposition of duties towards nature. This leads to ambiguity as to what incident of rights has been conferred, whether a claim-right, a privilege, a power or an immunity, and hence what correlative of that incident of rights is engaged, whether a duty, no-right, liability or disability respectively. A way of overcoming this ambiguity is to start with the imposition of duties on humans towards nature, rather than the conferral of rights on nature. The imposition by law or judicial decisions of duties on humans not to do or to do something with respect to components of nature may confer both first-order rights on these components of nature, which are correlative to the duties, and second-order rights concerning enforcement of the first-order rights. The nature of the correlative right established will differ depending on whether a duty is imposed by law. If a duty imposed by law is directed at or owed to an identifiable object in nature, and the particular duty is specific as to what the duty-bearer is required to do or refrain from doing, the correlative of the duty will be a claim-right. If, however, what purports to be a duty imposed by the law lacks these elements so as to be a duty, the correlative will not be a claim-right, but might be some other Hohfeldian incident such as a privilege, power or immunity, or those incidents might blend together to form more complex rights.

If the correlative, first-order right deriving from a duty in law is a claim-right, it ordinarily will be a passive right, rather than an active right. The component of nature to which a duty is owed will have a right that the duty-bearer perform the duty. The right-holder in nature has no active right to do anything itself. The passive rights of a right-holder in nature tend to be of a negative nature rather than a positive nature. The holder of a negative right is entitled to non-interference while the holder of a positive right is entitled to the provision of some good or service. Characteristically, a correlative right-holder in nature has a negative right not to be harmed in the ways that the duty proscribes, such as not to be damaged or destroyed or have its habitat damaged or destroyed, but has no positive right to be provided with goods or services, such as increased resources or improved habitat for its effective functioning.

Consider, for example, the bullock-cart races case referred to in Part 3 concerning the use of bulls as performing animals in bullock-cart races and other events. The Supreme Court discerned a jural relation, in Hohfeldian terms, between the statutory duties under the *PCA Act* and the rights of animals: the duties give rise to correlative rights. A duty to ensure the well-being of an animal gives the animal a corresponding right to well-being.[123] But this is a negative right not to be harmed in the way the law proscribes, including not to be treated cruelly. There is no positive right to be loved and well cared for.

The imposition of a specific duty towards a component of nature also gives rise to a second-order right to enforce its first-order claim-right. Mechanisms can be provided to allow the natural right-holder of the correlative claim-right, whether an animal, a river or

[123] *Animal Welfare Board of India* (n 72) [27].

a natural area, to exercise, uphold or defend its claim-right. This is a second-order right. Persons can be appointed as representatives of the natural right-holder. In the Ganga and Yamuna Rivers case and the Glaciers case, the High Court of Uttarakhand appointed various governmental officials and public interest lawyers to be the 'persons in loco parentis as the human face to protect, conserve and preserve' the natural bodies that were granted rights and 'to uphold the status of those bodies and also to promote their health and wellbeing'.[124] The Advocate General of the State was also charged with the responsibility to 'represent at all legal proceedings to protect the interest of Rivers Ganges and Yamuna'.[125] In the Horse carts/tongas case, the High Court of Uttarakhand declared 'all the citizens throughout the State of Uttarakhand' to be 'persons in loco parentis as the human face for the welfare/protection of animals'.[126] In New Zealand, the legislation recognising the Whanganui River as the subject of rights, appointed Maori guardians from the Whanganui tribes to speak on behalf of the Whanganui River and promote and protect its health and well-being.[127] In the Philippines, the Supreme Court has recognised human stewards as representatives for marine mammals to bring court proceedings challenging oil exploration in the marine mammals' habitat.[128]

This analysis has exposed the limitations in recognising nature as a subject in law by merely conferring on nature a generic and ambiguous right, without articulating the precise nature and content of the right, so as to give rise to a correlative duty on humans to respect, protect and fulfil the right. One way of overcoming this problem is to focus not on the rights of nature but instead on the duties towards nature. I now turn, therefore, to discuss the recognition of nature as an object in law by the articulation and imposition of particular duties towards nature.

V RECOGNISING NATURE AS AN OBJECT IN LAW – THE IMPOSITION OF DUTIES

Nature is most commonly recognised in environmental laws as an object in law. From laws regulating the exploitation of nature as a resource, to laws protecting an identified aspect of nature, nature is most commonly something that has a human action done to it. Nature is something that is acted *on*, by human actors, rather than *being* an actor itself. Environmental laws regulate what actions human actors can do and how they can do those actions by imposing duties on the human actors.

Environmental laws can impose both public duties and private duties. A public duty, in the strict sense, is a duty for a public authority or official to act, or to act in particular way, the performance of which may be commanded by the courts by an order in the nature of mandamus. A public duty is distinguished from a public power where the public

[124] *Lalit Miglani* (n 54) 64-65, order 3; *Mohd Salim* (n 53) [29].

[125] *Mohd Salim* (n 53) [20].

[126] *Narayan Dutt Bhatt* (n 79) [99A].

[127] *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ) s 20; Jacinta Ruru, 'Listening to Papatūānuku: A Call to Reform Water Law' 48 (2-3) *Journal of the Royal Society of New Zealand* 215.

[128] *Resident Marine Mammals of the Protected Seascape Tañon Strait v Secretary Angelo Reyes* [2015] 758 Phil 724 (SC, En Banc, Leonardo-De Castro J, 21 April 2015).

authority or official has a discretion as to how it is to be performed.[129] In environmental law, public duties may be imposed on a public authority or official to do something, such as to develop environmental quality policies, or to achieve some environmental outcome, such as to achieve a level of pollution reduction. There can also be a public duty on public authorities to determine an application for statutory approval, even though there is a discretion as to how the application is to be determined. The duty is to make a determination, not as to how the determination is to be made.[130]

Public duties are relatively rare in environmental law. The writ of mandamus is available to compel the exercise of a public duty. An example concerned Manila Bay in the Philippines. Unusually, under a Philippine environmental law, there was a statutory duty on the Metropolitan Manila Development Authority to ensure that a certain level of environmental quality was maintained in Manila Bay. That duty had probably been breached since the time it was legislated. An environmentalist discovered the statutory duty and successfully applied to the Supreme Court for a continuing mandamus compelling the Authority to clean up Manila Bay to the standard prescribed by the legislation.[131] A second example concerned the duty in the relevant European Commission Directive to improve air quality by reducing nitrogen dioxide levels. The UK Supreme Court held that the UK Government had an obligation to comply with that EU directive within the time specified and made orders in the nature of mandamus to compel performance of the public duty.[132] A third example is the duty on the Environment Protection Authority (EPA) in New South Wales to develop environmental quality objectives, guidelines and policies to ensure environmental protection.[133] The Land and Environment Court of New South Wales interpreted this public duty as requiring the EPA to develop environmental quality policies to ensure the protection of the environment from climate change.[134]

Private duties are obligations imposed by law on individuals to do or not to do something. In environmental laws, private duties may be imposed directly by the terms of the statute or indirectly as a term of conferral of a privilege under a law such as by a condition of a statutory approval to use land or its natural resources.

Private duties in environmental laws may be positive in nature, a duty to do something, or negative in nature, a duty to refrain from doing something. Under the typical environmental statute, the obligations imposed on persons are usually of a negative nature, that is, not to engage in certain acts. These might be obligations not to carry out

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[129] Mark Aronson, Matthew Groves and Greg Weeks, *Judicial Review of Administrative Action and Government Liability* (Thomson Reuters, 7th ed, 2022) 964.

[130] Eg, *Environmental Planning and Assessment Act 1979* (NSW) s 4.16(1).

[131] *Metropolitan Manila Development Authority v Concerned Residents of Manila Bay (Philippines)* G.R. Nos. 171947–48, Supreme Court, 18 December 2008 <https://lawphil.net/judjuris/juri2008/dec2008/gr_171947_2008.html>.

[132] *R (on the application of ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs* [2015] 4 All ER 724; [2015] UKSC 28; *ClientEarth (No 2) v Secretary of State for the Environment, Food and Rural Affairs* [2016] EWHC 2740.

[133] *Protection of the Environment Administration Act 1991* (NSW) s 9.

[134] *Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority* (2021) 250 LGERA 1; [2021] NSWLEC 92.

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. If persons wish to be relieved of this obligation, they need to apply for statutory approval authorising the activity.

Examples of negative obligations on persons are statutory obligations to prevent cruelty to animals,[135] not to take or kill threatened species,[136] not to clear native vegetation[137] and not to pollute waters.[138] These obligations can be enforced, not because there is any correlative right of the object in nature, such as the animals, threatened species, native vegetation or waters, to the enforcement of the obligations, but rather simply to enforce the law. If the law says that there is an obligation to do something or not do something, proceedings can be brought to restrain the breach of the law if there is non-compliance with the obligation.

Less commonly, environmental statutes may impose positive obligations on persons to take some action. A landowner might enter into a private property agreement, whereby the landowner undertakes to conserve the land and things attached to it (including the plants). Examples are conservation agreements in relation to flora and fauna.[139] An owner of land might also be under a positive obligation to control noxious weeds or alien species of fauna.[140]

Positive obligations will also arise where the land is the subject of a biobanking agreement. The owner of the land sells a credit for the biological diversity on the land to a person who causes the loss of biological diversity in the course of development of other land. The landowner, having sold the credit, will be obliged to maintain the biological diversity on the land. For example, under Part 5 of the *Biodiversity Conservation Act 2016* (NSW), the Minister and a landowner may enter into a biodiversity stewardship agreement establishing a biodiversity stewardship site and creating biodiversity credits. The agreement may require the owner of the land to carry out specified management actions on the land and remedial measures in the event that any contingency has a negative impact on the biodiversity values protected by the agreement, or prevents or disrupts the continuation of a management action, and additionally the agreement may restrict development on the land.[141]

These duties, both positive and negative, reflect conventional legal thinking and tradition. As I have explained in Parts 2 and 3 above, current legal regulation of the environment is framed by Western scientific, philosophical and legal thinking concerning the separation of humans and nature, and the dominion of humans over nature. This implements

[135] Eg, *Prevention of Cruelty to Animals Act 1979* (NSW) s 5.

[136] Eg, *Biodiversity Conservation Act 2016* (NSW) ss 2.1, 2.4.

[137] Eg, *Local Land Services Act 2013* (NSW) s 60N.

[138] Eg, *Protection of the Environment Administration Act 1991* (NSW) s 120.

[139] Eg, *National Parks and Wildlife Act 1974* (NSW) Pt 4 Div 12; *Biodiversity Conservation Act 2016* (NSW) Pt 5 Div 3.

[140] Eg, *Biosecurity Act 2015* (NSW) s 21 (duty to prevent, eliminate or minimise a biosecurity risk) and s 26 and Sch 1 (duty to control weeds).

[141] *Biodiversity Conservation Act 2016* (NSW) s 5.6.

anthropocentrism rather than ecocentrism. But such anthropocentric framing of environmental laws is not demanded. The law is able to frame duties to be ecologically literate, so as to be tailored to the components and processes of nature to be conserved. This bespoke tailoring can be of a general duty of care for the environment, or a specific duty to conserve particular components or processes of the environment.

Gunningham argues that there should be a general duty of care for the environment, which could be applied to fit any set of facts.[142] The content of this duty of care needs to be thoughtfully developed. The general duty of care could be based on the standard in the law of negligence to take reasonable and practicable measures to protect the environment.[143] But it could also require more proactive action to protect, restore and regenerate the environment. The Inter-American Court of Human Rights recently articulated a general duty of care not only to 'refrain from acting in a way that causes significant environmental damage,' but also 'a positive obligation to adopt measures to guarantee the protection, restoration and regeneration of ecosystems'.[144] As the Court recognised, a fresh approach to the formulation of the duty of care is needed, employing an ethic of care focused on the health, wellbeing and needs of nature, and driven by deep appreciation and affection for nature.[145]

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,[146] may necessitate imposing more sweeping positive obligations on landowners.[147] Sax argued that 'property owners must bear affirmative obligations to use their property in the service of a habitable planet'.[148] He recommended 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 residues. In short there will be – there is being – imposed a

[142] Neil Gunningham, 'Should a General "Duty Of Care" for the Environment Become a Centrepiece of the "Next Generation" Environment Protection Statute?' (2017) 34 *Environmental and Planning Law Journal* 198.

[143] Ibid 203, 208.

[144] Inter-American Court of Human Rights Advisory Opinion (n 6) [283].

[145] See Helena Howe, 'Making Wild Law Work: The Role of "Connection with Nature" and Education in Developing an Ecocentric Property Law' (2017) 29 *Journal of Environmental Law* 19, 29; generally Thomas Berry, *The Dream of Earth* (Sierra, 1988) Chapter 15 'The Dream of the Earth: Our Way into the Future'; Aldo Leopold, *A Sand County Almanac* (Oxford University Press, 1949) Part 3 'The Land Ethic'.

[146] Richard Buckminster Fuller, *Operating Manual for Spaceship Earth* (Lars Muller Publishers, 2008).

[147] Barry Commoner, *The Closing Circle: Confronting the Environmental Crisis* (Jonathon Cape, 1972) 33; Kenneth E Boulding, 'The Economics of the Coming Spaceship Earth' in Kenneth E Boulding (ed), *Environmental Equality in a Growing Economy* (Ballantine Books, 1970) 96.

[148] Joseph L Sax, 'The Law of a Liveable Planet' in R J Fowler (ed.) *Proceedings of the International Conference on Environmental Law* (National Environmental Law Association of Australia, 1989) 11.

> 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 fulfil the demands of that servitude, every 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. And every opportunity for private gain will have to yield to the exigencies of a life-sustaining planet.[149]

Sax's recommendation would result in the reform of property rights in environmental laws. Ownership of land would not carry with it a carte blanche to do any and all things with the land that the landowner might desire. Rodgers suggests 'it is now arguably possible to characterise 'property' as a socially derived set of land use privileges and obligations, in which obligations of environmental stewardship are an inherent attribute of property rights'.[150] Our views of ownership in Western legal systems would be reformed in a way that rebalances rights and interests 'away from the private benefit of the landowner and recognise the wider community interest in, and reliance upon, the sustainable management of land'.[151]

This stewardship responsibility that accompanies property ownership is being increasingly recognised as a principle in international environmental law declarations. Principle 6 of the International Union for Conservation of Nature (IUCN) World Declaration on the Environmental Rule of Law provides:

> Any natural or legal person or group of people, in possession or control of land, water, or other resources, has the duty to maintain the essential ecological functions associated with those resources and refrain from activities that would impair such functions. Legal obligations to restore ecological conditions of land, water, or other resources are binding on all owners, occupiers, and users of a site, and liability is not terminated by the transfer of use or title to others. [152]

Similarly, Principle 2 of the Brasilia Declaration of Judges on Water Justice declares that those 'with a right or interest to use water resources or land has a duty to maintain the ecological functions and integrity of water resources and related ecosystems'.[153]

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[149] Ibid 13-14.

[150] Christopher P Rodgers, 'Property Systems and Environmental Regulation' in Emma Lees and Jorge Vinhuales (eds), *Oxford Handbook on Comparative Environmental Law* (Oxford University Press, 2019) 715.

[151] Ibid 717.

[152] IUCN World Commission on Environmental Law, 'IUCN World Declaration on the Environmental Rule of Law' (April 2016) <https://iucn.org/sites/default/files/2022-10/world_declaration_on_the_environmental_rule_of_law_final_2017-3-17.pdf>, Principle 6 – Ecological Functions of Property.

[153] Brasília Declaration of Judges on Water Justice (21 March 2018) <https://iucn.org/sites/default/files/2022-10/brasilia_declaration_of_judges_on_water_justice_21_march_2018_final_as_approved.pdf>; see further Brian J Preston, 'The Judicial Contribution to Water Justice: The Australian Experience' (2018) 48 *Environmental Law Reporter* 10580.

In framing the duties of landowners towards nature, we must reimagine our place in nature and reject the separation of humans and nature. It is a fundamental methodological flaw, Bosselmann argues, to try 'to apply the law to the environment, rather than develop the law from the environment'.[154] As I have explained, to apply the law to the environment is to impose top-down solutions, whilst developing the law from the environment is to seek bottom-up solutions that are responsive to environmental problems. Developing the law from the environment involves internalising ecocentrism in the law. I have previously written on internalising ecocentrism in environmental law.[155] I suggested ways in which environmental laws could be changed to implement an ecocentric ethic and thereby recognise the legal status of nature in various ways. The Wild Law Judgment Project, launched in 2017, suggested other ways of giving legal status to nature.[156]

VI CONCLUSION

In 1973, Ernst Schumacher, a renowned economist, wrote an influential book entitled, *Small is Beautiful: A Study of Economics as if People Mattered*.[157] Schumacher called for human-scale, ecologically suitable development that benefits both people and the planet. Likewise today, we need a study of environmental law as if nature mattered. This study needs to adopt a bottom-up approach of listening to the earth to develop laws that are responsive to and meet the needs of the environment. I have suggested that developing environmentally responsive laws involves, first, identifying the components of nature, both objects and processes, that we wish to conserve; secondly, conferring legal status on these components by starting with the imposition of duties on humans towards nature rather than the conferral of rights on nature against humans; thirdly, framing these duties to be environmentally responsive to the needs of the particular components of nature sought to be conserved; fourthly, identifying the correlative first-order rights of the components of nature to which these environmentally responsive duties are owed; and fifthly, conferring second-order rights to enable the first-order right-holders to enforce legally and politically the performance of the duties. By reforming environmental law and governance in these five ways, we will break the habitual cycle of harm to the environment. No longer will we do the same thing over and over again and expect different results. We will bring fresh ideas and take fresh approaches to implement duty-based environmental laws to achieve ecological sustainability for the planet and its people.

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[154] Bosselmann (n 24) 199.

[155] Brian J Preston, 'Internalizing Ecocentrism in Environmental Law' in M Maloney and P Burdon (eds), *Wild Law – In Practice* (Routledge, 2014) 7.

[156] Nicole Rogers and Michelle Maloney (eds), *Law as if Earth Really Mattered: The Wild Law Judgment Project* (Routledge, 2017).

[157] Ernst F Schumacher, *Small is Beautiful: A Study of Economics as if People Mattered* (Blond & Briggs, 1973).

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