

# *New Zealand Journal of Public and International Law*



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SPECIAL CONFERENCE ISSUE: NEW THINKING ON SUSTAINABILITY

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THIS ISSUE INCLUDES CONTRIBUTIONS BY

|                              |                     |
|------------------------------|---------------------|
| Joshua Aird                  | Sir Geoffrey Palmer |
| Klaus Bosselmann             | Nicole Rogers       |
| Peter D Burdon               | Nathan Ross         |
| Joel Colón-Ríos              | Greg Severinsen     |
| Benjamin F Gussen            | Linda Sheehan       |
| Catherine J Iorns Magallanes | Gerald Torres       |
| Gay Morgan                   |                     |

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TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

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# FOREWORD: NEW THINKING ON SUSTAINABILITY

*Catherine J Iorns Magallanes\**

## **I INTRODUCTION**

We all depend on the natural environment for our survival. Our food, water and air is derived from the natural world around us, as are our material comforts. Our fundamental dependence is obvious, when we think about it, yet we have also managed to create many communities and societies worldwide where this dependence can be forgotten—where we can live comfortably, buying what we need, divorced from and not having to worry about its natural origins. With the help of modern technology, we have been able to take for granted the existence of such ecosystem services, and thus assume that they will continue—and that our societies will continue—in at least as good a position as they are now.

However, scientific assessments show that we are using more of the world's resources than can be replenished, given the rate we keep taking them. Every year we are destroying more and more of the world's bio-capacity, which makes it harder for our ecosystems to even provide the same level of service as the year before. To meet growing human populations and their growing levels of wants and needs, we use (and pollute) more and more land, water and air each year, leaving less and less for other species on this planet. Unfortunately, we are also using up the planet's resources at a rate which means that they will not be available to meet the needs of future generations. Our current way of living is ecologically unsustainable. Worse, we are altering the physical state of the planet in a way that it will make it significantly harder for future generations to survive at all. If we are to fulfil argued duties to future generations, not to mention argued responsibilities to the survival of other species and the earth's ecosystems on a larger scale, we need to change our actions and we need new systems or rules for regulating our actions. In terms of law, we need new thinking on how to define, require and enforce true, ecological sustainability.

In February 2014, Petra Butler and I organised a conference at the Victoria University of Wellington Law School that was designed to address such new legal thinking on sustainability. This Journal issue contains articles from several of the key presentations from the conference. The background to the issues addressed, the conference itself, and then this Journal issue are addressed below.

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## ***II BACKGROUND: ENVIRONMENTAL CRISES***

There is one key cause of environmental degradation worldwide: human activity. Human uses of land, air and water have caused permanent and temporary changes and losses to the natural environment worldwide. Even ten years ago, the Millennium Ecosystem Assessment reported that 80 per cent of native forests have been cut down and cultivation now covers one quarter of the land area of the globe; 35 per cent of the world's mangroves had been lost, and 20 per cent of corals lost with another 20 per cent being degraded.<sup>1</sup>

The Living Planet Index assessing vertebrate wildlife populations shows that global wildlife declined by 52 per cent between 1970 and 2010.<sup>2</sup> Freshwater species have been the hardest hit, with such populations declining by 76 per cent. A more recent and extensive assessment of marine species shows that marine populations have declined by 49 per cent between 1970 and 2012.<sup>3</sup> This means that the overall global decline of vertebrate species is now greater than the previously-assessed 52 per cent. The primary causes of such decline are firstly habitat loss and degradation, secondly exploitation through hunting and fishing, and thirdly climate change.<sup>4</sup> Species extinctions are now occurring worldwide at a rate similar to that found during previous mass extinction eras, and up to 100 times higher than the background rate existing between previous mass extinctions.<sup>5</sup> It is thus now often said that we are entering the sixth mass species extinction in global history.<sup>6</sup>

If it continues, such species decline and extinctions will hit the human species hard. For example, in terms of the oceans, nearly one third of edible fish and seafood species have already declined by 90 per cent, resulting in the collapse of those fisheries, and it has been suggested that salt-water fish will become extinct by 2050.<sup>7</sup> Jellyfish are already increasing rapidly in areas subject to stressors on fish populations and, if we do not reduce these stresses, jellyfish are expected to dominate the oceans again.<sup>8</sup>

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- 1 See the United Nations Millennium Ecosystem Assessment Series of reports at <[www.millenniumassessment.org](http://www.millenniumassessment.org)> (last accessed 7 October 2015).
  - 2 World Wildlife Fund *Living Planet Report 2014: Species and spaces, people and places* (2014) at 12 and 16. Available at <[wwf.panda.org/about\\_our\\_earth/all\\_publications/living\\_planet\\_report/](http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/)>.
  - 3 World Wildlife Fund *Living Blue Planet Report: Species, habitats and human well-being* (2015) at 6.
  - 4 World Wildlife Fund, above n 2, at 20.
  - 5 See, for example, Gerardo Ceballos and others "Accelerated modern human-induced species losses: Entering the sixth mass extinction" [2015] 1(5) *Science Advances* e1400253.
  - 6 Ceballos and others, above n 5.
  - 7 Boris Worm and others "Impacts of Biodiversity Loss on Ocean Ecosystem Services" [2006] 314(5800) *Science* 787. The causes are again identified as overfishing, pollution, habitat loss, and climate change.
  - 8 See for example Ferdinando Boero *Review of Jellyfish Blooms in the Mediterranean and Black Sea* (General Fisheries Commission for the Mediterranean, Studies and Reviews No 92, 2013).

On land, serious concern has been expressed about the supplies of freshwater needed in the future to support a growing world population. The largest current use of water worldwide is for growing crops. Nearly 80 per cent of world crop production relies on rainfall,<sup>9</sup> and that is changing due to climate change altering the timing and distribution of rainfall worldwide. Further, the amount of water in aquifers, lakes and reservoirs providing the water for the other 20 per cent is dwindling, and some are predicted to be effectively emptied by 2050. Groundwater is currently being pumped faster than it is being recharged in countries that are home to half the world's people.<sup>10</sup> As groundwater dwindles and becomes harder to get, agriculture has already diminished in those places, and thus affected the food supplies in those countries as well as the flow of food around the world. Of the river basins that provide surface water for irrigation, more than 200 of them worldwide already experience water scarcity for at least one month of the year.<sup>11</sup> As climate change alters the distribution of surface water worldwide, and as world population grows, it is predicted that there will be more and more stress on freshwater and thus on food crops as well as on water for household and industry use. Unfortunately, in addition to impacting on human food and water supplies, this stress has already impacted on the natural environment, with human extraction for agriculture already leaving some rivers and lakes incapable of maintaining their natural flows and levels, and thus not able to maintain the ecosystems or the species dependent on that freshwater. It is no coincidence that we have lost 76 per cent of freshwater populations since 1970, while losing less than 40 per cent of terrestrial populations.<sup>12</sup>

There are other significant problems facing human health and security. For example, the United Nations Food and Agriculture Organisation (FAO) has highlighted the dire state of the world's soils:<sup>13</sup>

FAO estimates that a third of all soils are degraded, due to erosion, compaction, soil sealing, salinization, soil organic matter and nutrient depletion, acidification, pollution and other processes caused by unsustainable land management practices.

Unless new approaches are adopted, the global amount of arable and productive land per person will in 2050 be only one-fourth of the level in 1960.

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9 See for example World Wildlife Fund, above n 2, at 48.

10 See for example Lester Brown "Aquifer depletion" in *The Encyclopedia of Earth* (21 November 2013).

11 See for example World Wildlife Fund, above n 2, at 49.

12 World Wildlife Fund, above n 2.

13 United Nations Food and Agriculture Organisation "Nothing dirty here: FAO kicks off International Year of Soils 2015" (press release, 4 December 2014) referencing United Nations Food and Agriculture Organisation and Earthscan *The State of the World's Land and Water Resources for Food and Agriculture: Managing Systems at Risk* (2011).

The FAO's prediction is that, unless current industrial-style farming practises are changed, we will lose most of the world's arable topsoil within 60 years.<sup>14</sup> It thus recommends that the world shifts back to small-scale organic farming that replenishes topsoil as part of the farming practice.

Pollution of land and of water is also a serious problem that is reducing the availability of both. Possibly the biggest recognised global pollution threat is that from excessive nitrate loading of soils and water. Such excessive levels have arisen as a result of fertiliser application and subsequent run-off into water bodies. As the nitrogen fertilisers have been produced from oil, they exist in addition to any naturally occurring levels of nitrogen (and nitrates). In water, the nitrogen (or nitrates) has produced plant growth at above normal rates, which has altered the oxygen content of the water bodies, and created zones unable to support animal life. Some river deltas and the seas near some river mouths have extremely large "dead zones" as a result of such pollution. Unfortunately, this has occurred worldwide and is increasing as farmers are looking to increase crop and livestock production on their lands through increased fertiliser use. The assessment undertaken by Johan Rockstrom, Will Steffen and others on planetary boundaries indicates that we have already gone beyond the zone of safe operation in some regions such that nitrogen levels are dangerous, with a high risk of serious adverse impacts, both in these identified areas and globally, if it remains unchecked.<sup>15</sup>

Another increasingly significant pollutant is plastic. While its adverse effects have been slower to appear than many other pollutants, the sheer amount of plastics in the wild is "reaching crisis proportions".<sup>16</sup> It has been calculated that, each year, 8,000,000 tonnes of plastic are added to the oceans alone.<sup>17</sup> Plastic has now "infiltrated the ocean's ecosystem, from plankton to whales".<sup>18</sup> A recent report "underscores that the next 10 years will be critical to effectively solve the problem of ocean plastic".<sup>19</sup>

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14 See for example Chris Arsenault "Top Soil Could Be Gone in 60 Years if Degradation Continues, UN Official Warns" *Huffington Post* (online ed, New York, 5 December 2014).

15 See Will Steffen and others "Planetary Boundaries: Guiding Human Development on a Changing Planet" [2015] 347(6223) *Science* 1217. The original article is Johan Rockstrom and others "A Safe Operating Space for Humanity" [2009] 461 *Nature* 472.

16 Andreas Merkl, CEO of the Ocean Conservancy, quoted in Claire Groden "Report: Plastic Pollution in the Ocean is Reaching Crisis Levels" (1 October 2015) *Fortune* <fortune.com>.

17 Jenna Jambeck and others "Plastic Waste Inputs from Land into the Ocean" [2015] 347(6223) *Science* 768.

18 Groden, above n 16.

19 Ocean Conservancy "Ocean Conservancy Releases Global Report Outlining Solutions to Critical Problem of Plastic Waste in Oceans" (press release, 30 September 2015) on the report: Ocean Conservancy and the McKinsey Center for Business and Environment *Stemming the Tide: Land-Based Strategies for a Plastic-Free Ocean* (2015).

On top of all these stressors on our natural world we now have to add climate change.<sup>20</sup> We have already altered our climate through the release of greenhouse gases into the atmosphere, which have in turn been taken up by the ocean. While pre-industrial levels of carbon dioxide, for example, were below 300 parts per million (ppm), they are now reaching above 400 ppm. This blanket around the planet has already warmed it, with global air temperatures rising an average of nearly one degree Celsius and measured sea temperatures also rising.<sup>21</sup> It has already melted glaciers and other ice bodies at an accelerating rate and caused significant weather changes, including an increased number of stronger storms than average, flooding, droughts and resulting wildfires. The thermal expansion of the sea plus melted ice has caused a sea level rise of approximately 20 cm since pre-industrial times,<sup>22</sup> with people already having to move to higher ground due to sea water inundation.<sup>23</sup> Ocean acidity has already increased by 26 per cent since pre-industrial times<sup>24</sup> and it has already caused the softening of sea-shells and even mass shellfish die-offs in some areas.<sup>25</sup> Coral reefs worldwide are dying from heat stress (causing bleaching) and increased ocean acidity,<sup>26</sup> with 20 per cent already lost.<sup>27</sup>

The increased levels of greenhouse gasses currently in our atmosphere, as well as the projected increases over this century, will continue to alter weather and rainfall patterns, alter temperature

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20 See, for example, the IPCC reports: Intergovernmental Panel on Climate Change <www.ipcc.ch>. In particular, see Intergovernmental Panel on Climate Change *Climate Change 2014: Synthesis Report* (Cambridge University Press, New York, 2014) which summarises all three reports and related materials. See the Report of Working Group 1: Intergovernmental Panel on Climate Change *Climate Change 2013: The Physical Science Basis* (Cambridge University Press, New York, 2013); and the Report of Working Group 2: Intergovernmental Panel on Climate Change *Climate Change 2014: Impacts, Adaption and Vulnerability* (Cambridge University Press, New York, 2014).

21 Intergovernmental Panel on Climate Change *Climate Change 2013: The Physical Science Basis, Summary for Policy Makers* (2013) at 8.

22 At 11.

23 For example the Cartaret Islands in Papua New Guinea: see Brian Merchant "First Official Climate Change Refugees Evacuate Their Island Homes for Good" *Earth First Journal* (online ed, Lake Worth, 6 April 2014). Fiji is another example, as is the Bangladesh delta.

24 Intergovernmental Panel on Climate Change, above n 21, at 12 and fig SPM4.

25 See, for example, Andrew D Moy and others "Reduced Calcification in Modern Southern Ocean Planktonic Foraminifera" (2009) 2 *Nature Geoscience* 276; N Bednarsek and others "Extensive Dissolution of Live Pteropods in the Southern Ocean" (2012) 5 *Nature Geoscience* 881; Jane J Lee "Ocean Acidification Chipping Away at Snail Shells" *National Geographic* (online ed, Washington DC, May 2014); and Elizabeth Grossman "Northwest Oyster Die-offs Show Ocean Acidification Has Arrived" (2011) *Yale Environment* 360.

26 See S Hennige, JM Roberts and P Williamson (eds) *An Updated Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity* (Secretariat of the Convention on Biological Diversity, Technical Series No 75, 2014).

27 See United Nations Millennium Ecosystem Assessment Series, above n 1.

patterns, cause further sea level rise, and cause even stronger ocean acidity. The impacts will include more floods and droughts and thus damage to people's homes, livelihoods and food and water supplies. It will alter the spread and range of diseases and thus affect human, animal and plant health. Ocean acidification and temperature rise is projected to damage and destroy corals and shellfish worldwide, as well as affect the existence of other fish and sea populations. For example, by 2100: "acidic water will make the oceans unlivable for about 30 per cent of ocean species".<sup>28</sup>

Such negative effects will cause mass displacement of people and animals that can move, and many deaths of those that cannot. Indeed, the IPCC has predicted floods, droughts and sea level rise that will displace millions if not billions of people by 2100, and more after that. Where the displaced cannot be accommodated within their own countries, it will cause external migration. The American Association for the Advancement of Science (AAAS) has commented that: "Climate change could have significant geopolitical impacts around the world, contributing to poverty, environmental degradation, and the further weakening of fragile governments."<sup>29</sup>

While countries have pledged under international law to undertake measures to limit global warming to two degrees Celsius, the measures taken or promised to date have not been enough to achieve that, and we are on course for at least a rise of four degrees by 2100. The World Bank has said about a four degrees Celsius rise:<sup>30</sup>

The impacts of the extreme heat waves projected for a 4°C world have not been evaluated, but they could be expected to vastly exceed the consequences experienced to date and potentially exceed the adaptive capacities of many societies and natural systems...

[It will cause] large-scale displacement of populations and adverse consequences for human security and economic and trade systems...

[T]here is no certainty that adaptation to a 4°C world is possible.

John Kerry, the current United States Secretary of State, has said that "in a sense, climate change can now be considered another weapon of mass destruction, perhaps the world's most fearsome weapon of mass destruction".<sup>31</sup>

Thus addressing climate change requires that significant adaptation measures be adopted, as well as mitigation measures, just to prepare for the effects of current changes (a one degree Celsius rise),

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28 Hennige, above n 26.

29 American Association for the Advancement of Science *What we Know: The Reality, Risks and Response to Climate Change* (2014) at 5.

30 Potsdam Institute for Climate Impact Research and Climate Analytics *Turn Down the Heat: Why a 4°C Warmer World Must be Avoided: A Report for the World Bank* (The World Bank, Washington, 2012) at xv, xvii and xviii respectively (Executive Summary).

31 John Kerry, United States Secretary of State "Remarks on Climate Change" (Jakarta, Indonesia, 16 February 2014).

and even more will need to be undertaken in order to prevent the worse impacts that will occur in future from a two degree Celsius rise or even four degrees or more. But even if we are able to undertake such measures in respect of human settlements, the biodiversity losses in the natural world will be exacerbated.

On top of all this, the human population on this planet continues to grow and states continue to want to grow their economies in order to increase the development levels of their peoples. This growth results in the use of more and more natural resources, such that we get back to what I started this introduction with: we are using the world's resources at a rate faster than they can be replenished. The world's bio-capacity has been calculated to be 1.8 global hectares per person per year,<sup>32</sup> yet globally we consume more than that, with some developed nations consuming at least eight global hectares per person per year.<sup>33</sup> This suggests that we need to look at all development and at sustainability in a different light than we have to date. It would certainly be better to look at this differently while we have some luxury to plan, rather than being forced to react in a time of crisis. Indeed, the Limits to Growth (LTG) scenarios suggest that:<sup>34</sup>

Regrettably, the alignment of data trends with the *LTG* dynamics indicates that the early stages of collapse could occur within a decade, or might even be underway. This suggests, from a rational risk-based perspective, that we have squandered the past decades, and that preparing for a collapsing global system could be even more important than trying to avoid collapse.

Increasingly, those who truly understand the problems faced are suggesting solutions that actually require quite a radical shift in our thinking as well as our behaviours. For example, in order to combat the nasty and catastrophic realities of future climate change, the world will have to eliminate net climate gas emissions, including sharply reducing them before 2030. This is likely to require the elimination of most fossil fuels, which our current world depends upon for various sources of energy.

Related social problems include extreme and inequitable disparities in living standards between people in different countries around the world. What has been labelled as extreme individualism and mindless consumerism, fuelled by simple greed, is causing the destruction of natural resources on this planet at a rate which is unprecedented in the Earth's history. This destruction is caused by both the simple use of such resources (for example, mining, agriculture, aquaculture) as well as the huge amounts of waste produced from the activities required to support the standards of living to which most of the world now aspires. This is negatively affecting both humans and the non-human natural

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32 See, for example, the explanation of an ecological footprint and global hectare at the Global Footprint Network "Frequently asked questions" <[www.footprintnetwork.org](http://www.footprintnetwork.org)>.

33 See Global Footprint Network <[www.footprintnetwork.org](http://www.footprintnetwork.org)>; see also Wikipedia "List of countries by ecological footprint" <[wikipedia.org](http://wikipedia.org)>.

34 Graham Turner *Is Global Collapse Imminent?* (Melbourne Sustainable Society Institute, MSSSI Research Paper No 4, 2014).



world. For example, humans are increasingly being contaminated with various sources of pollution and radiation.

Humans will have to change their attitudes towards the use of all the world's natural resources in order to avoid various catastrophes in the future. We have to recognise the fundamental problems within our current system. Some fundamental tenets will need to be challenged, such as that continual economic growth is sustainable, that the best measure of how well a society is doing is how much wealth that is producing, and possibly even that liberty of the individual is the best and overriding goal for a society to pursue. For example, if our current values produce the results that humans are allowed and enabled to consume resources at the expense of the natural world, to the point of destruction of the natural world upon which our life-support systems depend, then that suggests that our current values need to change.

We may need to adopt what are today seen as radical (and therefore also currently seen as undesirable) positions, simply in order to alter the results of our current behaviours which are based on these values. For example, we may need to believe that the natural world has intrinsic value and those rights to exist, even where that conflicts with perceived human rights to make money from the use of the natural world. We may need to go back to more community-minded and less individualistic efforts in order to redress the extreme inequalities within and between human societies.

There are many ways in which it has been suggested we need to radically change in order to avert impending environmental catastrophes in the future. Such catastrophes would force change, but at huge cost to both humans and the natural world. The suggestion is that if we face it truly and early, we can make the necessary changes without the catastrophic costs.

I note that there have been increasing calls for civil disobedience in pursuit of the need for social change, worldwide.<sup>35</sup> I also note that youth are becoming increasingly vocal and increasingly intolerant of the mind-set of existing world leaders and decision-makers. The youth are stressing that it is they who will be inheriting the problems caused by those making decisions today, and that greater attention needs to be paid to likely future scenarios and the ethics involved in the future consequences of today's decisions.

Discussion of such environmental crises should not be seen as politically biased; it should be seen as recognising a problem and trying to address it effectively. It will certainly not be easy but the hard questions have to be asked and to be addressed properly. It was the aim of our conference on New Thinking on Sustainability to address some of these hard questions within law.

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35 See for example Brad Werner "Is Earth F\*\*ked? Dynamical Futility of Global Environmental Management and Possibilities for Sustainability via Direct Action Activism" (meeting of the American Geophysical Union, San Francisco, 2012). For a report and summary see Joe Romm "AGU Scientist Asks, 'Is Earth F\*\*ked?' Surprising Answer: Resistance is NOT Futile!" (Climate Progress, 2012).

### ***III THE CONFERENCE***

While the primary aim of the conference was to address some of these environmental law issues around sustainability, it also provided an opportunity to serve as the founding of the Earth Law Alliance of Aotearoa New Zealand and the New Zealand chapter of the German Australian Pacific Lawyers Association (GAPLA), and for these two groups to come together on these issues of common concern. With the support of the New Zealand Centre for Public Law and Victoria University, Petra Butler, for GAPLA, and I, for the Earth Law Alliance, brought together environmental academics and practitioners whose focus lies in achieving true sustainability in our laws.

A key new area of thinking in environmental law is that of Earth Law or Earth jurisprudence, whereby problems are addressed by taking an earth-centred approach to law. The conference thus sought to introduce the concepts of Earth Law to a wider audience, both through the conference proper, the free side events aimed at the wider public and now this more academic journal issue. It also seeks to simply reinforce the need for better efforts to achieve true sustainability and to provoke more discussion on it and hopefully action toward achieving it.

### ***IV AN INTRODUCTION TO EARTH JURISPRUDENCE AND THE RIGHTS OF NATURE***

The Earth jurisprudence (or Earth Law or Wild Law) movement is a relatively new movement that has been spreading across the globe since 2001, when the Earth Justice Network was established. While it is a modern movement, the ideas it espouses have ancient influences, such as the primary idea that we are part of and dependent upon the natural world, not separate or above it. We often pay lip-service to the idea that we are part of and dependent upon the natural world, such as through a stated recognition of our dependence on ecosystem services and thus the need to protect them in law. However, Earth jurisprudence goes further than that. Instead of anthropocentric dominance and control, it suggests that we need to adopt an eco-centric approach to law if we are to maintain an appropriate natural balance for all life on earth. As the earth is the source of (natural) laws which govern all life upon it, the Earth Law movement argues that this requires our human community to recognise and comply with these laws, and thus to embed them in our legal and other institutions.

The key principles of Earth jurisprudence are based on Thomas Berry's book *The Great Work*, which proposed a different paradigm for the way we view our relationship with the natural world.

Several summaries of these principles and links to further information on this exist.<sup>36</sup> A helpful summary is provided by Cormac Cullinan:<sup>37</sup>

1. The Universe is the primary law-giver, not human legal systems.
2. The Earth community and all the beings that constitute it have fundamental "rights" including the right to exist, to habitat or a place to be, and to participate in the evolution of the Earth community.
3. The rights of each being are limited by the rights of other beings to the extent necessary to maintain the integrity, balance and health of the communities within which it exists.
4. Human acts or laws that infringe these fundamental rights violate the fundamental relationships and principles that constitute the Earth community ("the Great Jurisprudence") and are consequently illegitimate and "unlawful".
5. Humans must adapt their legal, political, economic and social systems to be consistent with the Great Jurisprudence and to guide humans to live in accordance with it, which means that human governance systems at all times must take account of the interests of the whole Earth community and must:
  - determine the lawfulness of human conduct by whether or not it strengthens or weakens the relationships that constitute the Earth community;

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36 Key readings on Earth Jurisprudence include: Aldo Leopold *A Sand County Almanac* (Oxford University Press, New York, 1966); Thomas Berry *The Great Work: Our Way into the Future* (Bell Tower, New York, 1999); Cormac Cullinan *Wild Law: A Manifesto for Earth Justice* (Siber Ink, Claremont, 2002); Vandana Shiva *Earth Democracy: Justice Sustainability and Peace* (Zed Books, London, 2005); Thomas Berry *Evening Thoughts: Reflecting on Earth as Sacred Community* (Sierra Club Books, San Francisco, 2006); Christopher D Stone *Should Trees Have Standing?: Law, Morality, and the Environment* (3rd ed, Oxford University Press, New York, 2010); Peter Burdon (ed) *Exploring Wild Law: The Philosophy of Earth Jurisprudence* (Wakefield Press, Kent Town, 2011); and Michelle Maloney and Peter Burdon (eds) *Wild Law – In Practice* (Routledge, New York, 2014). Key websites include:

- The Center for Earth Jurisprudence <earthjuris.org>.
- The Gaia Foundation <www.GaiaFoundation.org>. This includes podcasts, such as an introduction to Earth Jurisprudence from Cormac Cullinan and from Ian Mason. It has a lot of analysis and information of Earth Jurisprudence and its relationship to other movements.
- The United Kingdom Environmental Law Association <www.UKELA.org>. This website includes papers from the UKELA Wild Law conference, plus a lengthy international research report on whether there is any evidence of earth jurisprudence in existing law and practice.
- The Australian Earth Law Association <www.aela.org.au>.
- The Community Environment Legal Defense Fund <www.CELDF.org>. This website has extensive resources including examples of community laws which have been drafted by CELDF according rights to nature.
- The Earth Law Center <earthlawcenter.org>. The website has a useful Newsroom and links to relevant news, articles and videos.
- The Global Alliance for the Rights of Nature <http://therightsofnature.org>. This website also has helpful resources, including on the recently established Global Tribunal on the Rights of Nature.

37 Cormac Cullinan "History of Wild Law" in Burdon *Exploring Wild Law*, above n 36, at 12–13.

- maintain a dynamic balance between the rights of humans and those of other members of the Earth community on the basis of what is best for Earth as a whole;
- promote restorative justice (which focuses on restoring damaged relationships) rather than punishment (retribution);
- recognise all members of the Earth community as subjects before the law, with the right to the protection of the law and to an effective remedy for human acts that violate their fundamental rights.

Some examples of suggested changes to human laws in accordance with these principles include: mandating true, long-term sustainability of our actions, so as to maintain the rights of future generations to adequate conditions of life; requiring proper remediation of environmental damage and sanctions for not doing so; and giving rights to nature within our legal systems, along with the ability for people to enforce those rights. Several authors have argued that our property laws will have to change, with fewer rights of current owners to impair the natural functioning of ecosystems and other natural features of the land. That is, the fundamental right to life needs to be given a higher priority than it is now in relation to non-essential activities, such as the ability to do business and make profit. An illustration of the application of this approach in relation to remediation would be the removal of financial limits on liability for damage to ecosystems, such as the international and legislated limit on liability for oil spills. This should encourage both more care to avoid such damage to the natural world and better remediation when it does occur.

It is notable that the principles are very similar to those of traditional indigenous societies, where guardianship and stewardship of nature is emphasised as part of treating the natural world with more respect and even reverence. The ideas are thus likely to at least be familiar to, if not resonate with, many New Zealanders. The movement is also similar to and consistent with current Earth democracy movements, such as Vandana Shiva's Navdanya.

An example of how some lawyers are using the principles of Earth Laws to change our current (human) laws is provided by the Pennsylvania-based Community Environmental Legal Defence Fund (CELDF). The CELDF have focused on helping communities develop new local laws to better protect their natural environment.<sup>38</sup> The laws that the CELDF have drafted have given rights to natural features, including ecosystems, and have given standing to individuals to enforce those rights. They have prohibited certain activities within municipal boundaries, including fracking and other fossil fuel extraction, and the growing of Genetically Modified Organisms. Some local laws have expressly removed the rights of corporations to challenge these laws, including denying corporations the legal personality to do so.<sup>39</sup>

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38 For information on what they do see the CELDF website: Community Environmental Legal Defence Fund <[www.celdf.org](http://www.celdf.org)>.

39 For a collection of the laws that CELDF have drafted, see Community Environmental Legal Defence Fund <[www.celdf.org](http://www.celdf.org)>.

To date, 160 communities in the United States have adopted such rules that have been drafted by the CELDF, including the City of Pittsburgh. For example, the 2010 Pittsburgh ordinance gave rights to nature within the city, banned natural gas drilling within the city and removed corporate personality rights within the city for corporations seeking to drill. The CELDF also helped draft the provisions in the 2008 Ecuador Constitution which recognises the rights of nature in Ecuador.

There are now several groups worldwide dedicated to disseminating information about the Earth Law movement and developing ideas for how it can be implemented in, and transform, current laws. For example:<sup>40</sup>

Wild Law UK is a group of lawyers, activists, students, academics and others committed to securing laws that are for the Earth, not against it. In order to achieve this, the legal system must radically shift from being anthropocentric to being eco-centric in approach. We believe that nature has inherent value and that to bring about Earth Justice, our legal systems must recognise the Rights of Nature.

Wild Law UK supports the proposed Universal Declaration of the Rights of Mother Earth and seeks the advancement of the same rights in the UK. The group also supports the campaign to get Ecocide recognised as the 5th Crime against Peace.

There is a similar Australian Earth Law Alliance,<sup>41</sup> a Centre for Earth Jurisprudence in the United States,<sup>42</sup> as well as the Earth Law Center in San Francisco,<sup>43</sup> just to name a few. The Earth Law Center is dedicated primarily to education but has also been involved in drafting community laws. The most notable such law would be the Santa Monica 2013 Sustainability Ordinance. Linda Sheehan from the Earth Law Center talked about this work at the conference and has an article on this following in this journal.

New Zealand's newly-established Earth Law Alliance Aotearoa New Zealand is supported by a number of New Zealand and overseas environmental lawyers.<sup>44</sup> This conference was the first key activity of the Alliance and provided a first gathering for lawyers interested in taking the ideas further. To this end, a Wild Law Workshop was run alongside the conference to discuss the ideas of Earth jurisprudence and of community laws, as well as whether and how such community laws might be applicable here. It was presented by Catherine Iorns and the Convenor of the Australian Earth Law Alliance, Michelle Maloney.

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40 See Wild Law United Kingdom <[www.wildlawuk.org](http://www.wildlawuk.org)>.

41 See Earth Laws <[www.earthlaws.org.au](http://www.earthlaws.org.au)>.

42 See Center for Earth Jurisprudence <[earthjuris.org](http://earthjuris.org)>.

43 See Earth Law Center <[earthlawcenter.org](http://earthlawcenter.org)>.

44 While the Alliance has not yet established a structure for organising group activities, interested persons may email Catherine Iorns at [Catherine.iorns@vuw.ac.nz](mailto:Catherine.iorns@vuw.ac.nz).

## *V THIS JOURNAL ISSUE*

Most of the key themes and topics focused on at the conference have been able to be reflected in the articles in this Special Issue of the NZ Journal of Public and International Law. The first to appear are articles on the key concepts of sustainability and of Earth jurisprudence, and then the implementation of these concepts through establishing rights for nature and sustainability bills of rights. Impacts on indigenous rights and perspectives are addressed, as are the specific topics of climate change, planetary boundaries and of civil disobedience as a means of obtaining change. It is notable that most of the articles integrate more than one topic or concept, such as taking an Earth law perspective on climate change. Interestingly, civil disobedience is made relevant to achieving change in more than one article. Despite this mix and overlap, the editors have attempted to group the articles by topic. There is thus no priority of importance or quality to be taken from their order, as they could be grouped and thus ordered in a few different ways.

This journal issue starts with the introduction to the conference provided by Sir Geoffrey Palmer. It sets the tone for the keynote address by Professor Klaus Bosselmann on conceptions of sustainability. Klaus argues that sustainability must be a *grundnorm* or fundamental principle of law in a similar way to freedom, equality, justice and the rule of law. While there are many ways to give legal expression to such a *grundnorm*, he argues that the best starting-point remains the way it is conceived in the Earth Charter.

Ben Gussen focuses on the link between environmental and constitutional laws with an article on the link between subsidiarity and sustainability. Subsidiarity is a principle that suggests that authority structures need to be based upon constituent powers derived from the local scale: that is, from the bottom up rather than the top down. Ben argues not only that sustainability cannot occur without subsidiarity, but that proper subsidiarity guarantees sustainability.

Gay Morgan goes back to basics and examines whether Earth jurisprudence is really just a noble lie—whether it is a convincing myth created in order to get people to behave in the right way, even if it is only a myth. Gay creates a justification based in science—a way of conceptualising an earth-centred approach that might not be a myth—and provides some suggestions for how we might create the most compelling story to in turn create the paradigm shift that we need to save the current living world on earth.

A key theme at the conference focused on the idea of rights for nature and a sustainability bill of rights. A sustainability bill of rights elevates the right to a sustainable environment to an overarching right which informs every other right within a rights catalogue. The keynote speaker Linda Sheehan was a drafter of the 2013 Santa Monica Sustainability Rights Ordinance and her article in this issue discusses its concept and implementation. Linda argues that rights of nature are not only a tool but rather express a core paradigm. She explores rights of nature in international laws, constitutions and local laws and illustrates their use with that of the Santa Monica Ordinance. Joel Colon-Rios then provides a comment on rights for nature and to a healthy environment, elaborating on the experience

of Ecuador. Ecuador has included rights for nature and the right to a sustainable environment in its recent constitution, plus the right to nature has already been litigated in relation to the proper treatment of a river during local road construction.

A second theme of the conference focused on indigenous and other critical perspectives on environmental law. New Zealand is already a world leader in the integration of indigenous perspectives into environmental law, partly through respect for the principles of the Treaty of Waitangi in mainstream law but also particularly through the Treaty settlement process.<sup>45</sup> The recent agreements to recognise the legal personality of the Whanganui River and Te Urewera National Park, including these legal entities holding title to their own land, are striking examples of Treaty settlements which also reflect Earth law concepts.<sup>46</sup> The article by keynote speaker Gerald Torres looks at the topic of climate change action in light of its treatment of indigenous peoples. He suggests that these climate action strategies are embedded in the United States' deepest constitutional and political commitments, but they are also translatable to other nations, indigenous peoples and the fundamental bases for states. He argues that the challenge of climate disruption requires a state to re-evaluate its relationship with the indigenous communities and with its colonial past.

Five articles in this issue focus on climate change, although each is quite different from the other.<sup>47</sup> Gerald Torres' has already been mentioned. Sir Geoffrey Palmer's article traverses some history and issues in relation to the negotiation of international climate change agreements, what is needed in terms of action to mitigate the worst effects of climate change and then how New Zealand law and policy measure up to the task. He argues that New Zealand's current law and policy is deficient and will not take us to where we need to go; we thus need significant transformation and cooperation for any successful results.

Peter Burdon agrees that climate change is the most urgent crisis of our time and discusses why legal and governance systems around the world have failed to respond to it. He takes a critical approach and explores the material conditions for enacting the radical social change that climate

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45 See Catherine Iorns Magallanes "Maori Cultural Rights in Aotearoa New Zealand: Protecting the Cosmology that Protects the Environment" (2015) 21 Widener LR 273.

46 At 313–323. See also Catherine Iorns Magallanes "Nature as an Ancestor: Two Examples of Legal Personality for Nature in New Zealand" in Camproux-Duffrène Marie Pierre and Sohnle Jochen (eds) *La Représentation de la Nature devant le Juge: Approches Comparative et Prospective* (Paris, Vertigo Press, 2015).

47 The one aspect that the conference panel on climate change addressed which is not reflected in this issue is that of environmental refugees. This is very topical worldwide, and was of particular interest to GAPLA members. The conference thus addressed the case of the Kiribati man, Ioane Teitiota, and his claim for refugee status in New Zealand as a result of storms and sea level rise on Kiribati, and conference members donated to his legal funds. His claim was recently rejected by the New Zealand Supreme Court in *Teitiota v Ministry of Business, Innovation and Employment* [2015] NZSC 107.

change demands. Peter addresses the relationship between law and social movements, and the role of civil disobedience in achieving bottom-up change and for advancing the principles of Earth Law.

Nicole Rogers also addresses a link between climate change litigation and direct action, focusing on the performance aspect of climate actions and any resulting litigation. Different forms of cultural performance illustrate the role and significance of lawfulness in the context of climate change. Nicole argues that its transformative potential lies in the symbolic value of such litigation and the resulting rhetorical debates about the meaning of legal and cultural terms.

Greg Severinsen and I address the adoption of the precautionary principle in New Zealand's marine legislation, the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012. We survey the existing law on precaution and argue that it has the potential to be strongly precautionary, as is needed in the marine environment. This article won a 2014 award from the New Zealand Resource Management Law Association.

Rounding off the issue are two short articles. Nathan Ross addresses climate change in a short essay on the adoption of electric vehicles in New Zealand. Nathan's article was written for Catherine Iorns's Environmental Law course in 2014 and won the Environmental Defence Society Short Essay Prize for 2014. The final article is a book review by Josh Aird of Michelle Maloney's and Peter Burdon's edited book *Wild Law – In Practice*.<sup>48</sup> Josh fully recommends the book, for providing a range of ideas for how to adopt a different approach to law and regulation of our environment, so that it will continue to be truly sustainable for future generations.

Petra Butler and I, as conference organisers and editors of this special issue, are extremely grateful for the enthusiasm shown for the conference from the participants and for the authors' dedication to writing the articles for this conference journal issue. We are also grateful and indebted to the various funders of the conference, without whom it would not have gone ahead: to the New Zealand Law Foundation, to GAPLA and to Victoria University of Wellington, including for the administrative help to run the event and produce this journal issue.

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48 Maloney and Burdon, above n 36.





## NZCPL OCCASIONAL PAPERS

- 1 Workways of the United States Supreme Court  
*Justice Ruth Bader Ginsburg*
- 2 The Role of the New Zealand Law Commission  
*Justice David Baragwanath*
- 3 Legislature v Executive – The Struggle Continues: Observations on the Work of the Regulations Review Committee  
*Hon Doug Kidd*
- 4 The Maori Land Court – A Separate Legal System?  
*Chief Judge Joe Williams*
- 5 The Role of the Secretary of the Cabinet – The View from the Beehive  
*Marie Shroff*
- 6 The Role of the Governor-General  
*Dame Silvia Cartwright*
- 7 Final Appeal Courts: Some Comparisons  
*Lord Cooke of Thorndon*
- 8 Parliamentary Scrutiny of Legislation under the Human Rights Act 1998  
*Anthony Lester QC*
- 9 Terrorism Legislation and the Human Rights Act 1998  
*Anthony Lester QC*
- 10 2002: A Justice Odyssey  
*Kim Economides*
- 11 Tradition and Innovation in a Law Reform Agency  
*Hon J Bruce Robertson*
- 12 Democracy through Law  
*Lord Steyn*
- 13 Hong Kong's Legal System: The Court of Final Appeal  
*Hon Mr Justice Bokhary PJ*
- 14 Establishing the Ground Rules of International Law: Where to from Here?  
*Bill Mansfield*
- 15 The Case that Stopped a Coup? The Rule of Law in Fiji  
*George Williams*
- 17 The Official Information Act 1982: A Window on Government or Curtains Drawn?  
*Steven Price*
- 18 Law Reform & the Law Commission in New Zealand after 20 Years – We Need to Try a Little Harder  
*Rt Hon Sir Geoffrey Palmer*
- 19 Interpreting Treaties, Statutes and Contracts  
*Rt Hon Judge Sir Kenneth Keith*
- 20 Regulations and Other Subordinate Legislative Instruments: Drafting, Publication, Interpretation and Disallowance  
*Ross Carter*

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