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The Viability of a Model Statute on Climate Change Litigation in New Zealand

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Introduction

There are few topics today that are as emotionally and politically charged, or have the potential to incite such panic, as climate change. The science is established: the temperature is rising, icecaps are melting, and it is largely our fault. But as the cries of conspiracy theorists are drowned out by increasingly calamitous environmental disasters like Typhoon Haiyan, one question remains: what are we to do about it?

At the end of 2014 the International Bar Association made its largest contribution to the global discourse on climate change adaptation and mitigation so far in its report: *Achieving Justice and Human Rights in an Era of Climate Change Disruption*, which canvases many legal challenges to achieving justice in a world that is increasingly defined by climate change. The report makes a number of suggestions regarding how the international legal community can take steps to contribute to climate change mitigation and adaptation. This dissertation will critically analyse one of these proposals: the construction and global dissemination of a Model Statute on Climate Change Action and Relief (Model Statute).

The Model Statute envisaged in the report would streamline climate change litigation in countries across the world, by setting up a single framework of substantive and administrative laws, designed to overcome barriers that have prevented successful domestic climate change litigation in the past, and which would produce consistent results across states. Although the author agrees that climate change must be addressed urgently, at both the domestic and international levels, and admires the efforts and optimism displayed by the minds behind the Model Statute, she is skeptical as to the viability of a "one size fits all" approach to this complex issue. To elucidate this problem, I will explore the implications of applying a statute of the kind proposed, within New Zealand's legal culture, focusing particularly on the use of the use of the precautionary principle.

Chapter One provides context to the problem by outlining the science of climate change, which makes it a unique phenomenon for governments to address. In Chapter Two, current challenges that have afflicted climate change litigation are considered, and the goals of the Model Statute, as promulgated in the International Bar Association's report are analysed.

¹ Climate Change Justice and Human Rights Taskforce Achieving Justice and Human Rights in an Era of

Chapter Three considers the concept of legal culture: how nations develop distinctive institutional and constitutional arrangements and how these impact on the ways that law is developed and received. This point is discussed further in relation to the concept of legal transplants, in which I aim to demonstrate that when foreign laws are imported into a state without regard to features of the existing legal culture, the law can be warped, rejected or have otherwise unintended results.

Against this background, Chapters Four and Five consider New Zealand's complex legal culture relating to decision-making and dispute resolution in environmental law, in particular with regard to how risk has been managed. I will endeavour to illustrate that the adversarial principles upon which the Model Statute is premised, using as an example a strict precautionary principle, are incompatible with the current New Zealand approach.

This dissertation concludes that, although it is imperative that urgent and directed action is taken by all countries to target climate change mitigation and adaption, the Model Statute is not, in its current form, a viable solution to litigation barriers. In ignoring incompatibilities presented by various legal cultures the Model Statute is disabled from achieving its purpose. In order to precipitate meaningful results, careful thought must be given to its workability within the legal cultures of its intended recipients. Otherwise, we risk creating more confusion and disharmony in climate litigation, and time is wasted. Given that, as at August 2016, the world has just enjoyed its 16th consecutive hottest month on record,² time is certainly not something we can afford to waste.

NOAA "Global Analysis – August 2016" < https://www.ncdc.noaa.gov/sotc/global/201608>

Chapter One: Climate Change as a Global Challenge

A Scientific Background

Climate change is one of the most pressing and challenging issues of the 21st century. It is caused by a natural phenomenon referred to by scientists as the "greenhouse effect". Although the greenhouse effect is vital for sustaining a habitable temperature at the Earth's surface³ it is now becoming one of the greatest threats to the survival of current and future generations.

The Earth's climate system is powered by solar radiation in the form of shortwave radiation (SWR).⁴ In order to maintain a consistent temperature, the incoming solar energy must be roughly in balance with outgoing longwave radiation (LWR) from the Earth's surface and atmosphere.⁵ Approximately half of incoming SWR is absorbed by the Earth's surface. Of the remaining 50%, approximately 30% of the SWR is reflected back to space—and about 20% is absorbed in the atmosphere.⁶ Longwave radiation (LWR) is partially absorbed by greenhouse gases (GHGs) in the atmosphere—primarily water vapour, carbon dioxide, methane and nitrous oxide—which then re-radiate LWR out in all directions, including back towards Earth.⁷ This process results in a "blanketing [or greenhouse] effect", heating the surface of the Earth.⁸

Greater concentrations of GHGs in the atmosphere mean that more LWR is directed towards Earth. The balance of incoming solar energy and outgoing radiation is disrupted resulting in rising temperatures. The last century has seen a dramatic increase in the concentrations of GHGs in the atmosphere. In its 2014 *Fifth Assessment Report* the International Panel on Climate Change (IPCC) states:⁹

³ IPCC "Historical Overview of Climate Change Science" in *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (2007) at 97.

⁴ IPCC "Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change" (2013) at 126.

⁵ Above n 4, at 126.

⁶ Above n 4, at 126.

⁷ Above n 4, at 126.

⁸ Above n 3, at 97.

⁹Above n 3, at 11.

The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions.

Consequently, the impact of the greenhouse effect has intensified, resulting in a global temperature rise of 0.85°C above pre-industrial levels as at 2012. In fact, each of the last three decades has been successively warmer at the Earth's surface than the preceding decade. Warming has surged over the last year. July 2016 was the hottest month on record and the period January to July was 1.03°C above the average for the twentieth century. August was also the sixteenth consecutive month to break the monthly record.

The evidence that this dramatic increase of GHGs in the atmosphere is due, in large part, to anthropogenic causes is now indisputable.¹⁴ Since industrialisation, societies have become increasingly reliant on activities that produce significant GHG emissions such as agriculture, mechanized transport, and the use of fossil fuels for energy production.

One of the consequences of global warming are exteme weather events It is estimated that 75% of recent daily hot extremes are attributable to climate change. Extreme weather events such as the record-hot Australian summer of 2013 (where summer temperature records were broken on daily through to seasonal timescales) and flooding in England and Wales in 2000, are very likely attributable to 20th century greenhouse-

¹² National Centers for Environmental Administration "Global Analysis – July 2016" (July 2016) NOAA https://www.ncdc.noaa.gov/sotc/global/201607>

Ottmar Edenhofer and others "Summary for Policymakers" in O Edenhofer and others (eds) *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, at 3.

¹¹ At 3.

¹³ National Centers for Environmental Administration "Global Analysis – August 2016" (August 2016) NOAA https://www.ncdc.noaa.gov/sotc/global/201607>

¹⁴ IPCC "The Physical Science Basis" above n at 4, at 126 (there is established 95% certainty of anthropogenic causation)

¹⁵EM Fischer and R Knutti "Anthropogenic contribution to global occurrence of heavy-precipitation and high-temperature extremes" (2015) 5 Nature Climate Change 560 at 562.

¹⁶ Sophie C Lewis 1 and David J Karoly "Anthropogenic contributions to Australia's record summer temperatures of 2013" (2013) 40 Geophysical Research Letters 3705 at 3705.

¹⁷ Pardeep Pall and others "Anthropogenic greenhouse gas contribution to flood risk in England and Wales in autumn 2000" (2011) 470 Nature 382 at 382.

gas emissions. Furthermore, scientists warn that as the temperature continues to rise, more severe environmental impacts can be expected.¹⁸

Extreme weather events such as typhoons and hurricanes pose an obvious threat to human survival and wellbeing. Changing climate and weather patterns will affect the availability of resources to satisfy fundamental human needs, such as water.¹⁹ It will affect agriculture and industries such as fishing and tourism in areas where marine life is affected by ocean acidification caused by increasing concentrations of CO².²⁰ Changes in temperature, precipitation rates, and humidity influence vector-borne diseases such as malaria as well as hantaviruses and other diseases.²¹ As the temperature rises, insects adapted to warmth are spreading towards the poles, sometimes taking diseases with them. A biting midge that carries the blue tongue virus has spread across the Mediterranean Sea from North Africa to Europe. Over the decade 2000 to 2010, more than two million sheep and cattle in Europe have died from the illness.²² The effects of climate change pervade all areas of human life and are potentially catastrophic.

In 2015, world leaders met in Paris under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) and set a new goal limiting temperature rise to 1.5°C above pre-industrial levels by 2100. Set out in the Paris Agreement, ²³ this goal is considered by some to be optimistic. ²⁴ If it is to be reached, it will require substantial commitment from governments worldwide. Yet even an increase in temperature of this magnitude will have significant environmental and human ramifications. For instance, Erich Fischer of the Institute for Atmospheric and Climate Science in Zurich has determined that the risk of what, in the pre-industrial era, was a once in a 1,000 days hot weather, is five times more likely since a 0.85°C rise. ²⁵ He predicts that this risk will double with a 1.5°C rise. ²⁶ Droughts will become significantly more intense and long-

¹⁸ IPCC "The Physical Science Basis" above n 4 at 126.

¹⁹ IPCC "Fourth Assessment Report: Climate Change 2007" at 175.

²⁰ IPCC "The Physical Science Basis" above n 4, at 293.

²¹ Jonathan A. Patz "Effects of Environmental Change on emerging parasitic diseases" (2000) 30 IJP 1395 at, 1396.

²² Erick Brenstrum "The Hour of the Swarm" (2010) 101 New Zealand Geographic 28, at 29.

²³ European Commission "Climate Action" (6 October 2016)

http://ec.europa.eu/clima/policies/international/negotiations/paris/index en.htm>.

²⁴ Carbon Brief "Scientists discuss the 1.5C limit to global temperature rise" (10 December 2015)

https://www.carbonbrief.org/scientists-discuss-the-1-5c-limit-to-global-temperature-rise.

²⁵ EM Fischer and R Knutti "Anthropogenic contribution to global occurrence of heavy-precipitation and high-temperature extremes" (2015) 5 Nature Climate Change 560

²⁶ At 560.

lasting, in the Mediterranean, Central America, the Amazon basin, and southern Africa, resulting in a decrease in river flows between a third and a half.²⁷

B Challenges posed to climate change mitigation and adaptation

It is evident that mitigation and adaptation strategies for climate change must be developed if we wish to sustain our environment and support human life. This will require the immediate attention of communities and governments worldwide. However, climate change can be an especially unattractive issue to deal with politically. There is a disconnect of agency between those causing climate change (and who have the ability to mitigate it) and those who will suffer most from its consequences. There is also an intergenerational disconnect because of the delayed impact of GHG emissions. The lifetime of the greatest driver of climate change—CO²—in the atmosphere is a few centuries, plus 25% that lasts essentially forever.²⁸ This means that the worst results of our current emissions may not present themselves for several generations. Addressing the problem of climate change will require current comunities to sacrifice their immediate interests for the betterment future generations.

This kind of long term goal does not fit well with the short term nature of our political institutions. Politicians depend on support from current constituents who may be reluctant to sacrifice the immediate benefit of, for instance, cheap fuel in order to contribute to an uncertain goal of lessening the effects of global warming for people who do not yet exist. The global attitude has been likened to the attitude of a smoker to cigarettes: although they know smoking leads to serious health consequences, it is never certain when these will occur and which cigarette will cause them.²⁹

Practically, reducing emissions is no mean feat. Much of daily human life is dependant on emissions-producing activities and even the most ardent environmentalist will inevitably contribute to the global carbon footprint. Therefore, those who seek to solve the problem are also those contributing to it. We find ourselves in the odd position of

²⁷ Fred Pearce "What would Global Warming of 1.5C degrees be like?" (16 June 2016) Environment 360 http://e360.yale.edu/feature/what would a global warming increase 15 degree be like/3007/

²⁸Nature Reports Climate Change "Carbon is forever" (20 November 2008)

http://www.nature.com/climate/2008/0812/full/climate.2008.122.html David Archer>

²⁹ Kelly Levin and others "Overcoming the challenge of super wicked problems: constraining our future selves to ameliorate global climate change" (2012) 45 Policy Sci 123 at 128.

electing to enforce onerous obligations on ourselves. Reducing emissions will require a fundamental change in human behaviour across all sectors of society—a daunting task.

To achieve this shift co-operation is needed from all nations. However, this can be difficult to elicit and enforce. Agreement between states on this issue can be seen as a form of the "prisoner's dilemma". Whilst it is in every nation's collective best interests to mitigate against climate change, it is also in every nation's individual bests interest to avoid expensive obligations, lest other countries do not fulfill their end of the bargain. Because the problem is so multifaceted, and pervades every aspect of human life, there is a tendency to make decisions which give primacy to immediate interests and to "delay required behavioral changes, even when doing so is clearly contrary to our long-term interests." This is evident in the slow progress that has been made in reducing emissions: ³¹

Despite 20 years of international and domestic efforts, greenhouse gas emissions are accelerating, and the development of legally binding targets and practices that result in the on-the-ground behavioral changes necessary to reverse that trend remains elusive.

Climate change is a particularly difficult problem to address in law. Richard Lazarus states: ³²

Even once one accepts the current scientific consensus that significant global climate change is happening, human activities are a significant contributing cause of that change, and the associated public health and welfare impacts are sufficiently serious to warrant climate change legislation, crafting that legislation is extraordinarily difficult.

This is because the effects of climate change are not limited by geographic boundaries, and are often widespread and diffuse. It can be difficult to identify climate change as the cause of a particular event, for instance a storm or drought. Even more problematic is attributing the harms of these events to the emissions of any particular actor. Everyone

 $[\]overline{^{30}}$ Levin above n 29 at, 126.

³¹ Levin above n 29, at 125.

³² Richard J Lazarus "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future" (2010) 40 ELR 10749 at 10750.

contributes to global emissions and, once released, GHGs quickly mix in the atmosphere making it virtually impossible to identify their source.

Chapter Two: A Model Statute on Climate Change Litigation

In the face of the issues identified in Chapter One, it is heartening that the international legal community is working to find solutions to the many novel problems climate change presents. In this chapter, I will explore how the International Bar Association's Climate Change Justice and Human Rights Task Force (Task Force) has dealt with some of these issues in the context of litigation in *Achieving Justice and Human Rights in an Era of Climate Disruption* (the Report). An explanation of their proposed Model Statute on Climate Change Litigation then follows.

C Achieving Justice and Human Rights in an Era of Climate Disruption

In Achieving Justice and Human Rights in an Era of Climate Disruption the Task Force took on the ambitious task of conducting:³³

A critical comprehensive survey of existing international, regional and domestic legal frameworks relevant to climate change, and identify[ing], using a justice-centred perspective, opportunities for legal, regulatory and institutional reforms at multilateral, state, corporate and individual levels to enhance mitigation and adaptation to climate change.

The Task Force's human rights approach to this investigation introduced a new element to the global discourse on climate change, which has previously been dominated by scientific and economic concerns. The Report looks at the concept of "climate change justice", that is, the degree to which international law offers protections to individuals affected by climate change and recognises that:³⁴

Climate change poses an effective obstacle to the continued progress of human rights, which translates directly into a worsening of the existing inequities that afflict a world already riven with inequality, poverty and conflict.

³³ Climate Change Justice and Human Rights Taskforce *Achieving Justice and Human Rights in an Era of Climate Disruption* (International Bar Association, July 2014) at 3.

³⁴ At 2.

The work of the IBA in this area has been heralded as a significant step forward in the global effort to mitigate and adapt to climate change. Professor John Knox states:³⁵

On the basis of a comprehensive review of the relevant domestic and international law, this report suggests concrete steps towards achieving climate justice that are both far-reaching and eminently sensible. Its analysis and recommendations should be read by everyone involved in climate policy.

The Report identifies a wide range of complex issues impacting climate justice and investigates how legal solutions can be implemented to mitigate and adapt to those harms. The Task Force examines how current legal mechanisms are operating in individual jurisdictions and at an international level including: environmental law regimes; human rights law; trade law; state responsibility and climate change liability; and international law on climate change adaptation.³⁶

Unsurprisingly, in taking on a comprehensive review of this kind, the Task Force found multiple flaws in current systems, which are producing unsatisfactory outcomes for those suffering the injustices of the effects of climate change. This reflects one of the core difficulties presented by climate change—that its causes are endemic to, and inextricably bound up with, the functioning of every aspect of the modern global economy.³⁷ Current global legal mechanisms are based on models designed to target less complicated issues. With the goal of "advanc[ing] equity and justice" in mind, the Task Force recommended reconfiguring law in many areas in order to develop a system which can more effectively resolve climate justice harms. These recommendations include: capacity building and transparency; institutional measures like reform of the World Trade Organisation; and legal measures such as the clarification of human rights obligations, reform of international dispute resolution, and corporate responsibility.³⁹ The focus of this dissertation will be on the proposal made by the Task Force to implement a *Model Statute on Climate Change Litigation* as a potential remedy for individuals and communities.

³⁵ John Knox "Achieving Justice and Human Rights in an Era of Climate Disruption" International Bar Association < http://www.ibanet.org/PresidentialTaskForceClimateChangeJustice2014Report.aspx>

 $^{^{36}}$ Climate Change Justice and Human Rights Taskforce, above n 1 at, 61 - 94.

³⁷ Above n 40, at 52.

³⁸ At 3.

³⁹ Climate Change Justice and Human Rights Taskforce, above n 1, at 115 – 209.

The involvement of the legal community in constructing workable solutions to the challenges posed by a changing environment is essential. The Report is representative of the promising contributions to be made by the legal profession. However, as one author points out, it has "opened up at least as many questions as it answered". Further analysis of the obstacles identified and solutions proposed is required.

D Why is litigating climate change difficult?

Litigation can be an effective tool to resolve disputes. It is significant in terms of holding actors to account to their legal obligations. Through litigation, light can be shed on issues that governments are yet to address, and vulnerabilities that challenge communities are brought to the public's attention. It is also a method of discovering potential solutions to wider problems than the case at hand. In the context of climate change, litigation has the potential to become a useful tool for enforcing mitigation and adaptation obligations on both public and private actors.

Although increased participation from the legal community in recent years is bringing other solutions to the fore, it has been argued that current legal systems the world over, are deficient when it comes to addressing climate change harms. This was the view of the Task Force, who argued that the laws of most countries are not equipped to deal with the pernicious, diffuse, and non-causative harms created by climate change. For instance, although attempts have been made in various jurisdictions to bring claims under tort law—for example, under nuisance and negligence—claimants often struggle to prove tests such as causation. Although there is consensus in the scientific community that climate change is anthropogenically caused, it is difficult to attribute a particular harm—such as an extreme weather event—to a particular emitter of GHGs. Other questions that can be asked are: What are actionable rights? Who has standing? What is the jurisdictional reach of a court?

Attempts to litigate climate change worldwide are diverse and have occurred in the following areas: judicial review and statutory claims; tort, delict and property claims; and

⁴⁰ Stephen Humphreys "Climate Change: Too complex for a special regime" (2016) 34 JERL 51 at 56.

⁴¹ Climate Change Justice and Human Rights Taskforce, above n1, at 127.

⁴² At 127.

⁴³ Christina Voight "The Potential Role of the ICJ in Climate Change Disputes" in Daniel Farber, Marjan Peeters (eds) *Climate Change Law Volume 1* (Edward Elgar Publishing, Cheltenham, 2016) at 162.

⁴⁴ Climate Change Justice and Human Rights Taskforce, above n 1, at 128.

human rights and constitutional claims, yielding mixed results. Judicial review and statutory claims have enjoyed relative success. For instance, in 2007 the US Supreme Court in *Massachusetts v EPA*⁴⁵ reviewed a decision of the Environmental Protection Agency (EPA) refusing to regulate the emission of GHGs from new motor vehicles as an "air pollutant" under the Clean Air Act. The Court found in favour of the claimants, holding that GHGs did constitute "air pollutants" for the purpose of the Act, and therefore the EPA could not refuse to exercise this authority by citing policy considerations not enumerated in the statute or by referring generally to the scientific uncertainty. ⁴⁶ The Court felt that sea level rise, and credible predictions of future harms, provided sufficient proof of potential injuries. ⁴⁷

In Australian Conservation Foundation v. Latrobe City Council⁴⁸ complaints from the Australian Conservation Society relating to the approval of a development of a coalfield in Victoria were upheld. The Tribunal held that, in disregarding the effects of GHG emissions on the environment, the panel considering the proposal had contravened a statutory requirement to consider all relevant submissions.⁴⁹ By comparison, in Canada, an attempt to enforce statutory obligations on the Government in Friends of the Earth v Canada⁵⁰ failed. Canada's Federal Court held that it could not enforce obligations within the Kyoto Protocol Implementation Act (KPIA)—which required Canada to take specific action to meet its obligations under the Kyoto protocol—because the legislation itself was not justiciable.⁵¹

Attempts to litigate climate change under tort have been less successful. ⁵² In $AEP \ v$ $Connecticut^{53}$ a claim under the doctrine of public nuisance to "cap and abate" the GHG

⁴⁵ *Massachusetts v EPA* 549 US 497 (2007)

⁴⁶ At 1460.

⁴⁷ At 1460.

⁴⁸ Australian Conservation Foundation v. Latrobe City Council (2004) 140 LGERA 100 discussed in, Hari M. Osofsky (eds) Adjudicating Climate Change: State National and Approaches (Cambridge University Press, New York, 2009), at 23.

⁴⁹ At 23.

⁵⁰ Friends of the Earth v Canada (Governor in Council) 2008 FC 1183 cited in: Climate Change Justice and Human Rights Taskforce Achieving Justice and Human Rights in an Era of Climate Disruption (International Bar Association, July 2014), at 79.

⁵¹ At 79.

⁵² Climate Change Justice and Human Rights Taskforce, above n 1, at 76.

⁵³ American Electric Power Co v Connecticut (AEP) 131 S Ct 2527 (2011) cited in Climate Change Justice and Human Rights Taskforce Achieving Justice and Human Rights in an Era of Climate Disruption (International Bar Association, July 2014), at 79.

emissions of five private electric companies failed, on the grounds that the Clean Air Act had delegated responsibility of regulation of GHGs to the Environmental Protection Agency, and that therefore there was no jurisdiction to review under nuisance.⁵⁴ Similarly, in *Kivalina v ExxonMobil*,⁵⁵ a claim by a native Alaskan village against electricity, oil and coal companies for damages for the cost of relocating their village due to climate change related flooding was denied.⁵⁶ The Court held that the public nuisance claim was non-justiciable because the establishment of GHG regulations was an executive consideration.⁵⁷ Further, the plaintiffs did not have standing because they had failed to establish a sufficient causal link between the defendant's emissions and the flooding that threatened the village.⁵⁸

It is speculated that the doctrine of public trust—that governments hold natural resources in trust for the public—is a potential avenue for climate change litigation, although results thus far have been mixed.⁵⁹ It is argued that, in particular, countries whose constitutions specify environment rights, such as India where citizens are guaranteed the "right of enjoyment of pollution-free water and air" stand to benefit from the doctrine, although few cases have been attempted to date.⁶⁰

Evidently, climate change jurisprudence is developing in nations across the world. Different avenues for disputes have been pursued in various jurisdictions, depending on the suitability of existing legal mechanisms. Just a few of these have been examined in this chapter. As Jacqueline Peel argues:⁶¹

[C]limate change litigation – employed strategically as a response to inadequate government law-making and in an effort to prompt wider policy change – has seen courts emerge as a critical forum in which the future of GHG emission regulation and responsibility are debated

⁵⁵ Native Vill. of Kivalina v. ExxonMobil Corp., 663 F. Supp. 2d 863 cited: Climate Lawyers' Blog "Ninth Circuit Displaces Kivalina Case" (September 21 2012)

⁵⁴ At 79.

http://www.climatelawyers.com/post/2012/09/21/Ninth-Circuit-Displaces-Kivalina-v-ExxonMobil-Climate-Change-Liability-Case.aspx

⁵⁶ Above n 55.

⁵⁷ Above n 55.

⁵⁸ Above n 55.

⁵⁹ Jacqueline Peel and Hari M. Ofsofsky *Climate Change Litigation: Regulatory Path ways to Cleaner Energy* (Cambridge University Press, UK, 2015), at 238.

⁶⁰ Lavanya Rajamani "India" in Richard Lord (ed) *Climate Change Liability: Transnational Law and Practice* (Cambridge University Press, New York, 2012) at 147.

⁶¹ Jacqueline Peel "Issues in Climate Change Litigation" (2011) 1 CCLR 15 at 24.

As with any emerging area of law, climate change litigation faces challenges in maneuvering existing systems to accommodate the novel problems it presents, particularly given the multi-scalar nature of its effects.

E Aims of the Model Statute

Having considered some of the diverse strategies that have developed in climate change litigation, let us turn to the proposal of the Task Force. Although the Task Force acknowledged that litigation strategies have been developing in various jurisdictions. they posited channels are inadequate for dealing with climate change disputes. After surveying the amassing collection of climate change case law the Task Force concluded that: "[existing schemes] do not provide effective and consistent standards due to the types of diffuse, non-specific, unpredictable and non-causative harms caused by climate change." Furthermore, "Unless some standardisation is achieved, such litigation will either burden certain states or actors disproportionately or fail to achieve any meaningful solution for those most vulnerable."

The Task Force proposed that a *Model Statute on Climate Change Actions and Relief* (Model Statute) be drafted, to address these concerns. The hope was that countries across the world would adopt such a statute into domestic laws, in order to assist in the development of efficient climate change litigation and to allow communities to hold governments accountable for climate change harms.⁶⁵

A Working Group was convened in 2015 to build on the issues identified in the Report. The Working Group was directed to address the following substantive and procedural elements of climate change litigation, which had been identified as problematic:⁶⁶

- Actionable rights affected by climate change;
- Clarification of the role and definition of legal standing;

⁶² Climate Change Justice and Human Rights Taskforce, above n 1, at 76.

⁶³ At 11.

⁶⁴ At 127.

⁶⁵ At 127.

⁶⁶ At 128.

- Issues regarding causation, including appropriate standards for proving a legally cognisable causal link between GHG emissions and relief sought;
- Whether knowledge, including foreseeability of harm, is relevant to liability or judicial relief;
- Development of methods for awarding remedies and relief as warranted by the circumstances, including uniform standards by which to apportion damages, and the provision of declaratory, interim and injunctive relief;
- Issues regarding standards of liability;
- The interrelationship of competing claims from nations, communities and individuals;
- Limitation periods for claims;
- The availability of pre-trial and interim applications for disclosure and discovery;
- Guidelines on costs awards in climate change cases; and
- Guidelines for the jurisdictional reach of domestic and international courts to adjudicate climate change-related claims.

The Task Force anticipates that the Model Statute will produce more consistently satisfactory outcomes for claimants in litigation than are currently being educed. The Model Statute that the Working Group is preparing will manage actions based on a myriad of grounds. These include: judicial review and statutory claims (such as review of environmental impact assessments, claims to enforce climate change legislation, and enforcement of the public trust doctrine); tort, delict, and property claims (including negligence for failure to mitigate or adapt to climate change, public and private nuisance, and strict liability for GHG emissions); and constitutional and human rights claims (such as claims based on a constitutional right to a healthy environment, or human rights violations). The statute will also address central concerns such as how causation should be proven, and what remedies should be available. Importantly for climate change law, interim and injunctive relief will be imperative to ensure that future harms are prevented.

A scheme of this kind is necessary, the Task Force argues because climate change litigants are unable to achieve justice under current regimes:⁶⁸

Climate change litigants face challenges in establishing that the substantive law provides them an actionable right to bring a claim and make out causation, and procedural hurdles in the form of standing requirements. In addition, there is a

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⁶⁷ Climate Change Justice and Human Rights Taskforce, above n 1, at 11.

⁶⁸ At 117.

diversity of viewpoints among policy-makers and courts as to the proper role of climate change litigation.

It is hoped that, in providing clear avenues through which to pursue claims, these obstacles will be removed and more efficacious litigation can take place. Individual nations will have the opportunity to ratify the statute in whole or in part into domestic legislation, or use it as a guide for the judiciary or legislature on how to deal with climate change disputes. ⁶⁹

Notably, consistency appears to be a key tenet of the Task Force's goals in constructing the Model Statute. If all countries choose to implement the suggested scheme then it is envisioned that consistent results will be elicited across the board. In creating one "unified legal framework" litigation is streamlined and it is hoped that as different nations utilise the principles contained in the Model Statute in the same way, consistent legal norms will be produced. The Model Statute, according to the Task Force, will also be useful in "promoting the development of consistent international legal standards relevant to procedural rights related to climate justice litigation, which face many of the same conceptual difficulties and issues." For instance, plaintiffs at an international level face similar difficulties when it comes to establishing standing, and could potentially draw on principles developed in the Model Statute.

The Model Statute promises an exciting future for climate change litigation. Few would argue that the anticipated results of this legal endeavour are not positive—eliminating the barricades that have thus far blocked much successful litigation; enabling just and consistent liability for emitters; and, moreover, achieving these goals in a way that is workable for every jurisdiction are certainly noble pursuits. However, it is arguable that to expect such results is overly optimistic, and perhaps simply naïve. Although the world is becoming increasingly interconnected in an era that is epitomised by globalisation, we are not yet at a stage of such homogeneity that all societies can be said to be struggling with, or have the capacity to deal with, challenges in identical ways. As will be explored further throughout this dissertation, nations have developed legal cultures that are distinct, living beings and will deal with seemingly consistent problems in very different ways.

⁶⁹ Climate Change Justice and Human Rights Taskforce, above n 1, at 11.

⁷⁰ At 127.

⁷¹ At 127.

Chapter Three: Legal Culture and Legal Transplants

In this chapter I will discuss the concept of legal culture and identify how it can cause problems for the imposition of foreign rules.

F What is Legal Culture?

The term 'legal culture' was coined by legal sociologist Lawrence Friedman in the 1960s to describe "the values and attitudes that bind [a legal system] together, and which determine the place of the legal system in the culture of the society as a whole." He suggests that a society's legal culture is critical in determining whether certain legal structures or rules will work. It follows, therefore, that a society's legal culture must be taken into account when deciding whether to implement a new legal regime, such as the Model Statute.

Friedman's conception of legal culture distinguishes between the "internal" and the "external" legal culture. The internal legal culture of a society comprises the attitude and behaviours of actors within the legal world such as judges and lawyers. The external legal culture refers to the attitude of the general population towards the law including: the reasons people enlist the help of lawyers; the respect (or lack thereof) for law, government, and tradition; and the relationship between class structure and the legal institutions. Friedman uses this relationship to support his argument that social pressures cause legal change more than autonomous development within the legal tradition itself. The external legal culture, he argues, forces change within the internal.

Other academics have adopted the concept of legal culture, among the most recent being David Nelken who writes:⁷⁷

Legal culture, in its most general sense, is one way of describing relatively stable patterns of legally oriented social behaviour and attitudes. The identifying elements

⁷² Lawrence M. Friedman "Legal Culture and Social Development" (1969) 4 Law and Society Review 29 at 34.

⁷³At 34.

⁷⁴ At 8.

⁷⁵ At 8.

⁷⁶ David Nelken "Thinking about Legal Culture" (2015) 1 AJLS 255 at 257.

⁷⁷ At 257.

of legal culture range from facts about institutions such as the number and role of lawyers or the ways judges are appointed and controlled, to various forms of behaviour such as litigation or prison rates, and, at the other extreme, more nebulous aspects of ideas, values, aspirations and mentalities. Like culture itself, legal culture is about who we are not just what we do.

Legal culture, then, encompasses a broad array of ideas including: institutional features relating to the structure of a legal system; behavioural concepts regarding how people use law in practice, as well as the broader values entrenched in a legal system. ⁷⁸ Of particular importance, is the relationship between institutions, including what powers they have within a state's constitutional arrangements. These features interrelate to create a particular, unique set of circumstances that can be used to explain differences between legal systems and patterns in different societies.

Since its inception, the usefulness of the term "legal culture" has attracted debate from scholars of comparative legal studies because of its poorly defined boundaries. Friedman himself has acknowledged there is a "serious problem of definition". The its difficult to define because it embraces complex and amorphous features of society: however, it can also help us understand those complex and amorphous features. Nelken makes an astute argument: 80

In its role in explanations, legal culture can serve to capture an essential intervening variable in influencing the type of legal changes which follow on large social transformations such as those following technological breakthroughs. More generally, legal culture determines when, why and where people turn for help to law, or to other institutions, or just decide to 'lump it'.

Legal culture can explain how and why people choose to address issues such as climate change, for instance through an adversarial system of litigation, as proposed by the Model Statute, or by other means.

Despite uncertainty over an exact definition, legal culture highlights some important points about the development of legal systems and the differences between the legal systems of different societies. It can be argued that society and culture are intimately

⁷⁸ David Nelken "Using The Concept of Legal Culture" (2004) 29 Austl. J. Leg. Phil. 1at 1.

⁷⁹ Lawrence M Friedman (2006) "The Place of Legal Culture in the Sociology of Law," in M. Freeman, ed., Law and Sociology, Oxford: Oxford University Press, 185–99.

⁸⁰ David Nelken "Using The Concept of Legal Culture" (2004) 29 Austl. J. Leg. Phil. 1at 8

connected with the law, and it is necessary to take account of them when considering how successfully new legal norms will be adopted and implanted.

Some might argue that with increased contact between states through trade agreements and international treaties we are moving towards developing a global, homogenous legal culture. However, boundaries between states are still significant, and differences between nations' legal systems and legal cultures remain important, even if there is a growing crossover in legal attitudes and trends. Consequently, when considering how a law will be received and used in any individual jurisdiction, questions relating to that jurisdiction's legal culture must be addressed. The World Bank advises:⁸¹

Legal culture is often considered as a given feature of the local environment to which proposed legal reform projects must adapt; many argue that legal and judicial reform programs must be tailored to fit local legal culture or they will fail. Other times, the prevailing legal culture itself may be the object of reform, rather than merely a constraint. Thus, understanding the arguments related to the concept of legal culture will become increasingly important for aspiring legal reformers.

Although academics dispute the parameters and utility of legal culture, it is at least clear that societies across the world have developed unique legal systems, which address problems in different ways. These systems are related to, and often reflective of, the broader culture of that society (although to what extent may be debatable). To assume that one law can be applied effectively and in the same way across all jurisdictions, yielding parallel results and ultimately providing a universal solution seems unwise. Friedman's warning that: "probably no law is effective that does not make some use of the culture of its society" is compelling.

G Legal transplants

The concept of legal transplants is the practice of transferring a law from one jurisdiction to another, ⁸³ and is closely connected with legal culture. Legal transplantation is attempted for a myriad of reasons—at the bequest of a country to fill a gap in their law, or by colonial powers to impose a body of laws on another nation, amongst others. The idea

⁸¹World Bank "Legal Culture and Judicial Reform" http://siteresources.worldbank.org/ INTLAWJUSTINST/Resources/LegalCultureBrief.pdf>.

⁸² Friedman, above n 72, at 41.

⁸³ Alan Watson, Legal Transplants, 2d ed. (University of Georgia Press, 1993) at 21.

appears under various iterations, including: "legal irritant", "diffusion" or "transfer". Each term has slightly different connotations, however what is important for our purposes is that each acknowledges that in conducting a 'legal transplant' there is a disruption to the legal culture of a society, causing change. Transplants occur in many forms: they could be a singular legal rule, an entire system of laws, or a group of doctrine. It is arguable that the Model Statute is a type of legal transplant. Whilst it may not be the paradigm example of the phenomenon—because the Model Statute will incorporate laws from various jurisdictions, and representatives from many states are collaborating in its drafting—it has some key characteristics of classic legal transplants. The drivers of the Model Statute envisage jurisdictions across the world implementing the scheme they have devised to tackle a particular problem, that is, climate change litigation, in similar ways and in this sense it can be seen as a system of legal transfer or borrowing.

The success of a transplant is determined by a multitude of factors, including: the type of law that is to be transplanted; the attitude of the recipient country; the motives of the donor country; and the legal culture of the host country. Mindy Chen-Wishart argues: "Where law evolved in one society is parachuted into another society, the result may range along the entire spectrum or continuum between rejection and smooth reception". If the type of law subject to transplant is in contention with existing norms in a society it is more likely to be rejected than a purely mechanical rule. Scholars warn that if the legal culture of a society is ignored then transplants may be negatively received, and could be applied in a way that yields unexpected results. Similarly, a transplant that is imposed on a nation is more likely to be rejected than one that is sought.

Some go so far as to argue that legal transplants are impossible.⁸⁸ Pierre Legrand, who champions this line of thought, believes that:⁸⁹

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⁸⁴ For example: Teubner uses "irritants" in "Legal Irritants: Good Faith in British Law or How Unifying Law Ends Up in New Divergences" (1998) 61 MLR 11. Chen-Wishart canvasses some other commonly used terms: "Legal Transplant And Undue Influence: Lost In Translation Or A Working Misunderstanding?" (2013) 62 ICLQ 1,

⁸⁵ Teubner, Friedman

⁸⁶ Mindy Chen-Wishart "Legal Transplant And Undue Influence: Lost In Translation Or A Working Misunderstanding?" (2013) 62 ICLQ 1, at 4.

⁸⁷ David Nelken "Towards a Sociology of Legal Adaptation" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) 7 at 26.

⁸⁸ Pierre Legrand "The Impossibility of 'Legal Transplants'" (1997) 4 Maastricht J Eur & Comp L 111, at 112.

⁸⁹ At 116.

A rule does not have any empirical existence that can be significantly detached from the world of meanings that characterizes a legal culture; the part is an expression and a synthesis of the whole.

Therefore any meaningful transfer of a legal rule is impossible because it will always be altered by its context. Yet, scholars such as Alan Watson argue that legal transfers are the most fertile source of legal change in the world. Our legal history is rife with examples of successful transplants. For instance, the private law of almost all Western legal systems is based on either Roman Civil Law or English Common Law. The starting point for this argument is that law is autonomous and develops separately to society, and therefore it is possible to transplant a law without disturbing the general culture.

Which position is correct depends on how the success of a transplant is to be measured. If simple acceptance of the rule within the legal culture of a society is required—regardless of how it is utilised—then Watson's argument remains intact. However, if success is gauged by whether the rule is performing in the same way as it was in the donor state, this position becomes more problematic. This is because—as proponents for both views agree—a rule will be used in different ways in different environments. Watson accepts that "a rule cannot become law without being subjected to legal culture" and that the "autonomy" of legal culture ought to be respected. According to Nelken, he has "conceded [that] a transplant cannot be expected to engineer a determined solution but will take on a life of its own in its new host".

Some transplants are obviously problematic—when colonisers impose a new system of laws on an unwilling nation, for instance.⁹⁵ However, tension results in more subtle instances of borrowing as well. Chen-Wishart highlights the unexpected results legal "borrowing" can have in her analysis of the application of the British doctrine of undue influence in Singaporean contract law.⁹⁶ Even when the host state readily adopts the

⁹² Alan Watson Legal Origins and Legal Change (The Hanbledon Press, London, 1991) at 101.

⁹⁰ Above n 83, at 95.

⁹¹ At 22.

⁹³ Roger Cotterell "Is There a Logic of Legal Transplants?" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) at 77.

⁹⁴ David Nelken "Introduction" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) at 3.

⁹⁵ For example, the application of English land law in New Zealand, which devastated Maori interests.

⁹⁶ Above n 86. at 5.

transplanted law, there can be unexpected consequences. In Chen-Wishart's example, whilst Singaporean courts maintained "slavish adherence" to the British doctrine, in practice, the results of cases in the two states, although purportedly applying the same legal rule, were irreconcilable. ⁹⁷

There are many ways to measure the success of a legal transplant, some of which have been alluded to. However, in the author's opinion, at least one useful marker of success is whether the goals of the imposer or implementer (or both) have been achieved. Given the apparent consensus that: "legal harmonization is highly unlikely to produce similar outcomes" it is arguable that jurisdictions which implement provisions as set out in the Model Statute are likely to apply them in different ways, yielding different results. If one of the aims of the Model Statute is to produce consistent results, as it appears to be, then contemporary scholarship indicates this may be unrealistic.

There is also a further question: whether the provisions of the statute will be workable within the different legal cultures at all. The goals of the Task Force in drafting the Model Statute are admirable, and seem to offer solutions to a genuine gap in a range of legal systems. However, in taking what can be described as a 'one size fits all' approach the diversity of the legal cultures of the societies they are trying to convince, is brushed over. This may lead to problems at the implementation stage. Nelken states the issue thus: ⁹⁹

Those committed to selling law abroad tend just to get on with it, paying little heed to warnings that they fail to acknowledge the problems posed by difference, or that they risk eliminating valuable aspects of legal and political diversity. In persuading others everything turns on the ability to present the change as one that is of value in itself and/or being actively sought by those asking for the transfer.

H UNCITRAL: A Case Study

The dissemination of the United Nations Commission on International Trade Law's (UNCITRAL) *Model Law on International Commercial Arbitration* (MLICA)

⁹⁷ At 4.

⁹⁸ David Nelken "Towards a Sociology of Legal Adaptation" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) 7, citing Gunter Teubner "Legal Irritants: Good Faith in British Law or How Unifyng Law Ends Up in New Divergences" (1998) 61 MLR 11.

⁹⁹ Above n 87, at 45.

¹⁰⁰ UNCITRAL Model Law on International Commercial Arbitration (1985)

http://www.uncitral.org/pdf/english/texts/arbitration/ml-arb/06-54671 Ebook.pdf>

provides a highly relevant case study. The Task Force has cited the purported great success of this framework as a basis for the Model Statute's projected workability. ¹⁰¹ The MLICA was released in 1985 and aimed to unify the laws relating to international commercial arbitration by limiting the jurisdictional reach of domestic courts and granting greater autonomy to contracting parties. ¹⁰² Commentators at the time described the drafting process as contemporary and collaborative: "carried out with global representation of different economic and legal systems, with considerable expertise and in consultation with other organisations". ¹⁰³ MLICA aimed to address the problems that arose when divergent laws of different states relating to arbitration and contractual disputes were applied to international commercial agreements. According to Hermann, the application of "traditional concepts and local peculiarities" ¹⁰⁴ did not fit well with international cases where "such imposition tends to run counter to the special needs and concerns of the parties". ¹⁰⁵

The Working Group commissioned to construct MLICA strived for "widely acceptable and workable solutions", ¹⁰⁶ and UNCITRAL describes the law as reflecting: ¹⁰⁷

worldwide consensus on key aspects of international arbitration practice having been accepted by States of all regions and the different legal or economic systems of the world.

Although attracting praise from the international community, MLICA, in its attempt at "harmonisation" of the law can be seen to have caused the type of problems that we could expect to see from a more traditional legal transplant (i.e. one that involves less collaboration). Arvind, in his analysis of the utilisation of the law in India, describes the problem: ¹⁰⁸

¹⁰¹ Climate Change Justice and Human Rights Taskforce above n 1, at 11.

¹⁰² Mary E. McNerney, Carlos A. Esplugues "International Commercial Arbitration: The UNCITRAL Model Law" 9 B.C. Int'l & Comp. L. Rev. 47 (1986)

¹⁰³Gerold Herrmann "The UNCITRAL Model Law - its background, salient features and purposes" (1985) 1(1) Arbitration International 6, at 7.

¹⁰⁴ At 9.

¹⁰⁵ At 9.

¹⁰⁶ At 11.

¹⁰⁷ UNCITRAL "UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006" United nations Commission on International Trade Law http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/1985Model_arbitration.html TT Arvind "The 'Transplant Effect' in Harmonization" (2010) 59(1) ICLQ 65, at 66.

Harmonization efforts sometimes succeed in drawing the laws of disparate jurisdictions much closer together, but in other instances ostensibly harmonized laws exhibit fundamental differences across jurisdictions in a manner that shows so many of the features of the transplant effect that it can, for all practical purposes, be considered a manifestation of the same phenomenon.

Following the encouragement of UNCITRAL, India incorporated MLICA into its domestic laws through the Arbitration and Conciliation Act 1996 (ACA). Despite a purported acceptance by the judiciary that the ACA marked "a break with old jurisprudence" the courts continued to apply old law in direct contravention with the principles MLICA promoted. The Indian judiciary refused to relinquish a broad jurisdiction to supervise arbitration. For instance in *ONGC v Saw Pipes* 111 the Supreme Court set aside an award by the Tribunal of liquidated damages as provided for in a contract, on the grounds that it was "patently illegal" and therefore in contravention of Indian public policy. However, under the ACA and MLICA, an award cannot be challenged simply because it contains an error of law. Indeed, the laws aim to streamline this aspect of arbitration law by limiting the grounds on which awards could be challenged to purely procedural matters. The courts continued this trend, extending their powers in several other cases with the ironic result that the judiciary's reach was broadened rather than narrowed.

The unexpected application of MLICA in India can be explained by an incompatibility with the country's legal culture. Arvind argues that two factors resulted in this contorted application of the law: a predominant belief within the Indian judiciary that close supervision and control in arbitration best serves justice; and the lack of supporting institutional structures in India required to successfully implement the law, namely professional arbitrators. Thus the incompatibility of the model law with Indian legal culture ran so deep it resulted in "a rejection of the key principles around which the harmonised instruments were built and which were intended to propagate".

 $\overline{^{109}}$ At 74.

¹¹⁰ At 74.

¹¹¹ ONGC v Sawpipes 2003 (5) SCC 705 in TT Arvind "The 'Transplant Effect' in Harmonization" (2010) 59(1) ICLQ 65, at 13.

¹¹²Above n 108 at 76.

¹¹³ At 76.

¹¹⁴ At 79-80.

¹¹⁵ At 78.

It would seem, then, that many of the warnings we pay heed to regarding legal transplants apply to attempts at disseminating model laws as well. The Indian judiciary (without ever expressly rejecting them) undermined the aims of UNCITRAL, clearly expressed within MLICA. The IBA's presentation of this model law as a beacon of promise therefore seems unduly optimistic. Furthermore, MLICA addresses primarily procedural issues, in a comparatively narrow field of international law. In contrast, the Model Statute addresses both procedural and substantive issues, across a wide array of legal areas, and is primarily intended to be applied in a domestic setting where, states will likely be less willing to part with traditional concepts and familiar rules than in international law. Therefore, it is likely that the proposed Model Statute has an even greater potential than MLICA to be incompatible with legal cultures and thus fail in its goals to produce efficient, just and unified outcomes, than MLICA. In order to determine this point, the potential effects of the provisions of the Model Statute will need to be explored in more detail.

Chapter Four: divergence between the Model Statute and the New Zealand approach

Having examined the problems that often arise when legal cultures are ignored and harmonization is attempted, the Model Statute will now be examined in more detail, in comparison to New Zealand's legal culture. In this chapter, I will demonstrate the tensions that may arise between the Model Statute and elements of jurisdictions' legal cultures through an examination of the divergence between the approach that is likely to be taken to proving risk in the Model Statute, and New Zealand's jurisprudence regarding the precautionary principle.

I The Precautionary Principle

The Task Force has flagged causation and evidential burdens as key obstacles to achieving climate justice in litigation. A central goal of any policy or measure to address climate change is to prevent future harms—which are likely to become increasingly serious and unpredictable. This goal contrasts with traditional litigation strategies, which tend to focus on proving past events. A further difficulty of climate change, which has already been alluded to, is that many actors collectively contribute to it to differing degrees, which culminate in large consequences, which make providing evidence for an activity's probable effects difficult. For instance, it can be difficult to prove how a particular activity's GHG emissions will result in rising sea levels, which threaten a community. Therefore, it is likely that the Model Statute will contain provisions entrenching a "precautionary principle," a well developed international legal norm¹¹⁶ to be applied when considering the impacts pollution will have on an environment.

The use of precaution when developing environmental policy and law gained "broad international recognition as one of the underlying principles of sustainable management" at the 1992 United Nations Conference on the Environment and Development (UNCED). In response to growing concern over environmental issues,

Owen McIntyre, Thomas Mosedale "The Precautionary Principle as a Norm at International Law" (1997) 9 JEL 221, at 236.

¹¹⁷ Jacqueline Peel *The Precautionary Principle in Practice* (The Federation Press, Sydney, 2005) at 17.

member nations at the UNCED signed the *Rio Declaration on Environment and Development*, Principle 15 of which provides:¹¹⁸

where there are threats of serious or irreversible damage, lack of full scientific evidence shall not be used as reason for postponing cost-effective measures to prevent environmental degradation.

Since its enunciation at Rio, the precautionary principle has been widely adopted by decision makers addressing concerns in many areas of public health and the environment. The New Zealand Government endorses the approach in its *Environment Policy 2010*:¹¹⁹

The Precautionary Principle should be applied to resource management practice, where there is limited knowledge or understanding about the potential for adverse environmental effects or the risk of serious or irreversible damage.

At an elementary level, the precautionary principle embodies the adage that it is "better to be safe than sorry". In the context of environmental law, this means that decision-makers are required to err on the side of caution where there is a lack of scientific certainty surrounding the environmental impacts of a project. ¹²⁰ It can operate to lower the usual bar of proof that exists in civil cases—i.e. "on the balance of probabilities"—and allows decision makers to prohibit an activity on the basis of a lesser risk. ¹²¹

The precautionary principle exists in various forms, which vary in intensity—usually pitched on a scale somewhere between the strong precautionary principle and a weaker precautionary approach.¹²² The factors that determine where on this scale an iteration of precaution sits include: the nature of the threat; the triggering point for the principle; and the burden of proof.¹²³ In most areas of law the nature of the threat must be significant for a precautionary approach to be adopted, i.e. there must be threats of serious or

Rio Declaration on Environment and Development UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992).

Ministry for the Environment Environment 2010 Strategy: A Statement of the Government's Strategy on the Environment (1995)

¹²⁰ Alexander Gillespie "Precautionary New Zealand" (2011) 24 NZULR 364 at 371.

¹²¹ Rene von Schomberg "General Implications of the Precautionary Principle for Public Decision Making" in Elizabeth Fisher, Judith Jones (eds) *Implementing the Precautionary Principle, Perspectives and Prospects* (Edward Elgar Publishing, Cheltenham, 2006), at 23.

¹²² Gillespie, above n 120, at 365.

¹²³ At 371.

irreversible harm. The "triggering point" refers to how compelling the evidence for a purported harm must be. A strong version of precaution would necessitate merely an "identifiable, scientifically based suspicion of risk", whereas a weak version would require evidence that proves "beyond reasonable doubt" that a threat exists. ¹²⁴ Finally is the matter of who bears the burden of proof: a weaker approach would require those alleging a threat to prove its existence; a stronger approach would require the party seeking to carry out a potentially dangerous activity to prove that the risk of an alleged harm occurring is negligible or non-existent. ¹²⁵ These factors interact to determine how environmentally protective a decision making process is in practice.

The Task Force enthusiastically endorses the use of precaution in its discussion of the Model Statute. It is likely, therefore, that the version of precaution incorporated in the Model Statute will be strong, requiring a reversal of the burden of proof. If this is the case, when litigation raises a plausible possibility that an activity will result in a risk of serious or irreversible harm to the environment through its contributions to climate change, the burden of proof will shift to the potential polluter, who will need to prove that the threat of harm does not exist or is negligible, or that mitigation techniques will reduce potential harms to the point that they become negligible. The rationale behind utilising this principle is that there will be a presumption in favour of preventing activities that could cause deleterious effects on an environment through their contributions to climate change, even when the specific consequences of that activity are scientifically uncertain.

The ideal of precaution has been enunciated in various forms both domestically, and internationally. The form employed in different legal arenas depends on a multitude of factors including legal culture: the forums of dispute resolution available, modes of legal reasoning, and implementation techniques. 129 Fisher reminds us that: 130

¹²⁴ Gillespie, above n 120 at, 372.

¹²⁵ Gillespie, above n 120 at, 373.

¹²⁶ Above n 1, see generally, Causation 130-132.

¹²⁷ Above n 117, at 141.

¹²⁸ Elizabeth Fisher "Implementing the precautionary principle: perspectives and prospects" in Elizabeth Fisher, Judith Jones (eds) *Implementing the Precautionary Principle, Perspectives and Prospects* (Edward Elgar Publishing, Cheltenham, 2006) 2 - 6.

Ortwin Renn Precautionary Risk Appraisal and Management (Auflage, 2009) at 65.

¹³⁰Gillespie above n 120, at 373.

properly implementing the precautionary principle is not just a case of inserting it into law or policy but rather requires adjustments to institutional capacities and processes particularly in relation to deliberation.

Whether the implementation of a strong version of precaution in the New Zealand courts is viable depends on extant elements of our legal culture, in particular, the complex processes regarding environmental decisions.

J Application of the Precautionary Principle in New Zealand

The precautionary principle has been implemented in throughout environmental law in New Zealand. Although its application has been described as somewhat "ad hoc", ¹³¹ New Zealand jurisprudence regarding precaution is sophisticated. Gillespie notes that, "New Zealand has learnt to utilise precaution in a number of different ways, and what is applicable in one context is not applicable in another." Notably, New Zealand has not required a reversal of the burden of proof in any area.

Of particular importance is the courts' utilisation of precaution under the Resource Management Act 1991 (RMA), New Zealand's primary environmental regulatory regime. It is through the scheme established under the RMA that potential polluters must apply for consent to conduct activities that may have an impact on the environment. Therefore, it seems likely that this is an area the drafters of the Model Statute would envisage their version of the precautionary principle being implemented. Despite lacking any explicit reference to precaution within the legislation, the courts have inferred a general precautionary approach managing the risk of activities on an environment. This is due to the overall "precautionary flavour" and forward-looking nature of the RMA. Courts are required to judge whether an activity meets the overall purpose of "sustainable management" in the Act, having regard to the need to avoid, remedy, or mitigate any adverse effects of activities on the environment, where "effects" includes: "any potential effect of low probability which has a high potential impact." in the Act, "136"

¹³¹ Gillespie, above n 120, at 375.

¹³² Gillespie, above n 120, at 375.

¹³³ Greg Severinsen "To Prove or not to prove? Precaution, the burden of proof and discretionary judgment under the Resource Management Act" (2014) 13 Otago LR 351.

¹³⁴ Resource Management Act 1991, s 5.

¹³⁵ Resource Management Act 1991, s 7

¹³⁶ Resource Management Act 1991, s 3(f).

Use of precaution under the RMA has been described as "divergent". The court has variously: used a precautionary standard of proof in the fact finding exercise; imposed a burden of proof on an applicant; and recognised the ability of a consent authority to exercise precaution in its overall broad judgment. 138

In *McIntyre v Christchurch City Council*¹³⁹ a case involving a consent application for telecommunication towers that emitted radiation potentially harmful to human health in a residential area, the Environment Court inferred a flexible precautionary approach in regards to the standard of proof required. The Court held that:¹⁴⁰

The weight to be given to the precautionary principle depends on the circumstances, including: the extent of scientific knowledge and the impact on otherwise permitted activities, the gravity of the effects and the statutory purpose of promoting sustainable management.

After evaluating a range of evidence, which was judged to be of minimal persuasive value, consent was granted. The Court held that "the existence of a serious scientific hypothesis, or even one that is regarded as deserving priority for testing" was not enough to establish a potential effect, even where the potential effect was of low probability but high potential impact. This approach was reaffirmed in *Transpower v Rodney District Council* where it was held that exercise of precaution required "some plausible basis, not mere suspicion or innuendo". 143

In *Shirley v Christchurch City Council*¹⁴⁴ the Court agreed that the forward-looking scheme of the RMA justified a generally precautionary approach. However, the Court doubted whether incorporating international standards of the precautionary principle would be useful as it could result in the "double counting" of the need for caution in consenting decisions.¹⁴⁵ Instead, the Court must:¹⁴⁶

¹³⁷ Catherine Iorns and Greg Severinsen"Diving in the Deep End: Precaution and Seabed Mining in New Zealand's Exclusive Economic Zone (2015) 13(1) NZ Journal of Public and International Law 201 at 213. ¹³⁸ At 211-214.

¹³⁹ McIntyre v Christchurch City Council (1996) 2 ELRNZ 84.

¹⁴⁰ At [85]

¹⁴¹ At [123]

¹⁴² At [106]

¹⁴³Transpower v Rodney District Council PT A85/94; 4 NZPTD 35 at 21.

¹⁴⁴ Shirley Primary School v Christchurch City Council [1998] NZEnvC 394.

¹⁴⁵ At [221]

¹⁴⁶ At [136]

simply evaluate all the matters to be taken into account...on the evidence before it in a rational way, based on the evidence and its experience; and giving its reasons for exercising its judgment in the way it does.

As to the burden of proof, although the Court recognised that while there may be a persuasive burden on an applicant under the RMA to prove that his case accorded with the overall purpose of "sustainable development", the evidential burden would swing between parties in accordance with normal rules of evidence.¹⁴⁷ In general, the courts have been reluctant to recognise a formal burden of proof on an applicant to disprove adverse effects of an activity. This is in part due to the administrative and inquisitorial nature of proceedings before the Environment Court: the quest is to determine what will constitute "sustainable management".¹⁴⁸Adversarial concepts are not always useful in this context.

The approach of the Environment Court to precaution in decision-making is arguably somewhat confused: there is no one clear path to satisfy the courts that an activity poses an unacceptable level of risk. It is interesting that, to date, the Court has not thought it necessary to impose a formal burden of proof on an applicant, and that the opportunity to import extraneous standards into the statute has generally been eschewed in favour of a more flexible approach. Arguably, the Court has the capacity to exercise precaution in a more environmentally protective manner. However, this restrained use precaution is not a coincidence; on the contrary, it is a result of New Zealand's institutional environmental arrangements. As noted in *Shirley* the RMA is not a "no risk" statute. Features such as a specialist court imbued with unique powers has promoted the development of a flexible and sophisticated approach to risk management. These features, and their implications for the Model Statute, will be explored in more depth in Chapter Five.

Precaution has been explicitly included in more recent New Zealand legislation in several forms. The release of genetically modified organisms (GMOs), for example, is governed by the Hazardous Substances and New Organisms Act 1996, which requires decision makers to "take into account the need for caution in managing adverse effects where

¹⁴⁷ at [121].

¹⁴⁸ Above n 137, at 213.

¹⁴⁹ Shirley, above n 144, at [106].

¹⁵⁰ Hazardous Substances and New Organisms Act 1996.

there is scientific and technical uncertainty about those effects". ¹⁵¹ Under review, a Royal Commission on the subject advocated for caution in decision-making. However the Commission was "not convinced that a single principle could be applied across the board". ¹⁵² There is now provision for "conditional release" of GMOs in the face of scientific uncertainty, rather than the prior "all or nothing" approach. This has allowed the consenting authority to consider risk on a case-by-case basis. ¹⁵³

The Fisheries Act 1996 also requires decision makers to "be cautious when information is uncertain, unreliable, or inadequate" regarding the impact of fisheries on the environment.¹⁵⁴ However, the application of precaution in the regulation of commercial fishing has been undermined by a requirement to rely on the "best available information". 155 Thus operators of fisheries have been able to defeat attempts to take a cautious approach, where there are several opinions available regarding the extent to which an activity will impact the environment. 156 New Zealand's most recent and strongest legislative incorporation of the principle is under the Exclusive Economic Zone Act 2012, 157 the purpose of which is to promote "the sustainable management of the natural resources of the EEZ and continental shelf". 158 Similar to fisheries, when considering an application to conduct an activity in the area, the Environmental Protection Agency must consider what is the best available information. However, under this statute, precaution is more explicit. When information is uncertain, the consent authority "must favour caution and environmental protection". 159 Although a comparatively strong iteration, a reversal of the burden is still not required. As one commentator has opined, it is still unclear what favouring caution will demand in practice. 160

151 HSNO Hazardous Substances and New Organisms Act 1996, s7.

¹⁵² Report of the Royal Commission on Genetic Modification (2001) at 67 in Alexander Gillespie "Precautionary New Zealand" (2011) 24 NZULR 364, at 378.

¹⁵³ Above n 120, at 379.

¹⁵⁴ Fisheries Act 1996, s10(c).

¹⁵⁵ Fisheries Act 1996, s10(a).

¹⁵⁶ See *Squid Fishery Management Company Limited v Minister of Fisheries* where a fishery company was able to challenge a Fishing Related Mortalities Limit set by the Minister of Fisheries (to protect sea lions) using the "best available information" principle because there was divergence between models assessing mortalities.

¹⁵⁷ Exclusive Economic Zone Act 2012

¹⁵⁸ Exclusive Economic Zone Act 2012, s10.

¹⁵⁹ Exclusive Economic Zone Act 2012, s34(2).

¹⁶⁰ Above n 137, at 233.

Two observations can be drawn from a survey of New Zealand's exercise of precaution in environmental law: first, different contexts warrant different forms and strengths of the precaution be applied and; secondly, a hard line approach has not yet been mandated, in any area, when it comes to the impact of activities on various environments. These two features are a result of the non-adversarial nature of New Zealand's legal culture in relation to environmental disputes, which will be explored in the following chapter. They indicate that the importation of a strict precautionary principle, as envisaged by the Model Statute, will be problematic.

Chapter Five: Application in New Zealand

Having outlined the gap between the application of precaution in New Zealand environmental law and the form it is likely to take within the Model Statute, I will now examine the crucial aspects of New Zealand's legal culture that create this divergence, and the possible implications this will have for the future of the Model Statute. New Zealand's environmental law regime is built on the ideal that public inclusivity and accessibility in environmental decision-making are highly important, because decisions relating to the environment are likely to have impacts of magnitude across areas of public interest. Consequently, the institutions surrounding environmental decision-making and disputes in New Zealand have developed practices that are conciliatory, and non-adversarial in flavour. In contrast, the Model Statute assumes that environmental disputes will occur within an adversarial, bi-partisan framework. Inevitably there is tension between these two approaches. I will explore this broad tension through the lens of precaution and risk management discussed in the previous chapter and consider what this tension means for the future of the Model Statute.

K The Resource Management Act 1991

The RMA is the predominant framework for regulating activities that impact on the environment in New Zealand. This comprehensive piece of legislation aimed to streamline the processes of permitting and environmental management—which in the 1980s had become an "uncoordinated, unintegrated hotch-potch" of laws—by absorbing the functions of a host of environmental and planning laws and authorities. The RMA marked a movement in New Zealand towards integrated environmental management, recognising that all aspects of the environment are connected and should be managed within one legal network. 163

The RMA established a tiered approach to policy making for resource management. Decision-making was decentralised and substantial powers were devolved to local

¹⁶¹ Geoffrey Palmer "The Making of the Resource Management Act" in Geoffrey Palmer *Environment, The International Challenge: Essays* (Victoria University Press, Wellington, 1995), at 150.

¹⁶² for example, the Town and Country Planning Act 1977, Water and Soil Conservation Act 1967.

¹⁶³ Julie Frieder "Approaching Sustainability: Integrated Environmental Management and New Zealand's Resource Management Act" at 15.

authorities.¹⁶⁴ At a national level, the Minister for the Environment can guide policy at lower levels to varying degrees through, for instance, the issuing of National Policy Statements.¹⁶⁵ At a local level, regional and territorial authorities set regional policy statements and plans considering the resource management issues in their areas, and specifying how integrated management of the natural and physical resources in a region should be achieved.¹⁶⁶ In order to conduct certain activities the approval of the consent authority of the relevant region must be obtained. The consent authority considers applications in detail, with regard to a range of factors before allowing or refusing consent.¹⁶⁷ A high level of public participation is contemplated in these processes.¹⁶⁸ Therefore, "any person" is empowered under the RMA to make a submission on an impending plan, policy statement or notified resource consent, and those that choose to make a submission may appeal a decision on that issue to the Environment Court.¹⁶⁹

At the time of the RMA's enactment, global recognition of the impacts that human activities such as agriculture and industry have on the environment, was growing. Consequently, the concept of "sustainable management" of the environment became the cornerstone policy underlying the Act. At its essence, sustainable management means that environmental resources should be used and developed in a way that provides for the needs of current communities (including economically and culturally), while ensuring that those resources are also preserved for future generations. This ideal is entrenched under s 5 of the RMA as the underlying goal to guide all decision-making within the Act. Decision-makers are thus given a complex task with regards to risk-management, because this concept necessarily involves balancing the often-conflicting interests of current society against future.

A second important feature of decision-making under the RMA is its focus on achieving sustainable management through an "effects based management" of activities. 173

¹⁶⁴ Above n 163 at 15.

¹⁶⁵ RMA s 24.

¹⁶⁶ RMA, s 30.

¹⁶⁷ RMA s 104

¹⁶⁸ Bret Birdsong "Adjudicating Sustainability" (October 1998), at 9.

¹⁶⁹ RMA s 96

¹⁷⁰ Sir Geoffrey Palmer QC "Ruminations on the Problems with the Resource Management Act" (Keynote address to the Local Government Environmental Compliance Conference, Auckland 2-3 November 2015)

¹⁷² RMA, s 5.

¹⁷³ Above n 168, at 7.

Authorities focus on how an activity is likely to impact on the environment, and whether those impacts can be adequately avoided, remedied, or mitigated rather than focusing on the character of the proposed activity. The role of actors under the RMA necessarily involves looking to the future. Decision-makers have a broad scope of considerations to take into account. For instance, "effects" is defined widely–encompassing the cumulative and future effects of an activity, even when effects are of low probability but high potential impact. Environment includes not only physical resources but also people, amenity values, and the social, economic, aesthetic, and cultural conditions that affect, or are affected by, those matters. It follows then, that conservation, is not the sole, or even a primary consideration, within the RMA. Therefore, precaution, as illustrated in Chapter Four, has not been applied in a conservative manner.

Decision-making under the RMA is characterised by several factors: it is predictive, takes place in a highly devolved network of power; promotes public involvement in decisions; and is driven by the goal of "sustainable management" of the environment. The legislation has had the effect of largely consolidating regulation around the use and development of environmental resources. Therefore, the RMA has a broach reach to control activities affecting land, air, water and ecosystems, physical resources such as soils, geology, and the built environment, as well as noise, pollution, and geothermal activities. This would appear to make it the logical framework within which to deal with climate change adaptation and mitigation disputes. For instance, it is through the RMA that a person must apply for consent to discharge contaminants into the air, to mine land. However, the factors that characterise RMA decision-making are likely to conflict with a bi-partisan, adversarial approach to litigation, which is common in traditional civil litigation, and which is endorsed in the Model Statue. The alternative processes that have been developed to correspond with the underlying rationale behind the RMA will now be examined.

L First Instance Decision Making

¹⁷⁴ RMA, s 3.

¹⁷⁵ RMA, s 2.

¹⁷⁶ Above n 163, at 15.

¹⁷⁷ At 17.

¹⁷⁸ RMA, s 15.

¹⁷⁹ RMA, s 87.

The primary decision makers under the RMA are usually local authorities, which have jurisdiction to determine resource consents for a wide array of activities, for instance, releasing contaminants into the air. They receive applications for resource consents as well as submissions against them. Although there is some opportunity for decisions to be referred directly to other bodies, 181 most matters are initially debated by local authorities.

Decision-making at this level differs markedly from traditional civil litigation. For instance, where a local authority holds a hearing regarding an application for a resource consent, or a review of a resource consent (among other matters)¹⁸² the authority will hold the hearing in public and "shall establish a procedure that is appropriate and fair in the circumstances." The authority is further required to "avoid unneccessary formality" and may "not permit cross-examination". These requirements reflect a cornerstone policy of resource management law in New Zealand—that public participation is crucial in achieving sound decisions, and that a collarborative approach should be taken to resolving disputes. A highly regulated and formal environment is an unneccessary and inappropriate forum to hear evidence from the general public on these issues. Therefore, traditional, litigious rules of evidence and procedure of the kind envisaged in the Model Statute do not fit within this process.

M Decision making in the Environment Court

The New Zealand Environment Court (EC) is the primary adjudicator of disputes that arise under the RMA; however it should be noted that less than 5% of resource management disputes become litigious. Is In fact cases which progress to the EC are often referred to as "survivors", having progressed through several other resolution processes upon arrival. Although the EC was established under the RMA, its predecessors date back the early 20th century, indicating that New Zealand has long

¹⁸⁰ RMA, s 15.

¹⁸¹ For instance, the applicant may request for their application to be heard by the Environment Court directly, as per s 87 RMA.

¹⁸² RMA, s 39.

¹⁸³ RMA, s 39.

¹⁸⁴ RMA, s 39(2).

Stephen Higgs "Mediating Sustainability: The Public Interest Mediator in the New Zealand Environment Court" (2007) 37 Envt.L 61, at 74.

¹⁸⁶ For example, a consent authority's decision, or Alternative Dispute Resolution.

¹⁸⁷ Above n 161

recognized that planning and permitting disputes are best dealt with by those with specialist knowledge.

The daily diet of the EC is dominated by disputes arising under the RMA. The majority of this work consists of disputes over resource consents and plans, which invariably involve assessing future risks. These disputes are often polycentric—a consent or plan will impact on a myriad of interests and, therefore, may require input from diverse areas including: the sciences, economics, and Maori cultural, among others. Contributions to deliberations could come from public authorities, NGOs, Maori, community groups and individuals. President of the EC, Judge Newhook states: "95% of the work in the Environment Court differs markedly from that in the general civil courts. The EC has developed correspondingly different processes and is empowered with unique abilities, to manage this caseload. For example, the EC is not required to follow traditional rules of evidence or procedure, and the EC issues its own Practice Note containing guidance on how the court should operate. Consequently, its hearings sit somewhere between the adversarial and inquisitorial systems of adjudication.

1 Constitution of the Court

Specialist knowledge is an important feature of the EC. A quorum of the Court comprises an Environment Judge and usually two Environmental Commissioners. These arrangements go to "the very heart of the effectiveness of the Environment Court. Here a judge of the Environment Court will spend much of their career presiding over RMA disputes. As a result, they will develop an expertise on how these complex, mutli-scalar, predictive issues should be handled. As the *Resource Management Law Review of New Zealand* notes, EC judges become well equipped to manage: 196

¹⁸⁸ Judge Laurie Newhook "New Horizons in the Environment Court: Innovations in Dispute Resolution in Environmental Disputes" (address to AIMINZ conference, 2015) at 2.

¹⁸⁹ At 2.

¹⁹⁰ At 2.

¹⁹¹ At 2.

¹⁹² At 1.

¹⁹³ Judge Laurie Newhook "The Place of the Environment Court in the New Zealand Court system" (Presentation to study tour delegation from Wuhan University, 19 August 2015) at 5.

¹⁹⁴ At 5

Martin Williams "Reform of the Resource Management Act – Does it make sense?" Resource Management Law Association Of New Zealand < http://www.rmla.org.nz/wp-content/uploads/2016/07/reform_of_the_envt_ct_-does_it_make_sense_140613.pdf>, at 6.
Environment Court reform – more than a Court under threat?" (3 June 2016) RMLR <

http://www.rmla.org.nz/2016/06/03/environment-court-reform-more-than-the-court-under-threat/>

[T]he balance between protecting the environment and allowing primary industry development, urban sprawl, allocation of fresh water, discharge of contaminants, [which] may raise highly complex issues.

Environmental commissioners are required to have specialist knowledge in a field relevant to resource management law: economics, for instance, resource management, environmental science, and matters relating to the Treaty of Waitangi. 197 They provide guidance within their specialty, which is imperative to conducting effective decisionmaking, because a large portion of the EC's task is to deal with expert evidence. 198 This enables the EC to skillfully navigate the often highly technical questions that it is tasked with: in deliberating the likelihood of an event occurring that is of low probability but high potential impact, for example. There is also provision for an advisor to be appointed. 199 The EC is thus empowered to avoid problems of comprehension that have plagued other jurisdictions. In Massachusetts v EPA in the U.S. Supreme Court, Justice Scalia responded to a correction of his misuse of scientific terminology stating: "I told you before, I'm not a scientist". 200 He further complained: "That's why I don't want to have to deal with global warming, to tell you the truth." Happily, New Zealand has been able to avoid such barriers to effective litigation. It could be argued, therefore, that because the EC has access to expertise, the use of blunt adversarial rules to manage risk are not helpful.

2 Merits-based review

The EC has a unique place in New Zealand's constitutional arrangements. The EC hears cases *de novo*. ²⁰² In this sense especially, RMA cases deviate from traditional appeals and judicial review hearings. This power is particularly interesting, because in most areas of administrative law appeals are limited to questions of law. However, the EC is empowered to review a decision on its merits. For example, if a decision made by a local authority regarding a resource consent or plan is appealed, the EC will reconsider the

¹⁹⁷ RMA s 253

¹⁹⁸Above n 188 at 3.

¹⁹⁹ RMA, s 259

Hari M Ofsofsky "The Intersections of Scale Science and Law in Massachusetts v EPA" in William C. G. Burns, Hari M. Osofsky (eds) *Adjudicating Climate Change: State National and Approaches* (Cambridge University Press, New York, 2009) 21, at 21.

²⁰¹ At 21.

²⁰² Above n 168 at 54.

substantive elements of a decision, having all the powers of the original authority.²⁰³ If, on the Court's view of the facts, the authority's decision is inadequate, it will substitute its own decision. Therefore, the EC can alter plans and consents as it sees fit.²⁰⁴ Unlike other administrative jurisdictions, the EC can review environmental decisions by local government based on their merits.

In order to carry out *de novo* appeals, the EC must be able to hear all evidence relevant to a case afresh. The EC is explicitly exempted from "rules about evidence that apply to judicial proceedings."²⁰⁵ In *Shirley*, the EC noted that adversarial concepts like burdens of proof might not apply to administrative proceedings of the type that occur under the RMA.²⁰⁶ This is because, unlike in other litigation, an EC Judge is not reliant on the litigants to tender all relevant evidence, or who has made the more convincing argument. The EC may call before it any information it considers will be of use in making its decision,²⁰⁷ and may consider it at length in order to come to the ultimately correct decision. The EC is not obliged to grant consent in "default of opposition";²⁰⁸ rather the EC must exercise its discretion, based on the relevant considerations, as if it were the original arbiter.

The EC is accustomed to making decisions assessing the likelihood of future events. Almost all evidence it hears "relates to the future and thus has an hypothetical element." In assessing future risk traditional standards of proof are unhelpful. As Lord Diplock noted in *Fernandez v Government of Singapore*, an assessment on the balance of probabilities, was a "convenient and trite phrase" to assist a court in developing a degree of certainty over past facts, to be capable of giving them legal consequences. However, there was no such rule in the context of future events: an arbiter, in determining legal consequences, "must ignore any possibility of something happening merely because

²⁰³ RMA, s 149.

²⁰⁴ Above n 168, at 20.

²⁰⁵ RMA, s 279.

²⁰⁶ Above n 144, at [119] per Judge Jackson.

²⁰⁷ At [119] per Judge Jackson.

²⁰⁸ Above n 143, at [124] per

²⁰⁹ Above n 144 at [142] per Judge Jackson.

²¹⁰ Fernandez v Government of Singapore [1972] 2 All ER 691 (PC) as cited in *Shirley Primary School v Christchurch City Council* [1998] NZEnvC 394, at [117].

the odds on its happening are fractionally less than evens."²¹¹

Although there are no overall burden of proof requirements in relation to the overall decisions in the EC, parties do carry burdens in relation to disputed facts, which can be difficult when it comes to future events. However, as discussed in Chapter Four, the EC has developed methods to deal with this difficulty. For instance, in *Shirley* the court held that there was no one standard of proof, and in the case of a serious risk a "scintilla of evidence" may be all that is needed to establish "in the Court's mind to justify the need for rebuttal evidence." The EC has been able to overcome difficulties in assessing future risk. It may be unnecessary, therefore to employ hardline rules in decision-making.

There is no presumption, in the EC in favour of the decisions being appealed against.²¹⁴ Therefore, the person appealing a decision has a distinct advantage in the EC compared to traditional courts: they are not charged with a strict burden of proving the wrongfulness of a decision. Rather, they must put forward a proper evidential basis to support their contentions and submissions. The Court noted in *Waitakere Forestry Park* that: "the court hears the evidence itself and decides what the facts are, based on that evidence, before coming to its own conclusion as to the proper way in which the statutory discretions should be exercised".²¹⁵

3 Adaptive Management

Critically, the EC has some unique remedies in its repertoire. The technique of adaptive management has been implemented in resource management cases to achieve a balance between the principles that are encompassed by sustainable management—encouraging development whilst preserving the environment. In situations where the Court is not satisfied that the risk of future harms is substantial enough to justify the prohibition of an activity, but remains concerned about the uncertainty of the potential impacts of an activity, it may allow an activity to be carried out through adaptive management

²¹¹ Fernandez v Government of Singapore [1972] 2 All ER 691 (PC) as cited in *Shirley Primary School v Christchurch City Council* [1998] NZEnvC 394, at [117].

²¹² Above n 144 at [142] per Judge Jackson.

²¹³ At [142] per Judge Jackson.

²¹⁴ Above n 161, at 20.

²¹⁵ Waitakere Forestry Park Ltd v Waitakere City Council, [1997] NZRMA 231, [234-235].

schemes—with monitoring, reporting, and assessment of any adverse impacts that occur, before the next stage may be carried out.²¹⁶ In determining whether to use the approach a decision-maker should consider: the extent of the environmental risk; the importance of the activity; the degree of uncertainty; and the extent to which adaptive management will diminish the risk and uncertainty.²¹⁷ This solution in particular, which allows the Court to remain seized of an issue, and to oversee its progress has allowed the EC to develop a flexible, but effective approach to precaution and managing future risks, without imposing strict standards that do not fit with the nature of EC litigation and procedure.

Adaptive management was used in *Crest Energy Kaipara Ltd v Northland Regional Council* to manage concerns relating to a proposed wind farm in the Kaipara Harbour.²¹⁸ Crest Energy submitted their proposal for 200 wind turbines in the area for energy generation on the basis that it would develop in accordance with an Environmental Management Plan (EMP)—which provided for a degree of incremental implementation and monitoring of effects.²¹⁹ However, even under this iterative scheme, there was particular concern about the impacts the activity might have on the endangered Maui Dolphin. After examination of expert evidence, the EC was unsatisfied with the quality of the EMP Crest had proposed, and issued an interim decision requiring Crest to gather more evidence, and improve their plan, ideally by collaborating with the other parties.²²⁰

In 2011, Crest was granted a 35-year consent after presenting a revised EMP to the Court, addressing the concerns previously identified.²²¹ Changes to the EMP included: decreasing the units of turbines installed in the first iterations, and improved monitoring of wildlife activity. A monitoring period of one year after the first stage was completed, and the deployment of subsequent stages subject to Council approval. The court felt that this regime was sufficiently cautious to ensure effects on the environment were acceptably low, and dismissed protestations from the opposing party that stricter obligations could be imposed.²²² Although in this case, the EC left the power to authorise further activity after the monitoring period expired with the Council, the EC may also

²¹⁶ Sustain our Sounds Inc v New Zealand King Salmon [2014] NZSC 40, at [124].

²¹⁷ Sustain our Sounds Inc v New Zealand King Salmon [2014] NZSC 40, at [124].

²¹⁸ Crest Energy Kaipara Ltd v Northland Regional Council [2009] NZEnvC 374 (22 December 2009).

²¹⁹ At [6]

²²⁰ At [294]

²²¹ Crest Energy Kaipara Ltd v Northland Regional Council [2011] NZEnvC 26, at [12].

²²² At [12].

continue to oversee a matter. The EC can attach conditions to consents²²³ - such as monitoring, to ensure it does not exceed an acceptable level of risk.

The Supreme Court in *Sustain our Sounds Inc v New Zealand King Salmon*²²⁴ regarding salmon farming in the Marlborough sounds addressed adaptive management. At issue were the potentially harmful affects of large quantities of fish feed and excrement in the water, possibly resulting in algal blooms.²²⁵ The Court held that adaptive management regimes were a legitimate means of managing activities, provided:²²⁶

There [is] an adequate evidential foundation to have reasonable assurance that the adaptive management approach will achieve its goals of sufficiently reducing uncertainty and adequately managing any remaining risk. The threshold question is an important step and must always be considered.

An adaptive management approach was available in this case due to extensive evidence that the farming proposed would not significantly contribute to algal bloom, and on the condition that sufficient baseline information could be gathered and supplied to the local authority. ²²⁷This method of risk management differs markedly from a strict application of the precautionary principle.

Adaptive management is a legitimate expression of the precautionary principle, and has allowed the EC to manage potential risks associated with an activity, without imposing strict, litigious forms of the precautionary principle. The Chief Science Advisor to the Prime Minister, endorses this approach as a means of achieving a: "more supple adaptive management potential that the Precautionary Principle, as properly interpreted and applied, offers." ²²⁸It is an invaluable mechanism of achieving measured action in contexts where opposing interests must be balanced. ²²⁹

²²³ Sustain Our Sounds Inc v New Zealand King Salmon Company Ltd [2014] NZSC 40.

²²⁴ At [11]

²²⁵ At [11]

²²⁶ At [126]

²²⁷ At [133]

²²⁸ Sir Peter Gluckman "The Place of science in environmental policy and law" (address to the Resource management Law Association, Wellington, 2 September 2015) http://www.pmcsa.org.nz/wpcontent/uploads/Salmon-Lecture Final.pdf at 7.

²²⁹ At 7.

4 Mediation

A further method widely employed by the EC, which deviates from adversarial traditions, is alternative dispute resolution – in particular, mediation. Under s 268 of the RMA the EC may refer parties to alternative dispute resolution, and has developed a formal procedure for all parties to appeals to be referred to mediation. ²³⁰Newhook notes that, while the empowering provision is "voluntary in flavour" the Court views it as a compulsory activity, given the significant public interest innvolved in many cases.²³¹ As a result, most cases will go through mediation, at no cost, before arriving in court.²³² Environment Commissioners are trained in mediation and have witnessed a great deal of success, with at least partial agreement reached in over 50% of cases.²³³ This ample utilisation of mediation reflects a wider policy underlying the RMA to resolve disputes in a non-adversarial manner. It is argued that mediation is a pertinent tool for resource management disputes because they necessarily involve public interests, and often affect a wide array of parties, representing diverse concerns.²³⁴ In these polycentric disputes a satisfying outcome may more effectively be elicited through non-adversarial avenues, thus avoiding the winner/loser dichotomy. Mediation can be seen as "a form of participatory decision-making."²³⁵ Whereas adversarialism more closely resembles:²³⁶

a contest where opposing parties call (usually) expert witnesses to provide evidence, both fact and opinion. Legal advocates endeavour to 'build up' their clients case and 'break down' that of their opponents by examination, cross examination and re examination of witnesses and by legal submission.

There are no legislative rules dictating mediation practices within the RMA, however, the EC has enunciated extensive guidelines relating to the process in its Practice Note

²³⁰ Above n 196

²³¹ above n 188, at 4.

²³² At 4.

²³³ At 3.

²³⁴ Nancy Borrie, Peter Skelton & Ali Memon "The Practice of Mediating Environmental Disputes by the Environment Court in New Zealand" 10 AJEL 152, at 152.

²³⁵ At 152.

Blackford, C., 1992. A review of environmental mediation: theory and practice. Information Paper No.34. Centre for Resource Management Te Whare Takoka Mo Ka Kaiwharahaere, Lincoln University, Canterbury cited in: Nancy Borrie, Peter Skelton & Ali Memon "The Practice of Mediating Environmental Disputes by the Environment Court in New Zealand" 10 AJEL.

2014.²³⁷ The Practice Note highlights that mediation is cost-effective and well suited to environmental disputes.²³⁸ Judges are encouraged to promote parties to consider mediation throughout proceedings, as an alternative method of resolving conflicts.²³⁹ Conduct in mediation differs to that in court, for example, under note 6(d): "mediation shall not be conducted under formal procedures or rules of evidence, and will be guided at all times by the mediator."²⁴⁰ Blunt rules regarding burdens of proof and the precautionary principle become largely irrelevant in this more conciliatory approach to dispute settlement.

The powers and practices that characterize decision making under the RMA, both in the Environment Court and at the lower levels, are geared towards obtaining collaborative, balanced results. This is in keeping with the public interest, polycentric nature of environmental disputes. In contrast, the Model Statute envisages a bi-partisan, adversarial approach to dispute resolution, as is exemplified by a likely strict approach to precaution in assessing the impacts of an activity. Given the encompassing nature of the RMA to over environmental regulation in New Zealand, tension is likely to ensue between these two approaches if the Model Statute is imposed without modification to reflect New Zealand's legal culture.

N Climate Change under the RMA

I have argued that, as New Zealand's premier legislation for resource management and planning, emissions and climate change seems to naturally come within the ambit of the RMA. On this rationale, it appears that, because the approach of the Model Statute is incompatible with that of the RMA, it is unlikely to be accepted by New Zealand's legal culture.

However, judicial and legislative action has significantly reduced the ability of the courts to address climate change through the RMA. In 2004, the Resource Management (Energy and Climate Change) Amendment Act 2004 made changes to the RMA to make explicit the extent to which climate change was relevant for the purposes of the Act.

²³⁷ Environment Court of New Zealand *Practice Note 2014*

²³⁸ At 5.2.c

²³⁹ At 7.h

²⁴⁰ At 6.d

Since these amendments came into force the potential for local authorities to regulate emissions has been reduced. The purpose of the Act was to:²⁴¹

- a) make explicit provision for decision makers under the RMA to have particular regard to the efficiency of the end use of energy, the effects of climate change, and the benefits to be derived from the use and development of renewable energy; and
- b) require local authorities to plan for the effects of climate change, but not to consider the effects on climate change of discharges into air of greenhouse gases

To achieve this objective several changes were instigated. First, the principles under s 7 that are to be considered in relation to managing the use, development, and protection of natural and physical resources were amended to include climate change, and the benefits to be derived from the use and development of renewable energy. 242 Sections 70A and 70B prevent regional councils, when making rules regarding the discharge of contaminants, from considering the impacts of GHGs on climate change "except to the extent that the use and development of renewable energy enables a reduction in the discharge into the air either in absolute terms; or relative to the use and development of nonrenewable energy." Section 104E operates on similar terms - preventing an authority, when considering an application to discharge contaminants (which include GHGs as per section 2), from considering the effects of GHGs on climate change, except to the extent that "the use and development of renewable energy enables a reduction in the discharge into the air either in absolute terms; or relative to the use and development of nonrenewable energy." Section 104F requires consent authorities to be "no more or less restrictive than necessary" when implementing a national environmental standard made to control the effects of GHGs on climate change.

These restrictions were justified by the Ministers behind the Act due to emission reductions being a matter best addressed by a national mechanism.²⁴³ The amendments would remove "the potential for duplication [of controls on emissions] and unnecessary costs."²⁴⁴ Judging from these comments, New Zealand Government did not intend for extensive regulation of GHGs to occur without central government supervision.

Resource Management (Energy and Climate Change) Amendment Act 2004, s3.

²⁴² Resource Management (Energy and Climate Change) Amendment Act 2004, s 5.

²⁴³ Resource Management (Energy And Climate Change) Amendment Bill 2003 (48-1) (explanatory note) at 48-1.

²⁴⁴ At 48-1.

Subsequent judicial interpretation of the amendments has taken a conservative stance on the issue, maintaining a very limited ability for local authorities to regulate emissions.

In *Greenpeace v Genesis Energy*²⁴⁵ the Supreme Court addressed the interpretation of s 104E. Genesis had applied for a s 15 resource consent to discharge contaminants, in the form of GHGs, for a proposed electricity plant fuelled by gas.²⁴⁶ The majority held that s 104E only operated as a positive consideration, to be taken into account in the context of a proposal for a renewable energy operation.²⁴⁷ Therefore, the negative impacts on climate change from non-renewable energy, were not a factor in determining consent. The rationale behind the provision was to maintain that climate change policy be addressed at a national level, without precluding the positive effects of renewable energy from being considered, in an application of that type. Elias CJ held that this interpretation constituted an "unwarranted recasting of the terms of the provision",²⁴⁸ and ignored the scheme of the Act. On her view, the terms of s 104E required a comparison between non-renewable energy and renewable energy for the purposes of considering whether a reduction in greenhouse gases is enabled.²⁴⁹ Therefore, it could be applied to a proposal which did not involve non-renewable energy.

The Supreme Court had a second opportunity to grapple with the amendments in *West Coast Ent Inc v Buller Coal Ltd*.²⁵⁰ The issue for determination in this case was whether a decision-maker under the RMA, in the context of a land use consent for mining, could consider under s 104(1)(a) the effects on climate change of GHGs resulting from subsequent combustion of the coal extracted through mining, even if this occurred offshore.²⁵¹ The majority held that regulating emissions through land use consents would subvert the purpose of the 2004 amendments, which reserved these matters for central government.²⁵² It would be pointless, in the majority's view, to preclude climate change arguments "in relation to discharge consents if exactly the same arguments can be deployed in relation to ancillary consents, which are almost inevitably going to be required."²⁵³ Again, Elias CJ dissented, arguing that the amendments only applied to

²⁴⁵ Greenpeace New Zealand Inc v Genesis Power Ltd [2008] NZSC 2.

²⁴⁶ At [1]

²⁴⁷ At [65]

²⁴⁸ at [11]

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²⁵⁰ West Coast Ent Inc v Buller Coal Ltd [2013] NZSC 133.

²⁵¹ At [1]

²⁵² At [173]

²⁵³ At [171]

discharges into air. The Chief Justice regarded the unrestricted purpose of "sustainable management" in the Act ought to allow climate change effects to be considered, especially when the exclusionary provisions were specific to other activities.²⁵⁴

The 2004 legislative amendments and their incumbent litigation have substantially restricted the ability of New Zealand courts to address the effects of activities on climate change within the RMA. This is unfortunate, given that the RMA appears to be the intuitive framework for addressing climate change mitigation and adaptation in New Zealand. Given its future-looking, effects based, outlook, and broad reach across the spectrum of activities which exploit and pollute the environment, climate change harms seem to be the natural next obstacle for the experienced EC judiciary, well-versed in assessing and managing risk, to address. In fact, isolating global warming from the scope of the RMA seems to run counter to the rationale that predicates the Act – that is, that all elements of the environment are interconnected and should be managed within a holistic scheme.

If this is the case, one might ask, is it not sensible to endorse a separate scheme, in the form of the Model Statute, to adjudicate climate change litigation? However, it is my contention that for the same reasons climate change is negligibly addressed within the RMA, it is unlikely a scheme of the kind represented by the Model Statute would be accepted in New Zealand. It appears that both the courts and Government have largely reserved the matter of regulating GHG emissions to the realm of national policy. This is evidenced by the fact that, in both the cases examined, the courts eschewed the opportunity address climate change. Deference to Government was displayed, even though there were viable alternatives to surrendering jurisdiction, as championed by Elias CJ. It seems highly unlikely, therefore, that an international, adversarial Model Statute, which has not been tailored to domestic conditions, would be well received.

However, for completeness, I will briefly address the possible implications of applying the Model Statute in New Zealand. One option would be for the Model Statute to be applied in the ordinary courts. However, this avenue seems unlikely, given that New Zealand has a specialist Environment Court, whose members are adept at dealing with the types of predictive, polycentric problems that climate change presents. The merits of using a specialist court to deal with climate change disputes have are wide: the ability to fast track cases; an integrated jurisdiction with land use and planning; competent decision makers; and expanded standing requirements, all allow for better justice.

²⁵⁴ At [94].

A second option might be for the EC to apply the statute separately to the RMA. However, this too would be problematic, given the conciliatory and non-adversarial approach the EC has adopted in its decision-making and management of the environment. If the Model Statute was imported whole-sale into New Zealand we may expect to witness a morphing of the rules. For example, the EC may apply an apparently strict version of the precautionary principle, which requires a reversal of the burden of proof, in a way that elicits the same kind of results we receive under the current system. For instance, the court could accept negligible evidence from a polluter who seeks to show that proposed mitigation strategies would reduce a risk. Furthermore, it is likely that any division between matters arising under the Model Statute, and those arising under the RMA would in most cases be arbitrary. In New Zealand especially, an emphasis is placed on the inter-connectedness of the environment and the importance of integrated management.

Conclusion

The International Bar Association's proposed *Model Statute on Climate Change Action and Relief* is imbued with a sense of optimism, but perhaps lacks sufficient foresight to be truly effective in its endeavours. In this dissertation I have demonstrated that, although the goals of the Task Force who are currently working on this legal framework are valuable, it appears that an element essential to the success of legal development is being ignored: legal culture.

New Zealand, along with other nations, has developed a unique approach to regulating environmental activities. At the basis of this approach is a broad reaching legislative framework, which imbues its actors with powers that enable them to manage the environment in a holistic, and inclusive manner. This platform has allowed for sophisticated, flexible methods of dispute resolution to be developed, exemplified by risk management within the RMA. These elements of a legal culture will not simply fade away. They are likely to conflict with, and morph proposed changes to laws that do not fit within it. It is my contention that, the adversarial tenor that the Model Statute appears to adopt, demonstrated through a strict precautionary principle is incompatible with New Zealand's environmental legal culture and is therefore unlikely to have a promising future.

Unfortunately, these problems of incompatibility will not be unique to New Zealand. The Model Statute in its proposed form is likely to encounter problems of implementation in any nation. If the Model Statute is to truly contribute to global efforts to mitigate an adapt to climate change, then further work is needed to consider how, practically, it will operate in different countries.

Bibliography

A Cases

1 New Zealand

Greenpeace New Zealand Inc v Genesis Power Ltd [2008] NZSC 2.

Greenpeace New Zealand Inc v Genesis Power Ltd [2008] NZSC 112.

McIntyre v Christchurch City Council (1996) 2 ELRNZ 84.

Sustain Our Sounds Incorporated v The New Zealand King Salmon Company Limited [2014] NZSC 40.

Shirley Primary School v Christchurch City Council [1998] NZEnvC 394.

Transpower v Rodney District Council PT A85/94; 4 NZPTD 35.

West Coast Ent Inc v Buller Coal Ltd [2013] NZSC 133.

2 Australia

Australian Conservation Foundation v Latrobe City Council (2004) 140 LGERA 100.

3 USA

Massachusetts v EPA 549 US 497 (2007).

B Legislation

1 New Zealand

Exclusive Economic Zone Act 2012.

Fisheries Act 1996.

Hazardous Substances and New Organisms Act 1996.

Resource Management Act 1991.

C Books and Chapters in Books

Lavanya Rajamani "India" in Richard Lord (ed) *Climate Change Liability: Transnational Law and Practice* (Cambridge University Press, New York, 2012)

Jacqueline Peel and Hari M. Ofsofsky Climate Change Litigation: Regulatory Path ways to Cleaner Energy (Cambridge University Press, UK, 2015),

Roger Cotterell "Is There a Logic of Legal Transplants?" in David Nelken, Johannes Jacqueline Peel *The Precautionary Principle in Practice* (The Federation Press, Sydney, 2005Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001).

David Nelken "Introduction" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) 3.

Christina Voight "The Potential Role of the ICJ in Climate Change Disputes" in Daniel Farber, Marjan Peeters (eds) *Climate Change Law Volume 1* (Edward Elgar Publishing, Cheltenham, 2016)

David Nelken "Towards a Sociology of Legal Adaptation" in David Nelken, Johannes Feest (eds) *Adapting Legal Cultures* (Hart Publishing, Oxford, 2001) 7.

Ralf Michaels Forthcoming in Oxford Handbook of European Private Law (Basedow, Hopt, Zimmermann eds., Oxford University Press)

Hari M Ofsofsky "The Intersections of Scale Science and Law in Massachusetts v EPA" in William C G Burns, Hari M Osofsky (eds) *Adjudicating Climate Change: State National and International Approaches* (Cambridge University Press, New York, 2009) 21.

Geoffrey Palmer "The Making of the Resource Management Act" in Geoffrey Palmer *Environment, The International Challenge: Essays* (Victoria University Press, Wellington, 1995).

Rene von Schomberg "General Implications of the Precautionary Principle for Public Decision Making" in Elizabeth Fisher, Judith Jones (eds) *Implementing the*

Precautionary Principle, Perspectives and Prospects (Edward Elgar Publishing, Cheltenham, 2006).

Alan Watson Legal Origins and Legal Change (Hambledon Press, London, 1991).

Alan Watson *Legal Transplants* (2 ed, University of Georgia Press, 1993).

D Journal Articles

Donald K Anton and Rakhyun E Kim "Current Legal Developments New Zealand" (2015) 30 International Journal of Marine and Coastal Law 175.

TT Arvind "The 'Transplant Effect' in Harmonization" (2010) 59(1) ICLQ 65.

Kassandra Castillo "Climate Change and The Public Trust Doctrine: An Analysis of Atmospheric Trust Litigation" (2014-2015) 6 San Diego J Climate & Energy L 221.

Mindy Chen-Wishart "Legal Transplant And Undue Influence: Lost In Translation Or A Working Misunderstanding?" (2013) 62 ICLQ 1.

EM Fischer and R Knutti "Anthropogenic contribution to global occurrence of heavy-precipitation and high-temperature extremes" (2015) 5 Nature Climate Change 560.

Lawrence M Friedman "Legal Culture and Social Development" (1969) 4(1) Law & Society Review 29.

Stephen M Gardiner "A Perfect Moral Storm: Climate Change, Intergenerational Ethics and the Problem of Moral Corruption" (2006) 15(3) Environmental Values 397.

Stephen Higgs "Mediating Sustainability: The Public Interest Mediator in the New Zealand Environment Court" (2007) 37 Envt L 61.

Stephen Humphreys "Climate Change: Too complex for a special regime" (2016) 34 JERL 51.

Nancy Borrie, Peter Skelton & Ali Memon "The Practice of Mediating Environmental Disputes by the Environment Court in New Zealand" 10 AJEL 152

Lisa Heinzerling "Supreme Court Reviews" (2007) 22 J. Envtl Law and Litigation 301.

Gerold Herrmann "The UNCITRAL Model Law - its background, salient features and purposes" (1985) 1(1) Arbitration International 6.

Catherine J Iorns Magallanes and Greg Severinsen "A Stitch in Time saves... the Seabed? A Precautionary Approach to Mining in New Zealand's Exclusive Economic Zone" (2015) 18(1) AJNRLP 1.

Catherine Iorns and Greg Severinsen"Diving in the Deep End: Precaution and Seabed Mining in New Zealand's Exclusive Economic Zone" (2015) 13(1) NZJPIL 201.

Alice Kaswan "The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives?" (2007) USF Law Review 39.

Judy Lawrence, Frances Sullivan, Alison Lash, Gavin Ide, Chris Cameron and Lisa McGlinchey "Adapting to changing climate risk by local government in New Zealand: institutional practice barriers and enablers" (2015) 20(3) Local Environment 298.

Richard J Lazarus "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future" (2010) 40 ELR 10749.

Pierre Legrand "The Impossibility of 'Legal Transplants'" (1997) 4 Maastricht J Eur & Comp L 111.

Kelly Levin, Benjamin Cashmore, Steven Bernstein and Graeme Auld "Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change" (2012) 45 (2) Policy Sciences 123.

Sophie C Lewis and David J Karoly "Anthropogenic contributions to Australia's record summer temperatures of 2013" (2013) Geophysical Research Letters 3705.

Hugh Logan "Looking Back – Looking Forward? Institutional aspects of New Zealand approaches to nature conservation" (2016) 12(1) Policy Quarterly 42.

Robert Makgill, Kellie Dawson and Nicola de Wit "The Exclusive Economic Zone and

Continental Shelf (Environmental Effects) Bill 2011" (April 2012) RMJ 1.

Owen McIntyre and Thomas Mosedale "The Precautionary Principle as a Norm at International Law" (1997) 9 JEL 221.

Mary E McNerney and Carlos A Esplugues "International Commercial Arbitration: The UNCITRAL Model Law" (1986) 9 (1) BC Int'l & Comp L Rev 47.

Dara Modeste "The precautionary principle and the Fisheries Act" (2011) NZLJ 179.

Philip M Nichols "The Variability of Transplanted Law: Kazakhstani Reception of a Transplanted Foreign Investment Code" (1997) 18(4) *U Pa J Int'l Econ L* 1235.

Pardeep Pall, Tolu Aina, Daithi A Stone, Peter A Stott, Toru Nozawa, Arno G J Hilberts, Dag Lohmann and Myles R Allen "Anthropogenic greenhouse gas contribution to flood risk in England and Wales in autumn 2000" (2011) 470 Nature 382.

Jonathan A Patz "Effects of Environmental Change on emerging parasitic diseases" (2000) 30 IJP 1395.

Jacqueline Peel "Issues in Climate Change Litigation" (2011) 1 CCLR 15 at 24.

María Paula Reyes "The challenges of legal transplants in a globalized context: A case study on 'working' examples" (October 20, 2014) Social Science Research Network<www.ssrn.com>

Gunter Teubner "Legal Irritants: Good Faith in British Law or How Unifyng Law Ends Up in New Divergences" (1998) 61 MLR 11.

Greg Severinsen "To Prove or not to prove? Precaution, the burden of proof and discretionary judgment under the Resource Management Act" (2014) 13 Otago LR 351.

E. P. Thompson "The Moral Economy of the English Crowd in the Eighteenth Century" (1971) 50 Past & Present 76.

Leah M Trzcinski and Frank K Upham "Creating Law from the Ground Up: Land Law in Post-Conflict Cambodia" (2014) 1(1) AsianJLS 55.

Jonathan B Weiner "Something Borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law" (2001) 27 Ecology LQ 1295.

E Reports

Climate Change Justice and Human Rights Taskforce *Achieving Justice and Human Rights in an Era of Climate Disruption* (International Bar Association, July 2014).

Turn Down the Heat: Why a 4°C Warmer World Must be Avoided (World Bank, November 2012).

Ulrich Cubasch and others "Introduction" in Yihui Ding and others (eds) Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, Cambridge and New York).

Ottmar Edenhofer and others "Summary for Policymakers" in O Edenhofer and others (eds) Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, Geneva, Switzerland).

Hervé Le Treut and others "Historical Overview of Climate Change Science" in S Solomon and others (eds) *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, Cambridge and New York).

F Speeches

Peter Gluck, Office of the Prime Minister's Chief Science Advisor "The place of science in environmental policy and law" (Salmon Lecture, Resource Management Law Association, Wellington, 2 September 2015).

Laurie Newhook, Principle Environment Judge "New Horizons in the Environment Court: Innovations in Dispute Resolution in Environmental Disputes" (address to AIMINZ conference, 2015).

Laurie Newhook, Principal Environment Judge "The Constitution, Work, Powers and Practices of the NZ Environment Court" (updated presentation to delegation of Guizhou Province judges, August 2015).

Geoffrey Palmer "New Zealand's Defective Law on Climate Change" (speech to the Faculty of Law and Centre for Public Law, Victoria University of Wellington, 16 February 2015).

Geoffrey Palmer "Ruminations on the Problems with the Resource Management Act" (address to the Local Government Environmental Compliance Conference, Auckland 2-3 November 2015).

Geoffrey Palmer "The Resource Management Act-How we got it and what changes are being made to it" (address to Resource Management Law Association, New Plymouth, 27 September 2013).

G Other

UNCITRAL "UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006" United Nations Commission on International Trade Law.

Rio Declaration on Environment and Development UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992).

Julie Frieder "Approaching Sustainability: Integrated Environmental Management and New Zealand's Resource Management Act" (New Zealand United States Educational Foundation, 2007).

Nature Reports Climate Change "Carbon is forever" (20 November 2008) http://www.nature.com/climate/2008/0812/full/climate.2008.122.html David Archer>

Stéphane Willems and Kevin Baumert *Institutional Capacity And Climate Actions* (OECD, Information Paper, 2003).

Martin Williams and Simon Berry "Reform of the Environment Court: Does it make sense?" Resource Management Law Association of New Zealand (14 June 2013).

Ortwin Renn Precautionary Risk Appraisal and Management (Auflage, 2009)

"History of climate change litigation" *Greenpeace Briefing* (New Zealand, June 2007).

"Environment Court reform – more than a Court under threat?" (3 June 2016) RMLR < http://www.rmla.org.nz/2016/06/03/environment-court-reform-more-than-the-court-under-threat/>.

Resource Management (Energy And Climate Change) Amendment Bill 2003 (48-1)

(explanatory note)