# F W Guest Memorial Lecture 2001

# A Public Law Response to Environmental Risk

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## Introduction

It is an honour to be invited to deliver the F W Guest Memorial Lecture. I was a student of Professor Guest for a short period before his death in November 1967. I had known of him before I arrived at University of Otago because he was a famous son of the South Otago district where some members of my family lived.

Professor Guest was not only a fine scholar and legal practitioner, but he also served as President of the Otago District Law Society, and on a number of significant national law reform committees. He was indeed a very fitting person to be the first full-time Dean of our University's Law Faculty. Like their father, his children have also made a significant contribution to the legal profession, academia and the community. I take this opportunity to acknowledge the privilege it has been to study and practice law with members of Professor Guest's family.

It is because of Professor Guest's interest in jurisprudence and his practical application of the law as a practitioner, that I attempt to cover in this lecture the developing jurisprudence involving the environment, and practical ways in which public law responses can assist environmental decision-makers to address environmental risk.

Since Rachel Carson's alert about synthetic pesticides in the 1960s,<sup>1</sup> the risk of potential significant irreversible environmental impacts from human activities, which are difficult to predict, has concerned society. Environmental disasters serve to rekindle anxiety about what are sometimes known as phantom or frontier environmental risks.<sup>2</sup> Contemporary concerns relate to, for example, anthropocentric greenhouse gas emissions causing climate change, the loss of biological diversity, the release of new and modified genetic organisms, and the effects of electro-magnetic-radiation.<sup>3</sup>

<sup>\*</sup> LL.M (Otago). This is the text of the lecture delivered at the University of Otago on July 25th, 2001.

<sup>&</sup>lt;sup>1</sup> R. Carson, *Silent Spring*, Houghton Mifflin, Boston, 1962.

<sup>&</sup>lt;sup>2</sup> See K.R. Foster, D.E. Bernstein and P.W. Huber, *Phantom Risk*, MIT Press, Cambridge, Mass., 1993. Three Mile Island, Chernobyl and Bophal are examples of disasters involving hazardous installations.

<sup>&</sup>lt;sup>3</sup> The Royal Commission Report on Genetic Modification was released on the 27th July 2001. In the United Kingdom, Lord Wolfe has recently recommended that a specialist environment court be established to address risks involving foot and mouth disease and other environmental impacts. On the 24th July 2001 the terms of the Kyoto Protocol on greenhouse gas emissions were agreed for ratification. (This agreement excluded the USA).

The Resource Management Act 1991 ("the RMA") includes light-handed command and control statutory instruments called national policy statements which can be used to address environmental risk. It is now almost 10 years since the RMA was enacted, and these instruments have not been developed. Central government has preferred decentralised decision-making and the promotion of self-regulatory and economic approaches for addressing environmental risk.<sup>4</sup>

For environmental impacts where the likelihood and consequences can be quantified (for example, visible water and air pollution), these approaches can be effective. However, to manage the risk of environmental impacts that involve scientific uncertainty and complex environmental systems, it is my thesis that NPS need to be developed and utilised as a reflexive public law response. These instruments should be incorporated into or linked to statutory regimes where environmental decision-makers, including the specialist Environment Court, have to address such risks. I will now endeavour to develop this thesis.

#### Environmental Risk and Environmental Decision-Making

Different world-views involved with environmental risk reflect egalitarian, industrialist, hierarchic, and fatalistic world views. An egalitarian world-view understands nature as being fragile, and believes that on the whole experts should be distrusted and there should be strategies for public participation in environmental decision-making. Industrialists see nature as relatively robust and would prefer to make their own decisions. Hierarchists want regulatory procedures to control risks and prefer a command and control approach. Fatalists believe life is capricious and attempts to control risk are futile.<sup>5</sup>

It is now understood that environmental risk analyses involve legal, scientific, economic, cultural, and political exercises. It is also understood that ultimately environmental risk management is governed by values which determine the choices made by decision-makers and society at large.<sup>6</sup> A prescient approach is required in order to make a judgment about what an acceptable environmental risk is. A lack of information, inadequate monitoring programmes or unreliable databases may mean it is difficult for an environmental scientist to calculate discernable and discoverable environmental risk trends. Complicated environmental systems which involve non-linear paradigms and dynamic and chaotic phenomena, may make it impossible to indicate a level of environmental risk with sufficient certainty for environmental decision-makers to rely on

<sup>&</sup>lt;sup>4</sup> See R.J. Somerville, *The New Zealand Experiment in Decentralisation and Devolution of Central Government Powers by Legislative Reform, American Bar Association Conference, San Francisco, August 1997.* 

<sup>&</sup>lt;sup>5</sup> P. Bennett, "Understanding Responses to Risk: Some Basic Findings", Risk Communication and Public Health, P. Bennett, K. Calman (eds), Oxford University Press, Oxford, 1999, 6-7.

<sup>&</sup>lt;sup>6</sup> See D.G. Mayo, R.D. Hollander (ed), Acceptable Evidence: Science & Values in Risk Management, Oxford University Press, New York, 1991, 276; M. Shubik (ed), Risk, Organizations, and Society, Kluwer Academic Publishers, Boston 1991, 3; and A. Stewart, "Environmental Risk Assessment: The Divergent Methodologies of Economists, Lawyers and Scientists" (1993) 10 Envtl & Plan LJ 10.

<sup>&</sup>lt;sup>7</sup> See J. Gleick, *Chaos*, Abacus, London, 1987.

scientific predictions.<sup>7</sup> Therefore, science alone will not provide all the answers when considering frontier or phantom environmental risks.<sup>8</sup> Both lay and expert input is needed to ascertain what acceptable environmental risk is.<sup>9</sup>

Lay persons often ignore the likelihood of environmental impacts and focus on their fear of the consequences of impacts (consequentialist approach).<sup>10</sup> However, when individuals express concern about low-probability, uncompensated, involuntarily imposed risk (known as public risk), this cannot be dismissed as irrational and lacking objectivity. Instead, risk assessors need to seek ways to represent lay values within analytical risk assessment and to clarify scientific and ethical options for risk management.<sup>11</sup>

Distributional impacts of environmental risk involve environmental justice issues. These issues are complex because of the interaction between social, political, economic, cultural, and environmental factors.<sup>12</sup> They may lead to the marginalising of a locality if risky activities are concentrated there. Contemporary society balances the interests of individuals to be free from risk and the interests of other individuals to benefit from a risk-creating activity.<sup>13</sup>

#### The Role of Environmental Law and Environmental Risk

Environmental law does not fit comfortably within individual rights jurisprudence<sup>14</sup> where the courts' principal role and the function of the common law is to protect an individual from the excesses of the state and from other human intervention in his or her life.<sup>15</sup> Environmental law goes beyond individual rights theory, to give the ecological (human and non-human) environment standing, so that future generations are not prejudiced. The worldview based on an ethical quest to address the escalating human use of the world which can harm the environment involves one of the more recent philosophical discoveries, that is, that humans have a responsibility for nature.<sup>16</sup>

- Science can produce vastly differing computations of risk, and hence lend itself to diametrically opposed conclusions on the necessity to take action. See S. Deimann, *"R v Hydro-Quebec:* Federal Environmental Regulation as Criminal Law" (1998) 43 *McGill L.J.* 923; and W.E. Wagner, "The Science Charade in Toxic Risk Regulation" (1995) 95 *Colum. L. Rev.* 1613.
- <sup>9</sup> W.R. Freudenburg, "Perceived Risk, Real Risk: Social Science and the Art of Probabilistic Risk Assessment" (1988) 242 Science 44.
- <sup>10</sup> P. Slovic, *The Perception of Risk*, Earthscan Publications, London, 2000.
- <sup>11</sup> K.S. Shrader-Frechette, *Risk and Rationality: Philosophical Foundations for Populist Reforms*, University of California Press, Berkeley, 1991, 98.
- <sup>12</sup> R.D. Bullard, Environmental Justice Challenges at Home and Abroad, Global Ethics Conference, Melbourne University, October 1997.
- <sup>13</sup> For a discussion of ways of achieving this balance, see D.M. Berkovitz, "Pariahs and Prophets: Nuclear Energy, Global Warming, and Intergenerational Justice" (1992) 17 Colum. J. Env. L. 245.
- <sup>14</sup> For a discussion of the growth of environmental law and existing rights theory, see K. Bosselmann, *When Two Worlds Collide: Society and Ecology*, RSVP Publishing Company Limited, Auckland, 1995, 238; and G.M. Bates, *Environmental Law in Australia* (4th ed), Butterworths, Sydney, 1995, 2.
- <sup>15</sup> Sir I. Richardson, "Rights Jurisprudence Justice for All?" in *Essays on the Constitution*, P.A. Joseph (ed), Brookers Ltd, Wellington, 1995, 61.
- <sup>16</sup> For a discussion of this world-view, see A.E. Gare, "MacIntyre, Narratives and

Environmental values are difficult to integrate into western jurisprudence because they do not fit comfortably into the Judaeo-Christian heritage, but involve considerations of the relationship between individuals and the natural world using a holistic approach.<sup>17</sup> Ecological modernisation emphasises the need to care for the environment when developing principles of environmental law. Utilitarian concerns must now go beyond humanitarian considerations to the natural environment itself. Natural resources do not necessarily belong to humans but are rather something to which humans belong. Therefore, environmental law requires an understanding of socio-economic, cultural, aesthetic, ecological, scientific, political and philosophical matters. It is evolving as a result of changing social values and customs, and is not based on a recognised system of norms.<sup>18</sup>

Environmental law has the function of directing society towards attaining certain environmental goals while still allowing individuals the greatest possible scope to exercise personal freedom. It acts prospectively (or ex-ante) and establishes in advance, environmental standards which must be complied with. Environmental law has to address the coupling of socio-economic progress with the need to manage the risk of future significant adverse environmental effects from human activity.<sup>19</sup>

Environmental Ethics" (1998) 20 Environmental Ethics 3: and A. Lautensach, Justice in Gaian Ethics, Global Ethics Conference, Melbourne University, October 1997. For an examination of the view that human abuse of nature is an offence against nature itself, see S. Godlovitch, "Offending Against Nature" (1998) Environmental Values 131; and H. Rolston III, "Duties to Endangered Species" in Environmental Ethics: Oxford Readings in Philosophy, R. Elliot (ed) Oxford University Press, Oxford, 1995, 60.

For a discussion of environmental values and Western jurisprudence, see J. Caldwell, "An Ecological Approach to Environmental Law", Publication No.29, Legal Research Foundation Inc., LLB (Hons) Dissertation, University of Auckland, 1988; L.J. MacDonnell, S.F. Bates, Natural Resources Policy and Law – Trends and Directions, Island Press, Washington DC, 1993; D. Harte, "A Christian Approach to Environmental Law?" Christian Perspectives on Law Reform, P.R. Beaumont (ed), Paternoster Press, Carlisle, 1998; and C.B. Barrett, R. Grizzle, "A Holistic Approach to Sustainability Based on Pluralism Stewardship" (1999) 21 Environmental Ethics 23. Eco-theology is a growing discourse. For the importance of Judaeo-Christian religion in Western environmental ethics, see U. Klein, "Belief - Views on Nature - Western Environmental Ethics and Maori World-Views" (2000) 4 NZJEL 81 at 83.

18 The law as an institution of society now expresses the values placed by society on the environment. D.E. Fisher, Environmental Law: Text and Materials, The Law Book Company Ltd, Sydney, 1993, 1; and J.B. Wiener, "Review Essay: Law and the New Ecology: Evolution, Categories, and Consequences" (1995) 22 Ecol.L.Quart. 325 at 337. The link between environmental law, policy, and ethics is demonstrated in a useful hypothetical case study; see J.B. Ruhl, "The case of the Speluncean Polluters: Six Themes of Environmental Law, Policy, and Ethics" [1997] 27 Northw. SL of L & C Coll. Environmental Law 343.

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B. Boer, Environmental Values: A role for the law – cost benefits environmental and planning controls, National Environmental Law Seminar IBA, Sydney, 1983.

## The RMA, Public law and Environmental Risk

The RMA allows for a public law process to enable law, policy, cultural considerations, economics and science to work together to meet its legislative goal of sustainable management which is based on environmental values rather than human rights. The RMA highlights the importance of the new public law concept which goes beyond the traditional understanding of public law, which was about the distribution and exercise of power by the state, or public power. The focus of new public law is on how the law can influence policy outcomes.<sup>20</sup> The RMA in the main provides for a decentralised environmental administration and decision-making system, and for a more pluralist approach, rather than a formalist (Diceyan) approach.<sup>21</sup> In a pluralist system of environmental law and administration, power is decentralised to enable better bargaining between interest groups. These interests, as well as individuals' interests, are involved when deciding what policies and legal rules should be in place.<sup>22</sup>

Compared with most other legislation, the RMA relies heavily on the courts (particularly the specialist Environment Court) and subordinate legislation for its implementation. The RMA itself has very few rules for the management of natural and physical resources.<sup>23</sup> Instead, it provides a framework for the making of environmental policy statements and plans by central and local government. It is this sequential system of subordinate instruments which is intended to give legislative effect to the purpose and principles of the RMA.

The RMA also brings environmental policy into an entirely legal framework. National and regional policy statements are statutory instruments with status at law.<sup>24</sup> Policy, usually an extra-legal expression of political objectives, is treated by the RMA as law. Law and policy are not always a comfortable mix.<sup>25</sup> As a result of transforming environmental policies of the executive into delegated

For discussions of the new public law concept, see R.G. Hammond, "Embedding Policy Statements in Statutes: a Comparative Perspective on the Genesis of a New Public Law Jurisprudence" (1982) 5 Hastings Intl. & Comp. L. Rev. 323 at 372; Symposium Proceedings on the New Public Law (1991) Mich. L. Rev. 89; E.L. Rubin, "The Concept of Law and the New Public Law Scholarship" (1991) Mich. L. Rev. 792; Sir G. Palmer, "The New Public Law: Its Province and Function" (1992) 22 VUWLR 1; J. McLean, "New Zealand's Resource Management Act 1991: Process with Purpose?" (1992) 7 Otago LR 538; J. Rohde, "The Objects Clause in Environmental Legislation – The Nature Conservation Act 1992 (Qld) Exemplified" (1995) Envtl & Plan LJ 80; and P.H. Brietzke, "Democratization and Administrative Law" (1999) 52 Oklahoma L. Rev. 1.

For a discussion of a pluralist approach to environmental law and administration, see D. Robinson, "Public Participation in Environmental Decision-making" (1993) 10 Envtl & Plan LJ 320.
Ibid. 220

<sup>&</sup>lt;sup>22</sup> Ibid., 320.

<sup>&</sup>lt;sup>23</sup> B. Pardy, "Environmental Rights: Mitigating Flaws of the Management Model" [1996] NZ Law Rev. 239.

<sup>&</sup>lt;sup>24</sup> They are not directly enforceable, but control the making of plans and rules in a legislative sense.

For a discussion of how the policy cycle is developed in a public law context, see A. Le Sueur, M. Sunkin, *Public Law*, Longman Law Series, London, 1997, 81. For the implications of the politicisation of law, see N. Jamieson, "Legislation Through the Millennial Looking Glass" (2000) 9 Otago LR 713 at 717-721.

legislation, they become subject to the full range of juristic devices for the scrutiny of statutory instruments, including the doctrine of ultra vires. In public law terms, policy matters are moved into an operational context. The judiciary is given the ability to supervise not only the procedural requirements, but also the substance and merits of administrative decisions. The specialist Environment Court is able to make its own findings of law, fact and policy (which is sometimes referred to as policy-making by adjudication).<sup>26</sup> It hears a matter as if it were the authority at first instance. The result is that if statutory instruments under the RMA are referred to it, the Environment Court has the ability to replace the policy goals and objectives of elected administrators with its own formulations.<sup>27</sup>

The Environment Court is obliged to undertake a prospective analysis as to what may happen in the future, and to undertake legislative rather than just declaratory functions regarding environmental policies included in a statutory instrument. This mix of judicial functions, which involves declaring the law and adjudicating on environmental policy issues, means that there is inevitably a merging of policy matters and judicial functions in a way which brings environmental law within the "critical legal studies approach", which denies to law and judicial functions any special character separated from politics and political functions.<sup>28</sup> The separation of powers doctrine,<sup>29</sup> that the role of the legislature is to enact new laws, the role of the executive is to administer the laws as well as determine policy within the framework of those laws, and the role of the judiciary is simply to interpret and apply the laws, is only loosely followed in the jurisprudence established under the RMA.<sup>30</sup>

<sup>&</sup>lt;sup>26</sup> J. McLean, "New Zealand Resource Management Act: Process with Purpose?" (1992) 7 Otago LR 538 at 542: "Legislative rules can be unmade or remade on a case by case basis when resource consents or plan changes are considered by the Environment Court. Its importance is elevated by its ability to be involved in judicial rule making."

<sup>&</sup>lt;sup>27</sup> Section 293 and clause 15, First Schedule RMA.

For the critical legal studies approach to the judicial function, see R. Unger, "The Critical Legal Studies Movement" (1983) 96 Harv. L. Rev. 561-579; G. Minda, Postmodern Legal Movements: Law and Jurisprudence at Century's End, New York University Press, New York, 1995; J.M. Kelly, A Short History of Western Legal Theory, Clarendon Press, Oxford, 1992; and M. Davies, Asking the Law Question, The Law Book Company, Sydney, 1994, 147: "Law is political, and legal reasoning is essentially a technique used to rationalise in legal jargon the political decisions that are actually made." See also N. Jamieson, "Legislation Through the Millennial Looking Glass" (2000) 9 Otago LR 713, "Instead of transforming policy into law, which is the whole point of the legislative process in closing off debate, the sometimes raw, crude and always intensively dynamic policy is woven into the law." Ibid., 720.

For a discussion of the relevance of the doctrine of separation of powers in the RMA, see R.J. Somerville, *Environmental Law - The Resource Management Act*, New Zealand Law Society Triennial Conference, Vol. 1, "The Law and Politics", Wellington, 1993, 269. The need for judicial activism to define the visionary language in the purpose section (section 5) of the RMA, has been criticised. See B.V. Harris, "The Law Making Power of the Judiciary", *Essays on the Constitution*, Joseph (ed), Brookers Ltd, Wellington, 1995, 265 at 269-273.

<sup>&</sup>lt;sup>30</sup> The Environment Court recognised the importance of the doctrine of separation

The Environment Court is required to consider a mix of values,<sup>31</sup> many of which arise out of international environmental discourse about matters such as sustainability,<sup>32</sup> intergenerational equity,<sup>33</sup> ecological diversity,<sup>34</sup> and community

of powers in *Pigeon Bay Aquaculture v Canterbury Regional Council* [1999] NZRMA 209.

- For the way the Planning Tribunal and the Environment Court address competing environmental values, see R.J. Bollard, "Some Thoughts on the Planning Tribunal's Role in Resource Management" [1995] NZLJ 38; and D.F.S. Sheppard, "Forty Years of Planning Appeals" (1995) *Resource Management News* 20.
  - For the meaning of "sustainable management" see J.R. Milligan, "Pondering the 'While': Defining the Ecological Bottom Line" (1992) Terra Nova 50; B.V. Harris, "The Law-Making Power of the Judiciary" in Essays on the Constitution, P.A. Joseph (ed), Brookers Ltd, Wellington, 1995, 265; B.V. Harris, "Sustainable Management as an Express Purpose of Environmental Legislation: The New Zealand Attempt" (1993) 8 Otago LR 51; and N.R. Wheen, "The Resource Management Act 1991: A 'Greener' Law for Water?" (1997) 1 NZJEL 165. For a summary of different views as to the meaning of section 5, see K. Grundy, "Purpose and Principle: Interpreting section 5 of the Resource Management Act", Environmental Planning and Management in New Zealand, P.A. Memon, H. Perkins (eds), Dunmore Press, Palmerston North, 64. For the way in which the concept of sustainability is addressed in environmental law, see S. Kerkin, "Sustainability and the Resource Management Act 1991" (1993) Auck. U.L. Rev. 290; M. Phillipson, "Implementing Sustainable Development in New Zealand: The Resource Management Act 1991" (1994) 4 JELP 222; K. Bosselmann, Taking Nature Seriously: Building Blocks for a Theory on Environmental Justice, paper presented at Environmental Law Conference, Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy, University of Auckland, 1998; and D. Hunter, J. Salzman, D Zaelke, International Environmental Law and Policy, Foundation Press, New York, 1998, 237.

For ways to recognise the needs of future generations in environmental matters, see E. Weiss Brown, "The Planetary Trust: Conservation Intergenerational Equity" (1984) 11 Ecol.L.Quart. 495 at 504; E. Weiss Brown, In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity, Transnational Publishers, Tokyo, 1989; B.G. Norton, "Intergenerational Equity and Environmental Decisions: A model using Rawls' veil of ignorance" (1989) Ecological Economics 137; L.E. Susskind, Environmental Diplomacy: Negotiating more Effective Global Agreements, Oxford University Press, New York, 1994; E. Partridge, (ed), Responsibilities to Future Generations: Environmental Ethics, Prometheus Books, New York, 1981; R. Attfield, The Ethics of Environmental Concern, Basil Blackwell, Oxford, 1983; J.C. Wright, Future Generations and the Environment, Centre for Resource Management, Lincoln College, 1988; B. Pardy, Environmental Law, A Guide to Concepts, Butterworths, Toronto, 1996, 145: "Under the principle of intergenerational equity, the earth is the subject of a planetary trust in which each generation is both a beneficiary and a trustee"; R. Attfield, Intergenerational Equity and Environmental Ethics, Global Ethics Conference, Melbourne University, 1997; and O.R. Young, Fairness Matters: The Role of Equity in International Regimes, Global Ethics Conference, Melbourne University, 1997.

For a discussion of ecologically sustainable development, see G.M. Bates, *Environmental Law in Australia* (4th ed), Butterworths, Sydney, 1995, 24. For a discussion of sustainable development in the Netherlands and New Zealand, see R. Stanhope, "A Vision for the Future? The Concept of Sustainable Development in the Netherlands and New Zealand" (2000) *NZJEL* 147.

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wellbeing.<sup>35</sup> Not all values are equal. Competing values which must be prioritised are not necessarily in conflict with each other, although they can be, because of the interlocking goals contained in the overriding purpose of the RMA.<sup>36</sup> The High Court has tended to defer to the Environment Court when applying these values in judicial decision-making.<sup>37</sup> Unlike other courts of law, the Environment Court, because of the range of expertise of its legally and non-legally trained members, is equipped to consider environmental policies and rules which address normative conflicts, projections from imperfect data, experiments and simulations, educated predictions, and differing assessments of possible risks.

There may be political reasons why parliament seems to have left the role of enunciating and implementing the environmental ethics which are contained in the purpose of the RMA principally to the courts. The state itself, for economic policy reasons, is careful not to inhibit development and economic growth which may involve the exploitation of non-renewable natural resources.<sup>38</sup> The establishment of an ecological ethic requires some limitation on development and economic growth. With every major development project there is inevitably some adverse effect on the biosphere even though there may be economic advantages by way of investment, employment and tax revenue. The RMA requires a judgment as to whether risks of impacts to the environment from human activities are acceptable in terms of the goal of sustainable management. By attaining that goal, justice is achieved for the environment.

<sup>&</sup>lt;sup>35</sup> For a discussion of "wellbeing" as a philosophical concept, see J. Raz, *Ethics in the Public Domain: Essays in the Morality of Law and Politics*, Oxford University Press, Oxford, 1994, 36.

<sup>&</sup>lt;sup>36</sup> For the role of the courts in prioritising values, see M.J. Grant, Sustainable Management: A Sustainable Ethic? 3rd Resource Management Law Association Conference, Christchurch, 1995. Here the High Court defers to Environment Court. See R.J. Sutton, Lord Cooke and the Academy: The View from the Law Schools, Legal Research Foundation Conference, "The Struggle for Simplicity", Auckland, April 1997, 11; D. Hunter, J. Salzman, D. Zaelke, International Environmental Law and Policy, Foundation Press, New York, 1998, 237; and Fletcher Challenge Energy Taranaki Ltd v Winter and Clark [1999] NZRMA 1, 6. See J. Fogarty QC, "Giving effect to values in statutes," NZ Law Society Seminar series (J. Burrows, J. Fogarty QC presenters) April, 2001.

<sup>&</sup>lt;sup>37</sup> Thus in Manukau City Council v Trustees of Mangere Lawn Cemetery (1991) 15 NZTPA 58 at 60, Chilwell J stated: "This [High] Court has no general appellate jurisdiction on questions of fact in this area... this is because the Tribunal is seen as 'an expert jury on matters of fact and policy, and questions of reasonableness and public interest as far as relevant to the planning powers'. It is not therefore appropriate for the Court to enter into a re-examination of the merits of the case." This view was expressed by the Court of Appeal in Auckland Acclimatisation Society v Sutton Holdings Ltd (1985) 11 NZTPA 33 (CA) 40; and by the High Court in NZ Rail Ltd v Marlborough District Council [1994] NZRMA 70 (HC); Falkner v Gisborne District Council [1995] NZRMA 462 (HC); TV3 Network Services Ltd v Waikato District Council [1998] 1 NZLR 360 (HC); and Tranz Rail Ltd v Wellington City Council [1999] NZRMA 296 (HC).

<sup>&</sup>lt;sup>38</sup> For a view that the state will not pursue ecological policies because it is too heavily reliant upon industry, see K. Bosselmann, *When Two Worlds Collide: Society and Ecology*, RSVP Publishing Company Limited, Auckland, 1995.

Traditionally, the role of the civil courts in toxic tort actions involves considerations of the onus of proof, causality, party contributions and damages, and these courts are concerned about what has happened in the past (with the law normally following changing social values). On the other hand, the Environment Court has to address worst case situations, future policy and planning issues and evidential concepts involving the treatment of scientific uncertainties, and has to do so by considering risk management techniques such as the internationally promoted precautionary principle.<sup>39</sup>

#### The Precautionary Approach and Environmental Risk Management

The precautionary principle is a key post-modern approach to environmental risk management in instances where it is not possible to remove uncertainties systematically and ways still need to be found to manage environmental risks while taking the uncertainties into account.<sup>40</sup> The precautionary principle was developed in the mid-1960s in Western Germany due to concerns about rising pollution levels.<sup>41</sup> Since then, the principle has become incorporated into many international instruments, as well as domestic legislation.<sup>42</sup> It has now become a norm of international law linked to sustainable development. A strong precautionary approach to risk management ensures that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof linking that particular substance or activity to environmental damage.<sup>43</sup> It is a principle involving the

- <sup>39</sup> For the difficulties of addressing environmental or technological hazards by using toxic tort actions, see K.S. Shrader-Frechette, *Risk and Rationality*, University of California Press, Berkeley, 1991, 198; and E.M. Penalver, "Acts of God or Toxic Torts? Applying Tort Principles to the Problem of Climate Change" (1998) 38 Natural Resources Journal 562.
- See C.J. Hoch, "The Paradox of Power in Planning Practice" (1994) 11 Journal of Planning Education and Research 206 at 207. The Rio Declaration, article 15 states: "In order to protect the environment, the precautionary principle shall be widely applied by states according to their capability. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to protect environmental degradation."
- <sup>41</sup> For a discussion of the development of the precautionary principle in Australasia see C. Barton, "The Status of the Precautionary Principle in Australia : Its Emergence in Legislation and as a Common Law Doctrine" [1998] 22 Harv. Envir. L. Rev. 509 at 514.
- For a discussion of the relevance of the precautionary principle when establishing ecologically sustainable development, see L. Pearson, "Incorporating ESD Principles in Land-Use Decision-Making: Some Issues after Teoh" (1996) *Envtl & Plan LJ* 47. For a review of international environmental instruments incorporating the precautionary principle in soft and hard law provisions, see J.T. McClymonds, "The Human Right to a Healthy Environment: An International Legal Perspective" (1993) 37 *New York Law School Law Review* 583; J.E. Hickey Jr, and V.R. Walker, "Refining the Precautionary Principle in International Law" (1995) 14 *VA. Envtl L.J.* 42; N. Roht-Arriaza, "Precaution, Participation and the 'Greening' of International Trade Law" (1992) 7 *J Envtl L & Litig* 57 at 60; and G.D. Fullem, "Comment; The Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty" (1995) 31 *Willamette L. Rev* 495 at 497-498.

<sup>&</sup>lt;sup>43</sup> See A. Gillespie, "Whale Watching and the Precautionary Principle: The Difficulties

common sense view that it is better to be safe than sorry.<sup>44</sup> If there is reasonable uncertainty regarding possible environmental damage arising out of a proposed course of action, then risk avoidance becomes an established decision norm.<sup>45</sup>

A strong application of the precautionary principle reverses the traditional onus of proof in that it requires a proponent to show that there will be little or no environmental harm (that is by proving a negative) before an activity can go ahead.<sup>46</sup> Without that proof the environment should not be put at risk.<sup>47</sup> It is a principle which is contrary to established property rights where one can use one's property as one wishes, unless there is a specific and prescriptive law restricting that right in the public interest. For the environmental decision-maker to apply a precautionary approach in adjudication, it is important to recognise that such an approach involves a duty to take anticipatory action, to place a burden of proof on those promoting new technology, to examine a full range of alternatives and to ensure there is an open, informed and participatory process involved in reaching a decision.<sup>48</sup>

However, if proof of no future harmful effects were needed to overcome the objections of those opposing a technology, the trialling of that technology in the actual environment would be curtailed. The difficulty in practice with such an approach is that any activity creates some risk and it is not possible to have a risk-free or risk-less society if economic growth is to occur. There is no such thing as no risk in a dynamic and changing environment. If there is uncertainty about some potential risks to the environment it is impossible to prove the negative, namely that there will be no risk.<sup>49</sup> The irony is that if there is a risk

of the New Zealand Domestic Response in the Whaling Debate" (1997) 17 NZULR 254 at 268.

<sup>44</sup> F.B. Cross, "Paradoxical Perils of the Precautionary Principle" (1996) 53 Wash & Lee L. Rev. 851.

<sup>45</sup> T. O'Riordan, "The Precautionary Principle and Contemporary Environmental Politics" (1995) 4 *Environmental Values* 191. The use of a precautionary approach in statutory instruments often involves a process known as "reverse listing", which means that products or activities which are allowed are listed in the instrument, and if they are not listed they are not allowed. See for example, Pest Control Products Act 1985 (Canada).

<sup>46</sup> B. Pardy, *Environmental Law, A Guide to Concepts*, Butterworths, Toronto, 1996, 189.

- <sup>47</sup> The implications of the onus of proof being on a party to show that there is unlikely to be an adverse effect when science is uncertain has been criticised. For such a criticism, see A. Milne, "The Perils of Green Pessimism", *The New Scientist Magazine*, June 1993: "It [the precautionary principle] is worse than 'Alice in Wonderland', where the pattern was 'sentence first, verdict afterwards'. This is a verdict first, trial afterwards, and no need for evidence. If retrospective law is bad, prospective law – having to know what as yet undescribed crime my present acts may make me guilty of at some unspecified time in the future – is plainly nonsensical."
- 48 See C. Raffensperger International Conference on "Biotechnology and the Global Economy: Science and the Precautionary Principle", 22-23 September 2000, Cambridge, Mass., noted in Sustainable Developments (30) Institute for Sustainable Development, 3.
- <sup>49</sup> See in J.C. McElveen, Jr & C. Amantea; "Legislating Risk Assessment" (1995) 63 U.CIN.L.Rev. 1553 at 1561. Some US legislation requires "proof of harmlessness", for example, California's 'Proposition 65' requires industry responsible for the production of certain chemicals to show those chemicals pose no significant risk.

adverse approach to the use and development of natural and physical resources, there may be insufficient growth to allow society to invest resources in research and development for managing the risk of potential impacts if they are to occur in the future.

# Who Should Decide What Precautionary Measures Should Be Taken to Manage Environmental Risk?

## (a) Local authorities and the precautionary approach in environmental risk management

The approach of leaving a decision about environmental risk to the local community of interest is pragmatic and participatory, and accords with the philosophy of the RMA.<sup>50</sup> Ethically, it can be argued that those who are elected to represent the values of the local community which is expected to bear the risks, that is, the local authority, should be the environmental decision-maker.<sup>51</sup> However, it is not feasible to expect local authorities to develop sophisticated environmental policies and performance standards for dealing with complex and uncertain environmental risk issues.<sup>52</sup> Consequently, the issues are litigated repeatedly on a case by case basis. This can lead to inefficiency, uncertainty and inconsistency in decision-making. Risks may not be in the public interest, or the interests of the environment, but may be tolerated by a local community. Local communities may be anxious for the employment opportunities and social and economic benefits that come with a large project, and they may tolerate levels of risk in order to have a project which will lead to these but which does not meet the environmental standards expected for hazardous facilities at a national level.<sup>53</sup>

(b) The Environment Court and the precautionary approach in environmental risk management

The approach the Environment Court takes to the precautionary principle is

For a discussion of proposition 65, see W.E. Pearse, "Identifying Chemical Hazards for Regulation: The Scientific Basis and Regulating Scope of California's 'Proposition 65' List of Carcinogens and Reproductive Toxicants" (1992) 3 *Risk* 127.

- <sup>50</sup> R.J. Somerville QC, "Implications for Local Government of Proposed Changes to the RMA" (1999) 3 *BRMB* 15.
- <sup>51</sup> This is sometimes known as the ethic of the place. See B.G. Norton, B. Hannon, "Environmental Values: A Place-Based Theory" (1997) 19 Environmental Ethics 227; B.G. Norton, "Environmental Ethics and Weak Anthropocentrism" (1984) 6 Environmental Ethics 131; and L. Westra, "Why Norton's Approach is Insufficient for Environmental Ethics" (1997) 19 Environmental Ethics 279.
- <sup>52</sup> This difficulty arose in the formulation of a proposed regional coastal plan addressing the complex marine environment and aquaculture development; see *Golden Bay Marine Farmers v Tasman District Council* (Environment Court) 42/2001, 27 April 2001, unreported.
- For a summary of the limitations of local authorities when developing "effects based" plans, see S. Berry, New Zealand's Resource Management Act 1991 – Sustainable Management on a National Basis: Trials and Tribulations, The 16th Biennial LAWASIA Conference, Seoul, Korea, September 1999, 5. Rules can be included in district plans to extract development levies from developers of large projects for ongoing infrastructure and community facilities.

that those opposing an activity because of concerns over the chance of future adverse effects must demonstrate evidentially, a real risk.<sup>54</sup> To try and depoliticise environmental policy-making by expecting a court to develop strong precautionary environmental risk management policies to be included in policy and planning instruments and in resource consent and designation conditions is unrealistic because a court is not in a position to undertake robust policy creation. Where court-made decisions could be suggested as effecting a change in government policy then the court is probably acting beyond its constitutional role, because policy changes should be left to parliament. This deconstruction of the doctrine of the separation of powers could lead to a form of pragmatism which the Environment Court is not equipped to deal with in light of its limited resources and heavy caseload.<sup>55</sup>

The Environment Court operates more effectively when it addresses evidence against pre-established central and local government environmental policies and standards and is not required to speculate in their absence where risk-benefit evidence may be uncertain. The role of the Environment Court is not to be a national environmental regulator. A national regulator acts in a different way in making legislative-type decisions.<sup>56</sup> After seeking out information and taking advice from experts and a representative cross-section of the community, it may, for political and administrative reasons, reach compromise decisions which are not open to a court. The Environment Court would be taking on a regulatory role if it were to impose court-made environmental standards and performance indicators which it expected would be adhered to across the board.

If the Environment Court were left to develop environmental jurisprudence, without the assistance of national policy statements and environmental standards (which incorporate the precautionary principle), the resulting court proceedings would be likely to be expensive and the outcomes uncertain and difficult to predict.<sup>57</sup>

## c) Economics and the precautionary approach in environmental risk management

Environmental economists argue for removing issues of public risk from the political arena and incorporating them into economic transactions. Over the last 17 years reforms have been based on the theory that economic efficiency prevails in a perfectly competitive market when investment decisions are left to individual entrepreneurs or firms, without direct regulatory intervention from central government.<sup>58</sup> The neo-liberal economic theorists, who rely on the importance

<sup>&</sup>lt;sup>54</sup> Shirley Primary School v Telecom Mobile Communications Ltd [1999] NZRMA 66.

<sup>&</sup>lt;sup>55</sup> Compare the wide powers of the Parliamentary Commissioner for the Environment to become involved in an assessment of government environment policy. These powers are discussed by A. Rabie, "The New Zealand Parliamentary Commissioner for the Environment: A Comparative Perspective" Acta Juridica, Juta & Co Ltd, Capetown, 1999, 97.

See T. Doyle, A. Kellow, Environmental Politics and Policy Making in Australia, Macmillan Education Australia Pty Ltd, Melbourne, 1995; and C.P. Gillette, J.E. Krier, "Risk, Courts, and Agencies" (1990) 138 U.PA L. Rev. 1027.

<sup>&</sup>lt;sup>57</sup> G. Smith, "The Resource Management Act 1991 – "A Biophysical Bottom Line" vs "A More Liberal Regime"; A Dichotomy?" (1997) 6 Canterbury L.Rev. 499.

<sup>&</sup>lt;sup>58</sup> The branch of economics dealing with efficient resource allocation is known as

of market signals, rational choice, complete information, and private property rights, believe that if there is efficient use and allocation of natural and physical resources, sustainable management should result.<sup>59</sup> However, markets face difficulties when incorporating precautionary approaches into their decision-making processes because of uncertainty over the possible outcomes of choices and actions.<sup>60</sup>

Where there is uncertainty, and an absence of information, economists promote growth so that science and technology can attempt to use the resources of this generation to resolve issues of uncertainty for future generations. This is called a resilient approach to uncertainty.<sup>61</sup> To an economist, the precautionary principle involves accepting an opportunity cost which penalises this generation, because of insufficient information, and so presents the carrying out of an effective costbenefit analysis to determine the benefits of precautionary measures for future generations. However, the risk of potential impacts to the environment are not usually able to be given a monetary value and economics is not of great assistance when determining whether or not to implement a precautionary approach as a risk management technique.<sup>62</sup>

welfare economics, and dates back to Adam Smith's thesis that the competitive market acts as an invisible hand, allocating all resources to their highest and best use. See A. Smith, "The Wealth of Nations", *Everyman's Library*, London, 1910; and A.W. Katz, *Foundations of the Economic Approach to Law*, Oxford University Press, New York, 1998, 39. The light-handed regulatory framework introduced by the reforms since 1984 has recognised the withdrawal of government from the provision of goods and services. Corporatisation and privatisation have resulted in a decoupling of industry ownership from central government and the growth of regulation.

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Rationality is defined as "a state in which each individual or group is activated only by self-interest". See H. Endre, "Legal Regulation of Sustainable Development in Australia: Politics, Economics or Ethics" (1992) 32 *Natural Resources Journal* 487 at 497. The orthodox economic argument for attaining efficiency through property rights has three necessary conditions: universal ownership of some resources, exclusive property rights in remaining resources, and transferable property rights. See Endre, *Ibid.*, 499. For a discussion of the relevance of economic efficiency (allocative, productive, and dynamic) and the RMA, see *Baker Boys Ltd v Christchurch City Council* [1998] NZRMA 433 at 446. Neo-liberalism has as an objective, "efficient economic growth". The aim is to increase wealth, which it is believed, helps meet the cost of environmental protection. By developing private property rights and relying on the resources of individuals, environmental solutions should be found.

B.J. Richardson, "New Generation Environmental Tools in New Zealand: Role of Market Transactions" (1999) 3 *BRMB* 52 at 55.

The argument is that richer is safer, because many modern disasters are likely to kill many more people in poor countries than rich countries. See I. Wills, *Economics and the Environment*, Allen & Unwin, St Leonards, NSW, 1997, 239.

There are various ways of implementing precautionary approaches, from a strong precautionary approach where the onus is placed on the developer wishing to change the *status quo* to show that risks of potential impacts are acceptable, to cautious adaptive management approaches which allow economic development to proceed subject to adaptive management techniques which include ongoing monitoring reviews and controls in the event of risk perceptions becoming realised.

# (d) Self-regulation and the precautionary approach in environmental risk management

Industry supports self-regulatory approaches and economic instruments which provide it with incentives to manage environmental risk, while at the same time allowing for market forces to prevail and foster economic growth. This self-regulatory approach allows for external factors (externalities) to motivate internal responses by developers involved with the environment without the need for some external agency (central or local government) to impose mandatory controls on them.<sup>63</sup> Environmental self-regulation involves an industry, an industry group, or professional organisation, voluntarily developing standards, guidelines, and agreements with government, and educational techniques such as environmental codes of practice.<sup>64</sup>

The voluntary infusion of ethical concerns covering the environment into management activities is seen as an advantage of self-regulation. Where it is in the interests of industry, the public, and the environment to work in a certain direction, self-regulation may work well if there is co-ordinated motivation and shared environmental values.<sup>65</sup>

The main disadvantage of self-regulation is that environmental values will only be recognised by industry if they happen to accord with its other objectives. Industry is required to meet its shareholders' interests, not the interests of the public or the environment. The enforcement of self-imposed standards may not be transparent.<sup>66</sup> An admission of liability in environmental reports or self-audit procedures, including self-monitoring programmes, will not be acceptable to industry or its legal advisers.<sup>67</sup> There will be a reluctance to volunteer self-

<sup>&</sup>lt;sup>63</sup> Self-regulation has been defined as "a process whereby an organised group regulates the behaviour of its members", from The Organisation for Economic Co-operation and Development (OECD) meeting on alternatives to traditional regulation (1994) May, OECD, Paris, 7.

<sup>&</sup>lt;sup>64</sup> Agenda 21 encourages business and industry: "to adopt and report on the implementation of codes of conduct promoting best environmental practice, such as the International Chamber of Commerce's Business Charter for Sustainable Development and the chemical industry's responsive care program initiative." There has been some suggestion that Agenda 21 is becoming an emerging principle of customary international law, although it is not legally binding at the moment. Numerous Fortune 500 companies are in favour of the International Chamber of Commerce's Business Charter for Sustainable Development, see E.W. Orts, "Reflexive Environmental Law" (1995) 89 Nw U. L. Rev. 1227 at 1288. Chemical trade associations have responsible environmental care programmes throughout the world, including New Zealand.

<sup>&</sup>lt;sup>65</sup> N. Gunningham, P. Grabosky, Smart Regulation – Designing Environmental Policy, Clarendon Press, Oxford, 1998, footnote 77. Iwi management plans are considered by Maori as an important recognition of their Rangatiratanga and right of selfregulation. See M. Solomon and R. Schofield, "The Resource Management Act and the Treaty of Waitangi", Report for Taranaki Regional Council (1992) 73.

<sup>66</sup> See M. Parrish, "Company Environmental Policy: Strengths and Shortcomings" (2000) VIII Resource Management Journal 7.

<sup>&</sup>lt;sup>67</sup> Surveys in Australia show that environmental disclosure in annual reports by industry has amounted to "green washing". See C. Deegan, "Environmental Reporting in Australia: We're Moving Along the Road, but There's Still A Long Way to go" (1998) 15 *Envtl & Plan LJ* 246.

incriminating evidence to enforcement agencies and the general public.<sup>68</sup> Nor will all industries be members of an industry organisation which maintains quality standards for that industry sector. Some industries are likely to be free riders and may ignore a self-regulatory approach and continue to exploit natural and physical resources for short term profits.

# (e) Direct regulation and the precautionary approach in environmental risk management

It has been suggested that if risk has certain characteristics then a direct regulatory precautionary risk management response is sensible. These characteristics are:

- The risk in question is novel.
- The relevant science is less than conclusive.
- The hazard has catastrophic potential in "the worst case" (even if this is considered of low probability).
- The risk affects disproportionately disadvantaged or vulnerable groups.
- Measures to tackle the (suspected) risk would be much more effective if taken promptly.
- Options for avoiding the risk in question entail little countervailing risk.
- Accepting the risk provides little public benefit.<sup>69</sup>

However, the use of the precautionary principle to manage environmental risk by environmental regulators can lead to errors. The risk of future significant irreversible environmental impacts can lead to over-regulation in circumstances where the risk turns out to be insignificant, and the impacts are reversible and short term. A regulator on the other hand, may under-regulate a risk which turns out to be significant, irreversible and long term. The burden of under-regulation may fall upon people and communities, whereas the burden of over-regulation can fall on industry which will pay for unnecessary regulation.<sup>70</sup>

<sup>&</sup>lt;sup>68</sup> A former Australian Minister for the Environment, R. Kelly (now a corporate adviser), at the conference of the New Zealand Resource Management Law Association, Auckland, October 2000, stated she had negotiated an amnesty whereby state governments did not prosecute industry when there were self-incriminating disclosures in environmental reports, which was changing the approach of industry to disclosing matters and being environmentally responsible. In Europe there is significant environmental reporting, even including lifestyle diagrams, to do with products. In the USA this is unlikely to happen because of a fear of litigation. See M.R. Harris, "Promoting Corporate Self-Compliance: An examination of the Debate over Legal Protection for Environmental Audits" (1996) 23 Ecol. L. Quart. 663.

<sup>&</sup>lt;sup>69</sup> P.G. Bennett, "Applying precautionary principles: A conceptual framework", Foresight and Precaution, M.P. Cottam, D.W. Harvey, R.P. Pape & J. Tait (eds) Balkema, Rotterdam, 2000, 223.

For a view that false negatives are more serious than false positives, see D.T. Hornstein, "Reclaiming Environmental Law: A Normative Critique of Comparative Risk Analysis" (1992) 92 Colum. L. Rev. 562 at 641. For a contrary view that false positives may present a much greater threat to health than false negatives, see R.B. Cross, "The Public Role in Risk Control" (1994) 24 Envtl. L. 887 at 941; and

It is arguable whether equitably the regulator is better to over-regulate to avoid placing the burden of uncertainty on the environment, including people and communities.<sup>71</sup> The case for regulation becomes stronger where public resources, common property, and public risk are involved, but it seems to be weaker where private resources, private property rights, and voluntary private risks are involved.<sup>72</sup> Where regulatory costs are high and the benefits uncertain, environmental policy-makers could reasonably insist on greater scientific certainty before deciding to regulate. Where regulatory costs are low and the benefits high, however, environmental policy-makers may place less importance on scientific certainty.<sup>73</sup>

To overcome the difficulties of uncertainty and the application of the precautionary principle, one approach to determining whether a regulatory response to environmental risk is necessary is to use a procedure called "Risk Trade-Off Analysis" (RTA). This approach is used to identify and assess the likely result of the side effects of direct regulatory initiatives.<sup>74</sup> It is often preferable for society to obey coercive laws or pay coercive taxes and deal with the political consequences of those laws and that taxation system, than to have to follow incremental changes to environmental policy matters developed through the courts which are non-elected and non-accountable bodies (except to higher courts, and ultimately subject to parliamentary override).<sup>75</sup> A legislative response

F.B. Cross, "Paradoxical Perils of the Precautionary Principle" (1996) 53 Wash & Lee L. Rev. 851.

- <sup>71</sup> S.G. Breyer, Breaking the Vicious Circle: Toward Effective Risk Regulation, Harvard University Press, Cambridge, Mass., 1993, 9; and S. Shapiro, "Keeping the Baby and Throwing out the Bath Water, Justice Breyer's Critique of Regulation" (1995) 8 Admin.L.J. 721 at 732. There has been considerable criticism of the failure to use efficient cost-benefit analyses for health and safety regulations in the USA. In 1996 there were few regulations that led to lives saved at a cost of less than \$4 million (US) a piece. See "Over-Regulating America Tomorrow's Economic Argument", Economist, July 27th 1996, 17-19.
- <sup>72</sup> See A. Bell and C. Shearer, "Regulatory v Non-Regulatory Methods", 6th Conference of the Resource Management Law Association, Rotorua, September 1998.
- <sup>73</sup> See G.E. Brown Jnr., "Environmental Science under Siege in the US Congress" (1997) 39 Environment 13; and S. Shavell, "Liability for Harm Versus Regulation of Safety" (1984) 13 Journal of Legal Studies 357, reproduced in R.L. Revesz, Foundations of Environmental Law and Policy, Oxford University Press, New York, 1997, 144 at 146.
- <sup>74</sup> For the advantages and disadvantages of RTA which were proffered by J. Graham and J. Wainer, see F.B. Cross, "Paradoxical Perils of the Precautionary Principle" (1996) 53 Wash & Lee L. Rev. 850 at 920-924. Some economic instruments, such as charges and tradable permits, are perceived as selling a right to pollute. This is not the case with regulatory instruments. See A. Warren, "Economic Instruments and Environmental Policy" (2000) 3 BRMB 159-160; and B. J. Richardson (1998) 10 Journal of Environmental Law 21 at 23.
- <sup>75</sup> Environmental regulations may reduce the need for the courts to develop common law principles for setting environmental protection levels, see *Cambridge Water Co v Eastern Counties Leather Plc* [1994] 2 A.C. 264, [1994] 1 All ER 53 at 76 (HL): "[G]iven that so much well-informed and carefully structured legislation has now been put in place for [the purpose of protection and preservation of the environment], there is lesser need for the courts to develop a common law principle to achieve

which is often needed is to delegate to bureaucracy the task of balancing conflicting values and interests but not to attempt to discover scientific truths or disturb individual rights.<sup>76</sup>

National economies of scale are often preferable when dealing with the imposition of rigorous environmental policies and standards. A centralised approach to these matters may be preferable to a decentralised approach which can lead to an inefficient duplication of costs. Another advantage of centralisation is that at local government level there may be disparities in effective representation. Environmental advocacy at a national level by non-governmental organisations (NGOs), environmental interest groups, and industry, is more likely to be effective in ensuring uniform performance standards for addressing environmental risk.<sup>77</sup>

Formulating national policy statements under the RMA by using an independent board of inquiry depoliticises a regulatory response as much as possible. The courts can also become involved if these instruments are ultra vires the purpose of the RMA. National policy statements formulated under the RMA also have the advantages of:

- Establishing environmental policy-making by central government;
- Guiding local authorities on how to assess and manage phantom and frontier environmental risks where science is uncertain and there are complex environmental systems;
- Providing for a public participatory approach to the assessment and management of the effects of human activities on the environment;
- Reflecting international commitments the country has signed up to in international instruments which incorporate the precautionary approach to risk management;
- Allowing for integrated and adaptive environmental risk management techniques;<sup>78</sup>
- Establishing a foundation for economic instruments and self-regulatory initiatives (a co-regulatory approach).

the same end, and indeed it may well be undesirable that they do so." (Lord Goff).
S. Rose-Ackerman, "Economics, Public Policy, and Law" (1996) 26 VUWLR 1 at 10.

See N.O. Keohane, R. L. Revesz, R.N. Stavins, "The Choice of Regulatory Instruments in Environmental Policy" [1998] 22 *Harv. Envir. L. Rev.* 313 at 353; and R.A. Kagan, "Trying to Have it Both Ways: Local Discretion, Central Control and Adversarial Legalism in American Environmental Regulations" (1999) 25 *Ecol. L. Quart.* 718 at 723.
The New Zooland Biodiversity Structure Over Change to Type the Tide Technicary 2000.

The New Zealand Biodiversity Strategy *Our Chance to Turn the Tide*, February 2000, defines "adaptive management" as: "An experimental approach to management, or structured learning by doing. It is based on developing dynamic models that attempt to make predictions or hypotheses about the impacts of alternative management policies. Management learning then proceeds by systematic testing of these models, rather than by random trial and error. Adaptive management is most useful when large complex ecological systems are being managed and management decisions cannot wait for final research results."

The promulgation of national policy statements is probably the single most powerful method available to the government for ensuring that the policy objectives behind the RMA are realised.<sup>79</sup> A long-term result of their absence is likely to be a lack of consistency between the various local authorities with respect to the setting of environmental risk management policies and standards.<sup>80</sup>

## Conclusion

Progress is being made. Currently a national policy statement is being developed under the RMA to address the loss of biological diversity. The content of a national policy statement to address anthropocentric discharges of carbon dioxide (CO<sub>2</sub>) leading to climate change was considered by a Board of Inquiry into an application for an air discharge permit related to a proposed combined cycle power station in Taranaki.<sup>81</sup> The Minister for the Environment did not accept the recommendation of the Board of Inquiry to implement a national policy statement and now local authorities are struggling to address the risk of climate change. They tend to put it to one side after recording that they are waiting for guidance from central government.<sup>82</sup> There are links with national policy statements and the RMA in the Hauraki Gulf Marine Park Act 2000 and Energy Efficiency and Conservation Act 2000. Initially, the provisions of the Hazardous Substances and New Organisms Act 1996 (HSNO) for addressing

- <sup>79</sup> D.E. Fisher, "The Resource Management Legislation of 1991: A Juridical Analysis of its Objectives", *Resource Management*, B.E.R. Gordon et al (eds), Brookers Ltd, Wellington, 1991.
- 80 For lawyers' and academics' views on the subject of national policy statements, see R.J. Somerville, "The Resource Management Act 1991: An Introductory Review", Resource Management, B.E.R. Gordon et al (eds), Brookers Ltd, Wellington, 1991, RM-7; R.J. Somerville QC, An Appropriate Public Law Response to the Assessment and Determination of Environmental Risk under the Resource Management Act 1991, New Zealand Law Society Triennial Conference, Rotorua, April 1999; R.J. Somerville QC, "Electricity Production and Future Environmental Risk - a Legal Response", Foresight and Precaution, M.P. Cottam, D.W. Harvey, R.P. Pape & J. Tait (eds), A.A. Balkema, Rotterdam, 2000, 57; H. Weston, "National Policy Statements and their role within the Resource Management Act 1991," LLM Research Paper, Victoria University of Wellington, 1995; Sir Geoffrey Palmer, Environment - the International Challenge, Victoria University Press, Wellington, 1995; D.P. Grinlinton, "Does the RMA Need More Reform?" (1997) 2 BRMB 49; I.H. Williams, "The Resource Management Act 1991: Well Meant but Hardly Done" (2000) 9 Otago LR 673; and P. Hughes, "The contribution of the Resource Management Act 1991 to sustainability - A report card after eight years" (2000) 3 BRMB 145. For the fifth Labour Government's pre-election policy to give priority to developing a series of NPS, see D.P. Grinlinton, "Back to the Future? Environmental Management in the New Millennium" (2000) 3 BRMB 97. There has been a call for an NPS for historic heritage matters. See "The Historic Heritage Management Review: Report of the Ministerial Advisory Committee", Wellington, 1999.

Proposed Taranaki Power Station – Air Discharge Effects: Report and Recommendations of the Board of Inquiry pursuant to section 148 of the Resource Management Act 1991, February 1995.

<sup>&</sup>lt;sup>82</sup> Application for Air Discharge Permit by ECNZ for Taranaki Combined Cycle Power Station: Decision of Hon. S.D. Upton, Minister for the Environment, 23 March 1995. An NPS could be used to give effect to the Kyoto Protocol once it is ratified.

the risks associated with the release of new and genetically modified organisms into the environment were to be included in the RMA as were matters which are now addressed in the separate legislation I have mentioned. Currently, the Environment Court has no jurisdiction under the HSNO.

It is clear that for robust environmental jurisprudence to develop, the ability to promulgate national policy statements should be incorporated into a comprehensive codified legislative regime rather than being provided for in a disparate way in a number of statutes. National policy statements are national light-handed command and control (top down) statutory instruments. They constitute a reflexive and pluralistic public law response to phantom and frontier environmental risks. When national policy statements which incorporate the precautionary principle are in place, the specialist Environment Court can develop legal principles to guide primary environmental decision-makers as they determine what an acceptable level of environmental risk is.