IS THE PRECAUTIONARY PRINCIPLE JUSTICIABLE?

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1. Introduction

The precautionary principle in the last decade has become the 'leitmotif' of European and Commonwealth environmental law and policy.[1] In jurisdictions such as Australia,[2] Germany[3] and France,[4] as well as the European Community,[5] the principle is an important foundation of environmental law and risk regulation. Even in the United Kingdom where the welcoming of the principle has been more cautious and incremental it has become a key principle in environmental and public health policy debate.[6]

For many commentators the 'true test of the effectiveness' of the principle is the courts' willingness to recognise it as a basis for striking down decisions in judicial review cases.[7] This is not surprising. Judicial review, with its emphasis on the legal validity of decision-making, has an important normative role to play in ensuring regulatory legitimacy. However, while courts in the UK and other common law jurisdictions have been willing to recognise the principle and to uphold precautionary decisions they have not, in most cases, been willing to accept it as a justification for

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[1] R. Macrory, 'Editor's Foreword', 9 *Journal of Environmental Law* (1997) 219.

[2] Intergovernmental Agreement on the Environment (May 1992) para 3.5.1. See R. Harding and E. Fisher (eds), *Perspectives on the Precautionary Principle* (Federation Press, 1999).

[3] S. Boehmer-Christiansen, 'The Precautionary Principle in Germany: Enabling Government' in T. O'Riordan and J. Cameron (eds), *Interpreting the Precautionary Principle* (Earthscan, 1994) at 31.

[4] The precautionary principle is one of the principles included in the Loi Barnier, Loi no 95–201 of 2 February 1995. See J. Dutheil de la Rochere, 'Environmental Law in France' in N. Koeman (ed), *Environmental Law in Europe* (Kluwer Law, 1999) at 226–33.

[5] Commission of the European Communities, *Communication from the Commission on the Precautionary Principle*, COM(2000) 1 final.

[6] BSE Inquiry into BSE and Variant CJD in the United Kingdom, Final Report, Vol 15, *Government and Administration* (2000) at Annex 2; Independent Expert Group on Mobile Phones (IEGMP), Report: *Mobile Phones and Health* (2000) at ch 6; and DETR, *Guidelines for Risk Assessment and Management: Revised Departmental Guidelines* (2000) at 1.6.

[7] W. Gullett, 'The Precautionary Principle in Australia: Policy, Law and Potential Precautionary EIAs', 11 *Risk: Health, Safety and Environment* 93 (2000) at 107.

substantive and intensive review. Some commentators have attributed this to the inherent vagueness of the principle but in this article it is strongly argued that the real barrier to the principle's use in judicial review cases is the perception that penetrating review under it is not within the courts' institutional or constitutional competence. As such it seems that the precautionary principle is not justiciable.[8]

Thus, while there are many different legal aspects to the principle,[9] the focus of this article is upon the ability of common law courts to consider the principle. As such, it concentrates on the judicial experience with the principle in Anglo-Commonwealth jurisdictions.[10] It gives a brief overview of the principle and what it entails. The principle mandates the implementation of a transdisciplinary, flexible and democratic process which produces proportionate results. There is then an examination of the case law that has considered the principle in the UK and in other Commonwealth countries. Due to a perceived lack of competence, the courts, while welcoming the principle, have not used it to strike down decisions. This is followed by an analysis of two sets of cases where the courts, in considering the principle, have dealt with the problems of competence head-on: (a) where specialist courts engaging in merits review have overcome the problems of competence, and (b) where courts have reconceptualised the principle so it is within their competence. Finally, possible future approaches to the principle in the UK are explored. In doing so the emphasis is not so much on setting out a detailed framework of precautionary procedures[11] (although some consideration is given to this) but upon what role courts may have in this area. True judicial implementation of the precautionary principle can only occur through direct reconsideration of the constitutional relationship between the courts and the executive.

2. The Precautionary Principle: An Overview

The precautionary principle is a principle which states that in cases where there are threats to human health or the environment the fact that there is scientific uncertainty over those threats should not be used as *the* reason for not taking action to prevent harm.[12] The principle originated in Germany in the 1970s[13] and became a popular addition in international environmental law treaties in the late 1980s and

[8] Justiciability describing 'grounds that are defined or definable, ascertained or ascertainable, involving the exercise of prescribed standards' Kerr Committee as quoted by P. Cane, 'Merits Review and Judicial Review: The AAT as Trojan Horse', 28 *Federal Law Review* 213 (2000).

[9] Another important issue is that of the interaction of the principle with legal duties to ensure free movement of good and trade. For example, WTO Appellate Body, EC Measures Concerning Meat and Meat Products (HORMONES) AB-1997-4, 16 Jan 1998 (Article 5, WTO Agreement on the Application of Sanitary and PhytoSanitary Measures) and C-473/98, *Kemikalieinspektionen v Toolex Alpha AB* [2000] ECR I-5681 (Article 28 of the EC Treaty).

[10] There are equally a number of fascinating legal issues about the role of the principle within the realms of European Community jurisprudence but there is no room in this article to concentrate on them.

[11] A. Deville and R. Harding, *Applying the Precautionary Principle* (Federation Press, 1997).

[12] For examples of different formulations see Harding and Fisher, supra at Appendix and ch 1.

[13] Boehmer-Christiansen, supra and K. von Moltke, 'The Vorsorgeprinzip in West German Environmental Policy' in Royal Commission of Environmental Pollution, *Best Practicable Environmental Option* (HMSO, 1988), Appendix 3.

early 1990s.[14] The principle is also included (but not defined) in the EC Treaty as a basis on which Community environmental policy should be formulated.[15] In the UK the principle has been included in numerous policy documents including *This Common Inheritance*,[16] *UK Strategy on Sustainable Development*,[17] and *Better Quality of Life: A Strategy for Sustainable Development*.[18]

2.1 The Precautionary Principle and Risk Regulation

Generally, the precautionary principle is relevant to risk regulation. Risk regulation can be understood as that body of regulation concerned with protecting the environment or human health from the risks arising from industrial activity.[19] It consists of three distinct but often overlapping activities: standard setting, the application of those standards (regulatory strategy), and enforcement. The precautionary principle is mainly relevant to standard setting—the process by which government, and in particular executive government, sets the 'general norm[s] mandating or guiding conduct or action in a given type of situation'.[20] Standard setting can be in the form of rules or specific decisions and has three key aspects.[21]

First, such standards are normative prescriptions concerning what level of risk is acceptable and to whom responsibility should be allocated. As such, they reflect the fact that risk regulation is very much an exercise in deciding how as a democratic community 'we wish to live'.[22] Moreover, risk problems tend to be polycentric—that is they require consideration of 'mutually interacting variables' and like a spider's web the pulling of one strand will readjust the whole web.[23] Second, standard setting is only made possible by the existence of scientific methods which help trace the 'causes' of environmental and public health problems.[24] Indeed, various regulatory 'sciences' have been developed to this end. Risk assessment with its different methodologies is the best example of such a 'science'.[25] However, with that said, the scientific knowledge that exists is often limited or deficient and thus regulation must occur in circumstances of scientific uncertainty. The phrase, 'scientific uncertainty' refers not simply to a 'data gap' but to a whole series of methodological, epistemological and ontological problems in scientific practice which mean that science cannot provide the

[14] For a discussion of the international experience see generally D. Freestone and E. Hey (eds), *The Precautionary Principle and International Law: The Challenge of Implementation* (Kluwer Law, 1996).

[15] Article 174(2).

[16] Cm 1200 (London: HMSO, 1990) at 11.

[17] Cm 2426 (London: HMSO, 1994) at para 3.12.

[18] DETR, *A Better Quality of Life: A Strategy for Sustainable Development for the United Kingdom* (HMSO, 1999) at 4.1.

[19] S. Breyer, *Breaking the Vicious Circle: Towards Effective Risk Regulation* (Harvard UP, 1993) and R. Baldwin and M. Cave, *Understanding Regulation* (Oxford UP, 1999) at ch 9.

[20] W. Twining and D. Miers quoted in R. Baldwin, *Rules and Government* (Clarendon Press, 1995) at 7.

[21] E. Fisher, 'Drowning by Numbers: Standard Setting in Risk Regulation and the Pursuit of Accountable Public Administration' 20 *Oxford Journal of Legal Studies* (2000) 109–30.

[22] National Research Council, *Understanding Risk: Informing Decisions in a Democratic Society* (National Academy Press, 1996) at 18, and M. Douglas, *Risk and Blame* (Routledge, 1992) at ch 2.

[23] L. Fuller, 'The Forms and Limits of Adjudication' 92 *Harvard Law Review* (1978) at 395–7.

[24] On the history of this J. Cole, *The Power of Large Numbers* (Cornell UP, 2000) at chs 1–2.

[25] S. Jasanoff, *The Fifth Branch: Science Advisors as Policy Makers* (Harvard UP, 1990) and National Research Council, *Science and Judgement in Risk Assessment* (National Academy Press, 1994) at ch 2.

'complete truth'.[26] The type and extent of scientific uncertainty will vary from problem to problem.

The third and final aspect of risk regulation is that the process of standard setting requires the exercise of expert and professional discretion in the institutional context of public administration. In itself, what is and should be the role and nature of public administration is controversial.[27] How the 'long range, stable, even permanent exercise' of executive authority can be reconciled with notions of popular sovereignty is by no means clear.[28] How the standard setting process is carried out and how facts, science and scientific uncertainty are reconciled, will be heavily influenced by these broader debates[29] whether they be about the legitimacy of regulation,[30] globalisation,[31] public participation,[32] or about the interaction between science and policy.[33]

2.2 The Precautionary Principle as a Process

The precautionary principle will not apply to every decision in risk regulation. The Rio Declaration states that the principle applies where there are 'threats of serious or irreversible environmental damage' and where there is scientific uncertainty over those threats.[34] The European Commission in its communication on the principle states:

> Whether or not to invoke the Precautionary Principle is a decision exercised where scientific information is insufficient, inconclusive, or uncertain and where there are indications that the possible effects on the environment, or human animal or plant health may be potentially dangerous and inconsistent with the chosen level of protection.[35]

As such, the precautionary principle can be distinguished from a policy of prevention where the risks are known and there is a decision to follow a risk reduction policy.[36] Much has been written on what type of 'threshold' test must be passed before precaution can be applied.[37] In light of the ubiquitous nature of scientific uncertainty, the

[26] For a more detailed discussion of this point see Fisher, supra at 115–16.

[27] B. Cook, *Bureaucracy and Self-Government: Reconsidering the Role of Public Administration in American Government* (John Hopkins UP, 1996), and B. Williams and A. Matheny, *Democracy, Dialogue and Environmental Disputes: The Contested Languages of Social Regulation* (Yale UP, 1995).

[28] Cook, supra at 3.

[29] Compare the deliberative institutional model set out in the Royal Commission of Environmental Pollution, *Air Pollution Control: An Integrated Approach*, 5th report (HMSO, 1976) at ch 9 with the more analytically bound one for the new Food Standards Agency as set out in the Food Standards Act 1999.

[30] J. Segal, 'An Industry Perspective on the Precautionary Principle' in Harding and Fisher (eds), supra, and National Consumer Council, *Public Health and the Precautionary Principle: A Consumer View on the Precautionary Principle* (2000).

[31] V. Walker, 'Keeping the WTO From Becoming a 'World Trans-Scientific Organisation: Science Policy and Fact-Finding in the Growth Hormone Dispute' 31 *Cornell International LJ* (1998) 251–320, and WTO Appellate Body, EC Measures Concerning Meat and Meat Products (HORMONES) AB-1997-4, 16 Jan 1998.

[32] E. Fisher and R. Harding, 'The Precautionary Principle: Towards a Deliberative, Transdisciplinary, Problem-Solving Process' in Harding and Fisher, supra.

[33] T. Porter, *Trust in Numbers* (Princeton UP, 1996), and L. Tribe, 'Technology Assessment and the Fourth Discontinuity: The Limits of Instrumental Rationality', 46 *Southern California Law Review* (1973) 616.

[34] Principle 15.

[35] European Commission, supra at 8.

[36] Deville and Harding, supra at 31–2; and J. Cameron, 'The Precautionary Principle: Core Meaning, Constitutional Framework and Procedures for Implementation' in Harding and Fisher, supra at 35.

[37] G. Durnil, 'How Much Information Do We Need Before Exercising Precaution?' in C. Raffensberger and J. Tickner (eds), *Protecting Public Health and the Environment: Implementing the Precautionary Principle* (Island Press, 1999), and European Commission, supra at 13–14.

fact that what is a 'threat' is both a factual and a normative question, and that precaution is a question of degree, the identification of such a test is highly artificial. Any attempt to develop 'bright line' criteria for the application of the precautionary principle has largely failed.[38] As such, statements such as those in the Rio Declaration or by the European Commission should be used a rough guides rather than specific criteria which must be 'proved' before precaution can be applied.[39]

The next and more important question is what exactly does the precautionary principle require a decision-maker to do? The principle states that in cases of scientific uncertainty 'no evidence of harm' should not be equated with 'no harm'.[40] This is entirely consistent with good scientific practice and many scientific principles have been developed around it.[41] However, one should be careful with associating the precautionary principle *solely* with scientific techniques.[42] The precautionary principle applies to all three aspects of the standard setting process and not just its scientific aspect. It is not just concerned with how a scientist may interpret data[43] or how a risk assessment is carried out,[44] but with how an institutional decision-maker balances science, scientific uncertainty and the normative aspects of decision-making in the exercise of its discretion. As such, the precautionary principle is concerned with *the process by which public decisions are made*.[45]

While the distinction between process and substance is often a highly artificial one, conceptualising the principle as one of process reflects the fact that the principle does not dictate a particular outcome. As such, the principle is not a blanket 'no risk' principle. It is 'not all or none in nature'—it is a 'matter of degree'.[46] The principle forces decision-makers to scrutinise the quality of the science they are using and the more general overarching reasons for making a decision. As already noted, the principle's application will vary with its context. There is no rigid approach to applying the principle although one can generally say that application of the precautionary principle will result in decisions that are more protective than would otherwise be the case.[47] How much more protective will depend on all the factors in the decision-making process.

Official and academic commentary on the principle has tended to emphasise three different aspects of this decision-making process. First, that the principle requires a highly flexible process which takes into account a wide range of factors. Schomberg argues that the principle requires that problems be open to deliberation on a case-by-case basis and that deliberation be accompanied by ongoing monitoring, an emphasis

[38] See Section 5.1.

[39] On the judicial application of such criteria see *Vertical Telecoms Pty Ltd v Hornsby Shire Council* [2000] NSWLEC 172, and *Miltonbrook Pty Ltd v Kiama Municipal Council* [1998] NSWLEC 281.

[40] For an official discussion of this point see IEGMP, supra at 6.16.

[41] Harding and Fisher (1999), supra at Part Five.

[42] Which is not to say one cannot have precautionary scientific approaches. See L. Buhl-Mortensen and S. Welin, 'The Ethics of Doing Policy Relevant Science: The Precautionary Principle and the Significance of Non-Significant Results', 4 *Science and Engineering Ethics* (1998) 401, and K. Shrader-Frechette, *Method in Ecology: Strategies for Conservation* (Cambridge UP, 1993).

[43] Ibid.

[44] For one example of how to deal with scientific uncertainty in risk assessment see B. Johnson and P. Slovic, 'Presenting Uncertainty in Health Risk Assessment: Initial Studies of its Effects on Risk Perception and Trust', 15 *Risk Analysis* (1995) 485–94.

[45] Fisher and Harding, supra at 290.

[46] IEGMP, supra at 6.16.

[47] A. Weale et al, *Environmental Governance in Europe* (Oxford UP, 2000) at 158.

on long-term outcomes and having standards which are 'transformable' and flexible.[48] Deville and Harding emphasise a series of decision-making processes which force the decision-maker to look more closely at a particular problem and the scientific uncertainties inherent in it.[49] Moreover, Weale et al have emphasised the close connection between the principle and the *Stand der Technik* (state of the art) principle in Germany.[50] Thus, the nature of precaution not only depends on the nature of the risk and the scientific uncertainties involved but also the state of technological innovation.[51]

This latter point not only reflects the holistic and transdisciplinary nature of the principle but also that it is a principle which has an element of proportionality built into it. This is the second factor which commentaries have stressed as being important.[52] The term proportionality is used loosely here and as Schomberg notes it 'implies the evaluation of the scope of the measures to be taken and when they should be taken'.[53] The final aspect of a precautionary decision-making process is that it is 'democratic'. The input of the public fleshes out the normative aspects of decision-making, brings some legitimacy to the process, and improves the quality of decision-making through producing more information.[54] Such input should not be seen as an 'ad hoc, intermittent entitlement' but rather as a permanent feature of precautionary administrative processes.[55] Even without reference to the precautionary principle, such participatory practices are construed as a vital part of risk regulation and while there is little agreement over what the nature of that participation should be it is clearly an important part of a precautionary decision-making process.[56]

The precautionary principle then, gives primacy to innovative, democratic and discretionary administration over static and rule bound institutions. Indeed, it highlights the inadequacy of such a rigid approach and decision-making that is based on simplistic notions of the 'rule of law' and legal certainty. The precautionary principle is not only best characterised as an *administrative* principle but is also a strong statement of what are the strengths of executive power over legislative and judicial exercises of authority.[57] However, the principle is also frustrating. In an era in which the legitimacy and accountability of risk regulation has been subject to heated debate the principle promotes a model of public administration whose power cannot be easily contained within defined boundaries. Nor can the 'correctness' of its decisions be easily assessed. The precautionary principle thus may provide a guide for good decision-making but it also provides a number of challenges for how we understand accountability.[58]

[48] Memorandum by P. Schomberg to the House of Lords Select Committee on European Communities, *Second Report: EC Regulation of Genetic Modification in Agriculture* (HL11-II, 1999).
[49] Deville and Harding, supra.
[50] Weale, supra at 157.
[51] Von Moltke, supra.
[52] European Commission, supra and von Moltke, supra.
[53] Schomberg, supra.
[54] Fisher and Harding, supra and A. Irwin, *Citizen Science* (Routledge, 1995).
[55] Fisher and Harding, supra at 294.
[56] Williams and Matheny, supra.
[57] On the tri-partite system of governmental powers see C. Edley, *Administrative Law* (Yale UP, 1993). On different theories of public administration see G. Frug, 'The Ideology of Bureaucracy in American Law', 97 *Harvard LR* (1984) 1276.
[58] On accountability and scientific uncertainty see Fisher, supra and Porter supra.

3. The Precautionary Principle and Judicial Review

As noted in the introduction, the willingness of courts to apply the precautionary principle in judicial review cases has been seen as the 'true test' of its success.[59] Such court decisions have the potential to give the principle legal, and thus to some extent democratic, validity, as well as ensuring that the principle has a reforming quality—that is consideration of the precautionary principle will change the way in which decisions are made. While these goals are important, a consideration to be kept in mind is whether, in light of its flexible nature, bringing the principle under the 'legal umbrella' is either possible or desirable.[60] Possible, because as we shall see below there are limits to the courts' competence in judicial review and, desirable, because if it could be done, there is a danger it could be interpreted as a principle of adjudication rather than administration.

3.1 Judicial Review and Judicial Competence

Judicial review is the process by which the courts review the decisions of the executive. While judicial review is not the only way to hold decision-makers to account it plays an important role in establishing the legal validity of public decision-making as well as 'tethering' such decision-making to legal standards of reasonableness.[61] However, as DeSmith, Woolf and Jowell note 'the administrative process is not, and cannot be, a succession of justiciable controversies'[62]—not every decision or all aspects of a decision is subjected to review. The reasons for this are both constitutional and pragmatic.[63] Constitutionally speaking, if a matter is delegated to the executive the courts should not usurp it. Thus while they may police the boundaries of such power they may not overturn the executive's decision because they could think of a better result.[64] From a pragmatic perspective, there is also some subject matter that is not easily susceptible to judicial review because it is too policy laden, the court does not have the expertise, or it is too polycentric to be adjudicated on. In this sense, we can say the courts do not have the institutional competence to review a matter.

What are understood to be the constitutional and institutional competences of a court are closely interrelated.[65] Moreover, such understandings have a powerful influence on judicial review and their impact can be seen in three main facets of judicial review doctrine. First, some issues are ruled as being inappropriate subjects for review. High-level policy issues are an excellent example of this.[66] Second, the

[59] Gullett, supra and J. Whitehouse, 'The Legal Profession: Translating Principles into Practice' in *Sustainability: Principles to Practice, Proceedings—Fenner Conference on the Environment 1994* (Department of the Environment, Sport and Territories, 1996) at 59.

[60] N. Lacey, 'The Jurisprudence of Discretion: Escaping the Legal Paradigm' in K. Hawkins (ed), *The Uses of Discretion* (Clarendon Press, 1992) at 372.

[61] L. Jaffe, *Judicial Control of Administrative Action* (Little Brown, 1965) at 320–4.

[62] S. de Smith, H. Woolf and J. Jowell, *Principles of Judicial Review* (Sweet & Maxwell, 1999) at 3.

[63] J. Jowell, 'Of Vires and Vacuums: The Constitutional Context of Judicial Review' in C. Forsyth (ed), *Judicial Review and the Constitution* (Hart, 2000) at 329–34.

[64] What is and is not the constitutional competence of the courts is far easier to delineate in those jurisdictions with a written constitution. See Jaffe, supra at ch 3.

[65] The close interrelationship can be seen by the labelling of each branch as legislative, administrative and judicial. See Edley, supra for a critique of this.

[66] *R v Secretary of State for the Environment ex parte Hammersmith and Fulham LBC* [1991] AC 521.

grounds of judicial review are shaped by the courts understanding of their competence. Until recently the court saw themselves limited to a discrete number of questions of law. Even now with the 'jettisoning [of] many of the conceptual barriers'[67] which had held back the development of more intensive judicial review doctrines this has not changed. While the courts and commentators may describe judicial review as being concerned with 'principles of good administration'[68] the doctrines of judicial review are still limited. As noted by Jowell, matters of *procedure* are far more likely to be understood as matters within the courts' competence than matters of substance. Likewise in regards to matters of substance, the courts are far happier dealing with the *process* by which the decision was made (improper purpose, relevant and irrelevant considerations etc) rather than ruling on the whether the final *impact* of the decision was the correct one.[69]

The final way in which issues of competence manifest themselves is in regards to the *intensity* of review. Whether courts are reviewing the procedures or process by which a decision was made or even its impact they will exhibit varying degrees of self-restraint. While courts may be happy to review on a certain ground, for reasons of competence, that review may be minimal because they feel the decision is beyond their expertise, is finely balanced or polycentric.[70] Thus, the courts in scrutinising a decision will defer to the decision-maker. For example Lord Slynn of Hadley in *R v Chief Constable of Sussex ex parte International Trader's Ferry Ltd*[71] noted:

> In a situation where there are conflicting rights and the police have a duty to uphold the law the police may, in deciding what to do, have to balance a number of factors, not the least of which is the likelihood of a serious breach of the peace being committed. That balancing involves the exercise of judgment and discretion.
> The courts have long made it clear that, though they will readily review the way in which decisions are reached, they will respect the margin of appreciation or discretion which a chief constable has.

A similar stance can also be seen in the jurisprudence of the European Court of Justice and in particular its 'margin of appreciation' doctrine.[72]

The precautionary principle requires the application of expert knowledge to a science/policy problem that is highly polycentric. The predicament that is faced by decision-makers in these cases is well-described by Bingham LJ in *R v Secretary of State for Health ex parte Eastside Cheese Company*:

> The Department faced the classic dilemma of any regulator; if strong action is taken and apprehended harm to the public does not ensue, the authority is criticised for taking unnecessary draconian action and causing damage which would otherwise have been avoided; if, on the other hand, the authority holds its hand and harm does follow the authority is castigated for abdicating its responsibility to exercise powers which Parliament has conferred for dealing with such a situation.[73]

[67] de Smith, Woolf and Jowell, supra at 15.
[68] D. Oliver, 'Is the Ultra Vires Rule the Basis of Judicial Review?' in Forsyth, supra at 3.
[69] Jowell, supra 329–34.
[70] See the cases cited by de Smith, Woolf and Jowell, supra at 493–502; *R v Cambridge District Health Authority ex parte B* [1995] 2 All ER 129; and *R v MAFF ex parte Geiden* [2000] 1 CMLR 289.
[71] [1999] 2 AC 418 at 430.
[72] *Upjohn Ltd v Licensing Authority established by the Medicines Act 1968* [1999] 1 CMLR 825.
[73] *R v Secretary of State for Health ex parte Eastside Cheese Company* [1999] 3 CMLR 123 at 140.

The precautionary principle has been increasingly argued in these type of cases, particularly by those who wish to ensure the protection of the collective interest in environmental and public health protection. The arguments put forward in such cases tend to be very similar—that the precautionary principle should bind the decision-maker and as such the decision-maker should take actions to prevent a risk. As such the principle is construed as one of substance and one of impact. Consequently, there will be very real problems in translating it into justiciable doctrine. Of course, concepts of competence are fluid and as we shall see precaution can be argued as a matter of procedure. Even then however, as precaution is not a rigid standard, there remains problems of judicial competence.

3.2 The Precautionary Principle in the UK Courts

There has been only one significant UK case, *R v Secretary of State for Trade and Industry ex parte Duddridge*,[74] where the precautionary principle has been considered at length. *Duddridge* involved an application for judicial review seeking to compel the Secretary of State for Trade and Industry to pass regulations so as to protect residential communities from the possible risks arising from high-voltage power lines. One of the applicant's arguments was that the precautionary principle, as it was included in Article 130r(2) (now Article 174(2)) of the EC Treaty, bound the Secretary of State and required him to regulate. Smith J discussed the principle at some length and stressed the importance of it requiring a balancing process.[75] However, she found it did not create an obligation for 'specific action' but rather was the basis on which future policy should be formulated.[76] Moreover, without the precautionary principle, the Secretary of State's decision not to regulate was not *Wednesbury* unreasonable.[77]

Smith J's decision reflects two major understandings about the competence of courts undertaking review. First, courts have always shown judicial restraint in judicially reviewing decisions concerning whether to regulate.[78] Such decisions are seen to be firmly within the executive's competence. Second, effectively by holding that the principle did not have direct effect we could understand Smith J to be saying the principle, as it is included in the Treaty, is non-justiciable.[79] If that is the case, then *Duddridge* is perhaps a statement that the principle is indeed too 'rarefied with for the English judicial palate'[80] and the practical result of it is to treat the principle as broadly off limits to the judiciary.

However, one should be wary about making such quick assumptions. Smith J's judgment was clearly influenced by the lack of expanded definition and wording of the principle in Article 130r. The UK judiciary has also since 1994 become more sophisticated in its understanding of direct effect.[81] Moreover, the inclusion of the principle in legislation is not limited to the Treaty. In other cases, the courts have

[74] (1995) 7 JEL 224.
[75] 227.
[76] 234.
[77] 231.
[78] *McEldowney v Forde* [1971] AC 632 per Lord Hodson at 645 on judicial restraint for delegated legislation.
[79] Pescatore argues the test of what has direct effect could really be understood as a test of this. See P. Craig and G. deBurca, *EU Law: Cases and Materials*, 2nd edn (Oxford UP, 1998) at 169.
[80] M. Beloff, 'Judicial Review: 2001: A Prophetic Odyssey' 58 MLR (1995) at 153.
[81] *R v Durham CC ex parte Huddleston* [2000] 2 CMLR 313.

seen the principle as more within their competence although they have remained highly deferential. They have been critical of it being argued as a 'stand alone' principle without regard to whether it is embodied in a statutory scheme but at the same time have been willing to consider it.[82] In *R v Environment Agency ex parte Turnbull*[83] Jowitt J described the principle as an 'approach to the assessment of the facts and to an interpretation of the regulations to assist in their construction'.[84] It has been accepted as something that is acceptable for a council to take into account as a 'material consideration'.[85]

It is also the case that, judges have long been willing to uphold the 'precautionary' actions of public decision-makers, particularly when those challenging argue that the decision should have been more factually based. Indeed as Smith J noted in *Duddridge* it would have been in the Secretary of State's powers to take into account the precautionary principle and it would have not have 'distorted' his powers or detracted from his duties.[86] In giving a 'margin of appreciation' the courts implicitly recognise the validity of such decision-making. Furthermore, this upholding of precautionary decision-making is not only in relation to cases where there is substantive review of the exercise of discretion. In matters of statutory interpretation the courts have accepted broad definitions of 'risk' so that risk regulators do not need full proof of harm before acting.[87] Likewise, in the area of planning they have little problem in defining 'material consideration' to include public concern.[88] In this sense the precautionary principle, due to understandings of competence, has long been a shield for public decision-makers. Other doctrines such as that against the fettering of discretion emphasise the need to weigh up carefully the issues in every circumstance rather than slavishly relying on policy.[89] Thus the UK courts have no problem in recognising and legitimating the pursuit of flexible and proportionate administration. Indeed, in regards to the doctrine of not fettering discretion, one could easily argue that they promote it as a positive attribute to an administrative system.

3.3 The Precautionary Principle in Other Common Law Jurisdictions

In other common law jurisdictions the precautionary principle has been recognised as a ground of review. Thus, in Australia the principle has been argued as a ground of review in at least thirty-five merits review and judicial review cases.[90] There have also been cases in Canada, New Zealand and India. A number of reasons can be cited for the greater popularity of the principle in other jurisdictions. First, the principle

[82] *R (on the Application of Murray) v Derbyshire County Council* (CO/1493/2000, 6 October 2000).

[83] CO/4878/99, 12 January 2000. It was defined is a similar aid to interpretation in *R v Environment Agency ex parte Dockrange* (CO/4534/96, 22 May 1997) but not applied.

[84] Para 9.

[85] *Leicester CC v Onyx (UK) Ltd ex parte Blackfordby and Boothcorpe Action Group* (CO/1822/99, 15 March 2000) at para 65.

[86] 235.

[87] *R v Board of Trustees of the Science Museum* [1993] 1 WLR 1171 at 1177.

[88] *Newport BC v SS for Wales* [1998] Env LR 174 and *West Midlands Probation Committee v SSE* [1999] JPL 388.

[89] see de Smith, Woolf and Jowell, supra at ch 10.

[90] E. Fisher and R. Harding, 'From Aspiration to Practice: The Precautionary Principle in Australia' in T. O'Riordan, J. Cameron and A. Jordan (eds), *Re-Interpreting the Precautionary Principle*, 2nd edn (London: Cameron May 2001).

has been included in legislation.[91] The principle also has clear appeal in natural resource decision-making where both the scientific uncertainties and possible adverse consequences are more significant.[92] The greatest factor in promoting the judicial application of the precautionary principle, however, has been the availability of merits review by specialist courts.[93] As Cane has noted the distinction between merits and judicial review is often minimal[94] but the legislative allowance of such review does address some of the problems of the courts' lack of competence.

The precautionary principle, despite its popularity has not been a particularly sharp 'sword' for litigants. This is because the court's review under it has tended to be deferential. In accepting the principle as a relevant consideration the courts have tended to interpret it as a 'common sense duty to be cautious'.[95] Caution does not mean inaction, nor does it mean any particular outcome or procedure.[96] Thus, as Pearlman J noted in *Greenpeace Australia Ltd v Redbank Power Company Pty Ltd*:

> The application of the precautionary principle dictates that a cautious approach should be adopted in evaluating the various relevant factors in determining whether or not to grant consent; it does not require that the greenhouse issue should outweigh all other issues.[97]

What the courts have found to be 'precautionary' is extremely wide-ranging. In *Nicholls v Director-General of National Parks and Wildlife*[98] Talbot J, while doubtful about the utility of the precautionary principle, concluded it could be used as a reason to grant a shorter licence period for logging so that in granting a new licence new scientific information could be considered.[99] In *Grishin v Conservator of Flora and Fauna*[100] the tribunal held that the precautionary principle could be used as a reason for banning horse riding in an area and carrying out further studies.

In most cases, however, the precautionary principle is raised, the court will conclude it is relevant, and then argue that the decision-maker has already applied it.[101]

[91] In Australia the principle has been included in over 20 pieces of legislation. See Fisher and Harding 'From Aspiration to Practice' supra. Australian judges have held it is relevant even when it is not included in the legislative framework for the decision because it is a 'customary norm of international law', a 'common sense' principle, a principle of 'common law' or a mixture of these. *Leatch v National Parks and Wildlife Service* (1993) 91 LGERA 270 at 282; *Friends of Hinchinbrook Society Inc v Ministry for Environment* (1997) 142 ALR 632 at 678 and *North Queensland Conservation Council v GBRMPA* [2000] AATA 925 at paras 165–72. Also see A. Mason, 'The Influence of International and Transnational Law on Australian Municipal Law' 7 *Public LR* (1996) at 27; and C. Barton, 'The Precautionary Principle in Australia: Its Emergence in Legislation and as a Common Law Doctrine' 22 *Harvard Environmental LR* (1998) 509.

[92] Fisher and Harding, 'From Aspiration to Practice', supra.

[93] For the principles of such merits review see *Re Drake and Minister for Immigration and Ethnic Affairs (No 2)* (1979) 2 ALD 634.

[94] Cane, supra.

[95] *Greenpeace Australia Ltd v Redbank Power Company Pty Ltd* (1994) 86 LGERA 143, 154; *Alumino (Aust) Pty Ltd v Minister Administering the Environmental Planning and Assessment Act 1979* [1996] NSWLEC 102; and *Northcompass Inc v Hornsby Shire Council* [1996] NSWLEC 213.

[96] *Bridgetown Greenbushes Friends of the Forest Inc v Executive Director of the Department of Conservation and Land Management* (1997) WAR 102 at 119, and *Miltonbrook Pty Ltd v Kiama Municipal Council* [1998] NSWLEC 281.

[97] (1994) 86 LGERA 143 at 154.

[98] (1994) 84 LGERA 397. A similar approach to licensing was taken in *Leatch v National Parks and Wildlife Service* (1993) 91 LGERA 270.

[99] Also see *NSW Glass and Ceramic Silica Sand Users Association v Port Stephens Council* [2000] NSWLEC 149 in which the precautionary principle was used as justification for further groundwater monitoring and archaeological investigation before sandmining.

[100] [1998] ACTAAT 250.

[101] *Alumino (Aust) Pty Ltd v Minister Administering the Environmental Planning and Assessment Act 1979* [1996] NSWLEC 102 and *Northcompass Inc v Hornsby Shire Council* [1996] NSWLEC 213.

Thus, for example, in *Optus v Corporation of the City of Kensington and Norwood*[102] the South Australian Environment, Resources and Development Court concluded that while it viewed a 'precautionary approach' as desirable it had already been embraced by an Australian and New Zealand technical standard concerning exposure to radio frequency radiation being emitted from a telecommunications station.[103] There was however very little analysis of how that standard was arrived at.[104] In *R v Resource Planning and Development Commission ex parte Aquatas Pty Ltd*[105] the Supreme Court of Tasmania concluded that the principle had been respected by granting a development planning permission but having permit conditions which were flexible so as to take into account new scientific knowledge. In *Lend Lease Development Pty Ltd v Manly Council*[106] the precautionary principle was used to prevent harm to a population of long nosed bandicoots living close to a block of flats. This involved the implementation of a programme of 'vegetated links' as well as the developer imposing a covenant on a building that its occupiers could not own cats or dogs.[107] Likewise, in the New Zealand case *Greenpeace New Zealand v Ministry of Fisheries*,[108] while the principle was argued it was found to not be legally relevant. The Court, however, stated that the Ministry could not be criticised for not being cautious (and therefore not applying the precautionary principle) because 'it was a decision arrived at consistently with expert evidence placed before him and not controverted by his own advisors'.[109] Such a case does little to promote flexible and democratic responses.

While the precautionary principle may be being used a sword in these cases there are two serious problems. First, while many actions are found to be 'in accordance with the precautionary principle there has been no development of a principled framework for deciding what is precautionary.[110] Second, review tends to be deferential and thus effectively sanctioning the status quo.[111] This is highlighted by a 1997 Federal Court decision concerning the potential impact of a marina on a dugong (a type of marine mammal) population. In *Friends of Hinchinbrook Society Inc v Ministry for the Environment*,[112] Sackville J considered the principle in passing. He found that the principle was not legally binding but like the majority of judges he considered the principle as one of common sense. He stated:

It is true that the Minister did not expressly refer to the precautionary principle or some variation of it, in his reasons. But it is equally clear that before making a final decision, he

[102] [1998] SAEDRC 480. Although see *Mcintyre v Christchurch CC* A15/96 Planning Tribunal, 5 March 1996 where a precautionary approach was achieved by imposing stricter standards. See S. Berry and M. Williams, 'The Precautionary Principle of International Environmental Law in the New Zealand Domestic Law Context' 5 *Environmental Liability* (1997) 15–18.

[103] Applied in *Connell Wagner PL v City of Port Phillip*, Victorian Civil and Administrative Tribunal, 1998/11530.

[104] On the role of pre-existing regimes also see *Dow Chemicals (Aust) Ltd v Director, Chemicals Notification and Assessment* [1999] AATA 1023 at para 13.

[105] (1998) 100 LGERA 1.

[106] [1998] NSWLEC 136.

[107] Para 27.

[108] Unreported, High Court of New Zealand, 27 November 1995, CP 492/93.

[109] 32.

[110] Also see *Davfast Pty Ltd v Ballina SC* [2000] NSWLEC 128.

[111] E. Fisher, 'Changing the Mindset? Implementing the Precautionary Principle in Australia', 7 *Research in Social Problems and Public Policy* (1999) 183–98.

[112] (1997) 142 ALR 632.

took steps to put in place arrangements designed to address the matters of concern identified in the scientific reports and other material available to him.[113]

In a subsequent press release the Department of the Environment stated that this case was 'an approval of the Senator's adoption of the precautionary principle'.[114] This was even though, as Sackville J noted, the Ministry did not explicitly consider the principle. A similar problem has been noted by Gullett in the context of environmental impact assessment in Australia.[115]

4. Readjustment and Redefinition: Making the Precautionary Principle Justiciable?

In reading these cases it is easy to gain the impression that attempting to argue the precautionary principle as a ground of review in judicial review cases is deeply misguided and even self-defeating. The principle is simply not justiciable and while the principle may be relevant to other aspects of public law it would seem to be highly ineffectual in judicial and merits review. In this vein, Talbot J has noted that while the principle:

> may be framed appropriately for the purpose of a political aspiration, its implementation as a legal standard could have the potential to create interminable forensic argument.[116]

Thus we saw that some courts have simply not considered it and that those that have considered it have tended to defer to the decision-maker's approach to the principle.

However, there have been some cases in which the legal application of the precautionary principle has produced more substantive results. First, the Supreme Court of India in *A.P. Pollution Control Board v Nayudu*[117] has argued that the precautionary principle is a justification for the setting up of a specialist environmental court.[118] Such a conclusion is not surprising. The court noted that the problem in these cases is that the courts do not have the expertise and thus competence to assess the evidence put forward in such decisions.[119] The Supreme Court noted not only UK and US commentary on the matter but cited the NSW Land and Environment Court, which has been at the forefront of precautionary jurisprudence, as a paradigm example.[120] While stressing the importance of the scientific competence of any such specialist tribunal, the Supreme Court also emphasised the importance of human rights, intergenerational equity and adjustments to procedure.[121]

The conclusion of the Court in *Nayudu* is an explicit solution to the problems of competence by setting up a new court. However, it is not a complete solution. As we saw above in those jurisdictions where specialist courts have been set up review still

[113] 678–9.
[114] 27 July 1998.
[115] Gullett, supra at 124.
[116] *Nicholls v Director General of National Parks and Wildlife Service* (1994) 84 LGERA 397 at 419.
[117] 1999(1) UJ (SC) 426, 27 Jan 1999.
[118] 433.
[119] 433.
[120] 438.
[121] 441. Interesting because human rights is one of the few acceptable grounds of intervention in relation to the impact of a decision for UK courts. See de Smith, Woolf and Jowell, supra at 495 et seq.

tends to be deferential. Likewise, an interesting question to ask is whether the creation of such a court is really just a 'stalking horse for the advance of judicial control of administrative action'[122]—that is the creation of such a court will see more intensive review by both specialist and generalist courts. Some weight could be given to this view by the recent decision of *A.P. Pollution Control Board v Nayudu (II)*[123] in which the court, while still stressing the importance of a specialist court, found they now did have the competence to review the evidence.

The second set of cases where the problems of competence have been overcome are those where the principle has been construed as a principle of procedural fairness. In many senses the term 'procedural fairness' is misleading. What is clearly at stake here is not just issues of procedural propriety but rather matters of process. The label, however, is a useful one in that it legitimates the court's intervention in the decision in these cases.[124] At the same time it raises some very real problems about judicial concepts of procedure being grounded in adjudication rather than administration.

In *Bridgetown Greenbushes Friends of the Forest Inc v Executive Director of the Department of Conservation and Land Management*[125] the 'precautionary approach' was included as a principle in a forestry management plan. The plaintiff in this case was seeking an interlocutory injunction from the Supreme Court of Western Australia to stop forestry operations. Wheeler J declined to grant it, one of the reasons being that the defendant had already applied a precautionary approach. This part of the judgment is not surprising and is consistent with the judicial approach outlined above. The judge, however, went on to characterise precaution, and argued it was relevant to the way the decision was made rather than any particular end result. He noted:

> Adopting for the moment a very broad characterisation of the precautionary approach, a requirement that a decision-maker 'be cautious' says something about the way the decision must be made. There must be some research, or reference to available research, some consideration of risks, and a more pessimistic rather than optimistic view of the risks should be taken. However, such a requirement does not in any particular case specify precisely how much research must be carried out, or when a risk should be considered to be so negligible that it may safely be disregarded. Still less, does such an approach dictate what courses of action must be taken after the possibilities have been cautiously weighed (sic).[126]

Thus the precautionary principle, according to Wheeler J, required some decision-making process in which information was amassed and the risks were assessed to favour environmental protection. As such it was similar to the 'rules of natural justice and the like'.[127]

A similar approach can be evidenced in the merits review case of *Mohr v Great Barrier Reef Marine Park Authority*.[128] That case concerned the Great Barrier Reef Marine Park Authority's (GBRMPA) decision to refuse the applicant a permit to conduct pearl oyster mariculture off Kent Island. GBRMPA partly justified their decision on the

[122] Cane, supra.
[123] 2000 SOL Case 673, 1 December 2000.
[124] Jowell, supra at 331.
[125] (1997) WAR 102.
[126] 118.
[127] 118.
[128] [1998] AATA 805.

precautionary principle arguing that the scientific uncertainty over the environmental effects of such an operation warranted a cautious approach.[129] The Federal Administrative Appeals Tribunal (AAT), upheld the decision of GBRMPA, but argued that as a tribunal it need not consider the precautionary principle because there was 'no evidence on the risk weighted consequences' of the development. Moreover, the AAT argued that:

> We observe that an assessment of the risk weighted consequences is necessary to ensure procedural fairness in decision-making where developmental interests . . . and conservation interests compete.[130]

Again we can seen a tribunal justifying its competence on the grounds that they are policing the boundaries of procedural fairness.

The recent case of *Conservation Council of South Australia v Tuna Boat Owners Association (No 2)*[131] is a good example of the Australian procedural model in action. This merits review decision concerned the licensing of tuna farms off the coast of South Australia. The South Australian Environment Resources and Development Court found that the precautionary principle was relevant. After considerable discussion of the principle the court understood it in the following manner:

> The appellant [who is challenging the development] . . . would need to show that there is a prospect of serious or irreversible damage to the environment, should the proposed development proceed. If that is shown, the burden of proof switches to the proponent and it will be necessary for the proponent to show, in order to have his or her development classified as ecologically sustainable, the following:
> — the measures that the proponent will take (within the limits of practicability) to avoid serious or irreversible damage to the environment; and
> — that the risk weighted consequences of the development assessed together do not suggest that serious or irreversible environmental damage would be sustained.
> . . .
> The proponent would have to satisfy the burden of proof by evidence as to the likely consequences of the proposal, including scientific evidence (with its limitations), evidence as to the proposed management regime and measures, and evidence to assist the Court in the assessment of the risk-weighted consequences of the proposal.[132]

In this case the court refused the licence mainly on the basis that the legislative framework was not appropriate for putting in place the necessary adaptive management framework.[133]

The decision was appealed to the Supreme Court of South Australia where it was overturned because Doyle CJ found that the legislative framework *could* accommodate an adaptive management approach.[134] At the same time, however, he also upheld the Environment, Resources and Development Court's reasoning in regards to the precautionary principle stressing that it was acceptable for an onus to be placed on

[129] Para 75.
[130] Para 124. The concept of 'risk weighted consequences' is taken from the statement of the precautionary principle in the non-legally binding Intergovernmental Agreement on the Environment.
[131] [1999] SA ERDC 86.
[132] Para 24.
[133] Para 41.
[134] *Tuna Boat Owners Association of South Australia v Development Assessment Commission* [2000] SASC 238 at paras 55–60.

the applicant to prove that the development was ecologically sustainable.[135] Doyle CJ was quick to point out, however, that there could be 'no hard and fast rules' in a case like this and that the court's reasoning should not be taken as a proposition of law.[136] His reasoning, while representing an acceptance of the precautionary principle, also raises the problem of developing a principled framework for precaution.

5. Future Directions: Judicial Development of Precautionary, Fair Procedures

The discussion so far has highlighted three important points. First, the precautionary principle requires the adjustment of decision-making *processes* in cases of scientific uncertainty. Second, courts engaging in merits and judicial review have not used the principle as a justification for intensive and searching review because, as presently argued it is viewed as beyond judicial competence. Much of this is due to the fact that the precautionary principle is often characterised as one of substantive impact. However, as the Australian case law on 'procedural fairness' illustrates the concepts of justiciability and competence are highly malleable. The precautionary principle is thus seemingly beyond competence when it is argued as a rigid principle that requires a certain outcome and within competence when it is argued as a way of making fairer decisions.

To say that the precautionary principle can be understood as a principle of fair procedure, however, is not to end an examination into the possibility and desirability of its judicial application. What is a 'fair procedure' is not a fixed and immutable concept and nor is it trouble free.[137] Moreover there are real problems with developing foundational principles of precaution in the judicial sphere.

5.1 Developing Precautionary *Administrative* Processes

Concepts of procedural fairness have been developed from the adjudicative concept of natural justice and thus their basis is in liberal theories of infringement of rights and trial process.[138] The precautionary principle in contrast is an administrative principle that applies to collective rule-making. Yet, commentators and judges[139] often describe it in adjudicative terms as requiring a shifting in the burden or onus of proof.[140] Such a characterisation is not only flawed but also positively unhelpful in the development of more precautionary administrative processes.

Concepts of fairness in adjudication and administration, while both flexible, are remarkably different. The former focuses on the ways in which individual rights can be infringed while the latter focuses upon the fair treatment of a wide number of people. Ganz has described the judicial process in the following manner:

[135] Para 27.
[136] Para 30.
[137] D. Galligan, *Due Process and Fair Procedures* (Oxford UP, 1996).
[138] Galligan, supra at 227 and Lacey, supra.
[139] *A.P. Pollution Control Board v Nayudu* 1999 (1) UJ (SC) 426 and *Vellore Citizens Welfare Forum v Union of India* (1997) 9 JEL 387.
[140] Barton, supra at 509; and C. Cranor, 'Asymmetric Information, the Precautionary Principle, and Burdens of Proof' in Raffensperger and Tickner, supra at 74–99.

The judicial process is an adversary process. The judge is an impartial arbiter between two parties. He does not step into the arena. It is for the parties to make out their case. The judge is concerned with the issues between them not with finding the best solution to a particular problem.[141]

In the administrative sphere, however, solving problems in the public interest is what public decision-makers are concerned with. Such problems are invariably polycentric, value laden and require the balancing of contradictory interests and factors. The 'facts' are only one element of decision-making and an administrative decision-maker takes a far more active role in information collection. The inadequacies of adjudicative procedure to deal with the complexities of this type of decision-making have long been recognised.[142] While the concept of shifting the burden of proof may be appropriate for creating 'formal accuracy' in bipolar litigation[143] concerned with historical facts it is nonsensical in the administrative context where fact finding tends to be more predictive.[144] As Chayes has noted the phrase in administrative decision-making should be 'fact evaluation' rather than 'fact finding'.[145]

A good example of the inappropriateness of this conceptualisation of the precautionary principle can be seen in *Dixon v Australian Fisheries Management Authority*.[146] The case involved a decision of the Australian Fisheries Management Authority (AFMA) in which AFMA refused to vary a permit condition pursuant to a management plan because while such a variation would have aided short-term economic efficiency, there were concerns about long-term over fishing and its implications for permits in other fisheries. The facts of the case are complicated but AFMA used the precautionary principle as one of the justifications for its decisions and the applicant argued that the principle was invalid because the 'threshold test had not been met'. The threshold test being that the precautionary principle only operates in cases where there are 'threats of serious and irreversible environmental damage' at which point there was a 'reversal of the onus of proof'. In upholding AFMA's decision the Tribunal made a very insightful remark about the principle. They noted:

> . . . the threshold test if met, obliges, rather than authorises, AFMA not to use lack of full scientific certainty as a reason to postpone measures to prevent environmental degradation. Clause (b) [the legislative provision] does not preclude AFMA from taking steps to prevent the risk of environmental degradation if the test is not met. AFMA's action is constrained only by its obligation to pursue each of the other obligations in subsection 3(1), and to have regards to the objectives in subsection (2). Thus if the threshold test is not met, Mr Dixon's contention that the exercise of the precautionary principle is invalid has merit, if measures taken by AFMA are not in pursuit of the other of AFMA's mandatory objectives.[147]

In this case, and after an exploration of the many different factors relevant to the decision, the Tribunal found that the reliance on the precautionary principle was

[141] G. Ganz, *Administrative Procedures* (Sweet & Maxwell, 1974) at 19.
[142] In the UK see *Report of Committee of Minster's Powers*, Cm 4060 (HMSO, 1932).
[143] R. Posner, *The Problems of Jurisprudence* (Harvard UP, 1990) at 216.
[144] For this reason in the United States a distinction has been made between legislative and adjudicative facts. See K. Davis, *Administrative Law*, 1st edn (West Publishing, 1958) at 115.03.
[145] A. Chayes, 'The Role of the Judge in Public Law Litigation', 89 *Harvard LR* 1281 at 1297.
[146] [2000] AATA 442.
[147] Paras 121–2.

consistent with other factors and thus upheld the decision.[148] Here the concept of the 'shifting of the burden of proof' detracted from understanding the decision-making process as one in which many different facts and policy factors needed to be balanced. What mattered was not so much who had the burden of proof but was the process by which those different factors were weighed up a legally valid one.

To describe the precautionary principle as a shifting of the onus of proof is to understand decision-making in adjudicative terms and is thus to take a step backwards in regards to our understanding of public administration.[149] Thus, to develop fair procedures under the precautionary principle the starting point must be what is understood as fairness in rule-making. The precautionary principle, as we saw above in Section 2.2 mandates a flexible, proportionate and democratic decision-making process that requires consideration on a case-by-case basis. In many ways it emphasises what Galligan states are the key features of a 'fair treatment' in rule-making processes—participation, consideration and openness.[150] As he also notes, what each of these requires will vary with context.[151] The precautionary principle makes an important statement about scientific uncertainty—that claims based on the 'facts' are invalid in such circumstances. Procedures need to be developed which ensure that science is not overly relied on in such cases. Those procedures cannot be a set of rigid rules because the nature and extent of scientific uncertainty will vary as will the nature of the risks themselves.

This is not to say there is not a rich source of literature that can be referred to in the development of the framework for precautionary procedures. Besides those reports and commentaries discussed above in Section 2.2 there are also documents such as the Royal Commission on Environmental Pollution's *Setting Environmental Standards*[152] which identifies many of the tensions within risk regulation. Further afield, the US's long and difficult history with rule-making in risk regulation provides not only a source of ideas but also object lessons in how *not* to do it.[153] Likewise, the literature and case law more generally on rule-making provides an important framework.[154] As already noted three factors need to be strong emphasised: flexibility, proportionality and participation. What is found to be the appropriate form of public/private interaction will be heavily influenced by normative understandings about public participation[155] but needless to say, on any model, freedom of information will have an important role to play.

5.2 Developing Judicial Competence

There remains, however, the more difficult question of what should be the role of the courts in the development of such procedures. This is particularly problematic in

[148] Para 182.

[149] One could argue at the extreme that it embraces the arguments of Lord Hewart. See G. Hewart, *The New Despotism* (Ernest Benn, 1929).

[150] Galligan, supra at 476.

[151] Galligan, supra at 477.

[152] Royal Commission of Environmental Pollution, *Setting Environmental Standards* (HMSO, 1998).

[153] E. Fisher, *Risk Regulation and Administrative Constitutionalism: The US, UK and EC* (Hart, forthcoming 2002) at Ch. Three. Also see National Research Council, supra.

[154] Attorney General's Committee on Administrative Procedure, *Final Report* (1941) and Galligan, supra at ch 16.

[155] There is no room here to discuss this highly important issue but see Fisher, *Risk Regulation and Administrative Constitutionalism*, supra.

relation to UK courts. As Galligan notes the UK jurisprudence on procedural fairness has been 'threadbare'.[156] Moreover, if courts do intervene, they have tended to conceptualise fair procedures within adjudicative terms.[157] Thus, there is a strong argument that if the development of precautionary procedures is to occur it should be within the administrative and legislative spheres of government. There is much force in this argument, but in light of the lack of interest and systematic approach to rule-making in the UK, this in reality unlikely to occur.[158] Moreover, there is a danger that such statutory frameworks will create undue rigidity.

Thus, while not discouraging the development of such administrative procedures, there is still an important role for the courts. While judicial review is post hoc it is also a highly flexible form of holding decision-makers to account. Moreover, the controversy over risk regulation is likely only to increase—arguing that issues of precaution are beyond the competence of the courts will not stop problems of legitimacy and accountability in this area. It would be unacceptable to oust the jurisdiction of the courts in such cases. Likewise any procedure framework that was created would need to be interpreted by the courts.

More importantly, the tension between accountability and administrative flexibility lies at the heart of administrative law. Indeed as Henderson notes the whole concept of 'judicial review with limited scope' is a product of the need to balance up the restraint of administrative power with the 'necessity of specialised knowledge, flexibility and creativeness in the administration of government'.[159] The judicial development of precautionary procedures can thus be understood as part of the more general development of judicial review doctrine.

So what must occur for the continued involvement of the courts? In conclusion two different matters can be stressed. First, the precautionary principle needs to be better argued by barristers. This is in a number of ways. The relationship between the principle and any particular decision needs to be more carefully explained. In *Leicester CC v Onyx (UK) Ltd ex parte Blackfordby and Boothcorpe Action Group*[160] Richards J was critical of the way in which the principle was argued and that case is not exceptional in this regard. Moreover, the precautionary principle cannot be simply argued as a rigid principle that can only furnish one result. Such arguments place the principle firmly outside what is naturally understood to be within the court's competence. The principle rather must be argued as requiring an adjustment to process and procedure. While many will fear this will not secure a certain outcome it should be remembered that process and procedure will always have a powerful influence on the substance of a decision.

As we saw above, however, these strategies are not necessarily enough and while courts may engage in review that review may be highly deferential. The changes required by the principle are thus perhaps more than simply recasting legal arguments but rather, as the Indian Supreme Court pointed out, about reworking the competence of the judiciary. As such, the precautionary principle can be understood

[156] Galligan , supra at 487.
[157] Lacey, supra.
[158] Galligan, supra at 493.
[159] E. Henderson, *Foundations of English Administrative Law: Certiorari and Mandamus in the Seventeenth Century* (Harvard UP, 1963) at 3, and *Rooke's* case (1598) 5 Co Rep 99b, 77 ER 209.
[160] (CO/1822/99, 15 March 2000) at paras 65–6.

as yet another reason for the creation of a specialist environmental court.[161] It also provides some guidance for what such a court should be like. For the court to be 'specialist' it cannot simply be equipped with more scientific knowledge but rather must have an acute awareness of all the complexities of risk regulation. Likewise, there is a strong argument that the court's procedures must be adjusted to take into account the type of polycentric decision-making that lies at the heart of risk regulation. However, and most importantly, the development of a doctrine of fair precautionary procedures in such a court should not be seen as totally isolated from broader questions about good administration.

6. Conclusion

Stein J, a NSW Court of Appeal judge and a leading proponent of the principle, has argued that the precautionary principle 'must be given specific work to do'.[162] As this article has shown that 'work' is the reshaping of administrative processes and procedures. The principle requires the implementation of flexible, proportionate and democratic decision-making processes. In many ways, these requirements are nothing new and lie at the heart of what we understand to be public administration.

The real challenge, however, lies with understanding what can and should be the role of the courts. Stein J has described it thus:

> Our task is to turn soft law into hard law. This is an opportunity to be bold spirits rather than timorous souls and provide a lead for the common law world. It will make a contribution to the ongoing development of environmental law.[163]

As this article has shown, that task is a highly complex one—it is not simply about hardening policy into law but about negotiating constitutional interrelationships. Moreover, it is not just about the development of environmental law but administrative law more generally. True judicial implementation of the precautionary principle not only requires a readjustment to how the principle is argued but also to how the court and executive interact. The precautionary principle, is thus not too 'slippery' or 'too rarefied for the judicial palate' but rather forces a very hard look at the way in which we are governed and the way in which public decision-makers are held to account.

[161] DETR, *Environmental Court Project: Final Report* (2000) at 1.2–1.3.6.
[162] P. Stein, 'A Cautious Application of the Precautionary Principle', 2 *Environmental LR* 1 (2000) at 2.
[163] P. Stein, 'Are Decision-Makers too Cautious with the Precautionary Principle?', 17 *Environmental Planning and LJ* (2000) at 3.