

Part I

Introduction: Law in Context

Preface to Part I

As we explained in the preface to this book, environmental law demands that we engage with the context within which the law is developed. In this Part, we locate modern environmental law within contemporary discourses about the environment, and begin to identify the boundaries and contours of the subject. In Chapter 1, we emphasise that the subject matter and content of environmental law has traditionally been set by a scientific agenda – what we refer to as the ‘scientific paradigm’. We also discuss the prospects for a change in direction in environmental law, away from scientism, in order to embrace more wide-ranging values and concerns, including various ethical positions and philosophies about the relationship between humans and nature. This is a slightly unusual starting point for a book primarily, though not entirely, about environmental law. However, our teaching of the subject for many years has convinced us that a contextual and critical approach to studying this field of law cannot be sustained without questioning the dominance of a scientific approach, for example by considering different and opposing visions of human/nature relations. In addition, various tenets of ecological thinking are slowly influencing mainstream environmental law, leading us to ask about the prospect of this body of law shifting in a more radical direction. One important aspect of this is the now accepted need to broaden significantly and enhance ‘real’ public participation in environmental decision making, an issue taken up in Chapter 3. Chapter 2 on agricultural biotechnology (specifically genetically modified organisms or GMOs) both picks up on many of the debates and tensions introduced in Chapter 1, and, because this technology was the subject of an innovative ‘public dialogue’ in the UK in 2003, feeds into Chapter 3 on public participation.

Before embarking upon an account of the scientific paradigm and the main strands of ecological thinking which stand in opposition to this, the following provides a conceptual and temporal framework within which much of the following discussion and debate in Part I (and also the rest of the book) may be fitted. This takes the form of a generational analysis of *international* environmental law, and as such some of the key ideas and examples (especially ‘sustainable development’) will be developed in Part III of this book. However, this schema may be considered to apply more generally.

Susan Emmenegger and Axel Tschentscher, ‘Taking Nature’s Rights Seriously: The Long Way to Biocentrism in Environmental Law’ (1994) 6 *Georgetown International Environmental Law Review* 545, pp. 552–68

THE FIRST STAGE: ENVIRONMENTAL PROTECTION AS SELF-INTEREST OF THE PRESENT GENERATION

With the advent of international environmental law in the late 19th century, environmental protection based on humankind’s immediate self-interest gave rise to the first wave of environmental instruments. A primary purpose pursued by those instruments was to maximise nature’s resources in view of their exploitation. The need for protective measures became international whenever exploitation threatened natural resources beyond state borders, particularly in the case of high-sea fishing, whaling, and the hunting of migratory birds. Approaches to maximise resource exploitation have rightfully been assigned to the ethical perspective of utilitarianism exposing them to the general criticism and limitations commonly associated with utilitarian rationales. A second purpose pursued by first stage treaties was to ensure the physical and mental well-being of the population of the signatory states, especially in the light of the health hazards caused by extensive international pollution. This form of protection adds a human rights perspective to utilitarian rationales. Yet first stage instruments always retain their characteristic limitation as pure anthropocentrism, even though they extend beyond the principle of utility.

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THE SECOND STAGE: ADDING THE INTERGENERATIONAL DIMENSION

An intergenerational dimension of environmental instruments builds the second stage in our main thesis of a step by step development. It adds complexity to international environmental law by going beyond the limited first stage scope of present generation provisions. As before, we can link this development to a theoretical background in environmental ethics.

1. Future Generations and Sustainability in the Treaties

A gradual shift of focus in the field of multi-lateral environmental instruments took place in the 1970s. As mentioned in the introductory sentences of this section, the development is not perfectly linear in chronological terms. All stages have fore-runners and late-bloomers. However, the increasing reference to the intergenerational dimension of the effort to protect the environment stated in environmental documents of that period allows ascribing the beginning of the second stage to this period.

The duty of the present generation to future generations to ‘preserve the diversity and quality of our planet’s life-sustaining environmental resources’ mentioned in various international instruments has been termed an ‘emerging norm of customary international law’.¹ Adding the intergenerational dimension signals a departure from the pure version of

¹ Antonio D’Amato, ‘Do We Owe a Duty to Future Generations to Preserve the Global Environment?’ (1990) 84 *American Journal of International Law* 190, p. 190.

anthropocentrism. Nevertheless, the approach of these treaties remains species chauvinistic: the protection of nature remains subordinated to the interests of humankind.

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Thus, the intergenerational dimension offered by the future generations approach clearly remains within the boundaries of anthropocentrism. For 'sustainability' as the new term for future generations protection, the Rio Declaration explicitly states that 'Human beings are at the center of concerns for sustainable development', thereby formulating the core belief of anthropocentrism that humans are the measure of all things.

THE THIRD STAGE: THE EMERGING NON-ANTHROPOCENTRIC PARADIGM
AND NATURE'S OWN RIGHTS

1. Intrinsic Value in the Treaties

The assertion of nature's intrinsic value made its entry into the law making process of multi-lateral environmental instruments only recently. By proclaiming that nature has a value which is independent of human interests, these multi-lateral instruments use a very different kind of argument and thereby express a paradigm shift in environmental law. The conceptual difference between recognizing non-anthropocentric value and evaluating all other kinds of anthropocentric values is best expressed in the following introductory sentence of the Biodiversity Convention: 'Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, educational, cultural, recreational and aesthetic values of biological diversity and its components ... we have agreed as follows: ...'. This passage not only draws a clear line between intrinsic value of nature on the one hand, and all kinds of anthropocentric values on the other, but also puts non-anthropocentrism first, thereby emphasizing its importance as a new approach.

In this third phase the primary concern is identified as ecological survival, rather than human development and aspirations. The authors explain that environmental ethics beyond anthropocentrism can focus either on 'duties of humans towards nature', or on 'the original rights of nature' (as well as identifying problems with each approach), making clear that this last stage is not a monolithic ideal.

Even with the proviso that the evocative declarations of purpose and intent relied upon by the authors to support their generational thesis are a particular characteristic of international environmental law, in this book we identify law that expresses these various stages in other areas, sometimes simultaneously. The most obvious example of the 'first stage' (the protection of the environment for self-interested reasons) is the enactment of pollution controls at the height of the industrial revolution to protect public health and thus secure a healthy workforce, and to ensure a good supply of a particular natural resource, for example clean water for brewing and distilling.² We discuss the shift towards intergenerational concerns in law (the second evolutionary stage) in Chapter 6 on sustainable

² See Ch. 8.

development. Examples of a shift in environmental law to embrace the ‘third stage’ concerns about the intrinsic value of nature (or a shift to a type of ‘ecological law’) are undeniably less easy to find, and our general conclusion is that much of environmental law remains antithetical to ecological precepts. However, there are occasional moves towards a closer representation of ecological values, several examples of which we discuss in Chapter 1. Furthermore, an important aspect of ecological thinking, ‘holism’, is reinterpreted in law as the principle of integration, discussed especially in Chapter 4.³

As mentioned above, although Emenegger and Tschentscher’s stages may co-exist at a particular time, they also describe a rough chronology of events in environmental law. A difficulty is, as Carrie Menkel-Meadow puts it, how does one know when an evolutionary apogee has been reached?⁴ Several attempts have been made to identify such shifts with regard to environmental law. Although in general the exercise of ascertaining the current developmental phase of environmental law is particularly popular in the United States,⁵ Gerd Winter famously, in a prophetic article in the first issue of the *Journal of Environmental Law*,⁶ identified four phases of environmental law: ‘the circular economy’ in which ‘man uses nature while allowing her the material, spatial, and temporal possibilities necessary for self-regeneration’;⁷ ‘the exploitation of nature by man’, at which point law is oriented towards ‘releasing the inventiveness and energy of the individual’, with scant regard for environmental degradation;⁸ the ‘planned management of nature’ in which environmental protection law begins to be put in place; and ‘thinking about new solutions’, in which traditional approaches to the control of environmental degradation are recognised as ineffective, and new legal solutions are sought. Again, these different stages can be identified in examples of environmental law throughout this book, particularly in Parts IV and V, which discuss evolving approaches to pollution control and land use regulation.

It must be admitted that so far we have been talking about ‘the environment’ as though it were axiomatic. However, the environment is not a given. People’s perceptions of nature, the environment and harms are often very different, informed by upbringing, religion, ethnicity, art and literature, as well as by their professional perspectives. For example a landscape may be made up of physical forms and elements – water, soil, flora and fauna, and artificial objects such as roads and buildings, shaped by natural processes and human activities. But the landscape is also formed by the observer’s viewpoint which is influenced by individuals’ differing perspectives and experiences, for example how they relate a landscape to their cultural identity. Without denying that nature exists ‘out

³ See also ‘Ecological Law’, Ch. 1, pp. 55–7.

⁴ ‘Is the Adversary System Really Dead?’ (2004) 57 *Current Legal Problems* 85, with regard to the development of alternative dispute resolution.

⁵ See, for example, the papers arising from a symposium on twenty-five years of environmental regulation in the USA (1993–4) 27 *Loyola of Los Angeles Law Review*.

⁶ ‘The Four Phases of Environmental Law’ (1989) 1 *Journal of Environmental Law* 38.

⁷ *Ibid.*, p. 38. ⁸ *Ibid.*, p. 39.

there', it should be recognised that nature is inseparable from human perception, and for this reason has been described by some theorists as a social construct as much as a physical reality. Neil Evernden, for example, accounts for the social creation of pollution as 'matter out of place', threatening to 'the social ideal of proper order'.

Neil Evernden, *The Social Creation of Nature* (Johns Hopkins University Press, 1993), pp. 4–9

In his survey of the opinions of different sectors of British society, sociologist Stephen Cotgrove detected some interesting differences in the apprehension of environmental risk. Two of his categories showed wide divergence: the 'environmentalists' (composed of a sample drawn from membership lists of the Conservation Society and the Friends of the Earth), and the 'industrialists' (selected from *Business Who's Who* and *Who's Who of British Engineers*). As one would expect, the environmentalists perceived considerably more environmental danger than did the industrialists. But what is interesting is that the latter group does not seem to be deliberately acting in an irresponsible way, but rather seems not to perceive significant risk at all.

If pollution is regarded as a matter of empirical fact, it may seem odd that such disagreements can persist. But since pollution involves questions not only of concentrations but also of consequences, even 'hard' evidence is inevitably open to interpretation – hence the frequent spectacle of contradicting experts. Equally significant, however, is our tendency to treat pollution as a purely material phenomenon, a bias that tends to establish arbitrary boundaries to environmental debate.

We must bear in mind that the current understanding of pollution is just that: the current understanding. Yet there is no reason to limit the definition to physical abuse alone. The dictionary definition is much broader and entails 'uncleanness or impurity caused by contamination (physical or moral)'. Our attention to physical pollution may distract us from the fact that much of the debate is over the perception of moral pollution. For example, while voicing their opinions about how many parts per billion of a toxin are 'acceptable', both environmentalists and industrialists may be responding to a perceived instance of moral contamination. This emerges occasionally when one or other makes predictions about future consequences, or about what 'standard of living' ought to be protected. Environmentalists will assert that if the current action continues, our future well-being will be imperiled and our children will inherit a blighted planet. Cease, they say, and learn to live in a small-scale, cooperative society without the constant pressure for growth and transformation. Industrialists may reply that it is all very well for the impractical environmentalist to advocate such irresponsible action, but if their policies were ever to be put in place, our life-style would be in jeopardy, jobs would be lost, and food shortages would loom. To the environmentalists, what is at risk is the very possibility of leading a good life. To the industrialists, what is at risk is the very possibility of leading a good life. The debate, it appears, is actually about *what constitutes a good life*. The instance of physical pollution serves only as the means of persuasion, a staging ground for the underlying debate.

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... Being able to determine the ‘parts per billion’ of a contaminant enables the environmentalist to argue that pollution has indeed occurred, and thus to infer that the entire *position* of the polluter is untenable – the polluter has clearly done something ‘unnatural’ and in so doing has placed nature, and ourselves, at risk. The polluter is condemned not only for a physical pollution but also, implicitly, for a moral pollution that is revealed by the physical pollution. Hence the highly charged emotional tone of much environmental debate: far more is at stake than the chemical composition of a river.

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In public discussions of environmental affairs, ecology is frequently a rather loosely defined entity, often treated as the environmentalists’ chief ally and occasionally even as a synonym for the natural environment. Indeed, the very plasticity of our concept of nature may be illustrated by the contrasting uses to which ecology is put. It is pressed into the service of a variety of social alternatives ... But exactly what is advocated is of less interest here than that ecology functions as the exemplar of the natural and the healthy, and in so doing seems to indicate to us how we might re-orient our lives. Indeed, ecology will inevitably be so used if our understanding of ecology includes the establishment of norms as part of its function.

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So far I have spoken of the use of ecology only by those in support of social reform. There is, however, a much heavier reliance on ecology by those who defend the status quo. I speak of the use of ecology in such officially sanctioned activities as environmental impact assessment, wildlife management, and land reclamation. While these may be useful in the immediate support of environmental integrity, they constitute a use of ecology in the service of technological and bureaucratic intervention. There is a tacit expectation that some form of environmental engineering must emerge that will facilitate continued growth with a minimum of environmental backlash. Ecology is to help us anticipate difficulties, so that alternative technologies can be forged to circumvent them.

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These are two contrasting interpretations of the function of ecology. Undoubtedly they are caricatures of actual attitudes and assumptions, but they serve to illustrate the possibility of alternative uses of ecology, the contemporary nature-explainer that we expect to be ‘objective’ and, of course, ‘value neutral’. Persons with contrasting viewpoints can draw upon this discipline, one group regarding it as a revealer of the natural and proper, the other as a source of power and control (which it is natural to use). Each group believes its stance to be correct, and each expects endorsements from ecology.

The question of where ‘nature’ and, we might add, ‘the environment’ comes from leads us to the discussion in Chapter 1 about how law has come to express scientific understandings of the environment and risk, and how this is opposed by those adhering to various ‘alternative’ ecological theories about the ‘proper’ relationship between humans and nature. The accommodation of expert information with ecological, political or popular values, in recognition

that the scientific expert can only ever offer a partial understanding of environmental problems and hence provide limited solutions, is very possibly the main dilemma currently facing environmental law. The tension this accommodation creates forms the focus of this first Part of the book and continues to inform our analysis throughout the rest of it.

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Environmental Law in Context

1 Introduction

Recent decades have seen questions of environmental protection become a significant issue for government, and part of mainstream public debate. Most jurisdictions now have government departments and independent agencies dedicated to environmental protection, as well as public interest groups committed to raising the profile of environmental issues. Whilst the need for environmental protection is virtually uncontroversial, however, the reasons for protecting the environment are rarely spelt out; in turn, and as foreshadowed in the Preface to this Part, the *meaning* of environmental protection, and the best way of achieving environmental protection, retain potential for real conflict.

Graham Smith, *Deliberative Democracy and the Environment* (Routledge, 2003), pp. 1–3

Value conflict is at the heart of environmental politics. Decisions that affect the environment are typically multi-faceted: when reasoning about the non-human world, individuals and groups often find themselves pulled in contradictory directions, appealing to values that they find difficult to reconcile ...

The environmental movement itself can be understood as being born out of value conflict, a conflict with interests in society that did not recognise or give sufficient attention to environmental values. Greens have challenged the values associated with the idea of progress based on ever-increasing levels of economic growth on the grounds that it represents a failure to consider the full range of values that we associate with the environment.

But it is important to remember that the environmental movement itself is pluralistic in nature. So, for example, we find distinctions drawn between preservationists and conservationists, between ecologists and environmentalists, and between ecosocialists, social ecologists, ecofeminists, animal liberationists, bioregionalists, deep ecologists and advocates of environmental justice, to name but a few distinct positions. Different factions within the broad environmental movement draw on different conceptions of environmental values. The way in which different environmental and non-environmental values are prioritised at times places their proponents in conflict with one another. The classic example is the conflict that

can emerge between conservationists and preservationists, 'often with that special degree of hostility reserved for former allies'.¹ Conservationists are typically concerned with ensuring sustainable yields of environmental resources for on-going human consumption; the preservationist ethic, in contrast, argues for the protection of areas from direct human interference, often on the grounds that aspects of the non-human world have intrinsic value. Again, the 'special degree of hostility' has famously been witnessed between social and deep ecologists. Murray Bookchin, the founder of social ecology, frequently rails against the 'mysticism' that he sees as prevalent within deep ecological thought.² As Kate Soper recognises: 'The ecology movement, when viewed as a whole, draws its force from a range of arguments whose ethical underpinnings are really quite divergent and difficult to reconcile.'³

If we take one of the most celebrated sites of environmental conflict – the world's rainforests – we can begin to appreciate the plurality of values associated with the non-human world. At an instrumental level, the rainforests have direct use for us in a number of ways. We value their role in climatic processes, acting as a carbon dioxide sink to secure basic ecological conditions for human existence and flourishing, and as a resource for timber, pharmaceutical and other products. Prudential appeals are frequently made to the scientific value of such unique ecosystems and the possible advancements in medical and scientific knowledge that could be gained from the study of the rich biodiversity. Using the language of justice, conflicting arguments have emerged about the rights of indigenous peoples to remain in the environment that has always provided the background for their form of life, and the rights of individual nations to self-determination in exploiting resources within their national territory. Appeals to justice have also focused on the rights of future generations, pulling judgements about the value of the rainforest in a different direction. Ethical considerations have been extended to the diversity of non-human entities that constitute the ecosystems of the rainforest. Not only is the very existence of such 'wild' places often constitutive of individuals' own sense of identity and understanding of the relation between human and non-human worlds, but their existence can be judged as significant in their own right.

A sophisticated body of environmental law has grown up as a response to the perceived demands of environmental protection. The proper role of environmental law is, however, much contested. Whilst it is far from unique in this respect, we should be aware that environmental law and policy develops in a context of competing, but often silenced, value judgments. Environmental law cannot be read in isolation; it is important to read environmental law critically, and in its context. In this chapter, we will therefore consider a number of frequent, but not always consistent, ways of viewing 'the environment' and environmental 'problems'. First, we present the dominant, scientific approach

¹ John Passmore, *Man's Responsibility for Nature* (Duckworth, 1980), p. 73.

² Murray Bookchin, 'Social Ecology versus Deep Ecology: A Challenge for the Ecology Movement' (1987) 4/5 *Green Perspectives*; *The Ecology of Freedom* (Black Rose, 1991).

³ Kate Soper, *What is Nature?* (Blackwell, 1995), p. 254.

to assessing risk, since the views of expert biologists, chemists and geneticists about the probability of a particular risk, its prevalence and likely causal effects commonly provide the framework within which environmental problems are understood and debated, particularly by regulators and lawyers. In general this perspective results in a broadly instrumental approach that justifies a measure by reference to scientific observations of environmental harm, and some direct or assumed human interest in that harm. The natural sciences have a special role in identifying and explaining measures of environmental protection, and our definition of an environmental problem is often based on ‘a distinctively scientific perception of the world’.⁴ Because of the primacy of this approach we provide a (necessarily truncated) account of how science came to dominate, and define, the debate, particularly when compared to more instinctive, value-laden interpretations. In this context we also elaborate the increasingly important role of the precautionary principle, which is subject to many interpretations, but has the potential to bring a scepticism towards a rigid approach to scientific evidence into the legal process, whilst at the same time implying some degree of acceptance of the inevitability of scientific uncertainty.

Economics also frequently provides the justificatory basis of environmental protection, with some arguing that environmental problems are simply economic problems, the result of a failure to put the correct economic value on environmental ‘goods’. Even without going this far, the tools of the economist increasingly dominate discussion of how, and how intensely, to protect the environment. In the first two sections of this chapter, we therefore find common ground between the scientific (‘hard’ science) and economic (‘soft’ science) foundations of environmental law and policy, and the bureaucratic techniques of risk assessment and cost benefit analysis that grow out of them. Very simplistically, these are approaches that see the environment as fundamentally capable of management, if only we can harness the appropriate expertise.

In contrast, the ethical basis for environmental measures is rarely explicit. Competing ethical approaches are discussed in section 5. Even if these ethical approaches are rarely openly engaged with, however, there is a growing recognition, discussed in section 3, that environmental decisions are not purely technical, but are fundamentally normative in nature, based on important political, moral, cultural, even religious values. This demands of environmental decision makers that they enter the political arena and engage in debate about ‘what should be done’. There is a tension at the heart of environmental law and policy, between demands for expertise, and demands for popular engagement (see also Chapter 3). Agricultural biotechnology provides a case study of this tension in Chapter 2.

⁴ Stephen Yearley, ‘Green Ambivalence About Science: Legal–Rational Authority and the Scientific Legitimation of a Social Movement’ (1992) 43 *British Journal of Sociology* 511, p. 512.