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## Environmental Law for Sustainability

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## Environmental Law for Sustainability

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BENJAMIN J. RICHARDSON\* AND STEPAN WOOD\*\*

### A. Introduction

Some 40 years into the ‘modern’ environmental era, how much closer is humankind to an ecologically and socially sustainable relationship with its environment, and what role can environmental law, in all its various forms, play in securing such a relationship? These are the central questions addressed by this book. The answer to the first question remains sobering despite several decades of efforts at environmental regulation. There have been notable successes, especially in the advanced industrialised countries, but in the past five decades environmental change has been more rapid than at any other time.<sup>1</sup> Virtually all of Earth’s ecosystems have been significantly transformed through human actions, causing widespread degradation of ecosystem services.<sup>2</sup> Far from improving since the 1992 Rio Earth Summit made ‘sustainable development’ the centrepiece of international and domestic environmental policy, most indicators of environmental quality have continued to deteriorate in most parts of the world.<sup>3</sup> As the governments assembled at the ‘Rio+10’ conference in Johannesburg recognised:

The global environment continues to suffer. Loss of biodiversity continues, fish stocks continue to be depleted, desertification claims more and more fertile land, the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating, and developing countries more

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<sup>1</sup> Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Synthesis* (Island Press, 2005), at [www.millenniumassessment.org](http://www.millenniumassessment.org).

<sup>2</sup> *Ibid.*

<sup>3</sup> UNEP, *10 Years After Rio: The UNEP Assessment* (UNEP, 2002).

vulnerable, and air, water and marine pollution continue to rob millions of a decent life.<sup>4</sup>

Even in Western Europe, often considered to have the most sophisticated environmental laws, 'state of the environment' reports document little improvement in regional environmental quality.<sup>5</sup> As China, India and other large developing economies expand further and modernise, the planet will surely be placed under even greater ecological stress. The result of all this, as the board of the Millennium Ecosystem Assessment warned recently, is that 'human activity is putting such strain on the natural functions of Earth that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted'.<sup>6</sup>

What role has environmental law played in relation to these sobering trends, and what role might it play in reversing them? This is much more difficult to answer, and the goal of this volume is more to stimulate critical reflection on this question than to provide definitive answers. Law—understood in the conventional sense of official state law—has come to be widely accepted as a central vehicle for environmental protection, because of its ability to create authoritative standards and decision-making procedures for land use planning, pollution control and nature conservation, among many other elements of modern environmental governance. Yet debate rages over the existing and future contributions of law to sustainability, including the choice of legal instruments (eg Abbot, chapter 3, Driesen, chapter 9), the design of legal institutions (eg Dovers and Connor, chapter 2), the appropriate ethical foundations for environmental law (eg Bosselman, chapter 5), the role for public deliberation in law-making (eg Razzaque and Richardson, chapter 6), the relation between environmental protection and indigenous and other human rights (eg Richardson and Craig, chapter 7), the appropriate legal response to pervasive uncertainty and risk (eg Fisher, chapter 4), the choice of targets for legal intervention (eg Richardson, chapter 10), the prospects for environmental law in developing countries (eg Richardson, Mgbeoji and Botchway, chapter 13), and the role of various forms of legal ordering 'beyond' state law, from international law to corporate voluntary initiatives (eg Ellis and Wood, chapter 11, Perez, chapter 12, Wood, chapter 8).

<sup>4</sup> Johannesburg Declaration on Sustainable Development (2002), UN Doc A/CONF.199/20, at 1, para 13.

<sup>5</sup> See the reports of the European Environment Agency at [www.eea.eu.int](http://www.eea.eu.int).

<sup>6</sup> Millennium Ecosystem Assessment, *Living Beyond Our Means: Natural Assets and Human Well-Being (Statement from the Board)* (pre-publication draft, Millennium Ecosystem Assessment, 2005) 2.

## B. The Continuing Chronicle of Environmental Law

While ‘modern’ environmental law has its immediate origins in nineteenth century legislation<sup>7</sup> and antecedents in antiquity,<sup>8</sup> the so-called ‘modern era’ of environmental law dates from the 1960s, when a liberal political climate in Western nations, coupled with changing economic conditions and improved scientific understanding of humanity’s ecological impacts, created the conditions for heightened public awareness and willingness to speak out about environmental deterioration. During the early 1960s the first signs of widespread concern emerged in the wake of the best-sellers *Silent Spring* (1962) by Rachel Carson<sup>9</sup> and *The Quiet Crisis* (1963)<sup>10</sup> by US Secretary of the Interior, Stewart Udall. They challenged the notion that maximisation of economic benefits to industry and commerce equated unequivocally with the social good.

Throughout the industrialised world a new model of environmental law emerged, entailing the creation of detailed pollution and planning statutes and new specialist agencies equipped with wide-ranging controls on the economy.<sup>11</sup> In the US, the Nixon administration founded the Environmental Protection Agency in 1970 to administer the National Environmental Policy Act 1969. In Europe, for instance, the Netherlands established a Department for Public Health and Environmental Hygiene in 1971, and in West Germany a Federal Environmental Agency and the Council of Environmental Advisors were established as a bridge towards a new administrative system for environmental policy.<sup>12</sup> These initiatives were often complemented by medium-specific pollution control legislation, following the precedents of the Water Pollution Control Act 1948<sup>13</sup> (in the US) or

<sup>7</sup> The UK was the first industrialising nation to introduce public environmental regulation, in the form of sanitation and town planning statutes in the mid-19th century: D Hughes, *Environmental Law* (Butterworths, 1996) ch 1. Other industrialising countries followed later: DAR Williams (ed), *Environmental and Resource Management Law* (Butterworths, 1997) 10–11. The trend was not restricted to the industrialising world. Practically all of India’s forests, eg, were governed by forest management legislation by 1900: N Desai, ‘Sustainable Development: A Brief Introduction’ (2003) 15 *Georgetown International Environmental L Rev* 812, 813.

<sup>8</sup> *Eg Case Concerning the Gabčíkovo-Nagymaros Dam (Hungary v Slovakia)* [1997] ICJ Rep 7 (separate opinion of Weeramantry J).

<sup>9</sup> R Carson, *Silent Spring* (Fawcett Crest, 1962).

<sup>10</sup> SL Udall, *The Quiet Crisis* (Holt, Rinehart and Winston, 1963).

<sup>11</sup> The first specialist pollution control body, however, was Britain’s Alkali Inspectorate, established in 1863, to address certain factory emissions: S Bell, *Bell and Ball on Environmental Law* (4th ed, Blackstone Press, 1997) 300. In relation to the US, see RF Blomquist, ‘Clean “New World”: Toward an Intellectual History of American Environmental Law, 1961–1990’ (1990) 25 *Valparaiso University L Rev* 1.

<sup>12</sup> D Wallace, *Environmental Policy and Industrial Innovation. Strategies in Europe, the USA and Japan* (Earthscan, 1995) 63–4.

<sup>13</sup> Ch 758, 62 Stat 1155 (1948), codified as amended in various sections of 33 USC.

the Clean Air Act 1956<sup>14</sup> (in the UK). By the late 1960s, Japan had become one of the most polluted nations in the world, but a turn-around began with the famous 'Pollution Diet' of 1970, which passed a raft of comprehensive environmental protection measures.<sup>15</sup> The speed of these changes in the industrial economies was astonishing—Plater describing them as 'a massive upwelling of layer upon layer of substantial public and private law doctrines, almost volcanic in the power and mass of its eruption since the early 1960s'.<sup>16</sup>

Environmental regulation in this era was built upon the assumption that law can effect social change through direct and purposive intervention in the minute detail of social relations. In this instrumentalist model, which Teubner calls 'substantive' law,<sup>17</sup> the province of environmental law was to enunciate general environmental goals, such as clean air or water, or more specific targets for environmental quality, and prescribe in detail the behaviour required to achieve these goals. In this book, Abbot (chapter 3) traces the main contours of environmental regulation in this 'substantive law' model. By enacting environmental statutes and establishing specialised administrative agencies with delegated rule-making and enforcement authority, governments created complex, finely detailed regulatory regimes to intervene directly in environmentally harmful social processes.<sup>18</sup> The dominant regulatory technique was 'command-and-control' regulation, involving essentially the prohibition of defined behaviour, often with licensed exceptions, and enforcement through a mix of civil and criminal law processes.<sup>19</sup> The theory was that governments would 'command' (often in minute detail) what polluters must do and how they must do it, and then 'control' the observance of these prescriptions through monitoring, inspection and enforcement.

Command regulation became the basis of a plethora of environmental law processes, including planning, environmental impact assessment, conservation area management, and pollution and waste licensing. Environmental regulation was predominantly sector-based and medium-specific, organised around industry-by-industry regulation of emissions of specific pollutants into particular media (air, water or soil). National environmental planning mechanisms and risk management procedures were also developed in this period, as Dovers and Connor (chapter 2) and Fisher (chapter 4) discuss.

<sup>14</sup> S Bell and D McGillivray, *Environmental Law* (5th edn, Blackstone, 2000) 411.

<sup>15</sup> See S Kawashima, 'A Survey of Environmental Law and Policy in Japan' (1995) 20 *North Carolina Journal of International Law and Commercial Regulation* 231.

<sup>16</sup> ZJB Plater, 'From the Beginning, A Fundamental Shift of Paradigms: A Theory and Short History of Environmental Law?' (1994) 27 *Loyola of Los Angeles L Rev* 981, 1003.

<sup>17</sup> Eg G Teubner, 'Substantive and Reflexive Elements in Modern Law' (1983) 17 *L & Society Rev* 239, 240, 253–4; Abbot, ch 3, this vol.

<sup>18</sup> E Orts, 'Reflexive Environmental Law' (1995) 89 *Northwestern University L Rev* 1227, 1257.

<sup>19</sup> Bell and McGillivray, above n 14, 177–89 (discussing the nature of environmental regulation from a UK perspective).

This growing edifice of command regulation was accompanied in many jurisdictions by state ownership of natural resources and nationalisation of—or at least a leading role for state enterprises in—some of the most environmentally harmful industry sectors such as energy, oil and gas and transportation.<sup>20</sup> The implication for environmental regulation was that in such jurisdictions some forms of resource exploitation and pollution were within states' direct control rather than in the hands of third parties that the state would regulate at a distance. In general, the 'command' model of regulation was extended only partially, if at all, into these state-controlled economic domains.

This model of environmental governance came under pressure even before it was fully developed in the industrialised democracies. While pressures came from many directions throughout the 1980s and 1990s, three developments were particularly influential: a reconfiguration of the state in the governance of society and economy, a change in the character of the environmental crisis, and the emergence of a global consensus around an agenda for corporate social responsibility.

First, the 1980s and 1990s witnessed widespread reconsideration and reconfiguration of the role of the state in the regulation of business, society and environment. Since the late 1970s the 'command' model of regulation has come under sustained attack, as Abbot (chapter 3) and Driesen (chapter 9) indicate. The assumption that law can transform society for the better by intervening directly and authoritatively in the substance of social relations was questioned on both empirical and normative grounds. Many commentators began to argue that command environmental regulation, whatever its early successes, had become too cumbersome, costly and rigid, and was nearing the limits of its technical capacity.<sup>21</sup> Some warned that it was at risk of 'break[ing] down under its own weight'.<sup>22</sup> Others warned that the proliferation of detailed legal regimes was leading to the 'juridification' of social spheres—a sort of socio-political sclerosis in which the state threatened to overwhelm the social relations it purported to regulate.<sup>23</sup> Yet others pointed to the new dynamics of globalisation, arguing that contemporary global transformations—from global financial markets and production networks to global environmental change—increasingly escape or overwhelm the regulatory capacity of territorially bounded nation states.<sup>24</sup>

<sup>20</sup> In many developing countries, this 'nationalisation' model of resource management was adopted without the corresponding edifice of command regulation or the redistributive institutions of the welfare state. See Richardson, Mgbеoji and Botchway, ch 13, this vol.

<sup>21</sup> N Gunningham and P Grabosky, *Smart Regulation* (Clarendon Press, 1998).

<sup>22</sup> Orts, above n 18, 1241.

<sup>23</sup> Eg G Teubner (ed), *Juridification of Social Spheres* (Walter de Gruyter, 1987).

<sup>24</sup> Eg D Cohen, 'The Role of the State in a Privatized Regulatory Environment' in K Webb (ed), *Voluntary Codes* (Carleton Research Unit for Innovation, Science and Environment, 2004) 35; S Strange, *The Retreat of the State* (Cambridge UP, 1996).

The idea of the 'limits of law', which had been around since Plato's time,<sup>25</sup> was vigorously reasserted by commentators from various locations on the political spectrum.<sup>26</sup> Analysts on the left argued that the ability of the liberal-democratic state to regulate economic activity is constrained by the requirements of the capitalist market economy.<sup>27</sup> The state is caught between demands to intervene and restrict the mechanism of capitalist accumulation in order to contain its social and environmental impacts, and the imperative to allow these mechanisms to operate relatively freely to produce the economic goods considered necessary to satisfy social welfare.<sup>28</sup> From a somewhat different perspective, critical legal scholars argued that the seeming neutrality of the rule of law reinforced existing power relations at the expense of vulnerable groups in society.<sup>29</sup> They also demonstrated the indeterminacy of law, associated with the rise of the regulatory state and the enhanced reliance on discretionary administrative powers.<sup>30</sup> Finally, as Abbot notes (chapter 3), scholars of 'reflexive law', drawing on critical traditions in Continental social theory, argued for a new form of law which, rather than dictating the details of regulated behaviour, would stimulate self-reflection and self-correction by regulated actors in line with regulators' goals.<sup>31</sup>

During the same period, but with more political success, neoconservatives launched a withering attack on the interventionist state from the perspective of both individual liberty and the superiority of free markets, enlisting neoclassical economics to argue that command regulation and the welfare state were inefficient, anti-innovative and ineffective.<sup>32</sup> Public choice and market liberalist theorists asserted the case of 'government failure', attacking the growth of bureaucracy and distortion of public policy by rent-seeking interest groups, and the consequential losses for the economy.

In this critical atmosphere, substantial changes were made to existing regimes for environmental regulation. Early neoconservative political successes in the US and Western Europe gave rise to a 'regulatory reform' agenda that was soon picked up and championed by the OECD and later the World Bank, the latter in the form

<sup>25</sup> Plato, 'Statesman' in RM Hutchins (ed), *Great Books of the Western World*, vol 7: Plato (trans B Jowett, Encyclopedia Britannica, 1952) 580.

<sup>26</sup> Eg C Stone, *Where the Law Ends: The Social Control of Corporate Behavior* (Harper and Row, 1975); P Nonet and P Selznick, *Law and Society in Transition: Toward Responsive Law* (Harper Colophon, 1978).

<sup>27</sup> B Jessop, *State Theory: Putting Capitalist Societies in their Place* (Pennsylvania State UP, 1990) 356.

<sup>28</sup> See KJ Walker, 'The State in Environmental Management: The Ecological Dimension' (1989) 37 *Political Studies* 25; CE Lindblom, 'The Market as Prison' (1979) 44 *Journal of Politics* 324.

<sup>29</sup> See generally RM Unger, *Law in Modern Society: Towards A Criticism of Social Theory* (Free Press, 1976).

<sup>30</sup> See G Frug, 'The Ideology of Bureaucracy in American Law' (1984) 97 *Harvard Law Review* 1276.

<sup>31</sup> Teubner, above n 17, 254–6; Orts, above n 18; G Teubner, L Farmer and D Murphy (eds), *Environmental Law and Ecological Responsibility* (John Wiley, 1994) .

<sup>32</sup> For the principal economic arguments see Abbot, ch 3, and Driesen, ch 9, both this vol.

of 'good governance' prescriptions for developing countries.<sup>33</sup> In the hands of neoconservative governments such as those of Reagan and Thatcher, 'regulatory reform' appeared to consist mainly of deregulation and government downsizing. But deregulation was often accompanied by a growth of new regulation, as governments shifted from public ownership and direct service provision to arm's-length regulation of the provision of services by others in markets created by the retreating state. The paradoxical result was that the rise of neoconservatism, with its deregulatory rhetoric, was in practice accompanied by substantial increases in the number of regulatory agencies, the volume of official regulation and the domains of activity subject to official regulation.<sup>34</sup>

By the early 1990s, the debate over deregulation had been largely superseded by an agenda for 'responsive' or 'smart' regulation.<sup>35</sup> This was presented as a more nuanced alternative to the excesses of neoconservatism, which would see the state employ a sophisticated menu of regulatory instruments to 'steer' rather than 'row' the ship of state.<sup>36</sup> Social democratic political parties recouped much of the ground they had lost to neoconservatism in the 1970s and 1980s by building their political platforms around this new version of the regulatory reform agenda, most notably in Germany (Schroeder's Social Democrats), the UK (Blair's New Labour) and the US (Clinton's Democrats).<sup>37</sup> Under banners such as 'government reinvention', centrist governments throughout the industrialised world presided over a transformation of environmental regulation that was often more radical than that effected by neoconservative governments.

Several key themes characterise this contemporary transformation of environmental regulation. First, state regulation is increasingly concerned with setting overall directions, goals and environmental performance requirements, leaving details of implementation to be sorted out through inter alia co-regulation, negotiated agreements, and informed consumer choice. Secondly, governments increasingly employ private sector managerial methods and entrepreneurial ethics, and use markets and competition in the provision of public services.<sup>38</sup> Thirdly, there has been a substantial move toward public transparency and

<sup>33</sup> Eg E Bardach and RA Kagan, *Going by the Book: The Problem of Regulatory Unreasonableness* (Temple UP, 1982); OECD, *Regulatory Reform and International Market Openness* (OECD, 1996); World Bank, *Governance and Development* (World Bank, 1992).

<sup>34</sup> J Jordana and D Levi-Faur, 'The Politics of Regulation in the Age of Governance' in J Jordana and D Levi-Faur (eds), *The Politics of Regulation* (Edward Elgar, 2004) 1.

<sup>35</sup> I Ayres and J Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (OUP, 1992); Gunningham and Grabosky, above n 21; C Sunstein, 'Paradoxes of the Regulatory State' (1990) 57 *University of Chicago Law Review* 407.

<sup>36</sup> D Osborne and T Gaebler, *Reinventing Government* (Addison-Wesley, 1992).

<sup>37</sup> Eg US White House, *Reinventing Environmental Regulation* (USGPO, 1995); T Blair, *New Britain* (Fourth Estate, 1996); A Giddens, *The Third Way and its Critics* (Polity, 2000).

<sup>38</sup> Eg K McLaughlin, SP Osborne and E Ferlie, *New Public Management: Current Trends and Future Prospects* (Routledge, 2002).



accountability since the late 1980s. With respect to private sector polluters this is evidenced, for example, by the proliferation of mandatory 'right to know' pollution disclosure regimes and voluntary corporate environmental reports (see Abbot, chapter 3, and Wood, chapter 8). In the public sector, as Richardson and Razaque (chapter 6) relate, it is seen in the creation of increasingly robust mechanisms for public disclosure and participation (eg environmental impact assessment processes, environmental bills of rights), as well as an increase in citizen enforcement of environmental laws against governments themselves. Respect for human rights is a fourth theme in the contemporary transformation of environmental law. More attention began to be given to the rights and interests of minorities affected by development decisions, notably indigenous peoples (see Richardson and Craig, chapter 7).

Finally, the contemporary period is marked by experimentation with a more sophisticated mix of regulatory tools that seek to enlist, to the greatest extent possible, non-state actors and resources in the task of environmental regulation.<sup>39</sup> This includes experimentation with economic instruments such as taxes and tradable entitlements (Driesen, chapter 9), and voluntary instruments (Wood, chapter 8).<sup>40</sup> It also involves a new emphasis on 'meta-regulation', including state regulation of industry self-regulation, private actors' regulation of state activity, the state's regulation of its own regulation (eg regulatory impact analysis, creation of auditors-general), and international regulation of national regulation.<sup>41</sup> There is also increasingly a focus on new targets of regulation including 'gatekeepers' such as financial institutions and third-party-certification bodies (eg Richardson, chapter 10), along with an increasing reliance on information-based instruments, the public purse and capacity-building instead of formal legal authority.<sup>42</sup>

The second major source of pressure on the 'conventional' model of environmental governance prevailing in the industrialised democracies in the 1970s and 1980s was a transformation in the character of the environmental crisis facing contemporary society, or at least a transformation in the way this crisis was perceived. The environmental problems that commanded political attention in the industrialised democracies and in global environmental policy circles changed in important ways during this period, as problems such as acid rain, ozone depletion, climate change, persistent toxic substances and hormone-disrupting chemicals came to the front of

<sup>39</sup> Eg P Grabosky, 'Using Non-Governmental Resources to Foster Regulatory Compliance' (1995) 8 *Governance* 527.

<sup>40</sup> See G Bándi, 'Financial Instruments in Environmental Protection' in G Winter (ed), *European Environmental Law: A Comparative Perspective* (Dartmouth, 1996); OECD, *Environmental Policy: How to Apply Economic Instruments* (OECD, 1991).

<sup>41</sup> Eg Jordana and Levi-Faur, above n 34; C Scott, 'Private Regulation of the Public Sector: A Neglected Facet of Contemporary Governance' (2002) 29 *Journal of Law and Society* 56; GB Doern *et al* (eds), *Changing the Rules: Canadian Regulatory Regimes and Institutions* (U Toronto Press, 1999).

<sup>42</sup> C Scott, 'Regulation in the Age of Governance: The Rise of the Post-Regulatory State' in Jordana and Levi-Faur, above n 34, 145.

the political agenda. In the earlier period the most prominent environmental problems were immediately accessible to sensory perception and common sense: belching smokestacks, effluent-filled waterways, dead fish and birds, smog, oil spills, etc.<sup>43</sup> Many of them involved easily identified stationary sources and could be dealt with through simple end-of-pipe controls. Now, however, many of the most prominent environmental problems are more or less invisible, involve insidious processes that are not directly accessible to the senses and are the cumulative products of the activities of innumerable, highly dispersed, often mobile actors, most of which are operating within existing legal pollution limits.<sup>44</sup> Causal relationships are often unclear, and causes and effects are often separated across substantial spans of space or time, as Ellis and Wood (chapter 11) point out.

The new forms of ecological degradation differ from those faced by regulators in the 1960s and 1970s in several ways: they entail greater reliance on scientific expertise; the consequences of some problems, notably climate change, are latent and highly uncertain; and many problems are transnational or global in scale. In turn, many ecological dilemmas such as greenhouse gas emissions can only be effectively addressed, not through end-of-pipe solutions, but through strategies that fundamentally target economic growth and resource consumption patterns.

As the dominant understanding of environmental problems has changed, environmental regulation has changed too, in at least four directions: first, a shift in emphasis from 'local' to 'global'; secondly, a shift from end-of-pipe control to integrated pollution prevention; thirdly, an increasing tendency to rely on scientific expertise; fourthly, a shift in the characterisation of environmental protection from 'zero-sum' to a 'win-win' opportunity; and, finally, a shift in rhetoric from 'environmental protection' to 'sustainable development'.

First, increasing awareness of global ecological interdependence has posed major challenges to the state-centred world where environmental management responsibilities are largely territorially organised.<sup>45</sup> Environmental law has been influenced by the increasingly apparent transboundary character of ecological problems. Acid rain, ozone depletion and global warming, among other threats, cut to the core of our economic systems.<sup>46</sup> The primary response, show Ellis and Wood (chapter 11), has been the rapid development of a new body of international environmental law and institutions, overlying national legal systems.<sup>47</sup> This new

<sup>43</sup> M Hajer, *The Politics of Environmental Discourse* (OUP, 1995).

<sup>44</sup> *Ibid.*

<sup>45</sup> See especially K Conca, 'Environmental Change and the Deep Structure of World Politics' in RD Lipschutz and K Conca (eds), *The State and Social Power in Global Environmental Politics* (Columbia UP, 1993) 306.

<sup>46</sup> See eg F Pearce, *Acid Rain* (Penguin, 1987); P Read, *Responding to Global Warming: The Technology, Economics and Politics of Sustainable Energy* (Zed Books, 1993); RE Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet* (Harvard UP, 1991).

<sup>47</sup> PW Birnie and AE Boyle, *International Law and the Environment* (Oxford UP, 2000); A Kiss and D Shelton, *International Environmental Law* (Graham and Trotman, 1991).

emphasis on transboundary and global environmental problems and on regional or global management of such problems tends, however, to marginalise some of the environmental problems that are most pressing in developing countries, such as sanitation, clean water, soil quality and desertification, unless they can be linked to the global policy agenda (eg deforestation or toxic waste dumping).

Secondly, the conventional model of linear, reactive, end-of-pipe pollution control regulation may work reasonably well for basic local pollution abatement, but it probably cannot stop 'pesticides from reaching the poles, carbon dioxide from building up in the atmosphere, or hormonal imbalances from damaging fish'.<sup>48</sup> The new environmental problems call for integrated approaches to environmental regulation that seek to prevent environmental damage throughout the entire product life cycle, from initial conception, through raw materials extraction and industrial feedstock formulation, to ultimate end-of-life disposal. This was reflected in moves away from functional compartmentalisation toward holistic, cross-media environmental management, along with integration of environmental concerns into non-environmental agencies. It was also reflected in partial displacement of hierarchical command regulation by mechanisms designed to allow industry to integrate environmental concerns into its own cost and risk calculations (eg through economic instruments and the 'polluter pays' principle). Governments and other actors around the world have begun to experiment with such approaches, from the US Pollution Prevention Act of 1990 to the European Union's Integrated Product Policy of the early 2000s.<sup>49</sup>

Thirdly, because of the invisibility, complexity and uncertainty of the new environmental crises, governments are under increasing pressure to rely on scientific expertise to define the problems, prioritise them, and often conceptualise the appropriate solutions.<sup>50</sup> At the same time they are under increasing pressure to open environmental regulatory processes to public scrutiny and participation, as Richardson and Razzaque discuss (chapter 6). These two contending pressures pull environmental law in different directions, exacerbating a tension that has always been inherent in environmental regulation.

Fourthly, these tendencies in environmental regulation have been accompanied by a reconceptualisation of the environmental challenge as a 'win-win' proposition rather than a zero-sum game.<sup>51</sup> In the earlier period environmental protection was generally regarded as an unproductive cost that had to be imposed by regulation and absorbed by industry. The assumption that 'environmental protection is costly' was gradually displaced in public policy and business discourses by

<sup>48</sup> B Wylenko, 'Beyond Command and Control' in RB Gibson (ed), *Voluntary Initiatives: the New Politics of Corporate Greening* (Broadview, 1999) 161, 161.

<sup>49</sup> European Commission, *Communication on Integrated Product Policy*, COM(2003)302 final.

<sup>50</sup> Hajer, above n 43.

<sup>51</sup> *Ibid*; P Christoff, 'Ecological Modernisation, Ecological Modernities' (1996) 5 *Environmental Politics* 476.

the proposition that 'pollution prevention pays'. Environmental improvement was increasingly seen as an opportunity for business, opening up new markets, enhancing competitiveness and stimulating innovation.<sup>52</sup> As Hajer argues, what was previously seen as a fundamental threat to the system of industrial capitalism is now an opportunity for its renewal.<sup>53</sup>

This emerging consensus around the 'win-win' character of environmental problems was closely associated with a transformation in the central goal of environmental regulation, from environmental protection to 'sustainable development'. The idea of sustainable development as the animating goal of environmental policy began to emerge as early as the IUCN's 1980 World Conservation Strategy, and has dominated legal and policy discourse since the 1987 Brundtland Report<sup>54</sup> and the 1992 Earth Summit in Rio.<sup>55</sup> Based on conceiving economic prosperity as dependent on maintenance of environmental health, sustainable development is perhaps the most significant normative influence on environmental regulation today. It has 'reinvigorat[ed] governance' through the reformulation of environmental plans and new institutions and regulatory techniques.<sup>56</sup> At a regional level, it has been enshrined in the European Union (EU) Treaty as a fundamental objective,<sup>57</sup> and is a goal of the NAFTA Side Agreement on Environmental Cooperation.<sup>58</sup>

This brings us to the third and final development that has put pressure on the conventional model of environmental regulation, namely the emergence of a remarkably broad consensus around the notion of corporate social responsibility ('CSR'). The notion of CSR has been around for many years. For most of the twentieth century there was widespread disagreement whether it was possible or desirable at all.<sup>59</sup> While this debate continues,<sup>60</sup> it has been overshadowed since the late 1980s by a growing acknowledgement of corporations as partners in the

<sup>52</sup> M Porter and C Van der Linde, 'Green and Competitive: Ending the Stalemate', *Harvard Business Review*, Sept–Oct 1995, 120.

<sup>53</sup> Hajer, above n 43.

<sup>54</sup> WCED, *Our Common Future* (Oxford UP, 1987).

<sup>55</sup> By way of background, see V Koester, 'From Stockholm to Brundtland' (1990) 20 *Environmental Policy and Law* 14; P Sands, *Principles of International Environmental Law* (Manchester UP, 1995) 52–8.

<sup>56</sup> JC Dernbach, 'Sustainable Development as a Framework for National Governance' (1998) 49 *Case Western Reserve L Rev* 1, 7; see further NA Robinson, 'Legal Structures and Sustainable Development: Comparative Environmental Law Perspectives on Legal Regimes for Sustainable Development' (1998) 3 *Widener Law Symposium Journal* 247.

<sup>57</sup> Art 2, Consolidated version of the Treaty establishing the European Community [1997] OJ C/340/173.

<sup>58</sup> Art 1, North American Free Trade Agreement, Side Agreement on Environmental Cooperation (1993) 32 ILM 1480.

<sup>59</sup> Eg M Friedman, *Capitalism and Freedom* (U Chicago Press, 1962); J Wiener 'The Berle–Dodd Dialogue on the Concept of the Corporation' (1964) 64 *Colorado L Rev* 1458; DL Engel 'An Approach to Corporate Social Responsibility' (1979) 32 *Stanford L Rev* 1.

<sup>60</sup> Eg J Bakan, *The Corporation* (Penguin Canada, 2004).

quest for a sustainable future.<sup>61</sup> In this view, it is not only possible but desirable and profitable for business firms to take responsibility for their social and environmental impacts, respond to the interests and demands of a wide range of internal and external stakeholders and pursue the 'triple bottom line' of economic, social and environmental performance.<sup>62</sup> Rather than being (only) a part of the problem of environmental degradation, business is now seen by many governments, intergovernmental organisations and environmental non-governmental organisations as a part of the solution, a crucial partner whose participation, resources, knowledge and innovation are essential to achieve ecological and social sustainability. This reconceptualisation of the business–environment–society relationship works in synergy with both the realignment of the state and the redefinition of the environmental crisis discussed above, leading inter alia to more cooperative and flexible styles of environmental regulation and increased reliance on economic instruments and voluntary initiatives of the kinds discussed by Driesen (chapter 9) and Wood (chapter 8).

Despite these general trends in environmental law, one should recognise that the history of environmental law is not interchangeable across countries, and there are salient differences in styles of regulation, policy priorities and pace of reforms. Even within countries different approaches are evident, notably the special environmental governance arrangements that exist for indigenous communities, as discussed by Richardson and Craig (chapter 7). Vogel has documented differences in the national regulatory cultures of North American and European states,<sup>63</sup> though in recent years a combination of environmental and trade-related pressures has contributed to a certain harmonisation of environmental regulations.<sup>64</sup> But stark differences remain between the industrial, developed nations of Europe, North America, Australia and New Zealand, on the one hand, and the emerging economies of the South, on the other. In this volume, Richardson, Mgbeoji and Botchway (chapter 13) among other contributors discuss trends in environmental law affecting developing countries. Although they have often looked to the West for ideas and precedents, or adapted colonial-era laws, the nature of their regulatory law and policy often differs greatly from the experience of the North. In many parts of Asia, Africa and Latin America, environmental law

<sup>61</sup> Eg TN Gladwin, *Building the Sustainable Corporation* (National Wildlife Federation, 1992); M Hopkins, *The Planetary Bargain: Corporate Social Responsibility Comes of Age* (St. Martin's Press, 1999).

<sup>62</sup> J Elkington, *Cannibals With Forks: The Triple Bottom Line of 21st Century Business* (New Society, 1998).

<sup>63</sup> D Vogel, *National Styles of Regulation: Environmental Policy in Great Britain and the United States* (Cornell UP, 1986).

<sup>64</sup> See generally OECD, *Economic Globalisation and the Environment* (OECD, 1997); R Revesz, 'Federalism and Environmental Regulation: An Overview' in RL Revesz, P Sands and RB Stewart (eds), *Environmental Law, the Economy and Sustainable Development* (Cambridge UP, 2000) 37 (focusing on Europe).

has ostensibly begun to reach maturity, manifested by extensive legislative initiatives, the founding of environmental management agencies, judicial activism and the environmental jurisprudence created thereon.<sup>65</sup> But these achievements can be misleading. In reality, much legislation draws on Western models insufficiently tailored to local circumstances, and is poorly implemented due to insufficient institutional resources and broader problems of weak public governance.<sup>66</sup>

## C. Law for Sustainability

This book is about environmental law *for sustainability*. The relationship between environmental law and sustainability operates in at least two directions. First, environmental law may have an impact on sustainability, in terms of whether it helps to move societies toward ecologically sustainable patterns of production and consumption. Secondly, sustainability—both as an idea and as a set of practices—may have an impact on environmental law, for instance leading to a preference for some legal doctrines, institutions or instruments over others. It is easier to trace the latter kind of effects than the former, but, given the complexity of socio-legal phenomena, it is difficult to assess either with any certainty. The contributions to this book nonetheless explore both of these dimensions in fruitful and imaginative ways.

No single conception of sustainability is shared by the contributors to this book, let alone the wider environmental law community, and no attempt is made here to impose one. In recent years, as indicated above, ‘sustainable development’ has emerged as the principal expression of the idea of sustainability in contemporary environmental law. As Dovers and Connor point out (chapter 2), ‘sustainability’ and ‘sustainable development’ are not synonymous. ‘Sustainability’ is a higher-order social goal or a fundamental property of natural or human systems, whereas ‘sustainable development’ is the variable (and we would add contestable) policy manifestation of society’s attempts to address that goal and enhance that property.<sup>67</sup> Beyond this, sustainability remains essentially a contested discourse rather than a set of reified policy concepts and management procedures.<sup>68</sup> Many

<sup>65</sup> See B Boer, ‘The Rise of Environmental Law in the Asian Region’ (1999) 32 *University of Richmond L Rev* 1503; B Richardson, ‘Environmental Law in Postcolonial Societies: Straddling the Local – Global Institutional Spectrum’ (2000) 11 *Colorado Journal of International Environmental Law and Policy* 1.

<sup>66</sup> See U Desai (ed), *Ecological Policy and Politics in Developing Countries*. (SUNY Press, 1998); ED McCutcheon, ‘Think Globally, (En)Act Locally, Promoting Effective National Environmental Regulatory Infrastructure in Developing Nations’ (1998) 31 *Cornell International Law Journal* 395.

<sup>67</sup> Dovers and Connor, ch 2, this vol, at n 1.

<sup>68</sup> See T O’Riordan, ‘The Politics of Sustainability’ in K Turner (ed), *Sustainable Management: Principles and Practice* (Westview Press, 1988) 31 *et seq*, which includes a brief history of the concept of sustainability.

see sustainable development as riddled with ambiguity and contradictions that undermine its usefulness.<sup>69</sup> Some see it as a fundamentally flawed agenda for technocratic global management and continued deprecation of the global majority and planetary life support systems.<sup>70</sup> The most publicised definition of the concept, that of the WCED, explains it as: 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'.<sup>71</sup> Among the many rival views in the sustainability discourse a broad distinction can be made between 'weak' and 'strong' sustainability. The former aims essentially to make our political and economic systems more 'environmentally sensitive', but without any fundamental institutional change. Strong sustainability, by contrast, demands radical institutional and policy changes in order to maintain the total stock of natural capital including biological diversity, as well as ethical and cultural change as against mere technological and managerial solutions.<sup>72</sup> Accordingly, some commentators prefer to speak of 'sustainability' rather than 'sustainable development', in order to eschew the exploitative connotation in the uncritical use of the word 'development'.<sup>73</sup>

So far, the sustainability discourse has coalesced into a set of fairly general normative principles, rather than a precise formula for environmental policy, as Wood and Ellis set out in the international context (chapter 11).<sup>74</sup> The *integration principle* suggests that development decisions should take into account their environmental sequelae.<sup>75</sup> The principle may be implemented for example through environmental impact assessment of project proposals, explains Abbot (chapter 3). The principle of *equity* has two major components. *Intergenerational equity* requires that the present generation ensure that the health and productivity of the biosphere is maintained or enhanced for the benefit of posterity.<sup>76</sup> Strategic environmental planning is one legal tool for this goal. *Intragenerational equity*, on the other hand, addresses justice between contemporary communities and nations.<sup>77</sup>

<sup>69</sup> M Redclift, *Sustainable Development: Exploring the Contradictions* (Routledge, 1989); SR Dovers and JW Handmer, 'Contradictions in Sustainability' (1993) 20 *Environmental Conservation* 217.

<sup>70</sup> Eg W Sachs, 'Environment' in W Sachs (ed), *The Development Dictionary* (Zed Books, 1992) 26; W Sachs (ed), *Global Ecology* (Zed Books, 1993).

<sup>71</sup> WCED, above n 8.

<sup>72</sup> See HE Daly and JB Cobb, *For the Common Good: Redirecting the Economy toward Community, the Environment and a Sustainable Future* (Beacon, 1989).

<sup>73</sup> See D Pearce, E Barbier and A Markandya, *Sustainable Development: Economics and Environment in the Third World* (Earthscan, 1990) (discussing a 'vector of development').

<sup>74</sup> See R Harding, M Young and E Fisher, *Sustainability – Principles to Practice* (Fenner Conference on the Environment, 1994).

<sup>75</sup> See RD Margerum and SM Born 'Integrated Environmental Management: Moving from Theory to Practice' (1995) 38 *Journal of Environmental Planning & Management* 371; P Bartelmus, 'Accounting for Sustainable Growth and Development' (1992) 3 *Structural Change & Economic Dynamics* 241.

<sup>76</sup> See EB Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Transnational Publishers, 1989).

<sup>77</sup> See I Voinovic, 'Intergenerational and Intragenerational Equity Requirements for Sustainability' (1995) 22 *Environmental Conservation* 223.

Protection of human rights and enhanced opportunities for public participation, as discussed by Richardson and Razzaque (chapter 6), provide one means to promote intragenerational equity. Legal protections for indigenous peoples' lands and environmental resources, suggest Richardson and Craig (chapter 7), is another way by which environmental law is becoming more sensitive to cultural and social justice issues. Finally, addressing inequities between the global 'North' and 'South' is an indispensable requirement of intragenerational equity, yet one of the most intractable problems in environmental affairs, as both Richardson, Mgbeoji and Botchway (chapter 13) and Ellis and Wood (chapter 11) demonstrate.

The sustainability principle that has attracted the greatest fervour is the *precautionary principle*, gaining recognition in EU and international law.<sup>78</sup> Given uncertainty about the long-term effects of human activities, the precautionary principle recommends taking preventive action before risks are conclusively established, since delay may prove to be more costly to society and nature.<sup>79</sup> In this volume, Fisher (chapter 4) looks at how environmental law systems have evolved to manage risk and to develop precautionary approaches to environmental policy-making. The question of costs is central to the principle of *internalisation of environmental costs*, which addresses the environmental externalities of market transactions and the degradation of public goods that are undervalued by markets.<sup>80</sup> The principle requires that economic decision-makers 'internalise' these values and costs, through eco-taxes and tradable emission permits for instance.<sup>81</sup> Driesen (chapter 9) examines this aspect of sustainability and highlights the array of economic instruments now being deployed by governments.

During the 1990s, states began to revamp their legal systems to provide a more strategic framework for sustainability. Many adopted grand environmental plans, complemented by specialist agencies with wide-ranging powers.<sup>82</sup> New Zealand was the first country to enshrine sustainable management as the guiding principle for its environmental decision-makers, through its foundational Resource Management Act 1991.<sup>83</sup> In Australia, a National Strategy for Ecologically

<sup>78</sup> E Hey, 'The Precautionary Principle in Environmental Law and Policy: Institutionalising Precaution' (1994) 4 *Georgetown International Environmental L Rev* 303, 307; Ellis and Wood, ch 11, this vol.

<sup>79</sup> See J Cameron and J Abouchar, 'The Precautionary Principle' (1991) 14 *Boston College International & Comparative L Rev* 1; D Bodansky, 'Scientific Uncertainty and the Precautionary Principle' (1991) 33 *Environment* 4.

<sup>80</sup> See M Massarrat, 'Sustainability through Cost Internalisation' (1997) 22(1) *Ecological Economics* 29.

<sup>81</sup> A variation on the principle is the 'polluter pays' principle: OECD, *The Polluter Pays Principle: Definition, Analysis, Implementation* (OECD, 1975).

<sup>82</sup> See generally K Ginther *et al* (eds), *Sustainable Development and Good Governance* (Nijhoff, 1995); K Hausker, 'Reinventing Environmental Regulation: The Only Path to a Sustainable Future' (1999) 29 *Environmental Law Reporter* 10,148.

<sup>83</sup> Resource Management Act 1991, s 5; see further O Furuseth and C Cocklin, 'Institutional Framework for Sustainable Resource Management: The New Zealand Model' (1996) 35 *Natural Resources Journal* 243.



Sustainable Development was enacted in 1992,<sup>84</sup> and the sustainability principles were codified as the statutory objects of various environmental agencies.<sup>85</sup> Sustainability concepts also appeared in Japan, featuring in the government's Basic Environment Plan of 1994.<sup>86</sup> In the US, an advisory President's Council on Sustainable Development (PCSD) was established in 1993, which later published *Towards a Sustainable America*.<sup>87</sup> Sustainability has featured strongly in Europe under the influence of the EC's landmark Fifth Environmental Action Programme and EU directives.<sup>88</sup> In May 2001 the European Commission issued a European Union Strategy on Sustainable Development.<sup>89</sup> Yet, while governments have generally been prompt to create a new layer of institutions, real progress in transforming their economies has lagged considerably.

Dovers and Connor (chapter 2) show that sustainability presents formidable policy and legal problems for governments. The likelihood of absolute ecological limits to human activity, the existence of irreversible environmental impacts and concomitant sense of policy urgency, and the systemic problem sources located in patterns of production and consumption are some of the challenges that demand greater innovations in policy instruments and management institutions.<sup>90</sup> More radical possibilities of reform have yet to be seriously advanced. These could include an emphasis on the promotion of ethical change, as argued by Bosselmann (chapter 5), to unseat the dominant anthropocentric and instrumental policies of environmental management. Alternatively, we could reform the underlying mechanisms of capital allocation that shape growth and investment. In this respect, Richardson (chapter 10) argues that the financial services sector (eg banks and mutual funds) must be reformed and harnessed as a means for promoting improved corporate environmental performance. Internationally, some such as Perez (chapter 12) stress the need for overhauling trade law and other international economic institutions that presently tend to sacrifice environmental considerations that clash with free trade and investment.

<sup>84</sup> Department of the Environment, Sport and Territories, *National Strategy for Ecologically Sustainable Development* (AGPS, 1992).

<sup>85</sup> Eg the Protection of the Environment Administration Act 1991 (NSW) s 6(1)(a) provides that the objectives of the Environmental Protection Authority include: 'to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development'.

<sup>86</sup> See Japan Environment Agency, *Basic Environment Plan*, at: [www.eic.or.jp/eanet/en/pol/landp.html](http://www.eic.or.jp/eanet/en/pol/landp.html).

<sup>87</sup> President's Council on Sustainable Development (PCSD), *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st Century* (PCSD, 1999).

<sup>88</sup> See eg N Haigh and C Lanigan, 'Impact of the European Union on UK Environmental Policy Making' in TS Gray (ed), *UK Environmental Policy in the 1990s* (Macmillan, 1995) 18.

<sup>89</sup> European Commission, *A Sustainable Future for a Better World: European Union Strategy for Sustainable Development*, COM(2001)264 final.

<sup>90</sup> See also S Dovers, 'Sustainability: Demands on Policy' (1997) 16 *Journal of Public Policy* 303.

Without a new wave of institutional reforms along these lines, it is doubtful that the current menu of environmental law instruments and policies will steer society away from its still largely negative trajectory. Is there hope of radical change for the better soon? Not necessarily. The sustainability discourse is in danger of being—indeed many would say it already has been—co-opted and tamed by interests opposed to fundamental economic and social policy change for the sake of the health and survival of the planet. It is dangerous to assume that human society will ‘inevitably’ progress towards more effective systems of environmental law. Crucial to the achievement of sustainable development is the need for institutional frameworks that can assist people to transcend the tension between short-term, individual self-interest and broader, long-term social welfare. To Goodwin, the core task is to reorient social and economic systems ‘as if the future mattered’.<sup>91</sup>

## D. Approach of The Book

Many of these aspects of environmental law and sustainability are explored in this volume. But the vast and complex nature of these topics makes it impossible to discuss them all intelligently within a single volume of essays. Thus, *Environmental Law for Sustainability* does not capture all facets of modern environmental law. For instance, it touches only briefly on property law instruments. The property rights movement, particularly influential in the US, has promoted controversial solutions like privatisation of publicly-held resources and reliance on common law tort remedies to ensure internalisation of environmental costs.<sup>92</sup> Nor does the book have the space to consider in detail many of the innovations in environmental law, including informational policy mechanisms (eg eco-labelling and corporate environmental reporting), nature conservation legislation or integrated pollution control. Nor does the book fully capture the diversity of national experiences. Many of the contributors focus on environmental law in Western economies, primarily because arguably the most comprehensive and diverse reforms have been pioneered here. Some chapters also canvass environmental law in the context of indigenous peoples, developing countries and international-level reforms. Nonetheless, all of the contributors have canvassed the relevant literature to give readers a gateway for further exploration in detail of these and other important topics of environmental law.

<sup>91</sup> NR Goodwin, ‘Economic Meanings of Trust and Responsibility’ in NR Goodwin (ed), *As If the Future Mattered: Translating Social and Economic Theory into Human Behaviour* (U Michigan P, 1994) 45.

<sup>92</sup> See B Yandle (ed), *Land Rights: The 1990s Property Rights Rebellion* (Rowan and Littlefield, 1995); TL Anderson and DR Leal, *Free Market Environmentalism* (Pacific Research Institute for Public Policy, 1991).

*Environmental Law for Sustainability* takes the form of a ‘reader’—a collection of essays each providing a pithy perspective on some of the key roles of contemporary environmental law in promoting sustainability. The essays are not intended merely to survey and report on developments, but critically to appraise achievements, deficiencies and outstanding problems to be resolved. The edited collection is not, however, a reader in the traditional format. Rather than reproduce extracts from the ‘classic’ published works on the subject, this volume contains fresh writings that build on recent research undertaken by the contributors. Although anchored in contributions from Osgoode Hall faculty (Richardson, Wood and Mgbeoji), the reader provides views from a range of scholars based in Europe, North America, Australasia and Israel.

The volume is structured in four parts. Part I examines the state of ‘command’ regulation (Abbot, chapter 3)—the traditional mainstay of environmental law—and new directions in such regulation, involving risk management and precaution (Fisher, chapter 4). The institutional challenge of sustainable development, along with some of the prominent responses to this challenge, is also canvassed (Dovers and Conner, chapter 2). The social and human rights dimensions of environmental law for sustainability are considered in Part II. The chapters approach these issues from the perspectives of ‘ecological justice’ and ethical change (Bosselmann, chapter 5), public participation reforms to environmental law (Richardson and Razzaque, chapter 6), and indigenous environmental rights (Richardson and Craig, chapter 7). These chapters illustrate that sustainability is just as much about social justice and protection of cultural diversity as it is concerned with plants, animals and ecosystems.

In Part III of the reader, Wood (chapter 8), Driesen (chapter 9) and Richardson (chapter 10) review the growing reliance on economic methods and tools in environmental law. They include market incentives for improved environmental performance (eg eco-taxes and tradable emission permits), the role of the financial services sector (eg ethical investment and green lending), and the emergence of self-regulation and voluntary approaches to environmental governance.

The final Part of the volume canvasses some of the global and comparative law dimensions to the topic. These chapters highlight the current state of international law-making on the environment (Wood and Ellis, chapter 11), the interaction between international economic law and environmental policy (Perez, chapter 12) and the experiences of developing countries in building environmental law regimes (Richardson, Mgbeoji and Botchway, chapter 13).