Book Review—*The Privatisation of Biodiversity? New Approaches to Conservation Law*

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The Privatisation of Biodiversity? New Approaches to Conservation Law, written by Colin T Reid and Walters Nsoh, is a recently published addition to the Edward Elgar book series New Horizons in Environmental and Energy Law. The book explores how "private rights and market devices" may serve as an alternative to "direct 'command and control' regulation", and so ensure that the use of natural resources remains within ecological limits, while preventing the loss of habitat, habitat degradation, and species extinctions.[1] A diverse range of mechanisms are considered under the "privatisation" heading, with "an emphasis on private law frameworks" that enable private initiatives, choices, and funding, rather than viewing conservation as an enterprise predominantly "controlled and directed by public authorities".[2]

The book consists of nine chapters. The Introduction defines key concepts such as biodiversity, ecosystem services, nature conservation law, market-based instruments, and commodification. Defining key concepts relating to the privatization of biodiversity is crucial for the readability of this book and its relevance to a wider audience. The legal tools covered in the latter chapters are very technical, but so are the non-legal concepts underpinning the legal structures. The authors are to be commended for clearly and painstakingly laying out

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1 Colin T Reid & Walters Nsoh, *The Privatisation of Biodiversity? New Approaches to Conservation Law, New Horizons in Environmental and Energy Law* (Cheltenham, UK: Edward Elgar Publishing, 2016) at 1–2.

2 *Ibid* at 2–3.

foundational concepts. However, despite these efforts, it is surprising, at least to a Canadian reviewer, that almost no attention is given to how Indigenous perspectives might inform these foundational concepts. The challenges that might arise if the integration of Indigenous knowledge, laws, and institutions were taken seriously, as well as the importance of doing so, will be considered briefly towards the end of this review.

The starting definition of biodiversity presented in the text is, not surprisingly, drawn from the Convention on Biological Diversity:[3] "'Biological diversity' in this context means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems." The authors then proceed to engage critically with the concept. They observe the risk that a focus on diversity as "the sole yardstick for measuring the health and value of a habitat or ecosystem" would be inherently problematic, leading to the prioritization of "wetlands and rainforests over deserts and polar regions", when habitats with less diversity may in fact be more vulnerable and less resilient.[4] The Introduction also explores the history of law and nature. Notably, Western legal systems have either considered plants, animals, and land as individual items subject to the application of property law rules, or as falling outside of legal consideration, but never as part of ecosystems.[5] Nature conservation laws, on the other hand, have tended to pay attention to particular species and habitats, but usually only once a species is classified as rare or endangered.[6]

The treatment of market-based instruments in the Introduction is comprehensive. Here, the authors identify six different categories of instruments with distinct characteristics.[7] While tradable permits and regulatory price changes are likely familiar concepts to most readers, reverse auctions and Coasean-type agreements may be familiar only to those who are well versed in law and economics. The authors identify arguments in favour of market instruments, such as the need to correct market failures, provide incentives, and provide otherwise unavailable funding for conservation. They also consider how necessary elements for a market-based system would apply to the biodiversity context, including: that information exists about a species; that negative social or environmental effects on third parties are avoided; that created and traded property rights are protected, guaranteed, and enforced; and finally, that transaction costs are limited so as to foster competition.[8] The Introduction concludes with a brief section on 'commodification', which foreshadows the ethical dimensions of adopting a market mechanism approach to biodiversity, noting that it "involves accepting certain views about the human relationship with nature."[9] Here, legitimacy concerns are highlighted, including that humans are not distinct from nature and must be understood as part of one "Earth Community".[10]

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[3] Convention on Biological Diversity (CBD) adopted 5 June 1992, 1760 UNTS 79, (entered into force 29 December 1993) art 2.

[4] Reid & Nsoh, *supra* note 1 at 4.

[5] *Ibid* at 8–9.

[6] *Ibid* at 12, 15.

[7] *Ibid* at 17–23.

[8] *Ibid* at 22–23.

[9] *Ibid* at 24.

[10] *Ibid* at 24 (citing Cormac Cullinan's work on wild law). See Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (White River Junction, VT: Chelsea Green Publishing, 2011).

Equally fundamental is the critique of Western private property rights guarantees, which are rooted in an "atomised approach based on private rights" in which units are "managed in isolation" and defined by boundaries, rather than a holistic understanding that the natural world and people within it are part of wider ecosystems.[11]

The second chapter on "pervasive issues" confronting the privatization of biodiversity is extremely well conceived and comprehensive. Fourteen issues are identified that are said to arise "[w]herever there is an element of market thinking" due to the need to ensure clarity as to "what it is that is to be exchanged, sold or paid for".[12] Beyond legitimacy and ethical concerns, a fundamental question that must be considered is whether market mechanisms have the potential to be effective. The extent of pervasive issues identified in this chapter makes one wonder whether, ethics aside, going down the path of privatizing biodiversity could ever actually achieve the identified goals. For example, the authors note that many mechanisms are designed to enhance or restore habitat, or even to create new habitat, so as to balance anticipated or past species losses. Yet, it is often unclear whether proposed projects will in fact be successful due to the length of time it takes for habitat to be established, or concern that new sites do not have "equivalent biological characteristics" to the natural sites they are replacing.[13] Moreover, even the best planning can be "upset by external factors", with climate change as a prime example due to changing temperatures and less stable weather patterns that may mean identified protected areas are no longer suitable.[14]

Yet, as the authors explain, a legal approach to market-based mechanisms in the biodiversity context must be able to define rights and relationships clearly, despite uncertainties. To do this, the 'units of trade', such as 'biodiversity credits', must be identified; clarity must exist as to who owns them; and a process must exist to determine whether identified units are equivalent for the purpose of trading. Furthermore, units must be valued in terms of their contribution to an aim of "no net loss to biodiversity" which requires the setting of baselines and standards.[15] Each of these is examined in turn, revealing many underlying complexities. For example, even if two sites appear identical in terms of their habitat composition, the fact that they are situated in different locations with different connections to other biodiversity sites may have biodiversity consequences.[16] Valuing ecosystem benefits as distinct from the market value of land has been the subject of increasing study,[17] but methodologies are complex and contested. A key question is whether additional benefit is being achieved with a biodiversity offset, rather than merely business as usual, yet experience from the verification of carbon offsetting schemes suggests this is a fraught process.[18] Ultimately, for market mechanisms to work, it is essential that there be "recognition of and respect for property rights and entitlements";[19] that

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11 Reid & Nsoh, *supra* note 1 at 25.

12 *Ibid* at 27.

13 *Ibid* at 29. See also *ibid* at 44–48 (on duration and timing); *ibid* at 48–52 (on location).

14 *Ibid* at 30.

15 *Ibid* at 32–39.

16 *Ibid* at 34–35.

17 *Ibid* at 37.

18 *Ibid* at 40–41.

19 *Ibid* at 54.

these rights be secure for the long-term and be properly monitored and enforced;[20] and that information be freely available, transaction costs kept low, and payments made.[21] This requires good market governance, including "transparency, accountability and public participation," which must feature in the "design and operation" of any conservation scheme.[22]

Subsequent chapters tackle the fundamental underlying structures of market mechanism use in the biodiversity context. Chapter 3 delves into "payment for ecosystem services" or PES, which is understood as a key biodiversity protection tool by the Convention on Biological Diversity.[23] However, there is no single definition of PES, and concerns have arisen that PES may contribute to perverse outcomes by encouraging a shift from the polluter pays principle to the beneficiary pays principle.[24] The distinction between input and output-based payments is considered, with input-based payments rewarding the implementation of management practices, and output-based payments rewarding actual ecosystem services, such as a "measured increase in biodiversity."[25] The challenges of contract design are also examined, from subsidy schemes and direct contracts to reverse auctions and third party intermediaries.[26]

Chapter 4 turns to "biodiversity offsetting", a key feature of "no net loss" schemes based on the controversial idea that "activities harming biodiversity in one place can be accepted so long as they are balanced by activities enhancing biodiversity elsewhere."[27] The authors note that a greater use of biodiversity offsets may be called for if a "strong market-based approach" is adopted, rather than using offsets as a secondary response should primary conservation or site restoration measures fail.[28] Yet, those opposed to the increased use of biodiversity offsets challenge the assumption that "elements of biodiversity are widely exchangeable".[29] The chapter reviews in detail some of the key challenges touched upon in Chapter 2—including the additionality, effectiveness, equivalence and exchangeability, location, timing, and metrics of biodiversity offsets—before turning to the technical requirements of assurance, such as valuation and guarantees.[30] Long-term considerations including issues of insolvency, winding-up, and restructuring are also the subject of analysis, considerations that are of importance should original parties cease to exist, thus threatening the continuation of the obligations.[31] Final operational issues include the need for records, liberal standing rules,

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[20] *Ibid* at 60–65.

[21] *Ibid* at 65–71.

[22] *Ibid* at 71.

[23] *Ibid* at 77–78, n 4 (citing CBD, COP 9 Decision IX/11 (2008), objective 4.1).

[24] *Ibid* at 85.

[25] *Ibid* at 98.

[26] *Ibid* at 104–16.

[27] *Ibid* at 131.

[28] *Ibid* at 134–35.

[29] *Ibid* at 135.

[30] *Ibid* at 136–63.

[31] *Ibid* at 163–65.

and remedies.[32] The chapter concludes with an introduction to a related approach known as bio-banking.[33]

Chapters 5 to 7 are more modest in length than the previous chapters, and examine specific legal tools. Conservation covenants are the subject of Chapter 5,[34] while Chapter 6 covers taxation,[35] and Chapter 7 tackles the transferability of "development permits, quotas and impact fees".[36] Key legal issues that arise in relation to each are canvassed, with examples drawn primarily—as is the practice throughout the book—from England and Wales, Scotland, the European Union, Australia, the United States, and South Africa. There is no obvious reference to Canada anywhere in the book, so issues of importance in the Canadian context are avoided, such as how market approaches to biodiversity conservation might (or might not) map onto Indigenous perspectives and laws. This is unfortunate, and to the Canadian reader a painful omission when the issues being considered are ones that obviously touch upon Aboriginal rights to hunt and fish, for example, or to free, prior and informed consent to activities on Indigenous lands,[37] as is clearly the case with Chapter 7. While perhaps not a surprising omission, since the authors are British, it is a notable one given that the importance of Indigenous peoples' effective participation in biodiversity conservation is increasingly well-recognised globally.[38]

The book concludes with a short chapter devoted to ethical issues,[39] and a subsequent set of reflections.[40] Perspectives from deep ecology, wild law, and earth jurisprudence are briefly considered, which, the authors suggest, all agree that "humans are part of the natural world, not its masters, and any mechanisms which suggest that nature can be bought and sold or valued merely in terms of its contributions to humankind are fundamentally misconceived."[41] The conclusion to Chapter 8 reflects upon critiques of market mechanisms, including the way in which market thinking transforms our relationships, and the political and cultural impacts

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32 *Ibid* at 166–69.

33 *Ibid* at 171–74.

34 *Ibid* at 178–202.

35 *Ibid* at 203–24.

36 *Ibid* at 225–38.

37 See Shin Imai, "Consult, Consent, and Veto: International Norms and Canadian Treaties" in John Borrows & Michael Coyle, eds, *The Right Relationship: Reimagining the Implementation of Historical Treaties* (Toronto: University of Toronto Press, 2017) 370; and *United Nations Declaration on the Rights of Indigenous Peoples,* UNDRIP, 2007, Supp No 53, UN Doc A/61/L.67 Add 1.

38 See Claudia Sobrevila, "The Role of Indigenous Peoples in Biodiversity Conservation: The Natural but Often Forgotten Partners" (Washington DC: World Bank, 2008).

39 Reid & Nsoh, *supra* note 1 at 239–252.

40 *Ibid* at 253–260.

41 *Ibid* at 243. On deep ecology, wild law, and earth jurisprudence, see sources cited by the author at 240–244: Aldo Leopold, *A Sand County Almanac and Sketches Here and There* (New York: Oxford University Press, 1949); Arne Naess, *Ecology, Community and Lifestyle*, translated by David Rothenberg (Cambridge: Cambridge University Press, 1989); Cullinan, *supra* note 10; and Peter Burdon, ed, *Exploring Wild Law: The Philosophy of Earth Jurisprudence* (Kent Town: Wakefield Press, 2011).

that flow from market thinking, beyond the anticipated economic effects.[42] Yet ultimately, the authors reiterate that they "remain in the middle ground, recognising the potential for new approaches to improve on the current position but at the same time conscious of the pitfalls if they are applied too widely or without sufficient care."[43]

Canadian legal scholars and policy makers have considered some of the topics raised in this book,[44] and some of the examples, perhaps most notably conservation covenants, are already long-standing legal instruments.[45] The role of Indigenous knowledge for biodiversity protection in access and benefit sharing agreements has also received attention.[46] Nevertheless, there does not appear to be such a comprehensive study as this with a Canadian lens, and at least until there is, this book provides a very valuable study of a set of complex, contested, yet increasingly important legal tools designed to help us overcome the tremendous biodiversity challenges we face.

If a study such as this were undertaken with a Canadian focus, it would need to grapple with how privatized or market-based approaches to biodiversity conservation could simultaneously ensure respect for Indigenous perspectives, laws, and institutions. For example, as argued by renowned Indigenous law scholar John Borrows, First Nations have too often been precluded from participating in environmental governance in North American democracies, with little opportunity for the sharing of Indigenous knowledge and laws, thus obscuring humanity's embeddedness in nature.[47] Involvement of Indigenous peoples in environmental planning processes would "strengthen the institutions of democracy by adding elements of generational

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42 Reid & Nsoh, *supra* note 1 at 246–251. Among key sources cited here by the authors are: Nicolás Kosoy & Esteve Corbera, "Payments for Ecosystem Services as Commodity Fetishism" (2010) 69 Ecological Economics 1228; James Salzman & JB Ruhl, "Currencies and Commodification of Environmental Law" (2000–01) 53 Stanford Law Review 607; David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (New York: Oxford University Press, 2007); Debra Satz, *Why Some Things Should Not be for Sale: The Moral Limits of Markets* (New York: Oxford University Press, 2010).

43 Reid & Nsoh, *supra* note 1 at 254.

44 See e.g. David W Poulton, "Offsetting for 'Serious Harm': The Recent Evolution of Section 35 of the Fisheries Act, 1985" (2016) 20 J Env L & Prac 19; David W Poulton, *Biodiversity Offsets: A Primer for Canada* (Ottawa: Sustainable Prosperity and the Institute of the Environment, 2014), online: <http://institute.smartprosperity.ca/sites/default/files/publications/files/Biodiversity%20Offsets%20in%20Canada.pdf>; Canada, Environment Canada, Alex Kenny et al, *Advancing the Economics of Ecosystems and Biodiversity in Canada: A Survey of Economic Instruments for the Conservation & Protection of Biodiversity* (Ottawa: Sustainable Prosperity, 2011), online: <http://institute.smartprosperity.ca/sites/default/files/publications/files/Advancing%20the%20Economics%20of%20Ecosystems%20and%20Biodiversity%20in%20Canada.pdf>.

45 Michelle Campbell, "Tools for the Protection of Ecologically Significant Private Lands in Ontario: A Case Study of Marcy's Woods" (2006) 17:1 J Env L & Prac 47 at 52; "An Introduction to Conservation Covenants: A Guide for Developers and Planning Departments" (2007) The Land Trust Alliance of British Columbia Working Paper, online: <http://best-practices.ltabc.ca/media/resources/tool-evaluation/LTABC_Developer_Info_Kit_07.pdf>.

46 See e.g. Tesh W Dagne, "Protection of Biodiversity and Associated Traditional Knowledge (TK) in Canada: Ensuring Community Control in Access and Benefit-Sharing (ABS)" (2017) 30:2 J Env L & Prac 97.

47 John Borrows, *Recovering Canada: The Resurgence of Indigenous Law* (Toronto: University of Toronto Press, 2002) at 34–35.

and non-human representation."[48] Substantively, "Indigenous legal knowledge must be an integral part of decision-making standards within democracy" that is seen not merely as "evidence of best practices", but rather "considered and received as precedent in law to guide our answers to questions concerning the environment."[49] Borrows demonstrates what this might mean with reference to a concrete example of a planning process in relation to a proposed development. He suggests that the application of standards drawn from Anishinabek law could reduce the environmental impact of the project, while simultaneously forging a "truly North American law" by "mingling Indigenous and Western jurisprudence."[50] Yet Borrows ultimately suggests that one of the concrete principles to emerge from the consideration of Anishinabek law of relevance to the planning process is the "proposition that a replenishment or restoration of the environment should follow after any use" and that this suggests that the "developer could have included in the plan initiatives such as fish enhancement programs, the setting aside of alternative deer habitat under protected status, the cultivation of disturbed plants in another area, or the substitution of other lands to restore those removed from Indigenous use."[51] This would suggest that the "trading" of biodiversity is not necessarily contrary to Indigenous law, or at least, Indigenous law once mingled with colonial law. Moreover, Borrows highlights that Anishinabek law "places a positive duty on users of natural resources to create reliable systems to monitor the state of the environment", which is very much in keeping with the need for the long-term security of property rights essential for the privatization of biodiversity.

This is not to suggest that the mechanisms studied by Nsoh and Reid would necessarily accord with Indigenous law, even Anishinabek law, but it does suggest that there is room for serious study and contemplation of the relationship between market mechanisms for biodiversity protection and Indigenous knowledge and laws, both within Canada and beyond. It may be that taking Indigenous law as the starting point would necessitate a shift from colonial understandings of privatized biodiversity rights, and lead us instead to ask what responsibilities and obligations we have to each other, the land, animals, and plants.[52]

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[48] *Ibid* at 45. On non-human representation, it is important to recognize the increasing number of examples from outside of Canada in which nature has been accorded legal rights, often in accordance with Indigenous laws. See e.g. Jacinta Ruru, "A Treaty in Another Context: Creating Reimagined Treaty Relationships in Aotearoa New Zealand" in John Borrows and Michael Coyle, eds, *The Right Relationship: Reimagining the Implementation of Historical Treaties* (Toronto: University of Toronto Press, 2017) 305; David R Boyd, *The Rights of Nature: A Legal Revolution that Could Save the World* (Toronto: ECW Press, 2017).

[49] Borrows, *supra* note 47 at 46.

[50] *Ibid* at 51.

[51] *Ibid* at 52.

[52] See generally Heidi Kiiwetinepinesiik Stark, "Changing the Treaty Question: Remedying the Right(s) Relationship" in John Borrows and Michael Coyle, eds, *The Right Relationship: Reimagining the Implementation of Historical Treaties* (Toronto: University of Toronto Press, 2017) 248 at 251 & 275.