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Articles

The Struggle for Legitimacy in Environmental Standards Systems: The OECD Guidelines for Multinational Enterprises

Sarah Fick Vendzules*

ABSTRACT

The OECD Guidelines for Multinational Enterprises is one among several systems of guidelines that purport to provide standards of social and environmental responsibility for multinational enterprises. Each of these systems has attempted to strike a balance that will allow it to gain acceptance across a wide swath of affected interests. Such balancing could be viewed simplistically as finding a balance between strict standards that gain approval of NGOs but hold very little hope for compliance, and loose standards that are widely complied with but have minimal impact. Though this calculus does come into play, in reality a more complicated balancing occurs along multiple axes, with the position of a regime along the various axes affecting the position it can take with regards to an issue, and vice versa. While OECD Guidelines have never been referred to as “cutting-edge,” this Article shows how the position of the regime along the several axes – including, perhaps counter-intuitively, an extremely weak enforcement mechanism and a lack of central control and consistency – have allowed the Guidelines system to take a surprisingly radical position on one substantive issue in particular: supply chain responsibility.

* Sarah Fick Vendzules graduated from New York University School of Law in 2008. She clerked for the Honorable James Orenstein in the Eastern District of New York from 2008 to 2009. She practices immigration law at Brooklyn Defender Services, a public defender office in Brooklyn, NY.

I. INTRODUCTION

The Organisation for Economic Co-operation and Development (“OECD”) Guidelines for Multinational Enterprises are one among several systems of guidelines that purport to provide standards of social and environmental responsibility for Multinational Enterprises (“MNEs”). Each of these systems has attempted to strike a balance that will allow it to gain acceptance across a wide swath of affected interests: from civil societies, non-governmental organizations (“NGOs”) and the representatives of labor, to governments, international bodies, and the MNEs themselves. Such balancing could be viewed simplistically as finding a balance between strict standards that gain approval of NGOs but hold very little hope for compliance and loose standards that are widely complied with but have minimal impact. Though this calculus does come into play, in reality, a more complicated balancing occurs along multiple axes.¹ A balancing also occurs between implementation and interpretation, with the position of a regime along the various axes affecting the position it can take with regards to an issue, and vice versa.

This Article will look more closely at one of the systems that has entered this race for legitimacy, the OECD Guidelines for Multinational Enterprises (“the Guidelines”). The Guidelines have never been referred to as “cutting-edge.” However, I will show that the position of the regime along the several axes has allowed some National Contact Points to take a surprisingly radical position on one substantive issue in particular: supply chain responsibility. The Article will examine the Guidelines’ evolving position on supply chain responsibility and will posit that, with respect to this issue, the Guidelines have the potential to be a truly cutting-edge instrument, as demonstrated by the effective use of the Guidelines’ standards for supply-chain responsibility by the United Nations committee investigating MNEs in the Democratic Republic of Congo. It will examine how choices along the several axes have enabled this position including, perhaps counter-intuitively, an extremely weak enforcement mechanism and a lack of central control and consistency. This Article will also demonstrate how the striking of a successful balance has led to wider acceptance of the Guidelines, which has in turn enticed other actors to add strength to enforcement mechanisms, transforming a soft position into a harder one and possibly affecting the balance again.

1. The implementation axes include transparency/confidentiality, inclusiveness/exclusivity, flexibility/consistency, and voluntariness/compulsion, in other words, the mechanisms available to a regime to reward compliance and punish violation.

II. BACKGROUND

A. *Why Do Voluntary Standards Regimes Matter?*

Gone are the days of the primacy of domestic law—and of the nation-state Nor does the “death” of nation-state primacy necessarily suggest the “rise” of international law systems as a “replacement.”²

MNEs by their very definition are global citizens that operate across national boundaries and that comply with national laws. Unlike domestic corporations, they form “webs of economic relationships well beyond the control of any one state,”³ and “can allocate risk within their global operations.”⁴ This structure makes it difficult for “any one jurisdiction to provide effective remedies to its citizens.”⁵ Regulating the activities of MNEs therefore requires international cooperation. Piecemeal regulation by individual states creates the problem of a “spoiler” effect; MNEs are able to take their pick of the most advantageous national laws under which to operate. This situation could be avoided by the creation of strong, standards-setting, multinational treaty regimes. Gaining the acquiescence of states to bind themselves and their corporate citizens to a set of universal standards has so far proved difficult, however, for reasons that have been analyzed extensively.⁶

Another possibility is the creation of voluntary standards regimes for MNEs. This regulation of MNEs could provide the potential for an

2. Larry Catá Backer, *Multinational Corporations, Transnational Law: The United Nations' Norms on the Responsibilities of Transnational Corporations as a Harbinger of Corporate Social Responsibility in International Law*, 37 COLUM. HUM. RTS. L. REV. 287, 293 (2006).

3. *Id.* at 290.

4. *Id.* at 291.

5. *Id.*

6. Several commentators have discussed the breakdown of binding corporate social responsibility standards. Many of these failures have been a result of the different objectives of the Global South and North. *See, e.g.*, Ronnie D. Lipschutz, *Environmental Regulation, Certification, and Corporate Standards: A Critique*, in HANDBOOK OF GLOBAL ENVIRONMENTAL POLITICS 218 (Peter Dauvergne ed., 2005) (describing the failure of “several years of sustained intensive negotiation” to produce legally binding forestry conservation principles because of developing countries fear of internationalization of their resources); Halina Ward, *The OECD Guidelines for Multinational Enterprises and Non-Adhering Countries: Opportunities and Challenges of Engagement*, Paper presented at the OECD Global Forum on International Investment: Investment for Development, New Delhi (Oct. 19-21, 2004), available at <http://www.oecd.org/dataoecd/6/62/33807204.pdf> (describing the failure of the multilateral agreement on investment as the result of developing countries fears that such an agreement would serve to further liberalize investment rather than provide protection).

“end run” around states.⁷ Such voluntary norms, if complied with, might one day create the basis of customary international law that would be binding on states,⁸ or become the basis of an international treaty regime that would be binding on states and their citizens. However, if voluntary norms do gain widespread acceptance, there may be little value added by signing a binding treaty or acknowledging the creation of a rule of customary international law. There may even be disadvantages: once a regime becomes codified it loses the ability to continually adapt to the changing needs of regulated MNEs, civil society, governments, and stakeholders. Changing a treaty or a rule of customary international law is more difficult than modifying an interpretive rule. In addition, with a binding order comes standardization and centralization at the expense of the potential for flexibility, creativity, and adaptation to local circumstances.

Voluntary standards regimes have the potential to be much more than mere signposts along the road to a system of binding norms. They are instead part of a nascent system of global administrative law. Richard Stewart has described such systems, involving informal cooperation among national regulatory officials to address transnational regulatory problems, as “horizontal arrangements” of administrative law.⁹ These arrangements, which create “structures or incentives for private sector problem-solving,”¹⁰ have the potential to alter domestic administrative law in a participating nation since a horizontal network “may agree informally to a common regulatory policy” which may be implemented domestically through an administrative exercise of discretion.¹¹ Voluntary standards regimes such as the Guidelines are part of the “transformation of a regulatory issue from one exclusively centered within the nation-state . . . to one involving three actors: nation-states, international public law institutions, and private law actors (transnational corporations) and institutions (associations of private or transnational civil society actors).”¹²

7. Backer, *supra* note 2, at 293.

8. *Id.*

9. Richard B. Stewart, *Administrative Law in the Twenty-First Century*, 78 N.Y.U. L. REV. 437, 455 (2003); James Salzman, *Decentralized Administrative Law in the Organization for Economic Cooperation and Development*, 68 LAW & CONTEMP. PROBS. 189, 218 (2005).

10. Stewart, *supra* note 9, at 450.

11. *Id.* at 456. Stewart points out the anti-democratic aspects inherent in this system since such regulatory policy is adopted through extra-national processes that are not subject to national administrative law procedures and judicial review, *id.*, and criticizes the “temptation to equate governance arrangements based on stakeholder interest representation with democratic government,” *id.* at 460.

12. Backer, *supra* note 2, at 294.

B. The Regulatory Environment: A Multitude of Standards Regimes

[I]n the current age-power is diffuse and asserted through multiple and overlapping hierarchies. . . [There have arisen] multiple sources of power and a world in which institutions with regulatory authority must compete.¹³

There is currently a great diversity of regimes purporting to set standards of environmental responsibility for international investment and MNE activity. These systems include the OECD Guidelines for Multinational Enterprises, the United Nations Norms on the Responsibility of Transnational Corporations, the World Bank standards, and the ISO 14000 series of environmental management guidelines issued by the International Organization for Standardization.

The United Nations Norms on the Responsibility of Transnational Corporations (“UN Norms”) are an aspirational set of standards for MNEs. If implemented, the UN Norms would create a “web of reporting and observing involving states, international actors, and elements of civil society.”¹⁴ States would be required to establish an administrative and legal framework to ensure that the norms were implemented by MNEs, and MNEs would be forbidden from doing business with other MNEs that were not in compliance with the UN Norms. A general liability provision would require MNEs to provide “prompt, effective and adequate reparation to those . . . adversely affected by failures to comply with these Norms.”¹⁵

The World Bank standards are actually several sets of standards for corporate, social, and environmental responsibility that apply to projects financed by the International Finance Corporation (“IFC”) and the Multilateral Investment Guarantee Agency (“MIGA”). These standards are implemented by the Compliance Advisor Ombudsman (“CAO”). The Ombudsman operates through “assisted negotiation methods – including conflict assessment, mediation and dispute resolution, consensus building, multi-stakeholder problem solving, and interest-based facilitation and negotiation.”¹⁶ The Ombudsman “does not make judgment about the merits of a complaint, nor does it impose solutions or find fault. Its objective is to help the parties play a lead role in identifying and implementing their own solutions.” When parties cannot reach an agreement, and if the project raises substantial social and/or

13. *Id.*

14. *Id.* at 335.

15. *Id.* at 336 (citation omitted).

16. Compliance Advisor Ombudsman, How We Work, <http://www.cao-ombudsman.org/howwework/ombudsman/index.html> (last visited April 18, 2010).

environmental concerns, the CAO will “investigate whether IFC/MIGA is in compliance with its policies and guidelines. This report is made public and the CAO monitors IFC/MIGA’s response to its findings.”¹⁷ Where the IFC/MIGA is found to be out of compliance, the CAO will “monitor the situation, until actions taken by IFC/MIGA assure the CAO that IFC/MIGA will move back in to compliance.”¹⁸

The International Organization for Standardization (“ISO”) has provided an “overarching framework for environmental regulation and standards setting”¹⁹ since the 1980s. The ISO prescribes internal management systems “for companies that wish to improve continuously upon an environmental performance level which they themselves define.”²⁰ The ISO does not enforce the standards and has no adequate mechanism to ensure compliance with individual action plans or control the use of their certification.²¹ Companies may hire outside auditors to evaluate their performance, but the performance goals are set by the companies themselves. Thus, the ISO standards are “in effect, a system of first-party certification.”²²

In addition to standards applying to all MNEs, there are multiple industry-specific standards that apply to both MNEs and domestic corporations. For example, the forestry industry has several sets of standards created by both NGOs, such as the Forest Stewardship Council, and business groups, such as the American Forest Products Association and the Canadian Pulp and Paper Association. None of these standards has been able to gain a monopoly of acceptance since businesses prefer their own standards and NGOs view business-created standards as an effort to wrest control from international activist groups.²³

All these systems cover slightly different if overlapping areas, and the same set of facts may give rise to a claim in multiple fora. The World Bank Norms cover some of the same territory as the OECD Guidelines. The World Bank Norms, however, apply only to projects financed by the World Bank and only to direct investment rather than the more

17. Compliance Advisor Ombudsman, *Make Your Voice Heard: Working with the CAO*, available at www.cao-ombudsman.org/howwework/filecomplaint/documents/CAO_VoiceHeardBro08_A4-3_English.pdf; see generally *Compliance Advisor Ombudsman Operational Guidelines* at 22-26 (April 2007), available at <http://www.cao-ombudsman.org/howwework/ombudsman/documents/EnglishCAOGuidelines06.08.07Web.pdf>.

18. *Compliance Advisor Ombudsman Operational Guidelines*, *supra* note 17, at 26.

19. Lipschutz, *supra* note 6, at 225.

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.*

complicated network of financial relationships including subsidiary relationships and trade that may be covered by the OECD Guidelines. A MNE operating in an area with industry-specific standards may need to comply with those standards to get the certification it needs to attract consumers, may be ISO Certified, may receive loans from the IFC which is subject to the World Bank norms, and may be subject to the OECD Guidelines because it is based in or operates in an adhering country.

One example of this overlap of standards regimes is the Uruguay Paper Mills case.²⁴ Botnia, a Finnish company had a contract to build a paper mill in Uruguay, near the border with Argentina (the Orion Project). The Center for Human Rights and the Environment challenged this project before the World Bank Compliance Advisor Ombudsman (alleging flaws in IFC/MIGA's required impact assessments)²⁵ and under the Guidelines (alleging before the Finnish NCP that the Botnia and the Finnish Export Credit Agency had violated the guidelines by failing to provide reliable information about the environmental impact of the project, and alleging before the Swedish NCP that a Swedish-Norwegian bank had similarly violated the Guidelines by helping finance the project).²⁶ The project was also challenged unsuccessfully by Argentina before the International Court of Justice.²⁷ The efforts in all three fora to stop the mill were unsuccessful.²⁸

24. CEDHA v. Botnia S.A. (18 April 2006) and related cases CEDHA v. Finnvera PLC (8 June 2006), CEDHA and Bellona v. Nordea (28 June 2006).

25. See Jorge Daniel Taillant, Executive Director CEDHA, Letter of Complaint re: IFC Orion Project no. 23817 and Celulosas de M'Bopicua, IFC Project no. 23681, http://www.cedha.org.ar/en/initiatives/paper_pulp_mills/cao-complaint-letter.doc.

26. Org. for Econ. Cooperation & Dev. ("OECD") Watch, QUARTERLY CASE UPDATE, Spring 2008, at 9, available at http://oecdwatch.org/publications-en/Publication_2524/ [hereinafter QUARTERLY CASE UPDATE (Spring 2008)].

27. Kate Donovan, *A Beneficial Uruguayan Paper Mill: Pulp Fiction?*, Council on Hemispheric Affairs, Jan. 30, 2007, <http://www.coha.org/2007/01/30/a-beneficial-uruguayan-paper-mill-pulp-fiction/>.

28. The Compliance Advisor Ombudsman found that IFC and MIGA's due diligence assessing the environmental and social aspects was inadequate. IFC and MIGA agreed to conduct such assessments in a more transparent manner in the future, but maintained that they had been in compliance with the applicable standards. See IFC, *IFC's response to the CAO Audit of IFC's and MIGA's Due Diligence for Two Pulp Mills in Uruguay*, March 10, 2006, available at www.cedha.org.ar/en/initiatives/paper_pulp_mills/ifc-response-audit-cmbpulpmills-eng.pdf; MIGA Mgmt, *MIGA Management Response: CAO Audit of IFC's and MIGA's Due Diligence for Two Pulp Mills in Uruguay*, Mar. 9, 2006, available at http://www.cedha.org.ar/en/initiatives/paper_pulp_mills/miga-response-audit-cmbpulpmills-eng.pdf. The National Contact Points of Finland and Sweden found that the Guidelines had not been violated. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 9. In the end, the loan was approved by IFC and MIGA. Press Release, IFC, IFC and MIGA Board Approves Orion Pulp Mill in Uruguay: 2,500 Jobs to Be Created, No Environmental Harm (Nov. 21, 2006), available at

C. *The Struggle for Legitimacy*

Engagement is perhaps the most important currency that a regime must gain before it can make a claim to legitimacy. Engagement can be signaled in different ways by different actors, but each actor will require certain prerequisites before deciding to engage. NGOs and other civil-society stakeholders might engage by bringing instances of abuse to the attention of the standards regime. This requires that they believe that doing so will result in action by the regime to remedy the issue. They might also call public attention to instances of compliance or non-compliance in the hopes of influencing public opinion. This requires that they believe the standards to be aligned closely enough with their values that encouraging compliance with them is worthwhile.²⁹ International bodies might engage by incorporating or using the standards for their own purposes. MNEs might engage by attempting to comply with the standards, cooperating with investigations, and publicizing their compliance. This requires that they believe that the standards are not too burdensome and that their compliance or lack of compliance will have actual consequences for their bottom line.

When more than one system of standards exists, actors can choose which regime(s) they wish to engage with and accept. Since legitimacy is not an unlimited good, each system is, to a certain extent, in competition with each other system to gain the engagement and acceptance of relevant actors, though systems may also choose to cooperate and re-enforce one another in order to advance a common end. An illuminating way to look at the different regimes is via the theory of decentralized administrative law advanced by James Salzman. According to Salzman, different experiments in administrative law can be compared to the fifty United States in that they resemble “laboratories of democracy.”³⁰ While global administrative law systems may have little to do with democracy, like the fifty States they are “free to develop their own policies and procedures on matters of local concern.”³¹ Salzman is referring to the multiple directorates of the OECD—of which the committee that oversees the Guidelines is only one component—but the same description could just as easily be applied to the multiple systems of standards regimes (or, incidentally, to the forty National Contact Points

<http://www.ifc.org/ifcext/media.nsf/content/SelectedPressRelease?OpenDocument&UID=F76F15A5FE7735918525722D0058F472> (last visited Apr. 1, 2010). As a result, Botnia went ahead with the construction of the mill, financed by the Finnish Export Credit Agency and the Swedish-Norwegian bank. *Uruguay Paper Plant Produces First Load*, FORBES, Nov. 15, 2007.

29. See Salzman, *supra* note 9, at 222.

30. *Id.* at 224.

31. *Id.*

that implement the OECD Guidelines). Continuing the metaphor, the Guidelines are one “laboratory” among many, each struggling to do its best to serve the various constituents (business, NGOs/civil society, and labor). Because different constituents have different interests, the impact of many competing systems is neither a “race to the bottom” nor a “race to the top.” With multiplicitous and duplicative systems, businesses could simply choose the easiest regime to comply with, but they risk the possibility that NGOs, labor, and the public will not buy into the chosen regime and not give any credibility to its findings. Meanwhile, stakeholders can go to the regime they most respect to lodge complaints, but without business buy-in, it is unlikely that any holding will be complied with or taken seriously.

A number of commentators have opined that any voluntary system of standards is by nature severely limited in what it can accomplish, and that the only way to achieve true effectiveness and ensure compliance is to make standards mandatory.³² Ultimately, this may prove to be true, and the voluntary systems that are the focus of this Article may be part of a temporary stage, and a precursor to a globally-binding order. However, in order for this transition to happen, relevant actors must buy-in. The NGOs, MNEs, and the national governments and international bodies of which they are constituents, and which have the power not only to grant rewards for compliance—“carrots”—but to impose sanctions for noncompliance—“sticks”—must be on board. The pre-existence of such a voluntary system enhances the likelihood that a binding set of standards can be achieved. In order for this to happen, one system must first gain substantial legitimacy through widespread acceptance and engagement. Additionally, the switch from voluntary to involuntary may be gradual: currently actors, including governments and international bodies, are experimenting with a variety of mechanisms to ensure compliance, using both carrots and sticks.³³

Which set of standards will ultimately be accepted is still up for grabs. Whether the final model will be the OECD Guidelines, a different standards regime, or a combination of several regimes is less important than the larger goal of setting effective and widely accepted environmental protection standards.³⁴ Whichever regime establishes

32. See, e.g., Sophie Hsia, *Foreign Direct Investment and the Environment: Are Voluntary Codes of Conduct and Self-Imposed Standards Enough?*, 9 ENVTL. LAW. 673 (2003); Christopher N. Franciose, *A Critical Assessment of the United States' Implementation of the OECD Guidelines for Multinational Enterprises*, 30 B.C. INT'L & COMP. L. REV. 223, 235 (2007); Sean D. Murphy, *Taking Multinational Corporate Codes of Conduct to the Next Level*, 43 COLUM. J. TRANSNAT'L L. 389, 432-33 (2005); Detlev F. Vagts, *The Governance of the Multinational*, 23 WIS. INT'L L.J. 525, 537-39 (2005).

33. Export credits, for example.

34. But see Lipschutz, *supra* note 6, at 224 (criticizing a “consensus” rather than

itself as the most legitimate and gains acceptance from both stakeholders and shareholders will be in a position to be the regime adopted by states when they are ready to take such steps to make the standards more binding. The balance this regime has struck with respect to key issues such as supply chain responsibility has the potential to be quite similar to the ultimate content of the norms that will be adopted: if a bargain has already been negotiated and struck between all interested parties with regard to a certain issue, it would be a tremendous risk for legislators to attempt to re-negotiate it. As such, the experimentation that is currently going on in standards regimes such as the OECD Guidelines bears closer examination.

III. THE OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES

The OECD Guidelines are “the only multilaterally endorsed and comprehensive code that governments are committed to promoting”³⁵ with respect to corporate responsibility. The Guidelines were adopted in 1976 in response to discovery of illegal and unethical behavior by MNEs, including ITT and other companies’ involvement in the coup against President Allende of Chile and the bribing of Japanese politicians by Lockheed.³⁶ The guidelines apply to multinational enterprises in all the major areas of business ethics including “employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation.”³⁷ The environmental standards were added in 1991.³⁸ The Guidelines are not directly binding on MNEs, instead their force comes from the political commitment of member states to take steps to ensure their implementation by MNEs based in or doing business in their

“science-based” approach to standard setting).

35. OECD, Guidelines for Multinational Enterprises: Frequently Asked Questions, http://www.oecd.org/document/58/0,3343,en_2649_34889_2349370_1_1_1_1,00.html (last visited April 18, 2010); OECD, Roundtable on Corporate Responsibility: Encouraging the Positive Contribution of Business to the Environment, Background Report, at 7, <http://www.oecd.org/dataoecd/12/31/31967866.pdf> (last visited April 18, 2010) (roundtable held June 16, 2004).

36. Salzman, *supra* note 9, at 212.

37. OECD, Guidelines for Multinational Enterprises, www.oecd.org/daf/investment/guidelines (last visited Apr. 1, 2010).

38. OECD Document OCDE/GD(97)40: The OECD Guidelines for Multinational Enterprises, at 16 (Mar. 24, 1997), available at [http://www.olis.oecd.org/olis/1997/doc.nsf/LinkTo/ocde-gd\(97\)40](http://www.olis.oecd.org/olis/1997/doc.nsf/LinkTo/ocde-gd(97)40).

territory.³⁹ Countries adhering to the Guidelines include all thirty OECD member countries, producers of two-thirds of the world's goods and services,⁴⁰ and several non-Member countries.⁴¹ These adhering countries are the source of the vast majority of foreign direct investment and are the headquarters of most of the world's MNEs.⁴²

A. *The Structure of the Guidelines*

Responsible for implementing compliance are National Contact Points ("NCPs"), which the Guidelines require be established in each member country. NCPs are part of the host country's government—either located in a single government department or as a cooperative body including representatives from several departments.⁴³ The United States' NCP is located in the State Department.⁴⁴ Since the 2000 revisions, NCPs are "active investigating and settlement authorities."⁴⁵ Any "interested party" may submit a complaint (called a "specific instance"), a rule that allows NGOs to take an active role in calling attention to perceived violations of the guidelines.⁴⁶ NCPs are responsible for deciding if a complaint merits further consideration and, if so, accepting it as a specific instance, investigating the details of the complaint, and attempting to remedy the dispute by serving as a facilitator between the MNE and the aggrieved party.⁴⁷ According to the OECD Secretariat, "[t]he emphasis is not on judging firms but on promoting a real process of improvement in business conduct."⁴⁸ The

39. Ward, *supra* note 6, at 1-2.

40. Salzman, *supra* note 9, at 191.

41. [ARCHIVED CONTENT] UK Nat'l Contact Point for OECD Guidelines for Multinational Enterprises, <http://webarchive.nationalarchives.gov.uk/20100104215222/http://www.berr.gov.uk/whatwedo/sectors/lowcarbon/cr-sd-wp/nationalcontactpoint/page45873.html>; *see also* OECD, 2008 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS: REPORT BY THE CHAIR 3 (2008), *available at* <http://www.oecd.org/dataoecd/48/38/41721195.pdf> [hereinafter 2008 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS].

42. Elisa Morgera, *An Environmental Outlook on the OECD Guidelines For Multinational Enterprises: Comparative Advantage, Legitimacy, and Outstanding Questions in the Lead up to the 2006 Review*, 18 GEO. INT'L ENVTL. L. REV. 751, 752 (2006).

43. Ward, *supra* note 6, at 2-3.

44. U.S. Dep't of State, OECD, <http://www.state.gov/e/eeb/oecd/> (last visited Apr. 1, 2010).

45. Salzman, *supra* note 9, at 214.

46. *Id.*

47. Ward, *supra* note 6, at 3.

48. *Id.* (quoting OECD Secretariat, Frequently Asked Questions about the Guidelines).

NCP has been described as a “soft whistle-blowing facility” by the OECD secretariat.⁴⁹

The Committee on International Investment and Multinational Enterprises (“CIME”) is responsible for the interpretation of the guidelines and for providing guidance to the NCPs. Unlike labor and business, NGOs do not have Advisory Counsels at the OECD, and thus are not formally included in this procedure. Informally, however, they are invited to CIME meetings and play a role in answering questions of interpretation.⁵⁰ CIME also convenes the annual Meetings for National Contact Points at which NCPs as well as representatives of MNEs, labor, and NGOs convene to discuss perspectives on the guidelines.⁵¹ These annual meetings are held in conjunction with annual Roundtables on Corporate Responsibility addressing a different topic each year.⁵² The 2002 Roundtable addressed the issue of supply chain responsibility.⁵³

The two main OECD committees that attempt to influence the interpretation of the Guidelines are the Business and Industry Advisory Committee (“BIAC”) and the Trade Union Advisory Committee (“TUAC”). There are also many NGOs that attempt to influence how the Guidelines are interpreted and implemented. OECD Watch is a network of NGOs from Europe, the Americas, Australia, Africa, and Asia “who share a common vision about the need for corporate social responsibility and sustainable development.”⁵⁴ The group was formed in 2003 to coordinate NGO activity with respect to the Guidelines.⁵⁵ OECD Watch is “committed to testing the Guidelines as part of the wider NGO campaign towards binding regulation of multinationals.”⁵⁶

The Guidelines became the instrument they are today after a key revision that took place in 2000. This revision was occasioned by an OECD conference held in Budapest in 1998 to review the Guidelines. The conference came to the conclusion that the Guidelines had “not kept pace with globalization-related changes in the economy or society” and

49. Salzman, *supra* note 9, at 214.

50. Pieter van der Gaag, OECD Guidelines for Multinational Enterprises: Corporate Accountability in a Liberalised Economy?, at 4 (2004) (on file with author).

51. For links to reports from each annual meeting see OECD, Annual meeting of National Contact Points – OECD Guidelines for Multinational Enterprises, http://www.oecd.org/document/53/0,3343,de_2649_37439_2512693_1_1_1_37439,00.html (last visited Apr. 1, 2010).

52. *Id.*

53. *Id.*

54. OECD Watch, About OECD Watch, <http://oecdwatch.org/about-us> (last visited Apr. 1, 2010).

55. Morgera, *supra* note 42, at 775.

56. OECD Watch, Mission Statement, <http://oecdwatch.org/about-us/mission-statement> (last visited Apr. 1, 2010).

that the Guidelines “no longer represent[ed] the state of the art for codes of corporate conduct.”⁵⁷ The 2000 changes were “dramatic” and revision was undertaken after “lengthy consultations with a wide range of non-state actors.”⁵⁸ The changes granted greater authority to NCPs to investigate and settle cases, allowed any interested party, including NGOs, to bring cases to the attention of the NCP, expanded the applicability to the guidelines so that the facts giving rise to the complaint need not have occurred in the member country, but rather can have occurred anywhere a company based in an adhering country operates,⁵⁹ and added a provision on supply chain responsibility.⁶⁰

B. The Several Axes

Almost every aspect of how the Guidelines will be interpreted and implemented by NCPs has been the subject of protracted negotiation between interested parties. The design of the Guidelines system has provided ample space for positions to be discussed, negotiations to occur, and compromises to be made. The NCPs meet each year to share experiences and discuss key issues of interpretation and implementation, and representatives of labor, business, and civil society also attend and present position papers.⁶¹ At the conclusion of this annual meeting the OECD publishes an Annual Report summarizing the contributions of all the participating parties.⁶² In addition, the OECD holds yearly

57. John Wickham, *Toward a Green Multilateral Investment Framework: NAFTA and the Search for Models*, 12 GEO. INT'L ENVTL. L. REV. 617, 626 (2000) (quoting OECD, *Conference on the OECD Guidelines for Multinational Enterprises, Budapest, Hungary, 16-18 Nov. 1998: Summary Proceedings*, OECD Doc. DAFFE/IME(98)18, at 3, 5 (Nov. 23, 1998)).

58. Salzman, *supra* note 9, at 214.

59. “Governments adhering to the guidelines encourage the enterprises operating on their territories to observe the Guidelines wherever they operate, while taking into account the particular circumstances of each host country.” OECD, *The OECD Guidelines for Multinational Enterprises: Text, Commentary and Clarifications*, ch. 1, ¶ 2, OECD Doc. DAFFE/IME/WPG(2000)15/FINAL (Oct. 31, 2001), available at [http://www.oilis.oecd.org/olis/2000doc.nsf/LinkTo/NT00002F06/\\$FILE/JT00115758.PDF](http://www.oilis.oecd.org/olis/2000doc.nsf/LinkTo/NT00002F06/$FILE/JT00115758.PDF) [hereinafter OECD Guidelines].

60. Enterprises should “encourage, where practicable, business partners including suppliers and sub-contractors, to apply principles of corporate conduct compatible with the Guidelines.” *Id.* ch. II, ¶ 10.

61. See OECD, ANNUAL REPORT ON THE OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES 2007: CORPORATE RESPONSIBILITY IN THE FINANCIAL SECTOR [hereinafter 2007 ANNUAL REPORT].

62. See *id.*

roundtables on a different subject related to the implementation of the Guidelines.⁶³

The first axis is *transparency/confidentiality*. The degree to which proceedings before NCPs will be confidential has been a point of contention in the history of the Guidelines. At a 2002 annual meeting of NCPs, business interests (via BIAC), trade union interests (via TUAC), and NGO interests (via the NGO focal point) all made formal submissions expressing their views on this issue. BIAC's statement said as follows: "We are especially appreciative of NCPs' and CIME's consistent efforts to respect and maintain the confidentiality of the NCP processes."⁶⁴ In contrast, TUAC's position was more hesitant, stating that, "in order to improve transparency and co-ordination, the CIME should set up a registry of cases where NCPs should provide information as soon as a case is being raised . . . The registry should also include the published NCP recommendations and outcomes of cases."⁶⁵ The NGO statement was more explicitly critical:

Of great concern to NGOs is the creeping bias towards blanket confidentiality, which far exceeds what was recommended by CIME in its Procedural Guidance to NCPs. Under pressure from the business sector, some NCPs are seeking to prevent NGOs from putting into the public domain details of their complaints about particular companies.⁶⁶

The NGO submission detailed how the Dutch and U.K. NCPs had sought to keep NGOs from announcing that they had filed complaints or from circulating the substance of those complaints.⁶⁷ In practice, the NCPs differ greatly in their practices with regard to informing parties of

63. See OECD, Roundtable on Corporate Responsibility: The OECD Guidelines in the Financial Sector, *reprinted in* 2007 ANNUAL REPORT, *supra* note 61, at 109-23 (roundtable held June 18, 2007).

64. Dr. Kristian Ehinger, Vice-Chairman of the BIAC Comm. on Int'l Inv. & Multinational Enterprises, Statement at Meeting of Nat'l Contact Points (June 18, 2002), *reprinted in* OECD, OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES: FOCUS ON RESPONSIBLE SUPPLY CHAIN MANAGEMENT, 2002 ANNUAL REPORT 54(2002), *available at* www.oecd.org/dataoecd/24/4/1956371.pdf [hereinafter 2002 ANNUAL REPORT].

65. Trade Union Advisory Comm. ("TUAC"), *TUAC Working Paper on the Functioning of National Contact Points and How to Improve the Promotion and Implementation of the OECD Guidelines for Multinational Enterprises*, *reprinted in* 2002 ANNUAL REPORT, *supra* note 64, at 60 (italics omitted).

66. PATRICIA FEENEY, MAKING COMPANIES ACCOUNTABLE: AN NGO REPORT ON IMPLEMENTATION OF THE OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES BY NATIONAL CONTACT POINTS 3 (2002), *available at* <http://www.oecd.org/dataoecd/16/37/2965489.pdf> (last visited Apr. 1, 2010).

67. *Id.*

progress in the handling of specific instances, sharing information with the public, making public the fact that a specific instance has been raised, making statements about a specific instance while it is under consideration, and publishing reasons for rejecting a specific instance.⁶⁸

The second axis is *inclusiveness/exclusivity*. The OECD is not known for being an inclusive organization. It has been called an “exclusive club” and “a private setting for wealthy industrialized governments.”⁶⁹ However, the Guidelines operate quite differently than the rest of the OECD. They are open to membership for any country that wishes to join. In addition, NGOs and TUAC have a strong voice before the CIME, and the decisions of CIME with respect to the Guidelines have all taken place in an atmosphere of transparency and inclusiveness. The 2000 revisions of the Guidelines were “[f]or all effective purposes . . . about as close to notice-and-comment rulemaking as one can get in the international arena.”⁷⁰ The 2003 decision on supply chain responsibility, discussed *infra*, was made after extensive consultation with NGOs, BIAC, and TUAC.⁷¹ In addition, OECD Watch and TUAC, along with BIAC, participate in the annual meeting and roundtable discussion, and their contributions are published and made readily available in OECD publications. Still, NGOs may have reason to gripe: OECD Watch has criticized the fact that most NCPs are situated only within one government ministry.⁷² Of the forty NCPs, only two include representatives of business, labor, and NGOs as part of their official membership (Chile and Finland). Nine include representatives of business and labor. Twenty-one do not include any interest-group representatives, though some of these include business, labor, and NGOs in an advisory capacity (Czech Republic, Switzerland, U.K., Germany, and others) while others do not (Poland, Korea). One (Romania) has only representatives of business.⁷³ TUAC claims that the NCPs that do not

68. *Id.*; Salzman, *supra* note 9, at 215-16; OECD, OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES: 2002 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, REPORT BY THE CHAIR 17, available at <http://www.oecd.org/dataoecd/24/4/1956371.pdf> [hereinafter 2002 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS] (meeting held June 18, 2002); see also generally TUAC, *TUAC Submission*, reprinted in 2007 ANNUAL REPORT, *supra* note 61, at 88-95.

69. Salzman, *supra* note 9, at 191.

70. *Id.* at 221-22. This willingness of CIME to include these voices may have been inspired by the failure of an earlier OECD effort, the Agreement on Multilateral Investment (“MAI”). Its failure “show[ed] clearly the price the OECD paid for not reaching out to civil society,” and prompted the OECD to reconsider its rulemaking and feedback procedures. *Id.* at 196.

71. See 2002 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 68.

72. OECD Watch, *2006/07 Review the Implementation of the OECD Guidelines*, reprinted in 2007 ANNUAL REPORT, *supra* note 61, at 98 [hereinafter *2006/07 Review*].

73. *TUAC Submission*, *supra* note 68, at 88-95; *Structure of the National Contact*

include representatives of labor or NGOs are typically the ones with the worst performance, explained by their lack of knowledge about areas such as labor and environmental protection.⁷⁴ This inclusion in CIME but exclusion from some NCPs may be a poor bargain for NGOs and labor as the value to them of being included at the CIME level is naturally dependent on the influence CIME has over those NCPs, and this influence may not be great.

The third axis is *flexibility/consistency*. This axis might also be referred to as the degree of control the center (CIME) has over its spokes (NCPs). With greater control comes greater consistency, with less control greater flexibility. This has been an issue at least since the 2003 CIME supply chain decision, which has led to widely varied responses from NCPs (discussed below in Part III.). In response to these variations, BIAC has called for increased predictability and a more consistent interpretation across specific instances.⁷⁵ NGOs and TUAC have also decried inconsistency.⁷⁶ The Guidelines' structure does lend itself to problems with predictability: there are currently forty separate NCPs,⁷⁷ each with its own structure and each with its own balance of interests represented, its own set of incentives, and its own way of doing business. There is no "review" of NCP decisions, as there might be were CIME to function like the United States Supreme Court. As such, there is no mechanism by which the decisions of the individual NCPs may be standardized or harmonized. While CIME does issue general guidance on how the Guidelines should be interpreted, it does not review the decisions of individual NCPs after the fact, and will only become involved in a case if the national NCP, unable to resolve the issue, chooses to refer the case.⁷⁸ When the lack of review is combined with the fact that NCPs themselves are not bound by their previous decisions,

Points, reprinted in 2007 ANNUAL REPORT, *supra* note 61, at 33-41.

74. TUAC Submission, *supra* note 68, at 93.

75. BIAC Statement on the Promotion of the OECD Guidelines for Multinational Enterprises, reprinted in 2007 ANNUAL REPORT, *supra* note 61, at 87 [hereinafter *BIAC statement*].

76. Cornelia Heydenreich, et al., Discussion Paper, *The OECD Guidelines for Multinational Enterprises and Supply Chain Responsibility*, OECD Watch, at 4 (2004), available at <http://www.germanwatch.org/tw/kw-sup04.pdf> (last visited Apr. 1, 2010); John Evans, *Implementing the OECD Guidelines on Multinational Enterprises: The Trade Union Experience*, TUAC, at 3, available at www.europarl.europa.eu/meetdocs/2004_2009/documents/dv/tuacontribution_/tuacontribution_en.pdf.

77. In 2009 Peru became the forty-first adherent to the Guidelines and will soon have a new NCP. See OECD, 2009 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS: REPORT BY THE CHAIR, at 3 (June 16-17, 2009), available at <http://www.oecd.org/dataoecd/41/25/43753441.pdf> [hereinafter 2009 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS].

78. Salzman, *supra* note 9, at 215.

“[t]he logic behind [the] system is similar to that of the common law’s clarification of doctrine in specific applications” if the common law was non-binding on future decision and was intended to be persuasive rather than precedential.⁷⁹

The fourth axis is *enforcement/voluntariness*. Traditionally, the NCPs are notable for their refusal to place blame or make judgments. They much more closely resemble a mediation organization than any type of judicial or quasi-judicial body. The main objective of an NCP is to try to negotiate an agreement between the parties. “[T]he NCP must issue a statement and make recommendations” on the implementation of the Guidelines if the parties do not reach agreement.⁸⁰ Still, these statements tend to be broad and general. Rather than listing specific actions of the MNE that were in violation of the guidelines or listing specific steps the MNE should take to comply, they often talk about “lessons learned” and procedural issues.⁸¹ This practice may be evolving, however. Recently, the U.K. NCP, after mediation failed, issued a report that explicitly found that a British MNE operating in the Democratic Republic of the Congo had violated the guidelines, described the violations in detail, and made specific recommendations for change.⁸² Additionally, as will be seen later in Section V, several outside actors have created linkages with the Guidelines in ways that have the potential to increase their power to ensure compliance.

IV. THE SUPPLY CHAIN ISSUE

A. Evolution

The issue of supply chain responsibility⁸³ is an area where the Guidelines have vacillated, taking steps both forward and back. In doing

79. *Id.* at 214.

80. Ward, *supra* note 6, at 3.

81. See, for example, the Dutch NCP Report in the case against G-Star for labor violations by its supplier in India in which a successful agreement was brokered. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 8. According to OECD Watch, the NCP Report will address aspects of the process but not the content of the complaint. *Id.* See also Franciose, *supra* note 32, at 230 (criticizing the U.S. NCP for simply recording that the parties had reached an agreement or that the parties’ interests were being addressed).

82. See generally OECD, Final Statement by the U.K. National Contact Point for the OECD Guidelines for Multinational Enterprises: Afrimex (UK) LTD (Aug. 28, 2008), <http://www.oecd.org/dataoecd/40/29/43750590.pdf> [hereinafter Afrimex Final Statement].

83. There are other issues that I do not treat in this Article. One is the effect of

so, they demonstrate a surprising potential for flexibility and innovation. During the 2000 review of the Guidelines, NGOs exerted “considerable pressure” to expand the scope of the Guidelines to include supply chain responsibility.⁸⁴ The text of the Guidelines adopted in 2000 exhorts MNEs to “[e]ncourage, where practicable, business partners, including suppliers and subcontractors, to apply principles of corporate conduct compatible with the Guidelines.”⁸⁵ The meaning of these words has been contested since they were first written in 2000.

A 2002 Roundtable held in conjunction with the Annual Meeting of NCPs focused on the issue of supply chain responsibility. A BIAC discussion paper, submitted at the Roundtable, sums up the MNE position: “The extent to which businesses engaged in global commerce adhere to labor and environmental standards is primarily an issue of national governance rather than supply chain management . . . companies must be careful not to interfere with the independent management of their business partners since such partners will know best what is feasible and cost-effective for their business.”⁸⁶ BIAC also expressed concern about a point in the 2002 Summary Report which speculated whether the Guidelines referred to trade as well as investment and concluded that

parallel proceedings in national legal systems on an NCP’s decision to accept or reject a specific instance. This issue is also one where the Guidelines have shown great flexibility. The U.S. NCP has rejected cases subject to parallel proceedings before the National Labor Relations Board while the Japanese NCP has rejected cases when proceedings are occurring in the legal systems other countries legal systems, claiming it cannot interfere in foreign legal systems. *TUAC Submission, supra* note 68, at 95. In contrast, the French NCP accepted several cases including a case against Marks and Spencer despite the fact that parallel proceedings were occurring in a national court. *Id.* Another issue is the question of whether, in specific instances involving a parent company and a subsidiary in two OECD-adhering countries, an NCP in the country of the parent company can legitimately transfer the specific instance to the NCP of the country where the subsidiary is located. The Dutch NCP has taken the position that it “considers the involvement of the parent company in the [specific instance] procedure at least equally important as of the subsidiary[.]” OECD Watch, *The OECD Guidelines for MNEs: Are They ‘Fit for the Job’?*, OECD WATCH.ORG, June 2009, at 3, available at http://oecdwatch.org/publications-en/Publication_3201/ (last visited Apr. 1, 2010) [hereinafter *OECD Guidelines for MNEs*]. This view has also been endorsed in practice by the Argentine and Irish NCPs. *Id.* The Norwegian NCP, in contrast, has attempted to transfer two specific instances brought in Norway against Norwegian companies to the NCP of a subsidiary company despite, in one case, the complainant’s assertion that the violations of the subsidiary were the direct result of strategic decisions of the parent. *Id.* at 4.

84. Heydendreich, *supra* note 76, at 2.

85. OECD Guidelines, *supra* note 59, ch. II, ¶ 10.

86. OECD, Roundtable on Corporate Responsibility: Supply chains and the OECD Guidelines for Multinational Enterprises, BIAC Discussion Paper on Supply Chain Management, at 1-2 (June 19, 2002), <http://www.oecd.org/dataoecd/50/2/2089098.pdf>.

“there might be a need for further reflection and consideration of this issue.”⁸⁷ BIAAC stated its position that the Guidelines “clearly apply exclusively to investment, not trade.”⁸⁸ In contrast, NGOs have pointed to “references to both trade and investment in the Preface and the explicit provision in the text dealing with ‘suppliers and sub-contractors.’”⁸⁹ Moreover, “[t]he Commentary on General Policies devotes a whole paragraph to the importance of the Guidelines for ‘suppliers, contractors, sub-contractors licensees and other entities with which MNEs enjoy a working relationship.’”⁹⁰ The NCP opinion was mixed, but some NCPs reported that they favored supply chain responsibility.⁹¹

In April 2003, CIME issued an important statement on the proper interpretation of the Guidelines: the Guidelines would only be applicable if there was an “investment nexus,”⁹² in other words, some clear direct responsibility of the MNE in the form of a direct investment, long-term contact, or joint venture.⁹³ “[T]he Guidelines have been developed in the specific context of international investment by multinational enterprises and their application rests on the presence of an investment nexus.”⁹⁴ Strictly interpreted, this requirement would exclude most supplier-purchaser relationships. However, the statement went on to add: “When considering the application of the Guidelines, flexibility is required.”⁹⁵ The Guidelines, in chapter II paragraph 10, “link the issue of scope to the practical ability of enterprises to influence the conduct of their business partners with whom they have an investment like relationship.”⁹⁶ As such, a “case-by-case approach is warranted that takes account of all factors relevant to the nature of the relationship and the degree of influence. The fact that the OECD Declaration does not provide precise definitions of international investment and multinational enterprises

87. OECD, Roundtable on Corporate Responsibility: Supply Chains, Summary, at 9 (June 19, 2002), <http://www.oecd.org/dataoecd/39/11/1840033.pdf> [hereinafter Supply Chains, Summary].

88. OECD Guidelines for Multinational Enterprises: 2002 Annual Meeting of the National Contact Points, Contributions by Business, Trade Unions, and Non-Governmental Organisations, at 2 (June 18, 2002), <http://www.oecd.org/dataoecd/19/7/2493041.pdf>.

89. FEENEY, *supra* note 66, at 4.

90. *Id.*

91. Supply Chains, Summary, *supra* note 87, at 9.

92. OECD, 2003 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS: REPORT BY THE CHAIR 12 (2003), available at www.oecd.org/dataoecd/3/47/15941397.pdf [hereinafter 2003 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS].

93. Heydenreich, *supra* note 76, at 7.

94. 2003 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 92, at 12.

95. *Id.*

96. *Id.*

allows for flexibility of interpretation and adaptation to particular circumstances.”⁹⁷

Because of this decision, seen by some as an example of CIME using its position to change the originally negotiated substance of the guidelines,⁹⁸ some commentators see stakeholders “shifting their attention to potentially new instruments, as the Guidelines are proving less useful [than] initially hoped for.”⁹⁹ These concerns have substance; multiple environmental cases have been rejected by NCPs as a direct result of this decision.¹⁰⁰ The German NCP rejected a case in 2003 raised by Greenpeace Germany against West LB challenging the financing of an oil pipeline in Ecuador said to be violating environmental human rights because of the lack of an investment nexus.¹⁰¹ The Dutch NCP rejected a case in 2004 against travel agencies organizing tours to Burma because of the lack of investment nexus, but the NCP did issue a statement discouraging travel in Burma.¹⁰² The same NCP also found in 2004 that it could not act in a case against Chemical Pharmacy Holland, which had been involved in financing, quality control, transport, and marketing the mineral Coltan along with a Congolese company (Eagle Wings). Despite this involved relationship, the NCP found that there was no investment nexus.¹⁰³ The German NCP also rejected a case in 2003 filed by Greenpeace against Total Fina Elf, which had arrangements with a Russian company whereby it guaranteed bank loans to invest in oil production and had long-term agreements to purchase oil up to ten years in the future.¹⁰⁴ The NCP considered this to be solely a trading relationship, and denied the case because of the lack of an investment nexus.¹⁰⁵ The Australian NCP in 2006 and 2007 rejected a specific instance filed by an environmental NGO alleging that an Australian bank

97. *Id.*

98. van der Gaag, *supra* note 50, at 4.

99. *Id.*

100. Morgera, *supra* note 42, at 769.

101. Greenpeace Germany v. West LB – OECD Watch, http://oecdwatch.org/cases/Case_32 (last visited Apr. 1, 2010); *see* van der Gaag, 4 *supra* note 50.

102. Case cite unavailable. *See* OECD, *Specific Instances Considered by National Contact Points to Date*, reprinted in 2007 ANNUAL REPORT, *supra* note 61, at 55 [hereinafter *Specific Instances*].

103. The Netherlands Nat'l Contact Point for the OECD Guidelines for Multinational Enterprises, Statement on The Netherlands Institute for Southern Africa (Niza) & Co. v. Chemie Pharmacie Holland BV (Feb. 13, 2004), www.oecd.org/dataoecd/5/1/38031157.pdf; *see also* *Specific Instances*, *supra* note 102, at 55; Heydenreich, *supra* note 76, at 4.

104. Greenpeace vs. Total Fina Elf (Apr. 10, 2002); *see* Heydenreich, *supra* note 76, at 4; *see also* Greenpeace vs. Total Fina Elf —OECD Watch, http://oecdwatch.org/cases/Case_23/ (last visited Apr. 2, 2010).

105. *Id.*; *see also* Heydenreich, *supra* note 76, at 4.

had financed unsustainable logging operations in Papua New Guinea because there was not sufficient proof of an investment nexus. The NCP held that the mere financial relationship (loans and guarantees) was not enough of a nexus for the complaint to be accepted.¹⁰⁶

Still, it is clear that there is room for tremendous flexibility of interpretation on this issue, as evidenced by the varied responses of NCPs when faced with specific instances presenting facts that indicate supply chain responsibility. Many NCPs have taken a liberal view of the investment nexus or chosen to accept specific instances without addressing the issue at all. Using these strategies, some NCPs began accepting supply-chain cases as early as 2003. Others have followed their lead, even when they had earlier rejected such cases. The German NCP accepted a complaint against Adidas arising out of labor conditions at a manufacturing supplier in Indonesia in 2003¹⁰⁷ without touching on the investment nexus issue.¹⁰⁸ It also accepted a case in 2004 about child labor in the supply chain in India.¹⁰⁹ The Belgian NCP accepted a complaint filed against banks (KCB, Dexia, and ING Belgium) that were providing loans for the BTC Pipeline in Azerbaijan, Georgia, and Turkey in 2004 without any discussion of the investment nexus issue.¹¹⁰ The

106. Australian Conservation Foundation (ACF), et al. vs. ANZ Bank (Aug. 24, 2006 / Oct. 1, 2007); see *2006/07 Review*, *supra* note 72, at 101; see also QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 3.

107. CCC vs. Adidas (Sept. 5, 2002); see *Specific Instances*, *supra* note 102, at 50; German Nat'l Contact Point for the OECD Guidelines for Multinational Enterprises, Statement on a Specific Instance Brought by the German Clean Clothes Campaign (CCC) against adidas-Salomon (May 24, 2004), <http://www.bmwi.de/BMWi/Redaktion/PDF/S-T/statement-by-the-german-national-contact-point-for-the-oecd-guidelines-for-multinational-enterprises-ccc-against-adidas,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf> ("The parties agreed to remain in communication on this issue and to utilise the information obtained for further progress on the improvement of working conditions, and in particular for improvements in communications between the company management and the employees in the Indonesian supplier factories named."); see also CCC vs. Adidas — OECD Watch, http://oecdwatch.org/cases/Case_27/ (last visited Apr. 4, 2010).

108. Heydenreich, *supra* note 76, at 5.

109. Germanwatch v. Bayer (Oct. 11, 2004); see *Specific Instances*, *supra* note 102, at 50; see also Germanwatch v. Bayer — OECD Watch, http://oecdwatch.org/cases/Case_50/ (last visited Apr. 4, 2010).

110. Proyecto Gato vs. Dexia, ING, & KBC (May 9, 2004); see Heydenreich, *supra* note 76, at 5. The case was later forwarded to the U.K. NCP which is also handling a related specific instance involving the consortium of oil companies, led by British Petroleum, who are alleged to have sought environmental and other exemptions, pressured governments into accepting a flawed environmental impact assessment, and undermined governments' ability to mitigate harm by exempting the pipeline from environmental, social, or health legislation which might be passed in the future. The British NCP unofficially declared that it will not evaluate the role of the Belgian banks, and it is unclear whether the Belgian NCP will retake control over the case. See *Specific*

Swedish NCP accepted the 2006 complaint (discussed *supra*) against Nordic Bank for environmental harms arising out of its financing of the pulp mill in Uruguay.¹¹¹ The Dutch NCP, which had earlier rejected several cases for lack of investment nexus, found admissible and accepted a complaint in 2006 against a clothing company, G-Star International, for labor violations at its Indian supplier company, Fabrics and Fibers International, despite the fact that there was no investment in the Indian company, only a supplier-purchaser relationship.¹¹² The NCP successfully mediated between the parties and an ombudsman was appointed to follow up on complaints and negotiate mutually acceptable solutions.¹¹³ The U.K. NCP accepted a complaint in 2007 against Afrimex, a British importer of minerals (discussed in greater detail in the following section) for contributing, via the supply chain, to environmental and human rights violations.¹¹⁴ The Danish NCP accepted a complaint in 2006 against Dalhoff, Larsen & Hornemann for buying timber that was illegally logged, and timber from Burma that contributed to the conflict and human rights abuses, despite the fact that this seems to be purely a trade issue.¹¹⁵

In addition to making individual decisions on the supply-chain issue, NCPs have continued to push their own interpretation of the Guidelines. At the 2003 Annual Meeting, NCPs contributed to a Background Paper on the Scope of the Guidelines, which served in part to answer CIME's declaration on the investment nexus issue. The paper asserted that the term "investment nexus" is up to interpretation, as the Guidelines do not contain a precise definition of "investment." The

Instances, supra note 102, at 60; QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 14; OECD Watch, QUARTERLY CASE UPDATE, Spring 2009, at 10, *available at* http://oecdwatch.org/publications-en/Publication_3009/ [hereinafter QUARTERLY CASE UPDATE (Spring 2009)]; OECD Watch, QUARTERLY CASE UPDATE, Feb. 2010, at 10-11, *available at* http://oecdwatch.org/publications-en/Publication_3338/view [hereinafter QUARTERLY CASE UPDATE (Feb. 2010)].

111. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 9.

112. CCN and ICN vs. G-Star (Oct. 13, 2006); *2006/07 Review, supra* note 72, at 102; *see Specific Instances, supra* note 102, at 56; *see also* CCC & ICN vs. G-Star — OECD Watch, http://oecdwatch.org/cases/Case_109 (last visited Apr. 4, 2010).

113. *See Specific Instances, supra* note 102, at 56; QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 7.

114. Global Witness vs. Afrimex (Feb. 20, 2007); *see* Global Witness vs. Afrimex — OECD Watch, http://oecdwatch.org/cases/Case_114; Afrimex Final Statement, *supra* note 82.

115. *Nepenthes vs. Dalhoff, Larsen & Hornemann (DHL)* (Mar. 10, 2006); *see* QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 10; QUARTERLY CASE UPDATE (Spring 2009), *supra* note 110, at 8; *see also* *Nepenthes vs. Dalhoff, Larsen & Hornemann (DHL)* — OECD Watch, http://oecdwatch.org/cases/Case_112/ (last visited Apr. 4, 2010).

Guidelines' Preface refers to "a broad range of business arrangements and organisational forms. Strategic alliances and closer relations with suppliers and contractors tend to blur the boundaries of the enterprise." In this context, "definitions of business activities such as investment may be quite broad. This suggests that there may be room for flexibility in assessing multinational enterprises' influence and the presence of an investment relationship in the supply chain, depending on the specific circumstances."¹¹⁶

The Swedish NCP is an example of an NCP that has been a leader in pushing the interpretation of the guidelines forward. In June of 2003, immediately after the CIME policy announcement, the Swedish NCP issued a report in a specific instance about the business relations of two Swedish companies (Sandvik and Atlas Copco) in Ghana's gold mining sector. In that report it addressed the question of supply chain responsibility and the investment nexus and stated that the guidelines must be interpreted on a case-by-case basis, taking into account the corporation's actual "possibilities of influencing a business partner or a specific situation."¹¹⁷ The NCP recommended that the companies take action "to remedy the lack of knowledge of the contents of the Guidelines at subsidiaries and among personnel on the spot in Ghana."¹¹⁸ The NCP also contributed a paper to the 2007 OECD Investment Committee Roundtable on Corporate Social Responsibility advancing the argument that supply chain responsibility should be assessed through a "sphere of influence" approach. This paper was well-received and the theory it advanced has been picked up and championed by NGO representatives.¹¹⁹ This theory echoed an idea advanced at the 2003 Annual Meeting that "direct influence can stem from other circumstances" beyond foreign direct investment, including market power: "[C]ompanies having market power vis-à-vis their suppliers may be able to influence business partners' behaviour even in the absence of investment giving rise to formal corporate control."¹²⁰ Market arrangements are often "designed to ensure supplier accountability for particular aspects of performance (often product quality)" and "involve

116. 2003 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 92, at 27.

117. Swedish Nat'l Point Contact for OECD Guidelines for Multinational Enterprises, Statement with reference to specific instances received concerning Atlas Copco and Sandvik, at 1-2 (June 2003) <http://www.oecd.org/dataoecd/16/34/15595948.pdf> [hereinafter Atlas Copco and Sandvik]; Morgera, *supra* note 42, at 767.

118. Atlas Copco and Sandvik, *supra* note 117, at 1.

119. 2006/07 Review, *supra* note 72, at 101.

120. 2003 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 92, at 27.

investments in standards, certification and tracing systems,” even though “the supplier-purchaser relationship itself does not involve investment in the traditional sense of foreign direct investment.”¹²¹ If standards can be set for product quality in this situation, they can also be set for environmental and social responsibility.¹²²

A more radical or cutting edge view of supply chain responsibility has also been advanced, though not widely accepted. Some interest groups have noted that “it is often possible for companies to influence supply chain outcomes even if they choose not to do so.”¹²³ At the roundtable on the Guidelines that took place in June of 2002, NGO and trade union representatives “pointed out that companies can choose to ‘engineer processes’ so as to control supply chain outcomes and can structure their relations with suppliers so as to obtain ‘power and leverage.’”¹²⁴ If this view is accepted, then MNEs would be responsible for the actions of companies in their supply chain, not just in “business situations in which influence is possible, but also to those where it is reasonable to expect the business in question to engineer its processes and to structure its relations with business partners and suppliers in such a way as to be able to influence them.”¹²⁵

B. The United Nations’ Use of the Guidelines

Between 2002 and 2003, the United Nations Security Council took an action that constituted an explicit affirmation of the standards enunciated in the Guidelines and that appeared to signal the growing credibility that the Guidelines have accrued within the international community: it explicitly used the guidelines to judge the MNEs under investigation for their activities in the Democratic Republic of Congo.

In 2002, the Security Council established an international committee, the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo (the “U.N. Panel”), to investigate the conduct of MNEs in that country. The MNEs had been accused of exploiting the Congolese conflict to their advantage, including those who had failed in “their responsibilities vis-a-vis the source of their raw materials.”¹²⁶ The report

121. *Id.*

122. *Id.* at 25-28.

123. *Id.* at 27.

124. *Id.*

125. *Id.*

126. The Secretary-General, *Letter dated 23 October from the Secretary-General Addressed to the President of the Security Council*, ¶ 10, delivered to the Security Council, U.N. Doc. S/2003/1027, 5 (Oct. 23, 2003), available at

detailed the activities of companies adjudged to be in violation of the Guidelines, and referred cases to NCPs for further investigation or monitoring to ensure compliance with negotiated agreements.¹²⁷

The report devoted an entire annex, Annex III, to naming the companies that were found in violation of the OECD guidelines: “Companies listed in annex III . . . were included because of apparent breaches of the OECD Guidelines for Multinational Enterprises.”¹²⁸ Annex III was, at its base, a list of companies with supply chain problems: “It was . . . a means of characterizing their involvement in exploitation activities that were less directly linked to conflict and therefore involved more indirect ties to the main protagonists.”¹²⁹

Despite the fact that the report was issued in October 2003, after the announcement of the “investment nexus” requirement, the Committee clearly did not consider this to hamper its use of the Guidelines to pressure companies to ensure that their trading partners followed the Guidelines and that their trading relationships did not contribute to the conflict. Issued in October 2003, the Committee’s final report declared that the companies under investigation acknowledged responsibility with regard to the supply chain, and “commented that their responsibilities extended further than they had previously acknowledged. Supply chains for raw materials, in particular, came into sharp focus and prompted some of those named to reassess their activities in the Democratic Republic of the Congo.”¹³⁰ With respect to Annex III companies, “the Panel discussed the need for a fairer, more transparent exploitation of the natural resources of the Democratic Republic of the Congo, which they could help foster. During meetings with many individuals and company representatives, a large number of them expressed their appreciation of the role the Panel had played in raising their awareness of the conflict in the Democratic Republic of the Congo and the responsibilities that companies have when operating in such an environment.”¹³¹

If, as observers have commented, “the U.N. Security Council initiative in DRC provided [a] sort of legitimization to the text of the Guidelines, by using them as a benchmark for assessing corporate behavior. . . ,”¹³² the initiative did not provide the same legitimization to

<http://www.zwnnews.com/UNDRCreport2.doc> [hereinafter Letter from the Secretary-General].

127. *Id.* Annex I.

128. *Id.* ¶ 12.

129. *Id.*

130. *Id.* ¶ 11.

131. *Id.* ¶ 18.

132. Morgera, *supra* note 42, at 776.

the CIME declaration that the Guidelines require an investment nexus. This alternative interpretation, by a body such as the U.N., further contributes to the flexibility that exists around this rule.

C. The Afrimex Specific Instance

Following on the heels of the U.N. initiative in the DRC, several more cases have been filed before NCPs arising out of MNE activities in that country. One of these cases especially bears mentioning, in part for the unusual way the NCP accepted the complaint and the NCP's willingness to make its findings public, but most notably for the NCP's adoption of a substantive standard for MNE behavior from a source outside the Guidelines.

The complaint was brought by Global Witness in 2007 against Afrimex, a British company, charging that Afrimex conducted trade in minerals that contributed directly to the conflict and human rights abuses. The company was alleged to have traded in the mineral cassiterite, which was obtained by child labor and involuntary servitude, and was alleged to have paid taxes to rebel groups engaging in human rights violations.¹³³ Afrimex was categorized as an Annex III company, a company with supply chain responsibility.¹³⁴ Afrimex had been one of the companies investigated by the U.N. Panel and the issue was listed as "resolved" in the report. The U.K. NCP accepted the complaint, despite the fact that it had rejected three earlier specific instances because the issue had been listed as "resolved" by the U.N. panel.¹³⁵ A possible explanation for this difference might be the three years that elapsed between the two complaints and the growing willingness of NPCs to accept cases with supply chain responsibility.

The U.K. NCP engaged Afrimex and Global Witness in mediation and, after Afrimex withdrew from the mediation process in January 2008, issued a final statement in August of that year declaring that Afrimex had not complied with the Guidelines.¹³⁶ The NCP's report found supply chain responsibility for Afrimex, based on the concept of "due diligence." This concept, found nowhere in the Guidelines, comes instead from a report by Professor John Ruggie, the Special Representative to the U.N. Secretary General on Human Rights and Business. Ruggie submitted the report in response to the invitation of the Human Rights Council to provide his views and recommendations for its

133. Afrimex Final Statement, *supra* note 82, at 2.

134. Letter from the Secretary-General, *supra* note 126, Annex I.

135. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 6; QUARTERLY CASE UPDATE (Spring 2009), *supra* note 110, at 7.

136. *Id.*

consideration on the topic of business and human rights.¹³⁷ This mandate called on Ruggie, *inter alia*, to make recommendations improving the effectiveness of standards regimes including the guidelines. Ruggie called for MNEs to employ “due diligence – a process whereby companies not only ensure compliance with national laws but also manage the risk of human rights harm with a view to avoiding it.”¹³⁸ Ruggie urged that the scope of due diligence required of an MNE should be “determined by the context in which a company is operating, its activities, and the relationships associated with those activities.”¹³⁹

The NCP applied Ruggie’s concept of “due diligence” to the issue of supply chain responsibility. In considering Afrimex’s relationship with and ability to influence its suppliers it held the company to the due diligence standard. The NCP found that “Afrimex applied insufficient due diligence on the supply chain . . . [and] did not take steps to influence the supply chain and to explore options with its suppliers exploring methods to ascertain how minerals could be sourced from mines that do not use child or forced labour or with better health and safety.”¹⁴⁰ By these failures, the NCP found that Afrimex had violated paragraphs II.1, and II.2, and II.10 of the Guidelines.¹⁴¹

D. Cross-Pollination and the Supply Chain Issue

The adoption by the U.K. NCP of a suggested standard from the report of a Special Representative to the U.N. Secretary General on Human Rights and Business is, like the U.N. Security Counsel’s use of

137. John Ruggie, the Special Representative of the Secretary-General on the Issue of Human Rights & Transnational Corporations and other Bus. Enterprises, *Promotion and Protection of All Human Rights, Civil, Political, Economic, Social and Cultural Rights, Including the Right to Development: Protect, Respect and Remedy: a Framework for Business and Human Rights*, U.N. DOC. A/HRC/8/5 (Apr. 7, 2008), available at www.reports-and-materials.org/Ruggie-report-7-Apr-2008.pdf [hereinafter Ruggie Report]; see also OECD Watch, 2008 Review of National Contact Points and the Implementation of the OECD Guidelines: Submission to the Annual Meeting of NCPs (June 2008), http://oecdwatch.org/publications-en/Publication_2812/at_download/fullfile (last visited Apr. 4, 2010).

138. Ruggie Report, *supra* note 137, ¶ 25.

139. *Id.*; see Afrimex Final Statement, *supra* note 82, at 10.

140. *Id.* at 13-14.

141. II.1 Contribute to economic, social and environmental progress with a view of achieving sustainable development.

II.2 Respect the human rights of those affected by their activities consistent with the host government’s international obligations and commitments.

II.10 Encourage, where practicable, business partners, including suppliers and subcontractors, to apply principles of corporate conduct compatible with the Guidelines.

OECD Guidelines, *supra* note 59.

the Guidelines, an instance of a cross-pollination of ideas between the Guidelines and other systems. The U.K. NCP may have been emboldened to employ the “due diligence” standard by the successful adoption of the Guidelines by the U.N. Panel in the Congolese case and the ensuing boost in legitimacy caused by that collaboration. Another phenomenon that may be at least partially traceable to this cross-pollination is the increased openness to supply-chain responsibility among NCPs after the U.N. Panel’s failure to accept the investment nexus requirement.

V. THE OECD GUIDELINES’ SECRET TO “SUCCESS”

Not all commentators would agree that the OECD Guidelines have been a success so far. Those that define success as widespread compliance will be disappointed.¹⁴² Still, the Guidelines have been successful in a number of ways. They facilitate negotiations between business and affected parties. By accepting a specific instance, they lend weight and gravity to the complaints of those affected by MNE activities. They engage MNEs, governments, and civil society. Equally importantly, they provide a forum in which a vigorous and spirited debate on what constitutes responsible corporate behavior can and does occur. The nature of supply chain responsibility is an important part of that debate, and the Guidelines system has provided a uniquely fertile soil in which different ideas and interpretations have been able to germinate. Included among these interpretations is the position taken by some NCPs and echoed by the U.N. Committee on the DRC that MNEs can and should influence the behavior of their subordinates. Though some interpretations will ultimately flourish and others wither, they all owe their very existence to the balance the Guidelines have struck along the various axes described above. Below I detail the three I consider the most important: flexibility, enforcement, and inclusiveness.¹⁴³

A. *Flexibility and Inconsistency*

As this Article has shown, the pronouncements of CIME, charged with interpreting the guidelines, are far from definitive of how the NCPs

142. See, e.g., Franciose, *supra* note 32, at 235 (stating that “voluntary guidelines such as the OECD Guidelines may simply be inadequate” to ensure compliance).

143. Cf. Ward, *supra* note 6, at 6-7 (describing her ideal criteria for a globally acceptable set of standards as “links to generally agreed principles of international law; extent of engagement in the development of the norms; legitimacy; flexibility to respond to changing policy contexts; and sensitivity to different national or local circumstances.”).

will actually process complaints. NCPs ability to take cutting-edge positions on interpretation is due, in great part, to the flexibility of the Guidelines. This idea may be contrary to the conventional wisdom. According to TUAC, “[i]nconsistent interpretations of the criteria for acceptance of cases is however the chief obstacle.”¹⁴⁴ TUAC believes that because of this flexibility or inconsistency, NCPs have been able to adopt a “negative approach” to the supply chain issue.¹⁴⁵ NGOs have also criticized the “inconsistencies” in interpretation.¹⁴⁶ Finally, BIAC has called for a more consistent interpretation across specific instances.¹⁴⁷ What none of these parties seems to consider is that inconsistency works against them in some cases but for them in others. A completely solid position would please one party and displease another, and may lead to parties “buying-out” of the Guidelines altogether. As opposed to a solidified position, the pliability of the Guidelines allows for their acceptance in different fora where an inflexible interpretation might be untenable. Because of this flexibility, the Guidelines can mean one thing in Sweden, another in Korea, and another in the U.N., and BIAC and TUAC and OECD Watch can all call for “consistency of interpretation” while having completely different ideas of what the ideal consistent interpretation should entail.

This flexible situation is able to exist in part because the Guidelines’ enforcement mechanism is so weak and there is no sanction or reward offered for compliance. There is no need for an appellate body to review an NCP’s decision. As such, neither CIME nor any of the forty individual NCPs has the last word on interpretation. This freedom has allowed the supply chain issue to evolve as it has, with each individual NCP striking a balance based on its own prerogatives and the local points of pressure brought to bear.

B. Weak Enforcement Mechanism: “Soft Whistle Blowing”

Very closely related to the issue of flexibility is enforcement. The Security Council action on the Democratic Republic of Congo provides a sharp contrast to the operation of the NCPs. Unlike the U.N. Panel, NCPs tend not to function as judicial bodies but rather as mediators. The role of the NCP is generally not to determine whether or not a MNE has violated the guidelines, but rather to resolve disputes between the parties. A preliminary determination is made to accept or reject a specific instance, but beyond that there is no judgment typically issued. NCPs may issue a

144. Evans, *supra* note 76, at 3.

145. *Id.*

146. Heydenreich, *supra* note 76, at 4.

147. *BIAC Statement*, *supra* note 75, at 87.

statement at the close of a specific instance, but they usually do not detail violations of the guidelines by a specific company. In fact, many NCPs do not release the names of the companies they are investigating. If this information is publicly released, it often comes from NGOs.¹⁴⁸ Many cases are closed without a statement, or with the issuance of a statement to the effect that the parties were successful in resolving the issue.¹⁴⁹ Under this system, resolutions of specific instances have no prospective or retrospective applicability. They do not establish standards for how the company in question should have behaved,¹⁵⁰ and as such they also fail to establish how other companies should behave in similar situations in the future.

In contrast, the U.N. Panel issued a report naming companies as wrongdoers, including those that were in violation of the guidelines. It also offered to “de-list” those companies that came into compliance.¹⁵¹ This is a stronger “stick” than the mediation-focused mechanism employed by the NCPs. However, the overall effect of this “soft whistle-blowing” may be to increase the flexibility of the Guidelines (see section IV. A.), as well as their unique position as a consensus-building forum. When mediation efforts fail, the recent trend towards naming wrongdoers and enumerating their violations (employed notably by the U.K. NCP) may alter this balance by creating an incentive for MNEs to demand a more centralized set of standards. Still, while this tactic certainly increases the strength of the enforcement mechanisms at the Guidelines’ disposal, this form of reporting is still only whistle-blowing, a relatively weak mechanism when not tied to any specific penalty or loss of privilege. Nevertheless, this growing confidence of NCPs may be a sign of the increased legitimacy the Guidelines have gained, in part through their acceptance and use by the U.N. panel. This boost in legitimacy has also increased the NCPs’ influence and enabled them to employ a slightly stronger stick than before. This development, along with linkages to other enforcement mechanisms as discussed below, may

148. Home — OECD Watch, <http://www.oecdwatch.org/> (last visited Apr. 4, 2010); TUAC: FEBRUARY 2005 TUAC INTERNAL ANALYSIS OF TREATMENT OF CASES RAISED WITH NATIONAL CONTACT POINTS 2001-2005, <http://old.tuac.org/statemen/communiq/listofcasesFeb05WithAnnexes.pdf> (last visited Apr. 4, 2010).

149. See, for example, the Dutch NCP Report in the case against G-Star for labor violations by its supplier in India in which a successful agreement was brokered. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 8. According to OECD Watch, the NCP Report will address aspects of the process but not the content of the complaint. *Id.* See also Franciose, *supra* note 32, at 230, criticizing the U.S. NCP for simply recording that the parties had reached an agreement or that parties’ interests were being addressed.

150. Salzman, *supra* note 9, at 213-14.

151. Letter from the Secretary-General, *supra* note 126, ¶ 22.

signal a move towards different models of enforcement and a new phase in the development of the Guidelines.

C. Transparency

NCPs differ greatly in the approach they take to confidentiality in the complaint process. Some NCPs do not publish details of complaints while others do. Some NCPs publicize the process of a specific instance. Some issue findings and recommendations and even assign responsibility. These varying approaches may tend to contribute to the growth of the Guidelines in certain directions and hamper them in others. NCPs that publish details of complaints, make their processes transparent, and report on their conclusions are likely to have more influence than those that zealously protect confidentiality. Other NCPs looking to see how a similar situation has been handled have the option of examining the precedent established by those NCPs that emphasize transparency. NCPs that maintain confidentiality deny themselves the opportunity to have their processes serve as a model for others. While the fact that a model exists is not likely to outweigh fundamental ideological differences in determining in how an NCP will handle a particular issue, and while NCPs communicate in ways outside of the public forum, the fact remains that NCPs that stress confidentiality deny themselves a platform to advance their views on how the Guidelines should be interpreted and implemented.

In addition to the transparency practiced by some NCPs, the Guidelines system contains a good deal of both intended and unintended transparency. The minutes of the annual meetings of the National Contact Points are published online, as are the minutes of the annual Roundtables on Corporate Responsibility. In these forums, NCPs report on their progress and NCPs and interest groups are allowed to express their views on both implementation and interpretation.¹⁵² The OECD also published, in 2008, a summary of specific instances covered by the NCPs, although this summary may not cover every specific instance as the information was drawn from reports by the NCPs and some NCPs “might consider that it is not in the interests of effective implementation of the Guidelines to publish information about the case.”¹⁵³ In addition, the efforts of organizations such as OECD Watch have created a good

152. See, e.g., OECD, OECD 2009 Roundtable on Corporate Responsibility: Consumer Empowerment and Responsible Business Conduct (June 15, 2009), *available at* <http://www.oecd.org/dataoecd/40/60/43751862.pdf>;

153. OECD, OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES: SPECIFIC INSTANCES CONSIDERED BY NATIONAL CONTACT POINTS 1 (2009), <http://www.oecd.org/dataoecd/15/43/33914891.pdf> (last visited Apr. 4, 2010).

deal of transparency that was likely never intended by the creators of the Guidelines system and that exists despite the wishes of individual NCPs. OECD Watch receives updates from its member organizations—often the bringers of specific instances—thereby bypassing the NCPs as sources of information.¹⁵⁴ It publishes, through its quarterly case updates, information on specific instances brought before NCPs, whether and how the NCP accepted or rejected the case, the current status of individual specific instances, and, where specific instances have been resolved, the result.¹⁵⁵ The widespread availability of such information has altered the Guidelines' position along this axis, despite the wishes of the NCPs.

While the widespread availability of information hampers flexibility by making inconsistencies readily apparent to observers and increases the enforcement power of the guidelines by strengthening their the position as a “whistleblowing” regime, the availability of information simultaneously increases the Guidelines' inclusiveness and their ability to serve as a forum in which ideas can be shared.

D. A Forum for Consensus

Finally, I believe it is important to highlight the way the Guidelines regime has been extremely successful in its role as a consensus-building forum.¹⁵⁶ This is true even though the consensus reached is not always universal. The Guidelines have managed, in the eight years since they were revised, to keep NGOs, labor, and MNEs engaged, even through contentious debate and unpopular decisions, and even without a strong enforcement mechanism. They have even managed to bring new actors to the table. Since 2000, several countries have joined the Guidelines system.¹⁵⁷ Non-member countries may be incentivized to become part of the Guidelines system to gain the “opportunit[y] . . . to contribute

154. See, e.g., *OECD Guidelines for MNEs*, *supra* note 83, at 1 n.1 (listing member NGOs that contributed to the report including CEDHA, CIPCE, FARN, Hugo Wortman Jofre (Argentina); Brotherhood of St Laurence (Australia); GRESEA (Belgium); Germanwatch, Transparency International Germany (Germany); Cividep (India); Korean House for Solidarity (Korea); SOMO (Netherlands); Future in our Hands, ForUM (Norway); Plades (Peru); AUR – ANSRU (Romania); ASK (Switzerland); RAID, Global Witness (United Kingdom); and EarthRights International (United States)).

155. See generally OECD Watch, QUARTERLY CASE UPDATE, Summer 2009, available at http://oecdwatch.org/publications-en/Publication_3087/ (last visited Apr. 4, 2010).

156. Ward, *supra* note 6, at 8.

157. Guidelines for Multinational Enterprises:About, http://www.oecd.org/about/0,3347,en_2649_34889_1_1_1_1_1,00.html (last visited Apr. 4, 2010).

directly to the overall policy development of the guidelines.”¹⁵⁸ In addition, the participation that takes place at the NCP level can also be an incentive to be involved with the Guidelines. Non-member countries, which are often part of the Global South, have “limited means at their disposal for engaging directly with parent companies of multinational enterprises in their home countries . . . [T]he non-confrontational mechanism offered by an NCP, with its implication of association with public authorities of home countries, may offer a useful route to ongoing engagement.”¹⁵⁹

Not all parties have agreed with every statement by CIME and every action by an NCP. Nevertheless, the fact that they maintain the chance to influence the future interpretation of the Guidelines keeps parties involved and “bought-in” and may lead to their willingness to accept the legitimacy of the Guidelines even when they do not always agree with them. The 2000 review of the Guidelines was conducted with intensive participation by interested parties and the language added on supply chain responsibility is acknowledged by NGOs (who would have preferred a stronger statement) to be a “compromise.”¹⁶⁰ The 2003 announcement on supply chain responsibility by CIME was criticized by NGOs and labor, but the decision came out of an open procedure, a Roundtable including representatives from NGOs, labor, business, and national governments.¹⁶¹ Even a brief perusal of the literature available on the OECD website will yield reams of papers submitted by TUAC, BIAC, OECD Watch, NCPs, and others critiquing specific aspects of the Guidelines’ interpretation and implementation.¹⁶² Rather than disengaging from the Guidelines after this unfavorable CIME decision, labor, NGOs, and other civil society actors have, to the contrary, remained actively invested.

This ongoing commitment and engagement is due in part to the flexibility of the Guidelines, which allows for NCPs to adapt to local circumstances. This flexibility, in turn, is due in part to the Guidelines’ weak enforcement mechanism. However, this engagement is also due to a large part, as Halina Ward suggests, to the fact that the OECD Guidelines offer something “conspicuously missing” elsewhere: an institutional setting in which to arrive at a “comprehensive understanding on the relationship between good governance, corporate responsibility and corporate accountability in an era of economic globalization.”¹⁶³

158. Ward, *supra* note 6, at 11.

159. *Id.* at 14.

160. Heydenreich, *supra* note 76, at 2.

161. See Supply Chains, Summary, *supra* note 87.

162. For example, 2007 ANNUAL REPORT, *supra* note 61, is 245 pages long.

163. Ward, *supra* note 6, at 10.

VI. THE FUTURE OF THE OECD GUIDELINES

A. Future Directions in Interpretation

Several new theories of corporate responsibility that have been advanced by NCPs and NGOs are examples of innovative new strategies that the Guidelines may adopt in the future. In an August 2004 recommendation to the salmon farming company Marine Harvest Chile, a subsidiary of Nutreco, the Chilean NCP recommended that the environmental standards Nutreco should follow in Chile should be those of the Netherlands.¹⁶⁴ In other words, the environmental standards of the company's home country should be applied to its activities abroad. Last year Germanwatch, the German affiliate of OECD Watch, filed a complaint against Volkswagen claiming that it must formulate detailed climate protection goals because of the polluting nature of their product, account for expected environmental harms caused by their automobiles, inform consumers about the climate impact these vehicles, and comply with its self-commitment to reduce emissions.¹⁶⁵ This case was rejected by the German NCP as outside the scope of the Guidelines, but Germanwatch has pledged to continue pressing this theory.¹⁶⁶

Another suggestion has been that MNEs must "enable" instead of "encourage" their subsidiaries to comply with the Guidelines. This would mean that MNEs "should set contract prices at such a level" that allows suppliers to fully comply.¹⁶⁷ This would be a dramatic shift of responsibility to MNEs. None of these three theories has been widely adopted, but they all have the potential to be. Because of the way the Guidelines are structured, as a flexible mechanism based around consensus-building, it would be possible for an NGO or an NCP to take the lead on this issue and persuade other NCPs to follow.

B. Future Directions in Implementation

The OECD Guidelines may represent an "intermediate" step on the way to a globally binding set of norms for corporate responsibility, but if the Guidelines ever are implemented in such a way, many of the features that I have described as positive and enabling of creativity and flexibility will no longer be able to exist. If stronger enforcement mechanisms (such as penalties and benefits) are to attach to MNE behavior based on their

164. van der Gaag, *supra* note 50, at 4; Morgera, *supra* note 42, at 769.

165. QUARTERLY CASE UPDATE (Spring 2008), *supra* note 26, at 5.

166. *Id.*

167. Heydenreich, *supra* note 76, at 2.

adherence to the Guidelines, then the Guidelines can no longer mean one thing in Denmark and another in the United States. Additionally, if rules become more rigid and the final word on their interpretation comes from on high (for example through a system of quasi-judicial review by CIME) there may no longer be the same impetus for interested parties to exert pressure at the NCP level or add their voice to the chorus of those arguing for a particular interpretation.

If the Guidelines are ever to become a globally binding set of norms, there must first be agreement on the basic principles of corporate responsibility and accountability. If, as asserted in this Article, the Guidelines are filling a gap by providing a forum for creating consensus, what is the consensus being arrived at? Are the differences between the various interests growing more or less pronounced? The developments on the issue of supply chain liability may provide some insight. The CIME decision failed to harmonize the NCPs. However, in the six years since the CIME decision, quite a few NCPs have begun to adopt the more liberalized view of supply chain responsibility first advocated by the Swedish NCP. These include the NCPs from Germany, Belgium, the U.K., Denmark, and the Netherlands. Other NCPs, including Australia's, maintain a stricter view of the investment nexus requirement. Many other NCPs have not yet faced the investment nexus issue. These scattered results do not seem to indicate consensus, but they may indicate that the tide of opinion is shifting in a particular direction: toward supply-chain responsibility.

The transformation of the Guidelines into a globally binding set of norms is probably quite distant. Because of "the difficulty of asserting a monopoly of regulatory power by any system of domestic, international, public, or private law,"¹⁶⁸ the future of global environmental regulation may, for quite some time, consist of voluntary standards. In the meantime, linkages with other systems, of which the U.N. Panel on the DRC was only the first, have given the Guidelines increased power to influence corporate behavior. The Dutch government has conditioned the award of export credits on a company's adherence to and implementation of the guidelines.¹⁶⁹ Other countries have also taken steps to link credit and investment promotion or guarantee programs with the Guidelines. Such steps have included promoting the Guidelines on the website of the investment agency (Australia, Greece, Israel, Estonia, South Korea, Switzerland, and Turkey among others), distributing brochures of the Guidelines (Canada, Spain), systematically informing companies of the

168. *Backer, supra* note 2, at 294.

169. Susan A. Aaronson, *Can Corporations Safeguard Labor and Human Rights?*, YALE GLOBAL ONLINE, June 24, 2004 <http://yaleglobal.yale.edu/display.article?id=4131> (last visited Apr. 4, 2010).

Guidelines and requiring that they sign documents indicating their awareness of them (France), and requiring investors who have been awarded governmental incentives to commit themselves to keep the Guidelines (Slovak Republic).¹⁷⁰ The Guidelines have also “become a reference point in the negotiation of bilateral trade and investment agreements.”¹⁷¹ For example, an E.U./Chile association agreement entitled “Joint Declaration Concerning Guidelines to Investors” states: “The Parties remind their multinational enterprises of their recommendations to observe the OECD Guidelines for Multinational Enterprises wherever they operate.”¹⁷² The section of the U.N. Norms for Corporate Social Responsibility dealing with the environment has “drawn significantly” on the environmental section of the Guidelines.¹⁷³ Additionally, the OECD Guidelines and the International Standard Organization concluded a memorandum of understanding “to ensure that the draft ISO International Standard Providing Guidelines on Social Responsibility and related activities are consistent with and complementary to the OECD Guidelines.”¹⁷⁴

One of the most powerful linkage to date was formed in March 2007 when the E.U. Parliament passed a resolution calling on Member States to “take steps to ensure that any export credit guarantees comply with the highest environmental and social criteria” including the OECD Guidelines; calling on the European Commission, the European Investment Bank and the European Bank for Reconstruction and Development to “apply strict social and environmental criteria to all grants and loans allocated to private sector companies” by linking public procurement and compliance with the OECD Guidelines; calling on the Commission to seek to introduce binding articles in all bilateral, regional, or multilateral agreements that require compliance with internationally agreed CSR standards such as the Guidelines; calling on the Commission and Member States to “improve the functioning of [NCPs] in particular in dealing with specific instances raised concerning alleged violations throughout operations and supply chains of European companies worldwide;” and calling “for a broad interpretation of the definition of

170. For a complete discussion of these linkages see 2009 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 77, at 9-12.

171. Ward, *supra* note 6, at 4.

172. Agreement Establishing an Association Between the European Community and its Member States, of the One Part, and the Republic of Chile, of the Other Part, Nov. 18, 2002, 352 O.J. 3, available at [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:22002A1230\(01\):EN:HTML](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:22002A1230(01):EN:HTML); see Ward, *supra* note 6, at 4-5.

173. Morgera, *supra* note 42, at 776.

174. 2008 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 41, at 3.

investment in the application of the OECD Guidelines to ensure supply-chain issues are covered under implementation procedures.”¹⁷⁵

Another significant linkage occurred in 2009 with the publication by the Norwegian government of a “white paper” detailing the Norwegian government’s expectations for its MNEs.¹⁷⁶ Rather than create a new set of corporate social responsibility standards for Norwegian firms, Norway “chose to rely on leading international corporate responsibility frameworks, such as the OECD Guidelines and NCP mechanism . . . as a base for its own expectations regarding the behaviour of Norwegian enterprises and its guidance as to how these expectations can be fulfilled.”¹⁷⁷ In the paper, the Norwegian government particularly emphasizes adherence to the Guidelines, stating its expectation that “Norwegian companies to acquaint themselves with the Guidelines, and . . . follow them in their operations” and announcing its intention to take steps to enhance the effectiveness of the Norwegian NCP.¹⁷⁸ This linkage is particularly significant because the “Norwegian state has a direct ownership interest in a large number of Norwegian enterprises.”¹⁷⁹ It is also the owner and administrator of the Government Pension Fund and has demonstrated its intention to exclude companies that violate international norms of ethical behavior.¹⁸⁰

Yet another linkage may be forming between the Guidelines and the International Conference on the Great Lakes Region (“ICGLR”)—a peace and security agreement between eleven African nations including Kenya, Rwanda, Uganda, and Tanzania.¹⁸¹ The ICGLR expressed interest in using the Guidelines system to help harmonize the regional legal framework surrounding the illegal exploitation of natural resources,

175. European Parliament Resolution of 13 March 2007 on Corporate Social Responsibility: A New Partnership, EUR. PARL. DOC. 2006/2133(INI) (2007), *available at* <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2007-0062&language=EN> [hereinafter Corporate Social Responsibility in a Global Economy].

176. NORWEGIAN MINISTRY OF FOREIGN AFFAIRS, CORPORATE SOCIAL RESPONSIBILITY IN A GLOBAL ECONOMY 7, REPORT NO.10 (2008-2009) (2009).

177. 2009 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 77, at 8.

178. Corporate Social Responsibility in a Global Economy, *supra* note 176, at 27.

179. *Id.* at 15.

180. *Id.* at 20, 22-23. (“On 6 November 2007, the Ministry of Finance announced that the British company Vedanta Resources Plc. (Vedanta) had been excluded from the Government Pension Fund – Global [because] the fund was running an unacceptable risk of being complicit in serious environmental damage and gross and systematic violations of human rights by continuing to invest in the company.”).

181. *See* International Conference on the Great Lakes Region, Background, <http://www.icglr.org/icglr-history.php> (last visited Apr. 2, 2010).

create a regional certification mechanism, and promote due diligence in the supply chain.¹⁸²

These linkages are certainly a positive development for those who hold corporate social responsibility as a goal. Still, they may contain the potential to shift the balance that the Guidelines have thus far achieved. The E.U. Resolution, for example, adds a powerful voice to that of NCPs already advocating supply chain responsibility, but also takes away some of the flexibility of NCPs, at least those in Europe, to interpret the investment nexus requirement in the way that best suits their local needs. Linkages – like the E.U. Resolution, the Dutch government's conditioning of export credits on a pledge to follow the Guidelines, the Norwegian government's "white paper," the inclusion of the Guidelines in bilateral investment treaties, and the use of the Guidelines system as a forum to create consensus on regional legal frameworks—add incentives for MNE compliance. Such incentives make it more difficult for the meaning of the Guidelines to remain flexible and undefined. The linkages may also erode to a certain extent the Guidelines as a forum for consensus-building on corporate social responsibility insofar as bodies such as the European Parliament and the ICGLR begin providing an alternate forum that was not previously available.

This Article has posited that the Guidelines have been so successful at gaining the type of engagement, acceptance, and legitimacy that has allowed these linkages to happen *because* of their weak enforcement mechanism and their flexibility of interpretation. In other words, *the Guidelines' apparent weaknesses have been the source of their strength*. None of this means that the new linkages, which undermine the weaknesses, are a step in the wrong direction. To the contrary, it is possible that the Guidelines are simply moving to a new phase in their development.¹⁸³ However, it should be recalled that we are still a very long way from the Guidelines, or any system, as binding law. Though these new linkages have added weight to the enforcement side of the voluntariness versus enforcement axis and have shifted the balance slightly away from flexibility and inclusiveness, they have not changed

182. 2009 ANNUAL MEETING OF THE NATIONAL CONTACT POINTS, *supra* note 77, at 18.

183. While the Guidelines continue to evolve through the process described in this paper—experimentation along the various axes, consensus—building among the NCPs, and the development of new linkages—I note that the Guidelines may also undergo a more dramatic structural change in the near future. The NCPs at the 2009 Annual Meeting recommended that adhering countries take preliminary steps towards a possible revision to the Guidelines and ministers at the 2009 OECD Council Meeting at Ministerial level stated that they welcome "further consultation" on updating the Guidelines "to increase their relevance and clarify private sector responsibilities." *Id.* at 20.

the fact that the Guidelines are still a voluntary, weak, and inconsistent instrument. In other words, they are still a good forum in which to build consensus and explore cutting-edge theories of corporate responsibility.

Financial Performance, Pollution Measures, and the Propensity to Use Corporate Responsibility Reporting: Implications for Business and Legal Scholarship

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ABSTRACT

Thousands of companies around the world, including a majority of the Global Fortune 250, voluntarily report on their environmental, societal, and economic impacts, a practice known as corporate responsibility (“CR”) reporting.

This Article presents a brief history of regulation-by-disclosure and CR reporting followed by a review of related business and legal scholarship. Two broad lines of inquiry emerge: first, are CR disclosures associated with businesses that perform well financially; and second, are CR disclosures associated with businesses that perform well environmentally. The authors test both of these relationships simultaneously using logistic regression. The Article then analyzes the results of the statistical testing and concludes with suggestions for future lines of research.

This Article therefore seeks to contribute to legal and management

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scholarship by determining the impact that financial and environmental variables have on whether or not a company utilizes CR reporting. The results should provoke further research in the fields of both business and law.

I. INTRODUCTION

Thousands of companies around the world, including a majority of the Global Fortune 250, voluntarily report on their environmental, societal, and economic impacts, a practice known as corporate responsibility ("CR") reporting. The practice is alternatively known as corporate social responsibility reporting, sustainability reporting, citizenship reporting, or triple bottom line reporting. While this practice has expanded rapidly, a consensus does not exist as to either the drivers or the impacts of these disclosures.

The goal of this study is to test two urgent questions in the field of management and legal scholarship. First, are CR disclosures associated with businesses that perform well financially? Second, are CR disclosures associated with businesses that perform well environmentally? A brief history of regulation by disclosure and CR reporting is presented in Section II. Section III is a survey of existing management and legal scholarship of the issue. The literature review leads to the research goals stated above. The authors then statistically test both of these relationships using logistic regression in Section IV. Section V presents the results of this test and concludes with suggestions for future lines of research.

This study is the first in the field of legal scholarship to statistically test both the relationship between financial performance and the CR reporting behavior of corporations and that between environmental performance and the CR reporting behavior of corporations. This Article therefore presents a significant contribution to legal and management scholarship by generating observations that ought to provoke further research in the fields of business and law.

II. BACKGROUND: A HISTORY OF REGULATION BY DISCLOSURE AND CR REPORTING

The stock market collapse of 1929 revealed the risk of market failures due to lack of information.¹ The event catalyzed an appreciation

1. Allen L. White, *Why We Need Global Standards for Corporate Disclosure*, 69 LAW & CONTEMP. PROBS. 167, 175 (2006).

of the fact that investors and society as a whole would be better served by requiring publicly traded companies to issue regular disclosures about their finances under a set of rules administered by a government agency.² The Securities Acts of 1933 and 1934 and the Securities and Exchange Commission (“SEC”) resulted.³

Half a century later, the concept of a mandatory disclosure regime was applied in the context of the environmental regulation of companies. The Bhopal tragedy of 1984, in which toxic gases were released from a pesticide plant in Bhopal, Madhya Pradesh, India, killing thousands of people, catalyzed what has been called the third generation of environmental legislation, known as informational regulation or regulation by disclosure.⁴ The most directly associated piece of legislation is the Emergency Planning and Community Right to Know Act of 1986,⁵ which, rather than limiting behavior, only requires companies to provide emergency response plans and the disclosure, through the Toxic Release Inventory, of inventories of specified dangerous chemicals.⁶

In the ensuing decades, the idea that voluntary reporting of social, environmental, and economic impacts could both benefit companies and ameliorate negative externalities gained traction. John Elkington popularized this concept in the 1990s.⁷ As mentioned above, the practice came to be known by many names, and CR reporting has since become widely adopted.⁸

2. Steve Thel, *The Original Conception of Section 10(b) of the Securities Exchange Act*, 42 STAN. L. REV. 385, 409 (1990).

3. David Monsma & Timothy Olson, *Muddling Through Counterfactual Materiality and Divergent Disclosure: The Necessary Search for a Duty to Disclose Material Non-Financial Information*, 26 STAN. ENVTL. L.J. 137, 145 (2007).

4. David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. COLO. L. REV. 379, 384 (2005) [hereinafter *Corporate Environmental Reporting*].

5. Emergency Planning and Community Right to Know Act of 1986, 42 U.S.C. §§ 11001–50 (2006).

6. 42 U.S.C. §§ 11003, 11022–23.

7. John Elkington, who has been authoring books on green business and sustainability since 1980, popularized the concept of TBL reporting in a 1998 book. See JOHN ELKINGTON, *CANNIBALS WITH FORKS: THE TRIPLE BOTTOM LINE OF 21ST CENTURY BUSINESS* (1998).

8. The authors are part of a small but hopefully growing community who believe that the term CSR reporting is overly narrow, inasmuch as many corporate non-financial disclosures dedicate equal or greater attention to environmental rather than social impacts. The choice of the authors to instead use the term CR reporting is supported by KPMG’s decision to use it in the title of their triennial survey of the practice. See KPMG, *KPMG INTERNATIONAL SURVEY OF CORPORATE RESPONSIBILITY REPORTING 2008 14* (2008), available at http://us.kpmg.com/RutUS_prod/Documents/8/

CR reporting is increasingly widespread. As revealed by the triennial KPMG survey of CR reporting, of the largest 250 corporations in the world (the Global Fortune 250 or “G250”), seventy-nine percent issued a stand-alone CR report in 2008 (up from 52% in 2005).⁹ An additional four percent disclosed CR information in their annual reports.¹⁰ This means that the number of companies in the G250 who had engaged in CR reporting (either in a stand-alone report or within the context of an annual report) grew from sixty-four percent in 2005¹¹ to eighty-three percent in 2008 (or 207 out of the G250).¹² In 2008, a survey of 2,200 companies—consisting of the largest 100 companies by revenue in each of twenty-two developed and developing economies (“N100”)—found that forty-five percent engaged in CR reporting (ranging from 93% in Japan and 91% in the United Kingdom to 74% in the United States to 24% in Denmark, 17% in Mexico, and 14% in the Czech Republic).¹³

The predominant standard for disclosures has been developed by the Global Reporting Initiative (“GRI”). Over seventy-five percent of the G250 use GRI guidelines, as do almost seventy percent of the N100.¹⁴ The GRI is a multi-stakeholder network of experts that began as a project of two U.S. nonprofit organizations, CERES and Tellus, in the 1990s.¹⁵ It expanded under the auspices of the United Nations and in 2002 became an independent non-profit organization based in Amsterdam.¹⁶ The GRI guidelines are intended as a framework for not only reporting, but also for engaging with external stakeholder groups.¹⁷

Several countries have mandated some CR disclosures by

Corporate_Sustainability_Report_US_Final.pdf (last visited Feb. 12, 2010) [hereinafter KPMG SURVEY 2008].

9. *Id.*

10. *Id.*

11. KPMG, KPMG INTERNATIONAL SURVEY OF CORPORATE RESPONSIBILITY REPORTING 2005 4 (2005), available at http://www.kpmg.nl/Docs/Corporate_Site/Publications/International_Survey_Corporate_Responsibility_2005.pdf (last visited Feb. 12, 2010).

12. KPMG SURVEY 2008, *supra* note 8, at 14.

13. *Id.* at 16.

14. *Id.* at 37.

15. GLOBAL REPORTING INITIATIVE, SUSTAINABILITY REPORTING 10 YEARS ON 1 (1997), available at http://www.globalreporting.org/NR/rdonlyres/430EBB4E-9AAD-4CA1-9478-FBE7862F5C23/0/Sustainability_Reporting_10years.pdf (last visited Feb. 12, 2010).

16. *Id.* at 1–2.

17. *Id.* See also GRI, <http://www.globalreporting.org/ReportingFramework/G3Guidelines/> (providing the third generation of GRI guidelines, or G3) (last visited Feb. 12, 2010).

businesses, including Denmark since 1995, followed by the Netherlands, Norway, Sweden, and eventually France in 2003.¹⁸ However, the French rules have been criticized as relatively lacking in environmental disclosure requirements, and no penalties have been established for noncompliance.¹⁹ In the United States, securities laws have been interpreted to require environmentally related disclosures inasmuch as such information is relevant to financial performance, material regulatory compliance, and material legal proceedings.²⁰ A summary of this perspective is presented in the following literature review, along with evidence that existing SEC guidance on disclosing environmental risks and liabilities is largely ignored by companies.

Recent actions by the Environmental Protection Agency (“EPA”) have been characterized as progress towards regulation by information, though they do not mandate any further disclosures by companies.²¹ Instead, some of these steps only involve the EPA compiling publicly available lists that include enforcement activities and not data on environmental impact.²² In 2001, the EPA announced its intent to share information with the SEC about environmental enforcement actions, with the aim of helping to spot companies that fail to report enforcement actions against them.²³ The effort has been characterized as a failure, partly because the EPA tracks violators by facility while the SEC tracks registrants by company.²⁴ A debate continues about whether and how a heightened and standardized form of reporting CR information should be implemented.²⁵

18. Lucien J. Dhooge, *Beyond Voluntarism: Social Disclosure and France’s Nouvelles Régulations Économiques*, 21 ARIZ. J. INT’L & COMP. L. 441, 446 (2004).

19. *Id.* at 487–88.

20. *See, e.g.*, Michael J. Viscuso, Note, *Scrubbing the Books Green: A Temporal Evaluation of Corporate Environmental Disclosure Requirements*, 32 DEL. J. CORP. L. 879, 879–80 (2007).

21. *Id.* at 886–92.

22. *Id.* at 886–88 (for example, the EPA’s Enforcement and Compliance History Online lists present and past enforcement actions and penalties).

23. *Id.* at 886–92.

24. *Id.* at 891.

25. *Id.*

III. LITERATURE REVIEW

A. CR Reporting as an Example of "Soft Law" Theory

As articulated by Cynthia Williams, the theory of soft law holds that norms of conduct are enforced by a desire to avoid shame rather than a desire to avoid sanctions; yet they may achieve the ultimate aim of hard law, which, as she puts it, is to "coordinate action towards a focal point."²⁶ CR reporting is one example of a soft law approach. Williams suggests that soft law approaches—norms that involve no official punishment by a public agency—be taken seriously.²⁷ Others agree, as discussed below, that a soft law measure such as greater disclosure of information has great potential, but point out that to be effective, a hard law framework is needed—not to threaten sanctions, but to assure uniformity and reliability.²⁸

David Case explains how economic theories support the notion of soft law and, specifically, regulation by disclosure: more information should allow stakeholders to more efficiently negotiate with polluters to achieve desired goals.²⁹ After a review of existing scholarly works, Case concludes that the economic literature on regulation by disclosure is "young," and legal scholarship related to the topic is in its "infancy."³⁰ Mitchell Crusto echoes this conclusion, stating that there is "little, if any, critical analysis of increased corporate environmental disclosure in the academy."³¹ As of 2009, the state of theoretical and applied knowledge has improved, allowing for the following review of empirical data and business and legal scholarship.

B. Drivers of CR Reporting

The growth of the practice of voluntary CR reporting suggests that companies see some real value in at least appearing to keep up with the

26. Cynthia A. Williams, *Civil Society Initiatives and "Soft Law" in the Oil and Gas Industry*, 36 N.Y.U. J. INT'L L. & POL. 457, 496 (2004).

27. *Id.*

28. See, e.g., Larry Catá Backer, *From Moral Obligation to International Law: Disclosure Systems, Markets and the Regulation of Multinational Corporations*, 39 GEO. J. INT'L L. 591, 592–93 (2008).

29. *Corporate Environmental Reporting*, *supra* note 4, at 415–427.

30. *Id.* at 427.

31. Mitchell F. Crusto, *Endangered Green Reports: "Cumulative Materiality" in Corporate Environmental Disclosure After Sarbanes-Oxley*, 42 HARV. J. ON LEGIS. 483, 486 (2005).

trend of providing greater transparency than what is mandated.³² Such a conclusion is supported by the triennial KPMG survey of CR reporting, which offers evidence that a majority of executives at companies that report CR information see economic motivations as a driver of the practice.³³

Some observers attribute the spread of CR reporting to the growth of socially responsible investment, pointing out that twelve percent of managed assets are invested in stocks that are currently screened based on ethical criteria.³⁴ The investors and fund managers associated with these funds are making investment decisions partially based on the non-financial disclosures, and firms may be responding to this market demand for more information. Such investors are becoming more vocal: in June 2006, twenty-seven investors—including state treasurers—who collectively represent more than \$1 trillion in assets, demanded more disclosures of companies with regard to their risk exposure due to climate change.³⁵ Similarly, firms may be engaging in CR reporting in response to demands from customers and other stakeholders. Empirical evidence has established that the early adopters of CR reporting tended to be firms in polluting industries.³⁶

The triennial KPMG study of CR reporting may be the best source of data on the specific drivers of CR reporting as identified by executives of companies that publish such disclosures.³⁷ In response to the question of why they implemented CR reporting, executive respondents from the G250 could choose multiple responses. Fifty-five percent of respondents selected innovation and learning (up from 53% in 2005), exactly the same percentage that chose impact on reputation or brand (up from only 27% in 2005), and roughly the same percentage that chose employee motivation (52%, up from 47% in 2005).³⁸ In the next most popular tier of responses, thirty-five percent chose risk management or reduction in 2008 (47% in 2005), thirty-two percent chose strengthened supplier relationships (13% in 2005), and twenty-nine percent chose access to

32. See Roberta S. Karmel, *Reform of Public Company Disclosure in Europe*, 26 U. PA. J. INT'L ECON. L. 379, 379 (2005).

33. KPMG SURVEY 2008, *supra* note 8, at 18.

34. Jeroen Derwall et al., *The Eco-Efficiency Premium Puzzle*, 61 FIN. ANALYST J. 3, 3 (2005), available at http://www.abanet.org/publicserv/environmental/Eco_Efficiency_Premium_Puzzle.pdf.

35. Monsma & Olson, *supra* note 3, at 163.

36. Minna Halme & Morten Huse, *The Influence of Corporate Governance, Industry and Country Factors on Environmental Reporting*, 13 SCANDINAVIAN J. MGMT 137, 137 (1997).

37. KPMG SURVEY 2008, *supra* note 8, at 20.

38. *Id.*

capital or improving shareholder value (39% in 2005).³⁹ Finally, increasing market share was identified by twenty-two percent in 2008 (21% in 2005) while twenty-one percent chose improved relationships with government (9% in 2005), and seventeen percent chose cost savings (9% in 2005).⁴⁰

Several noteworthy observations can be made about this data. Two of the top three drivers—motivating employees and encouraging innovation—involve the impact of the practice on employees. Both of these motivations were identified by more than fifty percent of respondents as key drivers. A concern for brand management was the third of the top three motivations, tying for first place with innovation and learning. However, brand management was only the sixth most commonly identified impact in 2005, and therefore cannot be characterized as one of the primary drivers of the practice in 2005. It is also noteworthy that less than one in three respondents identified relations with investors, and less than one in four chose increasing market share as a key driver. This calls into question the theory that CR reports are issued primarily as a response to market demands, either from investors or from consumers. A minority of executives—less than one in five—believe that measurement of non-financial impacts will lead to cost savings, which somewhat challenges the theory that reporting alters internal processes. Taken together, the data on the ranking of motivations indicates that CR reporting has not been solely a public relations exercise, especially in the early years of adoption in the period leading up to 2005, and that it continues to be driven in part by a desire to stimulate innovation and motivate employees.⁴¹

In a related finding, a 2003–2004 survey conducted by the Center for Corporate Citizenship at Boston College, the U.S. Chamber of Commerce, and the Hitachi Foundation found that eighty-two percent of executives acknowledged the importance of social and environmental responsibility to the bottom line, fifty-nine percent to their companies and reputations, and fifty-three percent to their customers.⁴² The study

39. *Id.*

40. *Id.*

41. The following observation is harder to explain: economic considerations were selected as a driver of CR reporting by 68% of respondents, which, though a majority, was down from 74% in 2005. However, the percentage of respondents choosing ethical considerations actually grew from 53% to 69%. KPMG SURVEY 2008, *supra* note 8, at 20. The report also suggested that the growth in ethical considerations as a stated driver may be related to “dozens of scandals in accounting, environment, governance, and human rights.” *Id.*

42. Philip Mirvis & Bradley Googins, *The Best of the Good*, 82 HARV. BUS. REV. 20, 21 (2004).

also concluded, however, that there is considerable variation among businesses in terms of their embedding these values into their functions and in the effective implementation of meaningful practices to further the causes of social and environmental responsibility.⁴³

C. CR Reporting in a Global Context

Another vein of scholarship has taken into account the spread of CR reporting as a global phenomenon that is intended to address global problems. This has led authors to consider other drivers and cultural factors that might impact CR reporting.⁴⁴ One recent study introduced the notion that cultural values could color how managers even discussed their motivations, with Western executives being more inclined to state that they engage in CR reporting for the sake of their shareholders.⁴⁵ In a study of the motivations of Japanese companies, close relationships with foreign share owners and foreign customers appeared to be a stronger influence on a firm adopting CR reporting than its links to domestic owners.⁴⁶ In the same study, country-specific cultural sensitivities were found to be salient to CR reporting, inasmuch as CR reports address the issues that are of greatest concern to a particular society.⁴⁷ For example, Western CR reports disclose more data on gender equity issues while Japanese CR reports disclose relatively more data on environmental impacts.⁴⁸

The idea that the successes of CR initiatives are “strongly dependent” on their footing in society has also been posited.⁴⁹ Supporting studies have been carried out in many countries.⁵⁰ In Spain,

43. *Id.*

44. See, e.g., Lu Wei et al., *The Relationships Between Environmental Management, Firm Value and Other Firm Attributes: Evidence from Chinese Manufacturing Industry*, 9 INT’L J. ENV’T & SUST. DEV. (forthcoming 2010).

45. See Adam J. Sulkowski, S.P. Parashar & Lu Wei, *Corporate Responsibility Reporting in China, India, Japan and the West: One Mantra Does Not Fit All*, 42 NEW ENG. L. REV. 787, 788 (2008).

46. Kanji Tanimoto & Kenji Suzuki, *Corporate Social Responsibility In Japan: Analyzing The Participating Companies In Global Reporting Initiative 7–8* (The European Inst. of Japanese Stud., Working Paper No. 208, 2005), available at <http://ideas.repec.org/p/hhs/eijswp/0208.html#provider> (last visited Feb. 13, 2010).

47. *Id.*

48. *Id.* at 14.

49. Reinhard Steurer, Markus E. Langer, Astrid Konrad & André Martinuzzi, *Corporations, Stakeholders and Sustainable Development I: A Theoretical Exploration of Business-Society Relations*, 61 J. BUS. ETHICS 263, 263 (2005).

50. See, e.g., Peter Lund-Thomsen, *Towards a Critical Framework on Corporate Social and Environmental Responsibility in the South: The Case of Pakistan*, 47 DEV.

Brazil, and Argentina, current business realities, such as corruption, were observed to have an effect on the efforts of firms to behave responsibly; extra efforts are ironically sometimes made in regions deemed to be more corrupt.⁵¹ Other studies have documented the tendency of CR initiatives at some Indian companies to be driven by individual executives because of cultural norms.⁵² Finally, the success of CR and CR reporting initiatives may be impacted by the reticence of managers in collectivist societies to publicly reveal shortcomings out of concerns for their superiors or company losing face.⁵³

In summary, it is possible that values other than financial interests in some way affect the drivers and the practice of CR reporting. Conversely, the same financial motivations may really be driving CR reporting everywhere, with cultural values only affecting the choice of language and shaping the rhetoric of CR dialogue.⁵⁴ At any rate, the role of culture and other non-financial factors in the global spread of CR reporting is a noteworthy facet of the larger scholarly debate about the drivers of CR reporting and its relationship with financial and environmental performance.

D. Does Financial Performance Influence CR Reporting?

There is growing, if not yet conclusive, evidence of a demonstrable positive relationship between successful management of commitments to corporate responsibilities and good financial performance.⁵⁵ Studies have endeavored to test the correlation between greater disclosures and greater profitability, and companies that disclose more non-financial information have been found to be more profitable.⁵⁶ Stock price volatility was

106, 106 (2004).

51. Domènec Melé, Patricia Debeljuh & M. Cecilia Arruda, *Corporate Ethical Policies in Large Corporations in Argentina, Brazil and Spain*, 63 J. BUS. ETHICS 21, 33–34 (2006).

52. Bimal Arora & Ravi Puranik, *A Review of Corporate Social Responsibility in India*, 47 DEV. 93, 96–97 (2004).

53. Yan Ling, Steven W. Floyd & David C. Baldrige, *Toward a Model of Issue-Selling by Subsidiary Managers in Multinational Organizations*, 36 J. INT'L BUS. STUD. 637, 645 (2005).

54. See Sulkowski et al., *supra* note 45, at 787.

55. Terra Pfund, *Corporate Environmental Accountability: Expanding SEC Disclosures to Promote Market-Based Environmentalism*, 11 MO. ENVT'L. L. & POL'Y REV. 118, 119 (2004).

56. See, e.g., Diana C. Robertson & Nigel Nicholson, *Expressions of Corporate Social Responsibility in U.K. Firms*, 15 J. BUS. ETHICS 1095, 1097–1106 (1996).

reduced in the 1960s when greater disclosures were mandated.⁵⁷ A co-founder of the GRI, Allen White, points out that a “moderately positive correlation exists between the use of the GRI framework and lower share-price volatility, higher operating profits, and greater revenue growth.”⁵⁸ These findings are consistent with those of a 2002 analysis by Standard and Poor’s of 1,500 companies that concluded that greater disclosures were related to market risk and valuations and led to a higher price to book ratio and the ability to lower the cost of capital.⁵⁹

Large companies have found that CR reporting can boost profitability by, for example, prompting corporations to make socially and environmentally conscious investments that rapidly pay for themselves and contribute to the bottom line by reducing energy costs or the costs of absenteeism and worker errors.⁶⁰ Why, then, did less than twenty percent of executives in the 2008 KPMG study choose cost savings as a driver of the practice of CR reporting? Perhaps, as indicated by David Case, public reporting functions best when it is deployed in tandem with environmental management systems that use measurements as part of a process of reducing resource usage and unnecessary pollution, which results in lower costs.⁶¹ This conclusion is supported by empirical evidence from China, where the amount of CR disclosure was not found to automatically result in better financial performance metrics.⁶² Integrating concepts such as total quality management and cost of poor quality with CR reporting has been suggested as a logical next step to maximize the potential of CR reporting to help businesses realize cost savings.⁶³ Richard Ellis, Head of Corporate Social Responsibility at Boots, a UK-based health and beauty products company, has found that cooperation between himself and the Chief Financial Officer and the practice of tracking environmental impact data has resulted in significant

57. Allen Ferrell, *Measuring the Effects of Mandated Disclosure*, 1 BERKELEY BUS. L.J. 369, 377 (2004).

58. White, *supra* note 1, at 177 (the study involved more than 800 GRI-utilizing companies in over forty countries).

59. SANDEEP A. PATEL & GEORGE DALLAS, TRANSPARENCY AND DISCLOSURE: OVERVIEW OF METHODOLOGY AND STUDY RESULTS – UNITED STATES 4 (2002), available at http://www.securitization.net/pdf/sp_trans_101602.pdf.

60. See, e.g., Anita Roper, *Proving the Case for Sustainability at Alcoa*, 1 CORP. RESP. MGMT. 34, 35–37 (2004).

61. See David W. Case, *Changing Corporate Behavior Through Environmental Management Systems*, 31 WM. & MARY ENV’T L. & POL’Y REV. 75, 111 (2006) [hereinafter *Changing Corporate Behavior*].

62. See Sulkowski et al., *supra* note 45, at 788.

63. See Raine Isaksson, *Economic Sustainability and the Cost of Poor Quality*, 12 CORP. SOC. RESP. & ENV’T L. MGMT. 197, 197–98 (2005).

cost savings.⁶⁴

Large multinational corporations in developed economies are not the only enterprises that have observed positive outcomes as a result of the adoption of CR reporting. Small and medium-sized enterprises (“SMEs”) located in developing countries and engaged in textile manufacturing and the tanning of leather—both highly polluting activities—were shown to mitigate their harmful activities upon adoption of CR reporting.⁶⁵ The same study found that, even in developing countries, these SMEs became more profitable when they implemented CR reporting.⁶⁶

Among CEOs who have implemented CR reporting, there is a consensus that the internal intellectual capital, technology, and culture of a firm can influence whether CR reporting yields benefits to a reporting company.⁶⁷ Put another way, the knowledge management that turns CR reports into sustainable performance improvements involves people, process, and technology.⁶⁸ In general, there is a growing trend of making a strictly “business case” in favor of CR reporting, with the understanding that resulting benefits to a company may depend on other factors.⁶⁹

E. Legal Scholarship of CR Reporting

As mentioned above, legal scholars have characterized regulation by disclosure as the third generation of regulation of environmental and societal impacts.⁷⁰ In this view, the first generation of regulation consisted of rule-based systems and the second involved command and

64. Telephone Interview with Richard Ellis, Head of Corporate Social Responsibility, Boots (June 29, 2006).

65. Ralph Luken & Rodney Stares, *Small Business Responsibility in Developing Countries: A Threat or An Opportunity?*, 14 BUS. STRATEGY & ENV'T 38, 43–52 (2005).

66. *Id.*

67. See Pamela Ruebusch, *The Triple Bottom Line: Understanding What It Means and Why We Need to Embrace It*, 105 CAN. TRANSP. LOGISTICS 18, 18 (2002), available at <http://www.ctl.ca/issues/story.aspx?aid=1000166689> (last visited Feb. 12, 2010).

68. See generally Carol Gorelick & Brigitte Tantawy-Monsou, *For Performance Through Learning, Knowledge Management is the Critical Practice*, 12 LEARNING ORG. 125, 125 (2005) (discussing the importance of knowledge management for sustainable performance improvements).

69. See Björn Stigson, *Foreword* to CHARLES O. HOLLIDAY, JR. ET AL., WALKING THE TALK: THE BUSINESS CASE FOR SUSTAINABLE DEVELOPMENT 8–9 (2002); Marc Gunther, *Tree Huggers, Soy Lovers, and Profits*, 147 FORTUNE 98 (2003); Oliver Salzmann et al., *The Business Case for Corporate Sustainability: Literature Review and Research Options*, 23 EUR. MGMT. J. 27, 27 (2005).

70. See *Corporate Environmental Reporting*, *supra* note 4, at 428.

control regulation.⁷¹ Further mentioned above, David Case provides a review of the economic and legal theories that suggest that greater disclosure of non-financial data should bring about the same outcomes as traditional regulatory approaches, inasmuch as companies manage what they measure and inasmuch as markets with better information ought to more efficiently lead to either constructive negotiated solutions or bad actors being punished by investors and consumers for creating risks and liabilities.⁷²

Daniel Esty is among those who argue that many of the shortcomings of current environmental policies stem directly from information gaps.⁷³ In the context of discussing the promise of technology to fill these gaps, however, he notes that the U.S. regulatory approach is to allow activities until they are proven to be harmful.⁷⁴ Therefore, current legislation and regulations discourage companies from even measuring negative impacts of products and processes, for the discovery of such knowledge could trigger reporting obligations and regulation of their activities.⁷⁵ Even when reporting requirements of environmental liabilities do exist, such as those established by the Federal Accounting Standards Board and the SEC, they are not rigorous and are likely to be ignored.⁷⁶ A key element of his greater thesis, therefore, is that more information can assist stakeholders in negotiating acceptable solutions with polluting companies, but only if governmental regulation of disclosures becomes more stringent and demanding.⁷⁷

As mentioned above, David Case has also argued that external CR reporting has the greatest potential to reduce the environmental harms related to corporate activity when it is deployed in tandem with internal environmental management systems.⁷⁸ This makes intuitive sense; measuring and generating reports with data is a useful step, but the data, as in any context, must be acted upon to change behaviors and outcomes. Informational regulation has also been shown, especially when other governmental intervention has been lacking, to help consumers make decisions to avoid exposing themselves to risk.⁷⁹ Finally, a key means

71. *Id.*

72. *Id.* at 415–27.

73. Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115, 115 (2004).

74. *Id.* at 203.

75. *Id.* at 204.

76. *Id.* at 206.

77. *Id.* at 210.

78. *Changing Corporate Behavior*, *supra* note 61, at 111.

79. Katherine Renshaw, Note, *Sounding Alarms: Does Informational Regulation Help or Hinder Environmentalism*, 14 N.Y.U. ENVTL. L.J. 654, 658 (2006).

through which CR reporting is intended to ameliorate negative externalities is by catalyzing more dialogue with stakeholders; there is evidence that CR reporting can indeed facilitate this dialogue.⁸⁰ This evidence supports the economic theories mentioned above that hold that CR reporting should lead to more efficiently negotiated agreements between companies and stakeholders.

However, there is no unanimity that more mandated disclosure, on its own, will lead to better behavior.⁸¹ Allison Snyder suggests that informational regulation alone will be inadequate to improve corporate societal and environmental performance, and that more conventional enforcement mechanisms will be required to either reduce negative externalities or generate positive externalities.⁸²

Some have focused more on the question of what existing regulatory structures require. Perry Wallace has suggested that, given the likely significant consequences of climate change and existing fiduciary duties of managers, companies should, given existing rules and principles, be making greater non-financial disclosures.⁸³ This line of reasoning, as also presented by David Monsma and Timothy Olson, holds that company responses to climate change are material knowledge to investors and that regulation S-K, correctly interpreted, require related disclosures.⁸⁴ Jeffrey McFarland agrees with this logic, stating that U.S. securities laws should be interpreted as requiring at least a disclosure of liability exposure, including amounts of emissions and actions taken to reduce the risk of related possible losses.⁸⁵

Despite the compelling arguments that current legislation and SEC rules already require more CR disclosures, and despite predictions that greater mandatory environmental disclosures are inevitable,⁸⁶ neither Congress nor the SEC have mandated more CR disclosures in either the 1990s or the first decade of the current millennium. Based on studies in

80. Timothy Riley, *Unmasking Chinese Business Enterprises: Using Information Disclosure Laws to Enhance Public Participation in Corporate Environmental Decision Making*, 33 HARV. ENVTL. L. REV. 177, 223–24 (2009).

81. See Allison M. Snyder, Survey, *Holding Multinational Corporations Accountable: Is Non-Financial Disclosure the Answer?*, 2007 COLUM. BUS. L. REV. 565, 606–11 (2007).

82. See *id.* at 611.

83. See generally Perry E. Wallace, *Climate Change, Fiduciary Duty, and Corporate Disclosure: Are Things Heating Up in the Boardroom?*, 26 VA. ENVTL. L.J. 293 (2008) (discussing disclosure and other laws pertinent to the climate change debate).

84. Monsma and Olson, *supra* note 3, at 147–61.

85. Jeffrey M. McFarland, *Warming Up to Climate Change Risk Disclosure*, 14 FORDHAM J. CORP. & FIN. L. 281, 285–92 (2009).

86. See Risa Vetri Ferman, *Environmental Disclosures and SEC Reporting Requirements*, 17 DEL. J. CORP. L. 483, 513–14 (1992).

government, academia, and the private sector, it appears that companies ignore existing SEC reporting guidance on environmental issues a majority of the time. A 1996 academic study found that fifty-four percent of companies with potential liabilities for hazardous waste sites failed to disclose this in their initial public offering registration statements and sixty-one percent of currently registered companies known to have potential liabilities for hazardous waste sites failed to disclose this fact.⁸⁷ A governmental study found that seventy-four percent of corporations in its sample fail to comply with disclosure requirements.⁸⁸ The SEC has effectively done nothing to investigate or penalize such failures to disclose large environmental liabilities. For example, no investigation followed when liabilities of \$270–300 million related to hazardous waste sites were not mentioned in Viacom’s 10-K report.⁸⁹

Therefore, most legal scholars conclude that new disclosure rules and better enforcement are needed. Mitchell Crusto is most categorical in declaring that regulators, the investment community, and voluntary corporate initiatives have failed in systematically changing corporate behavior; corporate structure and law are similarly characterized as hindering environmental protection.⁹⁰ Crusto concludes that a comprehensive reporting of environmental risks and liabilities should gradually become mandatory and adhere to a standard—the cumulative materiality standard—suggested by the American Society of Testing and Materials.⁹¹ Others have focused specifically on the urgent need for the SEC to issue specific and mandatory guidelines for disclosures related to climate change risks; they point out that efforts should at least match those made by the SEC in the years leading up to the year 2000 to prepare for and overcome the threat that Y2K problems posed to company computers.⁹² David Sand argues that greater standardization, oversight, and enforcement of non-financial disclosures would bring about greater benefits for both shareholders and stakeholders.⁹³ David

87. *Corporate Environmental Reporting*, *supra* note 4, at 410 n.187 (citing to Memorandum from Mary Kay Lynch, Director, EPA Office of Planning and Policy Analysis, and Eric V. Schaeffer, Director, EPA Office of Regulatory Enforcement, to Office of Enforcement and Compliance Assurance Directors, et al. (Jan. 19, 2001)).

88. *Id.* at 410 n.188.

89. *Id.* at 410–11. Potentially more worrisome are the illegalities themselves and the admissions by a majority of corporate legal counsels that their corporate clients have been in violation of environmental laws. *See, e.g.*, Marianne Lavelle, *Environmental Vise: Law, Compliance*, NAT’L L. J., Aug. 30, 1993, at S1.

90. Crusto, *supra* note 31, at 490–93.

91. *Id.* at 503–09.

92. McFarland, *supra* note 85, at 307–10.

93. David F. Sand & E. Ariane van Buren, *Environmental Disclosure and Performance: The Benefits of Standardization*, 12 CARDOZO L. REV. 1347, 1348–49

Case explicitly sides with this view.⁹⁴ Lucien Dhooge, in his review of the content and limitations of the French regulations, concludes that such government imposed reporting requirements are a positive step, but that verification and enforcement structures are needed if disclosure regimes are to fulfill their potential.⁹⁵ Wendy Wagner, likewise, arrives at a similar conclusion, concluding that there must be penalties for failure to disclose negative information.⁹⁶ Allen White argues for global uniformity in disclosure standards.⁹⁷ Larry Backer further argues that the new rules and enforcement mechanisms must be supranational.⁹⁸

A key common question uniting all of the business and legal scholarship above, either implicitly or explicitly, is whether more disclosures are associated with companies that better serve the interests of investors, stakeholders, or both. Whether substantiated or assumed, whether arguing for more reporting or not, or suggesting that more disclosure is already required or not, the same relationships (or lack thereof) are at the root of all of these lines of inquiry and argument: the associations between CR reporting, financial performance, and environmental performance.

IV. RESEARCH QUESTION, METHODOLOGY, AND VARIABLE SELECTION

Based on the literature review above and stated in its broadest terms, the holy grail of business and legal scholarship related to CR reporting is to establish whether and how the use of CR reporting is influenced by financial and environmental performance. Some are interested in this research question because of the potential, ultimately, for improving the financial performance of companies and returns for investors. Others appear to be interested in this research question because of the potential of non-financial disclosures to encourage companies to minimize negative impacts on society and the environment. Still others are concerned with the drivers of CR reporting and whether CR reporting serves its intended role as providing a signal to markets about the intentions, actions, and riskiness of companies. Finally, legal scholars are

(1991).

94. *Corporate Environmental Reporting*, *supra* note 4, at 439–42.

95. Dhooge, *supra* note 18, at 488–90.

96. Wendy E. Wagner, *Commons Ignorance: The Failure of Environmental Law to Produce Needed Information on Health and the Environment*, 53 DUKE L. J. 1619, 1745 (2004).

97. *See* White, *supra* note 1, at 177–78.

98. *See* Backer, *supra* note 28, at 648–50.

concerned with this central theme because it undergirds any discussion of whether CR reporting needs to be mandated.

Consistent with the broad question outlined above, the authors of this Article chose a statistical analysis technique that has been proven, in other fields, to deal well with a binary dependent variable: logistic regression. A binary dependent variable is a characteristic of an entity that either is true or is false; for example, one such characteristic is whether a firm engages in CR reporting or not. The independent variables in a logistic regression equation, such as measures of relative financial performance or relative amounts of a polluting activity, are not binary, but rather metric and represent a value along a continuum. For example, market capitalization is such a variable.

Logistic regression takes the form:

$$\text{logit } p = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots \dots \beta_k x_k$$

where the dependent variable (logit p) represents the range of probability from zero to one (No versus Yes).

The goal of logistic regression is to develop an equation designed to predict the probability (propensity) of membership in one of the two groups given the variables examined. The data was analyzed using the R statistical package module for generalized linear models.⁹⁹

The largest 250 companies in the S&P 500 provide the basis for analysis.¹⁰⁰ This sample population is large enough to yield statistically significant results while not presenting an overwhelming data gathering challenge. Additionally, recent secondary data (dating from 2008) for these companies is available through a variety of sources.

The next step after choosing the sample population was to select independent and dependent variables. The dependent variable is defined as GRI reporting (0=no, 1=yes). The independent variables, for reasons explained below, included three financial measures (market capitalization, total equity, and total liabilities), two financial ratios (price-to-book and Tobin's q), and two measures of pollution (total metric tons of carbon and a newly proposed ratio, carbon-to-equity). The final measure, carbon-to-equity, is proposed, as explained below, to serve as an indicator of the relative environmental efficiency of companies.

99. The R statistical package is a free and open-source set of software tools is available at <http://www.r-project.org> (last visited Feb. 14, 2010).

100. The list of the S&P 500 is available at <http://www.indexarb.com/indexComponentWtsSP500.html> (last visited Feb. 14, 2010).

Clearly, since the ultimate goal is to explore the impacts of CR reporting, the authors need to choose a dependent variable that reflects whether or not a company made any serious attempt at a CR report. The measures have to be uniform across companies to make any meaningful comparison. Since, as mentioned above, the GRI guidelines are the most commonly adopted standard by those companies issuing CR reports, the dependent variable is whether a company issued a GRI report. This is a binary measure: either a company issues a GRI report or it does not. The source of this data was the GRI website.¹⁰¹

The variables for financial performance are both broad and specific, since this is one of the associations at the heart of the inquiry. In addition to market capitalization, total equity, and total liabilities, there are several ways to measure financial performance, including ROE (return on equity), ROA (return on assets), P-to-B (price-to-book) ratio, P/E (price/earning) ratio, EPS (earnings per share), and Tobin's q (the ratio of the market value of the firm to the replacement cost of its assets). Tobin's q is a good measure for making comparisons between firms because accounting measures or the application of other ratios based on stock return requires risk-adjustment or normalization among firms for comparison.¹⁰² Moreover, firm value is fundamentally related to share value as decided by stock exchanges.¹⁰³ Consistent with Larry Lang's and Rene Stulz's definition of Tobin's q, Kee Chung and Stephen Pruitt offer a simplified Tobin's q model which yields similar results but depends on fewer financial variables.¹⁰⁴ The simpler means of calculating Tobin's q is as follows:

$$q = (MVE + PS + DEBT)/TA$$

where MVE is the product of share price and the number of common stock shares outstanding, PS is the liquidating value of outstanding preferred stock, DEBT is the value of the firm's short-term liabilities net of its short-term assets plus the book value of the long-term debt, and TA is the book value of the total assets. For the reasons above, Tobin's q was calculated for each company and entered as a variable in the model. Likewise, the P-to-B ratio is a quick indicator of whether or not a

101. The GRI Reports List is available at <http://www.globalreporting.org/GRIReports/GRIReportsList/> (last visited Feb. 14, 2010).

102. Larry H.P. Lang & René M. Stulz, *Tobin's q, Corporate Diversification, and Firm Performance*, 102 J. POL. ECON. 1248, 1249 (1994).

103. *Id.* at 1250.

104. Kee H. Chung & Stephen W. Pruitt, *A Simple Approximation of Tobin's q*, 23 FIN. MGMT 70, 70-74 (1994).

company is overvalued or undervalued. Tobin's *q* overcomes some of the limitations of the P-to-B ratio by including a debt component in its calculation. The source of the needed data was company financial disclosures.¹⁰⁵

The final independent variables selected reflect relative environmental performance because that is the other association at the heart of the inquiry. These were also the most challenging variables to decide upon. Many measures of environmental performance were considered, and some might eventually be tested in future studies. These included several measures that theoretically were appealing, but that practically would fail to measure environmental performance fairly across companies in the sample universe. For example, measures involving fines and litigation are faulty because some environmentally related harms may be undetected or resulting disputes may be quietly settled. As mentioned above, while SEC guidance requires that litigation and fines above proscribed thresholds be disclosed, scholarly, business, and government sources all agree this guidance is ignored in a majority of cases.¹⁰⁶ Further, parsing-out solely environmentally related liabilities out of the information in annual reports is often impossible.

A resolution to the quandary above was found in the form of carbon dioxide release statistics. The carbon disclosure project is a voluntary disclosure practice adopted by a majority of the G250. This measure could be critiqued as being too narrowly focused on one aspect of environmental harm. Another potential criticism is that some industries, such as software, are inherently less polluting of the air than, say, automobile production, such that comparing companies on the basis of carbon dioxide emissions is not fair. There are four responses to this line of criticism. First, carbon dioxide emissions have been identified as a leading cause of global climate change and hence constitute one of the most concerning forms of pollution and one which likely will be subject to regulation and a disclosure regime.¹⁰⁷ Second, some industries will always and inherently appear to be less polluting than others, regardless of the metric that is chosen; for example, it is self-evident that petrochemical processing will be more polluting than software programming. Third, it has previously been observed that companies in more polluting industries are the first and most likely to adopt the practice of CR reporting.¹⁰⁸ This yields a hypothesis: namely, that companies with greater carbon dioxide emissions will be more likely to

105. Company financial data is available at www.thestreet.com (last visited Feb. 14, 2010).

106. See *supra* notes 87–90 and accompanying text.

107. See McFarland, *supra* note 85, at 281–82.

108. Halme & Huse, *supra* note 36, at 137.

engage in CR reporting. Finally, as a practical matter, measures for such studies must be based on a reliable dataset that includes most of the entities in the sample population. The carbon disclosure project meets this criterion.¹⁰⁹ The authors also tested a novel ratio as an independent variable: the ratio of carbon dioxide emissions to equity. The amount of carbon dioxide generated relative to the equity of a company is an indicator of comparative environmental efficiency among firms.¹¹⁰ The concept of environmental efficiency—the amount of negative impact on the environment generated per unit of size or production—is increasingly appearing in sustainability-related research; comparing companies based on their ratio of carbon dioxide to equity builds on this concept.¹¹¹

V. RESULTS AND DISCUSSION

Testing the impact of financial and environmental variables on a firm's propensity to use GRI reporting required gathering data from nearly 250 companies. The end result was a total of 113 companies in the database for which complete data on all desired variables was available. Of the 113 companies examined, thirty-five use GRI reporting and seventy-eight do not. Thus, given the size of the two groups (seventy-eight versus thirty-five), limitations associated with small sample size are reduced.

The results of the statistical analysis are included in Table 1 below:

109. See PRICEWATERHOUSECOOPERS, THE CARBON DISCLOSURE PROJECT REPORT 2008 S&P500 1–5 (2008), available at https://www.cdproject.net/CDPResults/67_329_142_CDP%20SP500%20Report%202008.pdf (last visited Feb. 14, 2010).

110. Environmental or ecological efficiency, the concept of gauging the amount of negative environmental impact per unit of economic activity, is a developing but accepted and valuable measure for comparing countries, or, in this case, firms. See Justin Kitzes et al., *A Research Agenda for Improving National Ecological Footprint Accounts*, 68 ECOLOGICAL ECON. 1991, 1991 (2009), available at http://www.brass.cf.ac.uk/uploads/fullpapers/Kitzes_et_al_M65.pdf (last visited Feb. 14, 2010).

111. See, e.g., John C. Dernbach & Seema Kakade, *Climate Change Law: An Introduction*, 29 ENERGY L.J. 1 (2008).

Variable	Estimate	Std. Error	z value	Pr(> z)
Intercept	-1.35E+000	4.97E-001	-2.73	0.01
MKTCAP	6.88E-003	1.33E-002	0.52	0.61
EQUITY	-8.39E-003	1.70E-002	-0.5	0.62
LIABILITI ES	1.95E-004	1.09E-003	0.18	0.86
PRICE-to- BOOK	1.65E-001	2.31E-001	0.71	0.48
TOBIN'S Q	9.62E-002	1.02E-001	0.94	0.35
CARBONT MT	2.61E-008	1.76E-008	1.48	0.14
CARBON/ EQUITY	-9.83E-002	9.37E-002	-1.05	0.29

TABLE 1

As indicated in Table 1, none of the seven variables investigated significantly discriminate between companies that use GRI reporting and those that do not. Neither market capitalization, total equity, total liabilities, P-to-B ratio, Tobin's q ratio, total metric tons of carbon dioxide released, nor carbon-to-equity ratio significantly impact the likelihood that a firm will engage in the most widely-embraced type of CR reporting. Despite the lack of individual discriminant power, a predictive function emerges:

$$\begin{aligned} \text{GRI Probability} = & -1.35\text{E}+000 + 6.88\text{E}-003(\text{MKTCAP}) + \\ & -8.39\text{E}-003(\text{EQUITY}) + 1.95\text{E}-004(\text{LIABILITIES}) + \\ & 1.65\text{E}-001(\text{PRICE-to-BOOK}) + 9.62\text{E}-002(\text{TOBIN'S Q}) + \\ & 2.61\text{E}-008(\text{CARBONTMT}) + -9.83\text{E}-002(\text{CARBON/EQUITY}) \end{aligned}$$

Those seeking to predict the probability of a company using GRI reporting need only to plug in the values in parentheses, perform the mathematical functions and interpret the results. The calculated result, when multiplied by 100, provides a measure of the propensity of the firm being investigated to utilize GRI reporting.

The findings of this study are relevant to the scholarship described in the first sections of the literature review; specifically, the scholarship seeks to determine the drivers of CR reporting and its relationship to financial performance. Some research suggests that the drivers are

related to executives pursuing better financial performance for their firms. Some research, especially the scholarship that examines CR reporting from a global perspective, raises the possibility that there are other variables that may also impact the adoption of CR reporting.¹¹² This study suggests that, whatever the managers might say or perceive in other studies, there is not a correlation between firms with superior financial performance and firms that engage in the most widely adopted form of CR reporting. This, in turn, ought to provoke further business scholarship: there are possibly variables related to management, rather than financial and environmental variables, which affect the probability of a company adopting CR reporting. Potentially, there are characteristics of managers and firms or of their relationships with investors, customers, employees, or other stakeholders that merit further investigation. Potentially, such research would lead to a better understanding of what kinds of firms perceive a greater benefit in more CR reporting and, conversely, what kind of firms apparently do not see value in the practice.

This finding ought to provoke further legal scholarship as well. As described in the literature review, legal scholars have largely embraced the theory that soft law practices, such as CR reporting, serve a valuable function in the marketplace and ultimately relates to companies behaving in a manner that is desired by society.¹¹³ The question of whether CR reporting is correlated with a firm being a good or bad actor ultimately undergirds any discussion of whether the practice ought to be mandated. The study described in this Article shows that being relatively less polluting and being a GRI adopter are not correlated. It also shows that a company's comparative environmental efficiency—in this case, the amount of carbon dioxide emissions relative to a firm's value—is also not significantly correlated to whether a firm is a GRI adopter.

These outcomes could therefore be interpreted to indicate that informational regulation is ineffective in producing its intended ends. Such a conclusion would be an error, since the causal association tested was whether financial performance and environmental performance affect the probability of GRI adoption. Nothing can be imputed about the opposite causal relationship: namely, does GRI reporting affect financial performance, environmental performance, or both. Even if one were tempted to make this interpretive error, the study's results represent a snapshot; they describe reality at one moment in time, rather than the potential relationship of the variables over a period of time. For these reasons, the results suggest nothing about whether GRI reporting is

112. *See supra* notes 44–54 and accompanying text.

113. *See supra* notes 26–31, 70–99 and accompanying text.

effective at producing improved financial and environmental performance.

However, the results evidence that GRI reporting should not be taken, at any given point in time, to necessarily be a signal to the marketplace that a company is a good actor relative to nonreporting firms. Because CR reporting is optional and not all firms have adopted the practice, there may be a perception among investors that being a GRI reporter is a proxy for a firm being relatively environmentally efficient and benign compared to non-reporters. This study disproves that inference.

Such a misleading indicator is undesirable for a variety of reasons: it prevents investors from fulfilling their investment strategies and it prevents the marketplace—meaning both the stock markets and relevant markets for goods and services—from punishing bad actors and rewarding companies that satisfy the expectations of society. Finally, such a misleading indicator may misdirect enforcement agencies from investigating companies that are actually in breach of environmental regulations. Indeed, better relations with governmental authorities is one of the motivations for reporting cited in the literature review above. Therefore, the outcome that better financial and environmental performance is not correlated with GRI reporting is a valuable gleaning for legal scholars. It contributes to the growing body of literature that suggests that CR reporting should be mandated, universal, and uniform. This would eliminate voluntary CR reporting as a misleading signal to markets and assure that CR reporting fulfills its potential by allowing fair comparisons between companies.

VI. CONCLUSIONS AND IMPLICATIONS FOR BUSINESS AND LEGAL SCHOLARSHIP

This Article has reviewed the history of regulation by disclosure and voluntary CR reporting and the relevant business and legal scholarship. This review identified a major theme underlying research related to the phenomenon: namely, whether the use of CR reporting can be predicted by financial and environmental performance.

By testing a wide array of financial measures and two measures related to the impact of companies on climate change, this study suggests that financial and environmental performance does not affect the propensity of a company to engage in CR reporting.

The authors suggest that business scholars turn their attention to developing theories and testing hypotheses that may better explain what kinds of firms are more likely to engage in CR reporting. Moreover, the

authors suggest that business law scholars turn their attention to exploring what kind of regulatory framework best encourages meaningful, universal, and uniform disclosures by all companies, with an understanding that voluntary CR reporting may function as a misleading signal to the marketplace that a company is comparatively benign in its societal and environmental impacts. This study should thus provoke further theoretical work, stimulate further empirical testing, heighten an appreciation for the importance of mandatory CR reporting to the marketplace and stakeholders, and catalyze the development of a legal framework that achieves that end.

Notes & Comments

There's Cologne in the Water: The Inadequacy of U.S. Environmental Statutes to Address Emerging Environmental Contaminants

William Wombacher*

ABSTRACT

It is well established that rivers, lakes, and drinking water in the United States are contaminated with low levels of pharmaceuticals and a variety of other chemicals resulting from wastewater treatment plant discharges. While scientists and policy makers are concerned about the effect the presence of these compounds could have on the health of humans and the environment, there is little regulatory recourse under current environmental laws. Problems with unrealistically high burdens of proof and problems with scientific uncertainty and information gathering make regulating these compounds extremely difficult. Without significant changes to our environmental laws, the issue of wastewater contaminants will continue long into the future. This Note analyzes the shortcomings of current environmental laws and suggests changes necessary to adequately address emerging environmental contaminants.

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I. INTRODUCTION

In the last few years, headlines across the United States, Canada, and the United Kingdom proclaimed: “Area Tap Water Has Traces of Medicines;” “U.S. Drinking Water is Laced with Drug Residue;” “Traces of Drugs Found in Water;” “Cancer Drugs Found in Tap Water;” “Consumer Products Could Taint Drinking Water, Commissioner Says;” and “Drugs in Water Harming Wildlife.”¹ These articles announced what scientists have known for decades: that pharmaceuticals are present in the rivers, lakes, and drinking water of the United States and many other countries.²

Pharmaceuticals are of particular concern because “they are developed with the intention of performing biological effect” and thus “have many of the necessary properties to bioaccumulate and provoke effects in the aquatic and terrestrial ecosystems.”³ Commentators have suggested that improper disposal has a significant but as of yet unquantified role behind the presence of pharmaceuticals in the environment.⁴ This conclusion has spurred the notion that regulations tightening drug disposal requirements are the solution.⁵ While this tactic may be effective in curbing the presence of pharmaceuticals in the environment, it is not applicable to the hundreds of other compounds

1. Carol D. Leonnig, *Area Tap Water Has Traces of Medicines*, WASH. POST, Mar. 10, 2008, at B1; Jeff Down, Martha Mendoza & Justin Pritchard, *U.S. Drinking Water is Laced with Drug Residue*, ST. LOUIS POST-DISPATCH, Mar. 10, 2008, at A2; Deborah Schoch, *Traces of Drugs Found in Water*, L.A. TIMES, Mar. 10, 2008, at B4; Richard Gray, *Cancer Drugs Found in Tap Water*, DAILY TELEGRAPH, Jan. 13, 2008, available at <http://www.telegraph.co.uk/earth/earthnews/3321519/Cancer-drugs-found-in-tap-water.html>; Chinta Puxley, *Consumer Products Could Taint Drinking Water, Commissioner Says*, GLOBE AND MAIL, July 3, 2007, at A9; Associated Press, *Drugs in Water Harming Wildlife*, AUGUSTA CHRONICLE, Mar. 11, 2008, at A3.

2. B. Halling-Sorensen et al., *Occurrence, Fate and Effects of Pharmaceutical Substances in the Environment—A Review*, 36 CHEMOSPHERE 357, 363–64 (1998) (See Table 2 discussing a series of studies showing that pharmaceuticals have been detected in the environment).

3. *Id.* at 357. “Bioaccumulate” refers to a substance’s ability to increase in concentration in a living organism as a result of ongoing exposure and the inability of the organism to metabolize or excrete the substance. See generally EPA, Glossary, Abbreviations and Acronyms, <http://www.epa.gov/OCEPATERMS/bterms.html> (last visited Mar. 7, 2010) (defining “bioaccumulants”) [hereinafter EPA Glossary].

4. Ilene Sue Ruhoy & Christian G. Daughton, *Beyond the Medicine Cabinet: An Analysis of Where and Why Medications Accumulate*, 34 ENVTL. INT’L 1157, 1166 (2008).

5. See, e.g., Teirney Christenson, Note, *Fish on Morphine: Protecting Wisconsin’s Natural Resources Through a Comprehensive Plan for Proper Disposal of Pharmaceuticals*, 2008 WIS. L. REV. 141, 162 (2008).

that, like pharmaceuticals, are present in the natural waters of the United States.⁶

What the media has not publicized is that pharmaceuticals are only a subset of a much larger group of compounds called Organic Wastewater Contaminants (“OWCs”).⁷ These compounds take their name from the fact that they escape wastewater treatment and are consequently discharged into our rivers, lakes, and streams.⁸ OWCs include synthetic fragrances used to scent soaps and lotions, Triclosan (antibacterial agents used in soaps), caffeine, fire retardants, and chemicals used in sunscreen and insect repellants.⁹ Like pharmaceuticals, they are easily detectable in natural waters, and also have been found in drinking water and groundwater.¹⁰ Unlike pharmaceuticals, there does not at first glance appear to be an easy solution to curbing the presence of OWCs in the environment because they are present not as a result of improper disposal, but rather from regular daily use and inadequate treatment standards.¹¹

Every time we wash our hands, for example, compounds such as Triclosan, Galaxolide, and Tonalide (synthetic fragrance compounds), and other chemicals are sent down the drain, where they are either transported to a wastewater treatment plant or sometimes discharged directly into a nearby stream.¹² Typical wastewater treatment plants do not target these compounds for removal and consequently they are

6. Dana W. Kolpin et al., *Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams, 1999–2000: A National Reconnaissance*, 36 ENVTL. SCI. & TECH. 1202, 1204 (2002) (listing 95 organic wastewater contaminants considered in that study).

7. *Id.* at 1202 (explaining OWC terminology).

8. *Id.*

9. EPA, Pharmaceutical and Personal Care Products, <http://www.epa.gov/ppcp/basic2.html> (last visited Mar. 15, 2010).

10. See Dana W. Kolpin et al., *Urban Contribution of Pharmaceuticals and Other Organic Wastewater Contaminants to Streams During Differing Flow Conditions*, 328 SCI. TOTAL ENV'T 119, 119–20 (2004); Paul E. Stackelberg et al., *Efficiency of Conventional Drinking-Water-Treatment Processes in Removal of Pharmaceuticals and Other Organic Compounds*, 377 SCI. TOTAL ENV'T 255, 269 (2007); see also Kimberlee K. Barnes et al., *A National Reconnaissance of Pharmaceuticals and Other Organic Wastewater Contaminants in the United States–I) Groundwater*, 402 SCI. TOTAL ENV'T 192, 197 (2008); Michael J. Focazio et al., *A National Reconnaissance for Pharmaceuticals and Other Organic Wastewater Contaminants in the United States–II) Untreated Drinking Water Sources*, 402 SCI. TOTAL ENV'T 201 (2008).

11. Ruhoy & Daughton, *supra* note 4, at 912 (suggesting a significant portion of the pharmaceuticals detected in the environment can be traced to improper disposal of unused drugs, which can be remedied by stricter disposal regulations).

12. Christian G. Daughton & Thomas A. Ternes, *Pharmaceuticals and Personal Care Products in the Environment: Agents of Subtle Change?*, 107 ENVTL. HEALTH PERSPS. 907, 908 (1999).

present in the most plants' effluent, which is typically discharged into surface water.¹³ Alarming, many drinking water treatment plants use the same surface water bodies as a source for water to treat and use for drinking.¹⁴ As a result, when a drinking water plant takes water from a river that receives wastewater discharges it is also taking in any OWCs that persist in the water. This issue is compounded by the fact that drinking water plants do not target OWCs for removal, which results in their presence in potable drinking water.¹⁵

Given that soaps, lotions, sunscreens, and insect repellants are readily available at grocery and drug stores, you may be asking yourself what the big deal is. If these compounds were so bad for us, would they not come with warnings or somehow be restricted? This is a very logical question. The problem is that while an OWC, such as a synthetic fragrance, may have been found safe for application on our skin or hair, the majority have not been tested to determine what effects they may cause when they enter our bodies.¹⁶ Thus, some OWCs may be considered safe for their intended uses, but their presence in our water supply was certainly not a consideration when safety testing was performed.

13. *Id.* (defining "surface water" as those bodies of water such as rivers, lakes, ponds, streams, and oceans, which are open to the atmosphere). See also EPA Glossary, *supra* note 3 (defining "effluent" as "wastewater--treated or untreated--that flows out of a treatment plant, sewer, or industrial outfall."). See generally Jian-Jun Yang & Chris D. Metcalfe, *Fate of Synthetic Fragrance Musks in a Domestic Wastewater Treatment Plant and in an Agricultural Field Amended with Biosolids*, 363 SCI. TOTAL ENV'T 149, 155 (2006) (evincing the presence of synthetic fragrances in wastewater effluent); K. Bester, *Triclosan in a Sewage Treatment Process—Balances and Monitoring Data*, 37 WATER RES. 3891, 3893 (2003) (evincing the presence of Triclosan in wastewater effluent).

14. The term source water is used to indicate that many drinking water treatment plants draw water from rivers and lakes and then treat that water in order to provide drinking water. See EPA, Public Water Systems: Facts and Figures, <http://www.epa.gov/safewater/pws/factoids.html>.

15. See generally EPA, Drinking Water Contaminants, <http://www.epa.gov/safewater/contaminants/> (last visited Mar. 7, 2010) (discussing that the greatest concern during drinking water treatment is the removal of bacteria, pathogens, and nitrate in some areas. While the Safe Drinking Water Act does set National Primary Drinking Water Standards for other compounds, this list includes mostly metals and well-established chemicals such as dioxins, PCPs, and pesticides); William Wombacher & Keri H. Hornbuckle, *Synthetic Musk Fragrances in a Conventional Drinking Water Treatment Plant with Lime Softening*, 135 AM. SOC'Y CIV. ENGINEERS J. ENVTL. ENGINEERING 1192 (2010) (stating that synthetic fragrances have been detected in drinking water); Krista L. Rule et al., *Formation of Chloroform and Chlorinated Organics by Free-Chlorine-Mediated Oxidation of Triclosan*, 39 ENVTL. SCI. & TECH. 3176, 3177 (2005) (stating that triclosan has been detected in drinking water).

16. *Id.*

While concentrations of OWCs in the environment are low—in the parts per million to parts per trillion range—scientists remain concerned by the ubiquity of their presence and the resulting human and wildlife exposure.¹⁷ Studies have shown that many of these compounds may present significant risks to humans and wildlife.¹⁸ Specifically, scientists are concerned about: (1) the inherent risks of exposure; (2) bioaccumulation; (3) synergistic effects; and (4) the risks associated with uncertainty. These risks will be addressed in detail in Section II of this Note.

Despite the fact that many scientists, as well as the EPA, have expressed increasing concern over OWCs, current federal environmental and toxins statutes permit only limited regulatory action.¹⁹ The Resource Conservation and Recovery Act (“RCRA”), which is the United States’ primary law governing hazardous waste disposal, exempts domestic wastewater, the single largest source of OWCs.²⁰ The Clean Water Act’s (“CWA”) list of toxic pollutants has not been updated in thirty years and states have failed to adopt their own water quality standards for OWCs.²¹ Additionally, the Toxic Substances Control Act (“TSCA”) and the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) contain regulatory triggers premised on cost-benefit or economic factors, in addition to posing other regulatory hurdles.²² While this Note will not specifically address the Safe Drinking Water Act, it has also been shown to be out of date and inadequate for addressing emerging problems.²³

17. Stackelberg et al., *supra* note 10, at 263 (reporting the concentrations of various OWCs. The measurements refer to the concentration of the chemical. One part per million is equivalent to one unit of chemical per one million units of solvent, which in this case is water); Daughton & Ternes, *supra* note 12, at 908 (discussing persistent exposure).

18. Betty Bridges, *Fragrance: Emerging Health and Environmental Concerns*, 17 FLAVOUR AND FRAGRANCE J. 361, 369 (2002) (reporting on the toxicity of synthetic fragrances); David R. Orvos et al., *Aquatic Toxicity of Triclosan*, 21 ENVTL. TOXICOLOGY & CHEMISTRY 1338, 1342–45 (2002) (reporting the toxicity of Triclosan).

19. *See id.*

20. 40 C.F.R. § 261.4(a)(1)(i)–(ii), (a)(2) (2009); 42 U.S.C. § 6903(27) (2008).

21. EPA, Toxic and Priority Pollutants, <http://www.epa.gov/waterscience/methods/pollutants-background.htm> (last visited Mar. 7, 2010) (describing the establishment and subsequent modification of the toxic pollutant list).

22. 33 U.S.C. § 1314(b)(1)(B), (b)(2)(B) (2009) (describing the factors considered when setting effluent limits for Best Practicable Control Technology and Best Available Control Technology under the CWA); 7 U.S.C. § 136(z)(bb)(1)–(2) (2009) (defining unreasonable adverse effect under FIFRA); 15 U.S.C. § 2605(a) (2009) (describing factors that must be considered when making a determination of unreasonable risk of injury to health or the environment under TSCA).

23. Charles Duhig, *That Tap Water Is Legal but May Be Unhealthy*, N.Y. TIMES, Dec. 16, 2009 at A1.

Although the statutes each have different shortcomings, two of the greatest inadequacies of our current regime are: (1) high burdens that must be met to implement restrictive regulations and (2) information gathering mechanisms that are inadequate to provide the data necessary to make informed judgments regarding the risk a particular compound poses. As is described in Section III, the coupling of these inadequacies creates a self-perpetuating problem of inaction that is the basis of our inability to regulate OWCs.

While current U.S. federal regulations inadequately address OWCs, California and the European Union have adopted innovative toxic control strategies, which can serve as a model for the United States in adopting a new—or amending its current—regulatory system to address the toxic problems of the future. This Note, using synthetic fragrances and Triclosan as a proxy for hundreds of OWCs, describes the scope of the problem, starting with the potential impacts on the environment and human health. It then addresses the unique characteristics of OWCs that make regulation difficult, followed by an analysis of the inadequacies of the most prominent U.S. environmental statutes on point. Next, it highlights regulatory approaches used by California and the European Union, which provide effective alternatives to the current toxics regulatory regime in the United States. Finally, it suggests regulatory elements that, if implemented, allow for effective nationwide regulation of OWCs.

II. THE RISKS OF OWCs TO HUMANS AND THE ENVIRONMENT

This Section describes the risks of OWCs to humans and the environment. Triclosan and synthetic fragrance compounds will be used as representative examples of the hundreds of OWCs in existence. It is important to note, however, that both compounds have been studied for decades, which has given rise to our current base of scientific knowledge.²⁴ There are many other OWCs, including those currently under development, about which scientists have no information and which are unlikely to receive any attention from environmental scientists for many years.²⁵ So while the effects of Triclosan and synthetic fragrances, individually, may seem small in comparison to other environmental harms facing the world, it is important to note that they

24. See Kolpin et al., *supra* note 6, at 1204.

25. *Id.* at 1202.

are only two compounds in a realm of hundreds that represent an ever-expanding problem.²⁶

As mentioned above, scientists' main concerns regarding OWCS can be classified into four categories: (1) the inherent risks of exposure; (2) bioaccumulation; (3) synergistic effects; and (4) the risks associated with uncertainty.

A. Inherent Risks of Exposure

Synthetic fragrances were first detected in the environment in 1981 and have since been detected in numerous aquatic species and mammals, including humans.²⁷ Synthetic fragrances “are ubiquitous, persistent, bioaccumulative pollutants that are sometimes highly toxic.”²⁸ Some fragrances have been shown to be carcinogenic and others to negatively affect liver functions in animals.²⁹ Additionally, zebrafish, which are commonly used to screen for chemical toxicity, were negatively affected by synthetic fragrances at concentrations often measured in wastewater discharges.³⁰ Also alarming is that synthetic fragrances exhibit the ability to inhibit organisms' multixenobiotic resistance mechanism, an internal defense mechanism that organisms use to remove toxins from their systems.³¹ Thus, synthetic fragrances not only cause harm in and of themselves, but also increase the potential harm caused by other compounds by inhibiting organisms' ability to rid themselves of other toxins.

26. See U. S. GEN. ACCOUNTING OFFICE, WATER POLLUTION: STRONGER EFFORTS NEEDED BY EPA TO CONTROL TOXIC WATER POLLUTION, GAO/RCED-91-154, at 2, 8 (1991), available at <http://archive.gao.gov/d19t9/144453.pdf> (expressing that more than 1,000 new chemicals are introduced each year) [hereinafter WATER POLLUTION REPORT].

27. T. Yamagishi et al., *Synthetic Musk Residues in Biota and Water from Tama River and Tokyo Bay (Japan)*, 12 ARCHIVES ENVTL. CONTAMINATION & TOXICOLOGY 83, 84–87 (1983) (reporting the first measurement of synthetic fragrances in the environment); Gerhard G. Rimkus, *Polycyclic Musk Fragrances in the Aquatic Environment*, 111 TOXICOLOGY LETTERS 37, 48–53 (1999) (reporting the measurement of synthetic fragrances in aquatic species); Kurunthachalam Kannan et al., *Polycyclic Musk Compounds in Higher Trophic Level Aquatic Organisms and Humans from the United States*, 61 CHEMOSPHERE 693, 696–97 (2005) (reporting concentrations of synthetic fragrances in mammals and humans).

28. Daughton, *supra* note 12, at 930.

29. Bridges, *supra* note 18, at 368.

30. See G. Carlsson and L. Norrgren, *Synthetic Musk Toxicity to Early Life Stages of Zebrafish (Danio rerio)*, 46 ARCHIVES ENVTL. CONTAMINATION & TOXICOLOGY 102, 104–05 (2004).

31. See Till Luckenbach et al., *Fatal Attraction: Synthetic Musk Fragrances Compromise Multixenobiotic Defense Systems in Mussels*, 58 MARINE ENVTL. RES. 215 (2004).

Another OWC of concern is Triclosan, a chemical with which you have probably come into contact several times already today.³² While the direct risk to most higher trophic level aquatic species seems negligible, the presence of Triclosan in the aquatic environment has shown to be toxic to several species of algae.³³ Algae are important to aquatic ecosystems because they are primary producers; they serve as the basis of the food web.³⁴ This is a vital role, because algae have the ability to turn inorganic matter into organic material that other organisms can use as a source of food.³⁵ Without this fundamental biological transformation, the food webs of many ecosystems could suffer. With respect to human exposures, Triclosan has been shown to create significant quantities of chloroform, a probable carcinogen when combined with chlorine.³⁶ This is particularly alarming because nearly all drinking water in the United States is disinfected using chlorine.

B. Risk of Bioaccumulation

Another concern is the ability of OWCs to bioaccumulate.³⁷ OWCs accumulate in the tissue of humans and animals for one of two reasons: (1) an organism is incapable of ridding itself of a particular compound or (2) the rate of exposure to the compound exceeds the rate at which an organism can expel it.³⁸ The second reason is most applicable to OWCs, because wastewater is continuously introduced into the environment.³⁹ Thus, organisms living in aquatic ecosystems are chronically exposed. The same is true for humans when OWCs are present in our drinking water. Synthetic fragrances, for example, have been detected in human blood, breast milk, and tissue.⁴⁰ Although OWCs typically are present in

32. Triclosan is the active ingredient in the majority of anti-bacterial soaps.

33. Marie Capdevielle et al., *Consideration of Exposure and Species Sensitivity of Triclosan in the Freshwater Environment*, 4 INTEGRATED ENVTL. ASSESSMENT & MGMT. 15, 16 (2008). "Higher trophic level" simply refers to those aquatic organisms on the higher levels of the food chain.

34. See H.W. Johnston, *The Biological and Economic Importance of Algae, Part 2*, 14 TUATARA 30 (1966), available at <http://www.nzetc.org/tm/scholarly/tei-Bio14Tuat01-t1-body-d5.html>

35. *Id.*

36. Krista L. Rule et al., *Formation of Chloroform and Chlorinated Organics by Free-Chlorine-Mediated Oxidation of Triclosan*, 39 ENVTL. SCI. & TECH. 3176, 3183 (2005); see NAT'L TOXICOLOGY PROGRAM, U.S. DEP'T OF HEALTH & HUM. SERV., 11TH REPORT ON CARCINOGENS § 3 (1981) available at <http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s038chlo.pdf> (describing the risk posed by Chloroform).

37. Daughton & Ternes, *supra* note 12, at 931.

38. Bridges, *supra* note 18, at 369.

39. Daughton, *supra* note 12, at 908.

40. See H. P. Hutter et al., *Blood Concentrations of Polycyclic Musks in Healthy*

low concentrations, their ability to accumulate in tissue leads to increased concentrations and consequently increases the risk of negative impacts.⁴¹

C. *The Risks of Uncertainty*

Another extremely important issue in the battle against OWCs is the high level of uncertainty shrouding the effects of these compounds at low but chronic exposures. This uncertainty stems from the difficulty of testing the long-term effects of these compounds at the very low concentrations at which they are present in the environment.⁴² One paper suggests that “given the vast array of mechanisms of drug action and side effects, the total number of different toxicity tests possibly required to screen the effluent from a typical [sewage treatment works] could be impractically large.”⁴³ One of the more common methods of performing such studies is to expose mice or other animals to various levels of a chemical to determine the type and severity of its effects.⁴⁴ This data, however, must be extrapolated not only from the high doses used in the study to the low doses in the environment, but considerations must also be made to translate the effects observed on the test animal to other species, including humans.⁴⁵ Thus, the results serve only as an educated guess as to what will actually occur. Consequently, actual accuracy may vary wildly.

Uncertainty is further compounded by the fact that 1,000 new chemicals are being introduced each year, many with little to no toxicology analysis.⁴⁶ In fact, in the discussion of the Toxic Substances

Young Adults, 59 CHEMOSPHERE 487 (2005); Lene Duedahl-Olesen et al., *Synthetic Musk Fragrances in Trout from Danish Fish Farms and Human Milk*, 61 CHEMOSPHERE 422 (2005); Kannan et al., *supra* note 27, at 697.

41. Kolpin et al., *supra* note 6, at 1204–05 (listing the concentrations of 95 OWCs tested for in U.S. streams); Bridges, *supra* note 18, at 368 (citing Daughton & Ternes, *supra* note 12).

42. Kolpin et al., *supra* note 6, at 1202.

43. Daughton & Ternes, *supra* note 12, at 923.

44. See Ronald L. Melnick & John R. Bucher, *Determining Disease Causality from Experimental Toxicology Studies*, 15 J.L. & POL'Y 113 (2007).

45. *Id.* Extrapolation refers to using available scientific data to attempt to predict what will happen in situations that were not specifically tested. In the case of toxicology, this means researching the effects of chemicals on mice in various concentrations. The concentrations normally must be high enough that researchers are able to witness some type of effect. Scientists then use the knowledge about what happens at these higher levels and attempt to predict the severity of the chemical effects at much lower concentrations that are closer to actual levels of exposure.

46. See WATER POLLUTION REPORT, *supra* note 26 (expressing that more than 1,000 new chemicals are introduced each year).

Control Act in Section IV(C) we will see that only about fifteen percent of the pre-manufacture notices contain any health and safety data.⁴⁷ This uncertainty is problematic because, while we can easily measure the presence of OWCs, it is very hard to pinpoint their effects. The possession of this disjointed information then makes it difficult for policymakers to judge whether regulatory actions are necessary or justified. This creates a stalemate where, despite the fact that we know these compounds are in our water, our bodies, and wildlife, we do not have adequate information, in the eyes of our regulatory scheme, to pursue restrictive regulations. Such inaction creates the risk of allowing the problem to worsen.

D. The Risk of Synergistic Effects

Closely related to the issue of uncertainty, scientists are also concerned about synergistic effects among OWCs. Synergism refers to the potential of compounds to interact with one another to create greater effects together than would occur individually.⁴⁸ This is relevant because we are typically exposed to dozens, if not hundreds, of OWCs at a time.⁴⁹ While individual exposure to a particular compound, such as Triclosan, may present little risk, some scientists fear that the same cannot be said when that particular compound is combined with hundreds of others.

This issue is tied to uncertainty because, as discussed above, scientists have enough trouble identifying the individual effects of OWCs. The consideration of complex interactions occurring among hundreds of compounds adds an entirely new layer of uncertainty. Additionally, given the large number of OWCs and the fact that they can be present together in an endless combination, it is nearly impossible for scientists to test exactly how all these compounds might interact.⁵⁰ Even if scientists learn that wastewater from a certain plant exhibits certain identifiable negative effects, isolating which compounds are causing the impacts is not an easy task.⁵¹ Furthermore, domestic wastewater

47. U.S. GOV'T ACCOUNTABILITY OFFICE, CHEMICAL REGULATION: COMPARISON OF U.S. AND RECENTLY ENACTED EUROPEAN UNION APPROACHES TO PROTECT AGAINST THE RISKS OF TOXIC CHEMICALS, GAO-07-825, at 8 (2007), *available at* <http://www.gao.gov/new.items/d07825.pdf> [hereinafter CHEMICAL REGULATION REPORT].

48. See EPA Glossary, *supra* note 3 (defining "synergism" as "[a]n interaction of two or more chemicals that results in an effect greater than the sum of their separate effects.").

49. Daughton & Ternes, *supra* note 12, at 924 (discussing synergistic effects).

50. Kolpin et al., *supra* note 6, at 1204 (listing the 95 OWCs analyzed in the study in Table 1); Daughton & Ternes, *supra* note 12, at 931.

51. Daughton & Ternes, *supra* note 12, at 908 (stating that despite that more data is

composition varies throughout the country based on demographics, making it incredibly hard for scientists to translate their knowledge from one region to the next.⁵²

E. Summary

The description of the impacts of just two OWCs on aquatic species and humans highlight why scientists are concerned about the effects of constant and long-term exposure to hundreds of these compounds. OWCs can bioaccumulate in cells and have the potential to cause an array of negative effects. Some of these compounds also interfere with natural resistance mechanisms giving substantial support to scientists' fears about the synergist effects of OWCs.⁵³ With 1,000 new chemical substances being introduced each year, regulatory help is needed to aid scientists in addressing the presence of OWCs and other emerging environmental contaminants.⁵⁴

III. REGULATORY CHALLENGES

The unique properties of OWCs—that hundreds of them exist, that there is high scientific uncertainty associated with their effects, and that many play important and beneficial roles in our daily lives—give rise to challenging regulatory hurdles. This section further analyzes the issue of uncertainty followed by the challenges that flow from uncertainty, including information gathering, political ripeness, and allocation of the regulatory burden. Given these challenges, there is no simple solution to the problem of OWCs in the environment.

A. Scientific Uncertainty

One of the main challenges to the regulation of OWCs is scientific uncertainty.⁵⁵ As previously mentioned, it is extremely difficult to determine with any amount of certainty the effects of OWCs, considering

available for antibiotics than any other pharmaceutical, little is known about their effects in the environment).

52. With respect to wastewater demographics, people in Los Angeles will use significantly more sunscreen than people in Detroit. Additionally, people in more affluent cities will likely use more personal care products than those in rural cities in the Midwest. These variations lead to different populations developing unique domestic wastewater characteristics specific to their geographic areas.

53. Daughton & Ternes, *supra* note 12, at 924.

54. WATER POLLUTION REPORT, *supra* note 26, at 8, 17.

55. Kolpin et al., *supra* note 6, at 1204 (listing the 95 OWCs analyzed in that study).

their low levels in the environment.⁵⁶ The existence of uncertainty makes regulation difficult because regulators struggle to justify restrictions where harmfulness cannot be definitively proven. This struggle is highlighted by the requirement of benefit analyses prior to regulation under some federal laws.⁵⁷ Such an analysis requires the benefits of a regulatory action to outweigh the costs for it to be pursued. While this can be a useful tool when the costs and benefits can be accurately valued, difficulty arises when information is incomplete or nonexistent.

Cost-benefit analyses are particularly troublesome in the environmental context given the difficulty in placing a dollar value on intangibles, such as the aesthetic value of a mountain view or a grove of trees, or the quality of a particular stretch of river.⁵⁸ This difficulty, coupled with the fact that personal convictions dictate an individual's valuation of these non-economic items, means that any value assigned will be largely speculative and may well be an under-valuation.⁵⁹ Additionally, the scientific uncertainty surrounding the effects of exposure to OWCs at constant, but very low concentrations, severely complicates efforts to use health and safety data in a cost-benefit analysis.⁶⁰ Further, all of the statutes fail to incorporate the precautionary principle, which is essential for regulating compounds in the face of high levels of uncertainty.⁶¹ Without significantly more research or a regulatory approach that incorporates the precautionary principle, acknowledging the value of regulation despite uncertainty, it will be extremely difficult to regulate OWCs.

B. Information Gathering

An important issue, closely related to uncertainty, is information gathering. As suggested above, the only way to reduce the scientific uncertainty surrounding OWCs is to perform research regarding their effects and behavior in the environment. Without an effective method for gathering reliable information, overcoming uncertainty is difficult. Health, safety, and toxicology information about chemical compounds is

56. *See supra* Section II(c) of this Note.

57. *See infra* Section IV of this Note (discussing FIFRA and TSCA).

58. Robert R.M. Verchick, *The Case Against Cost-Benefit Analysis*, 32 *ECOLOGY L.Q.* 349, 349 (2005).

59. *See id.*

60. *See supra* Section I of this Note (discussing uncertainty).

61. *See* EPA Glossary, *supra* note 3 (defining "precautionary principle" as "[w]hen information about potential risks is incomplete, basing decisions about the best ways to manage or reduce risks on a preference for avoiding unnecessary health risks instead of on unnecessary economic expenditures").

available from various sources, including: (1) the company that developed compound; (2) independent research; like that done at universities or within government agencies; and (3) research submitted to state and federal government agencies to fulfill statutory requirements.

As one can guess, chemical developers keep information regarding the negative effects of their products close to their chest. Beyond protecting itself from litigation, there is little incentive for a company to reveal the shortcomings of its products, particularly if they are uncertain. Independent research labs and universities also perform considerable information gathering. Such research is typically funded by grants from governments, universities, and a sea of other organizations with varying agendas. While independent researchers can produce significant data, the availability of funding can drastically limit the scope and depth of their research. The other information gathering method is through disclosures required by law. Such mechanisms can be extremely powerful, but often create a maze of exceptions and loopholes, which undermine their effectiveness.⁶² This is particularly true for OWCs.⁶³

Given the avenues available for the creation of scientific data for chemical compounds and their shortcomings, it becomes clear that the most effective way to obtain in-depth information covering an ever-expanding class of compounds is by statute. There simply is not enough funding, collaboration, or incentive for independent researchers to fill the void left by ineffective statutory regimes and recalcitrant chemical producers. On the other hand, there is enormous incentive for the inventors and manufacturers of chemicals to research the safety of their chemicals and products if that is an explicit requirement that must be satisfied before they can be taken to market. As Section IV will discuss, U.S. toxics statutes vary in their approaches to allocating the information gathering burden. Some statutes place a significant burden on the chemical manufacturer, while others place the burden on the EPA.⁶⁴ However, both approaches, as currently applied, are inadequate and simply lull the public into a false sense of safety. Accurate scientific information is the sole avenue to overcome uncertainty and properly justify regulation. Poor information gathering leads to poor regulation and often, as we will see in Section IV, no regulation. Enormous improvements to our approach to information gathering are essential to

62. See *infra* Section IV(c) of this Note (discussing TSCA's information gathering requirements).

63. *Id.*

64. Compare 7 U.S.C. § 136a(c)(1)(F) (describing data submission requirements under FIFRA) to 15 U.S.C. § 2604(d) (describing data submission requirements under TSCA).

assuring that our regulation or lack of regulation of OWCs is informed and reflective of their potential to cause harm.

C. Political Ripeness

A further factor complicating the regulation of OWCs is political ripeness. There are many important environmental issues facing the world. Well-publicized and researched issues such as climate change are at the forefront of the minds of the public and politicians, potentially overshadowing lesser-known and more uncertain problems like OWCs. Without significant public concern and political interest it is unlikely that progress will be made on the issue of OWCs. At the moment, the only exposure an average person would have to the issue of OWCs are the newspaper articles about pharmaceuticals in our water.⁶⁵ These articles, however, only scratch the surface of the problem and do not shed light on the bigger issue of OWCs. It is likely that this Note may be many readers' first introduction to OWCs. Even for those who are aware, it may be easy to dismiss the problem because most of the compounds at issue, such as Triclosan, are beneficial to peoples' lives. For many, the obvious benefit of these compounds is enough for them to overlook the more attenuated and uncertain long-term negative effects to our health and the environment.

D. Placing the Burden

Even if the hurdles of uncertainty, information gathering, and political ripeness can be overcome, the issue then becomes when do we regulate OWCs and who do we regulate; the manufacturers of the products, the consumers, or the water treatment systems? Placing the regulatory burden on any one of these groups introduces additional challenges. Finally, once we decide whom to regulate, how do we decide which OWCs to regulate? And how do we prioritize where our resources will be placed? Do we place the emphasis on those compounds that are produced and used in the highest quantities, or do we focus on those about which we currently know the most? Even then, with 1,000 new compounds being created every year, how do we effectively keep up with such growth?⁶⁶ The challenge of regulating OWCs poses many questions and there is no simple solution. When reading the next section discussing the United States' current environmental and toxics statutes, it is important to consider the challenges described above. Understanding

65. See *supra* note 1 (listing articles discussing this issue).

66. WATER POLLUTION REPORT, *supra* note 26, at 8.

the weaknesses of our current regime is necessary in evaluating potential reforms and determining which new approaches will be most effective.

IV. THE INADEQUACY OF CURRENT ENVIRONMENTAL STATUTES TO ADDRESS OWCS

The current regulatory regime for toxic substances in the United States is a patchwork of statutes aimed at either specific classes of compounds or at specific points within a substance's life cycle. This patchwork does provide some statutory overlap, but it also creates a myriad of gaps. This Section describes how the major environmental statutes address toxic substances and points out their inadequacy by demonstrating how OWCS like Triclosan and synthetic fragrances can escape entirely unregulated. It begins by discussing the effect of the domestic wastewater exception under the Resource Conservation and Recovery Act. It then addresses the regulatory hurdles created by the use of a cost-benefit analysis under the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act. Finally, it explores the outdated toxics provisions in the Clean Water Act.

A. Resource Conservation and Recovery Act

RCRA is the primary U.S. statute addressing the *disposal* of hazardous waste.⁶⁷ To trigger regulatory measures under the Act, the threshold question is whether a waste is considered a "hazardous waste."⁶⁸ In order to be a hazardous waste, it must first be classified as a "solid waste."⁶⁹ Once a chemical or waste stream is classified as both a solid waste *and* a hazardous waste, RCRA imposes significant duties on the generator, transporter, and operator of disposal facilities that come into contact with the waste.⁷⁰ For OWCS, the primary shortcoming of RCRA is that it exempts domestic wastewater and discharges permitted under the CWA's National Pollution Discharge Elimination System ("NPDES") from the definition of "solid waste" and consequently from the definition of "hazardous waste."⁷¹

67. 42 U.S.C. § 6902(b) (discussing national policy for hazardous waste handling).

68. *Id.* § 6903(5).

69. *Id.* § 6903(27).

70. *Id.* §§ 6922–6924 (describing the duties of hazardous waste generators; the duties of hazardous waste transporters; and the duties of the owners and operators of hazardous waste treatment, storage, and disposal facilities).

71. 40 C.F.R. § 261.4(a)(1)(i)–(ii), (a)(2); 42 U.S.C § 6903(27).

The courts have had some opportunity to interpret these exemptions; however, none of the judicial decisions move toward bringing OWCs under the jurisdiction of RCRA. In one case, the First Circuit Court of Appeals held that the domestic wastewater exemption referred only to the source and not the composition of sewage.⁷² The court reasoned that domestic wastewater was that which originated in a household and did not apply to the waste originating from the sinks and toilets of an industrial facility.⁷³ In a separate case, the Federal District Court for the Western District of Michigan held that the NPDES exemption applied only to wastewater as it discharges from a point source and does not extend to the process of wastewater collection, storage, and treatment.⁷⁴ The court also found that sludges produced during wastewater treatment were not covered by the exemption.⁷⁵ Several years later the EPA announced that the NPDES exemption even applies to point source discharges that do not have a NPDES permit, but are legally required to do so.⁷⁶ The courts' rulings in these cases created small openings for regulating OWCs in domestic waste sludges and the presence OWCs at treatment plants while undergoing treatment. The problem remains, however, that RCRA still exempts domestic wastewater and NPDES discharges from the definition of solid waste.⁷⁷ This precludes RCRA from applying to the largest source of OWCs in the environment: treated domestic wastewater.⁷⁸

B. Federal Insecticide, Fungicide, and Rodenticide Act

Another potential mechanism for regulating OWCs is the Federal Insecticide, Fungicide, and Rodenticide Act. While few OWCs can be classified as pesticides, Triclosan is a registered pesticide under the

72. See *Compte Pro Rescate De La Salud v. Puerto Rico Aqueduct & Sewer Auth.*, 888 F.2d 180 (1st Cir. 1989).

73. *Id.* at 185–89.

74. *United States v. Allegan Metal Finishing Co.*, 696 F. Supp. 275, 280–81 (W.D. Mich. 1988).

75. *Id.*

76. Memorandum from Michael H. Shapiro, Dir., Office of Solid Waste, & Lisa K. Friedman, Assoc. Gen. Counsel, Solid Waste and Emergency Response Div., to Waste Mgmt. Div. Dirs., Regions I-X, Interpretation of Industrial Wastewater Discharge Exclusion from the Definition of Solid Waste, OSWER Directive 1995 WL 911821 (Feb. 17, 1995).

77. See 40 C.F.R. § 261.4(a)(1)(i)–(ii), (a)(2).

78. See *Yang & Metcalfe*, *supra* note 13; see also *Kolpin*, *supra* note 6, at 1202 (suggesting that the term organic wastewater contaminants is based on the fact that the presence of these compounds is due to wastewater discharges).

Act.⁷⁹ Despite this anomaly, however, it is unlikely that many other OWCs would meet the definition of “pesticide.” Under FIFRA, the term “pesticide” is defined to include any “substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest,” and “pest” is defined as “any insect, rodent, nematode, fungus, weed, or . . . any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism . . . which the Administrator declares to be a pest. . . .”⁸⁰

FIFRA, like TSCA, discussed in Section IV(C), is a licensing statute designed to control market access.⁸¹ Under FIFRA, a pesticide cannot be sold, used, or distributed in the United States unless it is registered.⁸² FIFRA requires applicants to submit scientific testing evincing the safety of the product, which the EPA administrator uses to determine whether or not to grant registration.⁸³ Among other things, the applicant must prove that the pesticide “will perform its intended function without unreasonable adverse effects on the environment.”⁸⁴ Unreasonable adverse effect is defined as “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use. . . .”⁸⁵ In other words, a finding of “unreasonable adverse effect” requires a cost-benefit analysis.

The express inclusion of a cost-benefit analysis spells disaster for attempts to regulate OWCs under FIFRA. As previously mentioned, the high level of uncertainty regarding their effects and the difficulty in attaching a dollar value to non-economic environmental benefits leads to the undervaluing of the costs incurred by the presence of OWCs in our water.⁸⁶ This makes it nearly impossible to trigger restrictive regulations under FIFRA.

If we consider Triclosan in this context, the point becomes very clear. The use of Triclosan has enormous social and economic value,

79. See EPA, Pesticide Product Information System (PPIS), <http://www.epa.gov/oppmsd1/PPISdata/index.html> (last visited Oct. 17, 2008). Very limited restrictions (most are labeling related) have been placed on the use of Triclosan as result of its registration under FIFRA. For a detailed report on the uses that have been approved, see OFFICE OF PREVENTION, PESTICIDES, AND TOXIC SUBSTANCES, EPA, REREGISTRATION ELIGIBILITY DECISION FOR TRICLOSAN 49 (2008), available at <http://www.epa.gov/opprrd1/REDS/2340red.pdf>.

80. 7 U.S.C. § 136(u)(1) (defining pesticide), (t) (defining pest).

81. *Id.* § 136a(a) (requiring registration).

82. *Id.*

83. 7 U.S.C. § 136a(c)(1)(F).

84. *Id.* § 136a(c)(5)(C).

85. *Id.* § 136(bb).

86. See *supra* Section III of this Note (discussing the cost-benefit analysis issues associated with attaching value to environmental benefits).

given that it is very effective in preventing the spread of germs and disease. Indeed, this is why it is present in the majority of soaps sold in the United States.⁸⁷ The result of its continued use is that it is present, at low levels, in bodies of water receiving wastewater discharges and in our drinking water. This presence, according to scientists, *may* result in harm to certain types algae and *has the potential* to produce carcinogenic gas.⁸⁸ The economic cost of this uncertain and very specific environmental impact is impossible to value accurately. If one were to consider the costs and benefits of the continued use of Triclosan, the result would surely be that the benefits of use outweigh the costs. This is especially true considering that this analysis would be done in isolation, taking into account only those effects specifically attributable to Triclosan, despite the fact that much of the worry regarding OWCs has to do with the interaction between the many OWCs present in the environment.⁸⁹

While FIFRA does contain one regulatory method that avoids a cost-benefit analysis—the food residue provision—it is not likely to apply.⁹⁰ The provision only applies when residues are found on or in food at levels exceeding those set by the Federal Food, Drug, and Cosmetics Act.⁹¹ While some OWCs may meet the threshold definition of “pesticide,” they generally are not used in food products and consequently are not likely to trigger the food residue provision, thus avoiding the cost-benefit analysis. If, however, it were found that the presence of OWCs in the water used to irrigate food crops led to concentrations in the ground, this provision could be extremely valuable in curbing human exposure to OWCs.

While FIFRA is effective as an information gathering statute in that it requires a showing of safety in order for pesticides to gain market access, it only applies to a small class of compounds. FIFRA also requires the use of a cost-benefit analysis, which as discussed above, poses a significant burden given the scientific uncertainty involved. Additionally, very few OWCs are likely to meet the definition of “pesticide” to place them under the authority of FIFRA.

87. The next time readers go to the store, they should compare the number of anti-bacterial soap products to regular soap products. Also, they should look at the ingredients of the anti-bacterial soap products; Triclosan is the active ingredient in all of them.

88. *See supra* Section II of this Note.

89. 7 U.S.C. § 136(bb) (defining “unreasonable adverse effects on the environment.” Also stating that the costs of a pesticide will be weighed against the public health benefits specific to that pesticide, suggesting that analysis is done in isolation).

90. *Id.* at § 136(bb)(2).

91. 21 U.S.C. § 346a (2009).

C. Toxic Substances Control Act

The Toxic Substances Control Act was enacted in 1976 as a “catch all” statute to regulate all “chemical substances” not regulated under other environmental statutes.⁹² Similar to FIFRA, TSCA is a licensing statute that uses a cost-benefit approach to regulate market access for manufacturers and processors of new and existing “chemical substances.”⁹³ Under TSCA, chemical producers must submit a pre-manufacture notice prior to introducing any new “chemical substance” to the marketplace.⁹⁴ This notice must contain various information about the chemical, but only human health and environmental hazard information *existing at the time of the application*.⁹⁵ The EPA then bears the burden of proving that restrictive regulations are necessary based on the information provided.⁹⁶ These information gathering requirements are where the many inadequacies of this statute begin. TSCA suffers from two main problems: impediments to information gathering and an impossibly high standard for restrictive regulation.

Unlike FIFRA, where pesticide companies must provide, and where necessary *create*, information regarding the safety of the product prior to licensing, TSCA only requires that chemical companies submit *existing* information on the human and environmental effects of the chemical.⁹⁷ As a result, chemical companies do not have to research the effects of their new chemicals. Furthermore, they actually have a disincentive to do so because if such information exists it must be submitted in their pre-manufacture notice. The Government Accountability Office (“GAO”) has indicated that only about fifteen percent of all pre-manufacture notices contain any health and safety data, which means that of the 45,000 chemicals that have been reviewed from 1979 to 2005 only about 6,750 have any semblance of health and safety data.⁹⁸

The EPA can require new testing to be performed, but it bears the burden of proving that additional data is necessary.⁹⁹ Specifically, if a new compound is produced and no health or safety information is

92. 15 U.S.C. § 2602(2)(B) (explaining exceptions to the term “chemical substance”).

93. *Id.* §§ 2602(7) (defining “manufacture”), 2602(9) (defining “new chemical substance”). “Existing chemical substances” refers to those listed pursuant to 15 U.S.C. §§ 2607(b); 2602(2)(A) (defining “chemical substance”).

94. *Id.* § 2604(a).

95. *Id.* § 2604(d) (emphasis added).

96. *Id.* § 2604(f).

97. *Compare* 15 U.S.C. § 2604(d)(1) and 7 U.S.C. § 136a(c) (showing the differences in statutory licensing requirements between TSCA and FIFRA).

98. CHEMICAL REGULATION REPORT, *supra* note 47, at 8.

99. 15 U.S.C. § 2603(a).

available, the EPA can only require new research to be done if it can prove: (1) the chemical “may present an unreasonable risk of injury to health or the environment” or (2) “[the] chemical substance . . . will be produced in substantial quantities, *and* . . . it enters or may reasonably be anticipated to enter the environment in substantial quantities. . . .”¹⁰⁰ Under this standard it is almost impossible to prove that a new chemical poses an “unreasonable risk” if no information is available. Further, OWCs are present only in minute quantities, putting them out of reach of this provision.¹⁰¹

Even if the EPA can satisfy this burden it then must promulgate a rule, using notice and comment rulemaking procedures, to require the applicant to perform the new research.¹⁰² Officials have stated that this process can take from two to ten years and that only about 200 chemicals have endured it, at an estimated cost of \$234,000 per rulemaking.¹⁰³ This prohibitive cost does not even take into account the additional expense in time and resources that must be spent to promulgate restrictive rules after testing has been complete.

Assuming, extremely optimistically, that the EPA does acquire sufficient health and safety data about a chemical substance, whether through the initial license application or testing rulemaking, it must jump through several additional hoops before instituting restrictive regulations.¹⁰⁴ It first must make a determination that the substance presents an “unreasonable risk of injury to health or the environment.”¹⁰⁵ This finding is similar to the “unreasonable risk” standard that it must meet to promulgate an additional testing rule. The administrator must consider the effects of the substance and magnitude of exposure to

100. 15 U.S.C. § 2603(a)(1)(A)(i), (a)(1)(B)(i) (emphasis added).

101. See Kolpin *supra* note 6, at 1204 (listing the concentrations measures of 95 OWCs).

102. 15 U.S.C. § 2603(a)(2) (stating “the Administrator shall by *rule* require that testing be conducted” (emphasis added)).

103. CHEMICAL REGULATION REPORT, *supra* note 47, at 9–10.

104. To aid in information gathering under TSCA, in 1990 the EPA created the High Production Volume Challenge Program, which sought the voluntary submission of hazard information for chemicals produced or imported in the United States in quantities greater than one million pounds per year. As of 2007, 2,200 chemicals have been sponsored under this program, including one synthetic fragrance (HHCB). See EPA, High Production Volume Information System, *available at* <http://www.epa.gov/chemrtk/hpvis/index.html> (last visited Feb. 28, 2010); HIGH PRODUCTION VOLUME CHEMICALS BRANCH, EPA, SCREENING-LEVEL HAZARD CHARACTERIZATION OF HIGH PRODUCTION VOLUME CHEMICALS: SPONSORED CHEMICAL HHCB (Mar. 2008), *available at* www.epa.gov/hpvis/hazchar/1222055_HHCB_HC_INTERIM_February_2008.pdf (discussing the hazard information gathered for HHCB under the HPV program).

105. 15 U.S.C. § 2605(a).

humans and the environment, the benefits of the substance, the availability of substitutes, and the economic consequences of the rule.¹⁰⁶ After examining all these factors it then must select the *least burdensome* regulatory response from a list of possibilities.¹⁰⁷ In other words, this standard prescribes a cost-benefit analysis followed by the application of the weakest effective regulation response.

As previously discussed, the long-term effects of OWC exposure are largely uncertain and minor where known, which weighs heavily against a determination of “unreasonable risk.” In fact, the Fifth Circuit Court of Appeals has interpreted the showing of “unreasonable risk” to place such a high evidentiary burden on the EPA that, in *Corrosion Proof Fittings v. EPA*, it overturned a proposed ban on asbestos in the face of a 45,000 page record.¹⁰⁸ The court reasoned that the EPA failed to adequately consider the economic consequences and substitute products and to choose the least burdensome regulatory approach.¹⁰⁹ While asbestos restrictions were later passed, the fact that the EPA had trouble meeting this burden with asbestos—which has well-known and serious negative health consequences—indicates that making such a determination for OWCs may well be an impossible task.

TSCA suffers from crippling problems regarding information gathering and also requires a hopelessly enormous evidentiary burden that the EPA must overcome to promulgate any restrictive legislation. Since it was enacted in 1976, only five chemicals have been subjected to restrictions.¹¹⁰ TSCA is entirely incapable of being an effective mechanism for the restriction of OWCs.

D. The Clean Water Act

The Clean Water Act's stated goal is to “maintain the chemical, physical, and biological integrity of the Nation's waters.”¹¹¹ Under the CWA, “the discharge of toxic pollutants in toxic amounts [is] prohibited.”¹¹² Toxic pollutants are regulated in two ways: (1) national

106. *Id.* § 2605(c)(1)(A)–(D).

107. *Id.* § 2605(a).

108. *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1229–30 (5th Cir. 1991); *see also* JOHN S. APPLGATE ET AL., *THE REGULATION OF TOXIC SUBSTANCES AND HAZARDOUS WASTES* 635 (2000) (discussing the 45,000 page record).

109. *Corrosion Proof Fittings*, 947 F.2d at 1229–30.

110. CHEMICAL REGULATION REPORT, *supra* note 47, at 18 (the chemicals are PCBs, CFCs, dioxin, hexavalent chromium, and asbestos).

111. 33 U.S.C. § 1251(a).

112. *Id.* § 1251(a)(3).

effluent guidelines and (2) state water quality standards.¹¹³ Despite explicitly addressing toxic pollutants, however, the CWA is ineffective because of an outdated federal “toxic pollutant” list and the failure of states to adopt water quality standards for OWCs and other toxic pollutants.¹¹⁴

Generally speaking, when a pollutant is designated as toxic it can be regulated under the CWA through technology and water quality based effluent standards. Standards are dictated by the type of industry.¹¹⁵ The CWA mandates technology based standards for all toxic pollutants with the best available technology economically achievable required for existing sources and the best available demonstrated control technology for all new sources.¹¹⁶ Water quality based standards are mandated in situations where the technology standard would be inadequate to support the receiving water body’s “designated use.”¹¹⁷ Both standards are enforced through discharge permits that must be obtained through the NPDES.¹¹⁸ Neither standard applies, however, unless the compound appears on the federal toxic pollutant list or a state water quality standard.

The main approach used to identify a “toxic pollutant” under the CWA is a list of sixty-five compounds designated by the administrator of the EPA.¹¹⁹ This list can be amended by the EPA administrator upon consideration of “[the] toxicity of the pollutant, its persistence,

113. WATER POLLUTION REPORT, *supra* note 26, at 2.

114. *Id.* at 4.

115. 40 C.F.R. §§ 401–10 to 401.70 (listing the requirements for the many industries regulated under the NPDES program).

116. 33 U.S.C. §§ 1316(a)(2) (defining “new source”), 1317(a)(1)–(2).

117. The CWA requires that states designate particular uses for different water bodies within the state, including recreational, wildlife, and drinking water supplies. Water quality based standards are triggered only when the technology based standard would be insufficient to protect the designated use. 33 U.S.C. § 1313(c)(2)(A). *See also* EPA Glossary, *supra* note 3 (defining “designated use” as “[t]hose water uses identified in state water quality standards that must be achieved and maintained as required under the Clean Water Act. Uses can include cold water fisheries, public water supply, and irrigation.”).

118. The National Pollution Discharge Elimination System (“NPDES”) is a permit system created under the CWA which regulates the discharge of pollutants from point sources into the waters of the United States. Under NPDES, those desiring to discharge into U.S. waters must apply for a permit which establishes the quantities of various pollutants that may be discharged and testing requirements based on the type of facility and the quality of the receiving water body. *See* EPA, National Pollution Discharge Elimination System (NPDES), <http://cfpub.epa.gov/npdes/index.cfm> (last visited Feb. 28, 2010).

119. 33 U.S.C. § 1317(a)(1); 40 C.F.R. § 401.15 (listing the 65 designated chemicals).

degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms, and the nature and extent of the effect of the toxic pollutant on such organisms.”¹²⁰ While this provision gives the administrator broad discretion to amend the list based solely on human and environmental health factors, it has not been utilized and no compounds have been added to the list since the passage of the CWA.¹²¹ According to a GAO report, the list “does not include all of the most harmful toxic pollutants causing surface water quality problems” and “was intended to initially identify some of the most common and harmful pollutants; it was not to be considered a final or an all-inclusive list.”¹²² Further, since the first publication of the toxics list in 1978 three chemicals have been de-listed.¹²³ With over 1,000 new chemical substances being introduced each year, it seems clear that without substantial updating, the CWA’s toxics list is not an effective mechanism for regulating emerging environmental contaminants or even decades-old toxics problems.¹²⁴

The other avenue for regulating toxic pollutants under the CWA is through state water quality standards. Under the NPDES, all discharge permits must include limits for pollutants which “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard. . . .”¹²⁵ Most states’ water quality standards, however, establish limitations for only the most dangerous chemicals such as DDT, TCE, and Benzene.¹²⁶ Despite a requirement that states adopt numeric discharge limits for toxic pollutants in their water quality standards, many states have failed to do so.¹²⁷ As justification for noncompliance, state officials cite the uncertainty of scientific data, the risk that standards will create overly stringent permit limits, and the fear of lengthy

120. 33 U.S.C. § 1317(a)(1).

121. *Hercules, Inc. v. EPA*, 598 F.2d 91, 111 (D.C. Cir. 1978) (holding that 33 U.S.C. 1312(a) did not require the EPA to make considerations regarding economic or technological feasibility). *See also* EPA, Toxic and Priority Pollutants, <http://www.epa.gov/waterscience/methods/pollutants-background.htm> (last visited Feb. 28, 2010) (describing the establishment and subsequent modification of the toxic pollutant list) [hereinafter Toxic and Priority Pollutants].

122. WATER POLLUTION REPORT, *supra* note 26, at 17.

123. *See* Toxic and Priority Pollutants, *supra* note 121 (describing the establishment and subsequent modification of the toxic pollutant list).

124. WATER POLLUTION REPORT, *supra* note 26, at 8.

125. 40 C.F.R. § 122.44(d)(1)(i).

126. *See, e.g.*, 5 C.C.R. § 1002–31.11 (2008) (listing the State of Colorado’s Water Quality Standards).

127. 33 U.S.C. § 1313(c)(2)(B) (describing the requirement for states to adopt a numeric criteria for toxic pollutants); WATER POLLUTION REPORT, *supra* note 26, at 30 (discussing noncompliance).

rulemaking and litigation.¹²⁸ Regardless of the reasons, a GAO report cited the states' failure to adopt discharge limits for toxic pollutants in their water quality standards as one of the main shortcomings of the toxic pollutant control regime under the CWA.¹²⁹

On its face, the CWA appears to have teeth with which to regulate toxics, especially given the ability of the EPA to add to the toxic pollutant list without consideration of economic or technological feasibility.¹³⁰ Additionally, the CWA appears strong in its use of water quality standards on top of technological controls to attain goals as broad as the "propagation of a balanced population of shellfish, fish, and wildlife. . . ."¹³¹ In practice, however, the CWA has done little to curb the presence of toxic pollutants in the environment.¹³² This is especially worrisome given that statutes like RCRA defer to the CWA on the issue of toxic pollutants.¹³³ This added responsibility, however, has not been taken into account by regulators and has not led to more effective toxic regulations under the CWA.

E. Summary

After reviewing the major U.S. statutes addressing toxic water pollution, it is clear that each statute contains distinct shortcomings that make it inadequate to address the emerging problem of OWCs. RCRA exempts domestic wastewaters from regulation, placing the primary source of OWCs outside the scope of the statute.¹³⁴ FIFRA, which could cover very few OWCs, requires pesticide producers to provide human health and environmental safety data, but requires a cost-benefit analysis to deny pesticide registration.¹³⁵ TSCA, with its enormous procedural and evidentiary burdens, has proven effective in regulating only the most hazardous of toxic substances.¹³⁶ The CWA also comes up short with an outdated list of toxic chemicals that does not list the most problematic toxic surface water contaminants.¹³⁷ Additionally, states have been reluctant to adopt standards for toxic pollutants in their water quality

128. *Id.* at 30–31.

129. *Id.* at 4.

130. *Hercules, Inc. v. EPA*, 598 F.2d 91, 111 (D.C. Cir. 1978).

131. 33 U.S.C. §§ 1312(a), 1313(c)(2)(B), 1316(a)(1), 1317(a)(2).

132. WATER POLLUTION REPORT, *supra* note 26, at 21.

133. 42 U.S.C. § 6903(27).

134. 40 C.F.R. § 261.4(a)(1)(i)–(ii), (a)(2); 42 U.S.C. § 6903(27).

135. 7 U.S.C. § 136(bb).

136. CHEMICAL REGULATION REPORT, *supra* note 47, at 18.

137. WATER POLLUTION REPORT, *supra* note 26, at 17.

standards.¹³⁸ Given the inadequacy of these statutes, new approaches must be considered if the United States is to mitigate the risks that OWCs pose to human health and the environment.

IV. MODELS FOR A NEW TOXICS REGULATORY REGIME

While current federal environmental statutes have proven ineffective for controlling OWCs, both California and the European Union have passed measures that overcome many of the shortcomings present in U.S. toxics statutes. Both approaches place the burden of proving safety on the producers, users, and dischargers of the toxic chemicals. Additionally, each approach incorporates some form of the precautionary principle to aid in making regulatory decisions in the face of uncertainty.

A. California Proposition 65

In 1986, California passed the Safe Drinking Water and Toxic Enforcement Act, known as Proposition 65 (“Prop 65”).¹³⁹ Prop 65 creates a regularly updated list of compounds known to cause cancer or negatively impact reproductive health.¹⁴⁰ Prop 65 then bans discharging any compound on that list into a body of water that ultimately may be used as a drinking water source.¹⁴¹ The statute further requires businesses

138. *Id.* at 4.

139. See Clifford Rechtschaffen & Patrick Williams, *The Continued Success of Proposition 65 in Reducing Toxic Exposures*, 35 ENVTL. L. INSTITUTE 10850 (2005). It is interesting to note that Proposition 65 is now more than 23 years old and, despite its age, it is still effective at addressing the emerging toxic issues of today. This goes to show that a well formulated toxics regime can remain effective despite changed circumstances.

140. CAL. HEALTH & SAFETY CODE § 25249.8 (2008). See Guidelines for Reproductive Toxicity Risk Assessment, 61 Fed. Reg. 212:56274–56322 (proposed Oct. 31, 1996) at 5 (defining “reproductive toxicity” as “[t]he occurrence of biologically adverse effects on the reproductive systems of females or males that may result from exposure to environmental agents. The toxicity may be expressed as alterations to the female or male reproductive organs, the related endocrine system, or pregnancy outcomes. The manifestation of such toxicity may include, but not be limited to, adverse effects on onset of puberty, gamete production and transport, reproductive cycle normality, sexual behavior, fertility, gestation, parturition, lactation, developmental toxicity, premature reproductive senescence, or modifications in other functions that are dependent on the integrity of the reproductive systems.”). An updated list of the compounds on the Proposition 65 list is available at Office of Environmental Health Hazard Assessment, Proposition 65, http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html (last visited Feb. 28, 2010).

141. CAL. HEALTH & SAFETY CODE § 25249.5.

to provide reasonable warnings to individuals prior to exposing them to any compound on the list.¹⁴² This notice requirement creates a strong incentive for companies to remove Prop 65 chemicals from their products to avoid having to label products as containing toxins. To avoid these provisions, dischargers and manufacturers of listed compounds must show that “the exposure poses no significant risk assuming lifetime exposure at the level in question” and “that the exposure will have no observable effect assuming exposure at 1,000 times the level in question. . . .”¹⁴³ By using a factor of safety of 1,000, this provision aids in reducing uncertainty by requiring overwhelming proof of safety well beyond the expected exposure level. The list also creates a presumption of toxicity, requiring that those who will profit from the sale of the compounds prove safety, rather than requiring a regulatory agency prove harm. This incorporates the precautionary principle by erring on the side of safety.

Prop 65 also contains a citizen suit provision that allows “any person [acting] in the public interest” to pursue actions under the Act.¹⁴⁴ This is an extremely important provision because it allows any citizen, including nonprofit organizations, to enforce the statute. This takes enforcement pressure off government agencies and also allows enforcement independent of government agendas.¹⁴⁵ Mateel Environmental Justice Foundation, for example, has been responsible for bringing lawsuits against hundreds of companies over the last decade, leading to a series of settlements regarding product reformulation and the creation of warning labels.¹⁴⁶

While Prop 65 has received criticism in some cases for being overprotective and leading to frivolous lawsuits, it also has experienced great success by forcing the producers of consumer products that contain carcinogenic and reproductive toxins to reformulate their products.¹⁴⁷ Manufacturers of nasal sprays, shampoos, and playground equipment have agreed to settlements primarily out of fear of the effects that Prop 65 warning labels would have on sales of their products.¹⁴⁸ In fact, Prop 65 prompted some producers to go beyond statutory requirements and completely eliminate the use of any listed compound in their products.¹⁴⁹

142. *Id.* § 25249.6.

143. *Id.* § 25249.10(c).

144. *Id.* § 25249.7(d).

145. *Id.* §§ 25249.7(d), 25249.8(a).

146. Rechtschaffen & Williams, *supra* note 139, at 10851.

147. *Id.*

148. *Id.* at 10853–56.

149. Clifford Rechtschaffen, *The Warning Game: Evaluating Warnings Under California's Proposition 65*, 23 *ECOLOGY L.Q.* 303, 367–68 (1996).

Prop 65 has been successful because not only does it explicitly ban the discharge of toxic chemicals into drinking water sources, but its notice provisions also create incentives to eliminate the use of dangerous chemicals. The effects of reformulating consumer products extend beyond reducing exposures for the individuals using the products. By restricting the use of toxins in consumer products, those compounds are removed not only from industrial waste streams, but also from wastewater. Preventing the creation of pollution at the production stage eliminates the need to consider expensive treatment technologies. Additionally, the requirement of annual revisions and republication of the list builds flexibility into the statute, allowing the list of toxins to evolve as new compounds are created.¹⁵⁰

Overall, California's Prop 65 has reduced human and environmental exposure to carcinogenic and reproductive toxins.¹⁵¹ The success of this regime can be attributed to its ability to evolve—the statute is more than twenty years old—and to distribute the enforcement burden through its citizen suit provision. Prop 65 is a prime example of a successful long-term toxics regulation that deserves consideration by the federal government for future changes to its toxics policy.

B. Registration, Evaluation, Authorization, and Restriction of Chemicals

On June 1, 2007 the European Union's new approach to toxics regulation came into effect.¹⁵² Registration, Evaluation, Authorization and Restriction of Chemicals, or "REACH," was created on the premise that industry is in the best position to ensure that the chemicals it produces do not adversely affect humans or the environment.¹⁵³ The purpose of the regulation is to "ensure a high level of protection of human health and the environment," to "enhanc[e] competitiveness and innovation," and to explicitly incorporate the precautionary principle.¹⁵⁴ It is a comprehensive statutory regime that applies to all substances,

150. CAL. HEALTH & SAFETY CODE § 25249.8.

151. *See generally*, Rechtschaffen & Williams, *supra* note 139.

152. CHEMICAL REGULATION REPORT, *supra* note 47, at 3.

153. *See* ENVIRONMENT DIRECTORATE GENERAL, EUROPEAN COMMISSION, REACH IN BRIEF (Oct. 2007), *available at* http://ec.europa.eu/environment/chemicals/reach/pdf/2007_02_reach_in_brief.pdf.

154. Council Regulation 1907/2006 art. 1(1), (3), 2006 O.J. (L 396) 47 (EC) (REACH) [hereinafter REACH]; EPA Glossary, *supra* note 3 (defining "precautionary principle").

where “substance” is defined as “a chemical element and its compounds in the natural state or obtained by any manufacturing process. . . .”¹⁵⁵

As the name of the statute suggests there are four main components to REACH: (1) registration; (2) evaluation; (3) authorization; and (4) restriction. Similar to FIFRA, REACH is a market access statute requiring substances manufactured or imported in quantities greater than one ton per year to be registered to enter the market.¹⁵⁶ This includes substances manufactured outside the EU for direct or indirect sale to EU member countries.¹⁵⁷ Some have stated that REACH translates to “no registration–no global market.”¹⁵⁸ Under REACH, registration is based on the submission of “an extensive electronic dossier of information” about the substance.¹⁵⁹ The specific submission requirements are based on the tonnage of a substance being brought to the market.¹⁶⁰ For example, all substances in quantities greater than ten tons must complete a chemical safety assessment, which includes a human health hazard assessment, a physiochemical hazard assessment, an environmental hazard assessment, and a persistent, bioaccumulative, and toxic assessment.¹⁶¹ While arguments can be made that requiring industry to perform the testing can lead to bias, detailed testing methods have been mandated, which can reduce the potential for bias.¹⁶²

After the dossier has been submitted to the European Chemicals Agency, it is *evaluated* and then decisions are made on whether *restrictions* are necessary.¹⁶³ Restrictions are applied based on a finding of “unacceptable risk to human health or the environment. . . .”¹⁶⁴ Such a finding, however, must take into account the “socio-economic impact of the restriction. . . .”¹⁶⁵ While this provision uses a cost-benefit approach, which as previously mentioned is a major drawback for the regulation of OWCs, it does so after imposing significant information gathering

155. REACH *supra* note 154, at art. 2 (describing the general application and exemptions), art. 3(1).

156. *Id.* at art. 7(1)(a).

157. *Id.* at art. 6(1) (stating that importers are bound by the registration requirement).

158. AMERICAN PETROLEUM INSTITUTE, REACH: REGISTRATION, EVALUATION, AUTHORIZATION (AND RESTRICTION) OF CHEMICALS: A GUIDE FOR API MEMBERS 5 (2008), available at www.api.org/ehs/health/upload/API_REACH_Guide.pdf.

159. *Id.* at 8.

160. REACH, *supra* note 154, at art. 12.

161. *Id.* at art. 14(1)–(3).

162. See Council Regulation 440/2008, 2008 O.J. (L.142) 1 (EC).

163. REACH, *supra* note 154, at art. 20(2) (describing the completeness check), art. 41 (describing registration compliance check).

164. *Id.* at art. (68)(1).

165. *Id.*

requirements. By the time regulators reach the cost-benefit analysis in the registration process, they have gathered significant information about human health and environmental effects. Thus, unlike cost-benefit approaches under TSCA, REACH requirements serve to reduce scientific uncertainty and may more accurately represent the costs associated with the use of a substance, allowing for a more fair and accurate analysis.¹⁶⁶

The last prong of REACH is authorization. While all substances require registration to gain market access, high-risk compounds also require specific authorization before they can be placed in the marketplace.¹⁶⁷ Under this provision, those substances that have the highest potential to create significant environmental and human health risks are given the highest level of scrutiny. Regulators only grant authorization in situations where there is proof that risk has been adequately controlled, or where socioeconomic benefits outweigh the risk to human health *and* no suitable alternatives exist.¹⁶⁸ Thus, even if a compound passes the initial cost-benefit analysis its use can still be prohibited if safer alternatives exist.

Overall, REACH represents an important step forward in toxins regulation, given its ability to address both information gathering and uncertainty issues. These strengths also make it an excellent approach for regulating OWCs. Forcing chemical manufacturers to prove the safety of their chemicals relieves government agencies of an otherwise massive information gathering burden. This policy transfers the cost of such studies to the consumers of those products and not indiscriminately to all taxpayers. Additionally, REACH's information gathering requirements force the chemical manufacturers to address the issue of uncertainty by forcing them to prove safety in lieu of a government agency proving the need for regulation. Consequently, REACH represents an important example of a toxins regime that has the potential to effectively regulate OWCs and which is certainly more effective than the current U.S. toxins regulations.

166. According to a 2007 Governmental Accountability Office report, many aspects of the REACH regime have long been suggested to be added to TSCA in an effort to strengthen the statute. See CHEMICAL REGULATION REPORT, *supra* note 47 (providing a detailed comparison of TSCA and REACH).

167. REACH, *supra* note 154, at art. 57 (describing compounds that are included as high risk), art. 56 (describing authorization requirements).

168. *Id.* at art. 60(2) (discussing the risk control), art. 60(4) (discussing the cost-benefit analysis).

V. RECOMMENDATIONS

Given the unique characteristics of OWCs, an equally unique regulatory approach is necessary to effectively regulate them. There are several policy considerations that are particularly important when developing a regulatory scheme for OWCs. These include efficient information gathering, enforcement, and the ability to regulate in the face of uncertainty. Based on these policy considerations, a possible solution to the regulation of OWCs may lie in the marriage of principles from the European Union's REACH and California's Prop 65.

A. Policy Considerations

The first consideration is efficient information gathering. Research costs for OWCs are extremely high and should thus be borne by the party in the most economical position to perform the research.¹⁶⁹ Thousands of new chemicals are introduced each year and regulations must take this into account by placing the burden of proving safety on the manufacturer. A scheme requiring the government to independently test new compounds to ensure their safety—on top of the government's existing responsibility to monitor existing compounds—is infeasible and inefficient. Such an approach was unsuccessfully attempted in TSCA.¹⁷⁰ The chemical manufacturers who have developed, tested, and understand the complexities of these compounds are in the best position to perform further testing to ensure the safety of their products. Additionally, it is these companies that reap the benefits from selling these compounds, so in the interest of internalizing the externalities associated with the production and use of OWCs the manufacturers should absorb the costs.¹⁷¹ This is particularly true given that they can easily pass research costs on to consumers. Consequently, an approach such as that taken by REACH—requiring manufacturers to bear the burden of information gathering—is ideal for coping with information gathering issues.

169. As previously discussed, the information gathering costs associated with researching the long-term human and environmental effects of OWCs are extremely high given the number of compounds that need to be tested, the complex testing procedures that must be used for compounds at such low concentrations, and the time required to perform tests on long-term chronic exposures. *See supra* Section II of this Note.

170. *See supra* Section IV(A), (B) (discussing TSCA failings) of this Note.

171. *See* Economist.com, Economic Terms A-Z, available at <http://www.economist.com/research/Economics/alphabetic.cfm?term=externality> (last visited Mar. 7, 2010) (defining "externality" as the "costs or benefits arising from an economic activity that affect somebody other than the people engaged in the economic activity and are not reflected fully in [prices]").

Another important policy consideration is how to properly deal with high levels of scientific uncertainty. As previously discussed in Section II, the issue of uncertainty is closely tied to information gathering. Thus, a regime such as REACH, which requires the production of safety information, would go a long way to aid in the reduction of scientific uncertainty. Obviously, regulators can more easily respond to risks that have been studied than those about which little is known. In this way information gathering is important not only in allowing for the regulation of substances shrouded in scientific uncertainty, but also to ensure that the regulations that are implemented are appropriate and accurately address known risks. In addition to REACH's information gathering provisions, which aid in the reduction of uncertainty, its application of the precautionary principle is equally effective.¹⁷² By establishing in Article 1 that the precautionary principle underpins all of its provisions, the statute explicitly states the drafters' desire for restrictive regulation even in the face of some uncertainty.¹⁷³ This general principle is especially important for the regulation of OWCs, which tend to fall in the regulatory gray area due to scientific uncertainty. For OWCs, the application of the precautionary principle may be enough the tip the scale—particularly in situations where a cost-benefit analysis is used—in favor of restriction regulation. Thus, the combination of strict information gathering requirements and the application of the precautionary principle are important considerations in the reduction of uncertainty, a necessary condition for the regulation of OWCs.

In addition to policy considerations about the efficiency of information gathering, it is equally important to extend the idea of efficiency to enforcement. Strong and broad citizen suit provisions—such as those enacted in Prop 65—remove economic and time burdens that would otherwise fall on the government by allowing others to voluntarily perform the job of enforcement.¹⁷⁴ In some cases such provisions may even create a market for enforcement litigation, opening the door for nonprofit organizations to play a significant role in statutory enforcement.¹⁷⁵ Spreading enforcement responsibility is also particularly important in the face of the sheer number of OWCs that exist, as the government may have difficulty managing enforcement on its own.

172. REACH, *supra* note 154, at art. 1(3); EPA Glossary, *supra* note 3 (defining “precautionary principle”).

173. *Id.*

174. See CAL. HEALTH & SAFETY CODE § 25249.7(d).

175. Rechtschaffen & Williams, *supra* note 139, at 10851–52 (discussing the Mateel Environmental Justice Foundation and its enforcement efforts under Proposition 65).

B. Elements Necessary for Successful OWC Regulation

By now you are familiar with both the shortcomings of our current regulatory approach to toxic chemicals as well as the underlying policies that make such regulation difficult. With this in mind, I suggest that the following elements are essential to the construction of a new regulatory regime capable of addressing OWCs and other emerging toxic problems of the future.

1. Significant information gathering requirements prior to market access and proof that a compound is safe for humans and the environment prior to market access.

With 1,000 new chemicals being introduced each year, the only efficient way to evaluate the risk of these compounds is to require substantial research prior to their release into the market. Such requirements increase our knowledge base and are necessary so that policymakers can make informed regulatory decisions. Instead of perpetuating the status quo as a result of ignorance, information gathering requirements, such as those employed under REACH, will allow government agencies to make regulatory decisions based on science, and not the lack thereof. The data created will also aid independent researchers in deciding what compounds may deserve extra research. Further, the costs of uncertainty will be borne by those wishing to profit from the sale of a compound rather than the citizens and organisms exposed to poorly researched and regulated chemicals.

2. Research beyond initial registration.

As testing methods improve and research yields data, there may be a need for reevaluation of registered chemicals. It is important that manufacturers are not completely relieved of their research and safety obligations after an initial bout of studies. This could be especially important as scientists come up with better ways to test the synergistic effects of OWCs. It is also imperative that additional testing requirements not place insurmountable burdens on government agencies to justify regulation, such as the requirements under TSCA.¹⁷⁶ This issue can be partially mitigated if, like REACH, the new regime is premised on the application of the precautionary principle, which will help tip the scale in favor of safety.

¹⁷⁶ See *supra* Section IV(C) of this Note (discussing additional testing requirements under TSCA).

3. *Citizen suit provisions.*

As discussed, citizen suit provisions are powerful mechanisms for dispersing the enforcement burden. They also allow private actors to aid in enforcement independent of government agendas.

4. *Public notice requirements.*

There is a wealth of academic comment attesting to the efficiency and effectiveness of public notice requirements.¹⁷⁷ One of the main reasons that Prop 65 was so instrumental in the reformulation of many consumer products is that companies feared the impact a warning label would have on their sales. While it is true that the overuse of warnings can lead to label fatigue, selective use of this mechanism can be extremely effective.¹⁷⁸ Assuming that a new regime implements rigorous information gathering requirements, data should be available about risks, such as cancer and reproductive health, which can be effectively utilized under a public notice or labeling provision.

5. *Retroactive application.*

Grandfathering previously untested, unregistered, or even poorly evaluated registered chemicals in a new regime is not an option. Given that only about fifteen percent of all pre-manufacture notices under TSCA contain any health or safety data, it is imperative that a new regime not perpetuate the failings of the past.¹⁷⁹ As in REACH, all existing chemicals should be required to satisfy the new health and safety requirements.

6. *Nationwide testing, evaluation, and monitoring.*

A comprehensive nationwide study of the presence of OWCs in the environment and drinking water is necessary to understand the scope of this problem. While the U.S. Geological Survey has and is doing substantial research in this area, more resources are needed to undertake this massive task.¹⁸⁰ In 2008, Congress introduced the Water Assessment and Treatment Evaluation Research Study Act in an attempt to require the EPA to perform such a study. However, the bill was extremely

177. See Cliff Rechtschaffen, *How to Reduce Lead Exposures with One Simple Statute: The Experience of Proposition 65*, 29 ENVTL. L. REP. 10581 (1999); JAMES T. HAMILTON, *REGULATION THROUGH REVELATION: THE ORIGIN, POLITICS, AND IMPACTS OF THE TOXICS RELEASE INVENTORY PROGRAM* (2005).

178. See *id.*

179. CHEMICAL REGULATION REPORT, *supra* note 47, at 8.

180. See Kolpin et al., *supra* note 6.

rudimentary, failed to provide a funding mechanism, and never made it out of the House Committee on Energy and Commerce.¹⁸¹ In addition to a baseline study, there is need for ongoing testing to monitor changes and reevaluate risks. Given the scope and expense of such a testing and monitoring regime, a significant commitment from the states and the federal government will be necessary to effect this proposal.

VI. CONCLUSION

It was 1976 when Judge Skelly Wright wrote the following in *Ethly Corp. v. EPA*:

Man's ability to alter his environment has developed far more rapidly than his ability to foresee with certainty the effects of his alterations. It is only recently that we have begun to appreciate the danger posed by unregulated modification of the world around us, and have created watchdog agencies whose task it is to warn us, and protect us, when technological 'advances' present dangers unappreciated—or unrevealed—by their supporters. Such agencies, unequipped with crystal balls and unable to read the future, are nonetheless charged with evaluating the effects of unprecedented environmental modifications, often made on a massive scale. Necessarily, they must deal with predictions and uncertainty, with developing evidence, with conflicting evidence, and, sometimes, with little or no evidence at all.¹⁸²

Since then, not much has changed. The majority of U.S. toxic statutes were passed in the 1970s at the outset of the environmental movement and have seen little change since. The knowledge, experience, and expertise of environmental policymakers at that time pales in comparison to what they know today. Despite significant advances in science, technology, and political innovation, we still struggle with the same regulatory problems that existed in 1976. Judge Wright's quote is as applicable today as it was in 1976. This is a problem.

The methods embodied in our country's first crack at toxic regulation are inadequate for modern times. OWCs highlight this point. Currently, the rivers, lakes, and drinking water of our country contain low levels of hundreds of compounds about which we know very little. The compounds can also be detected in the tissue of humans and

181. See Water Assessment and Treatment Evaluation Research Study Act of 2008, H.R. 6820, 110th Cong. (2008).

182. *Ethyl Corp. v. EPA*, 541 F.2d 1, 6 (D.C. Cir. 1976) (en banc).

animals. In decades, when we have a better grasp of this issue, we may come to the realization that this was no problem at all; or, perhaps, we will come to the exact opposite conclusion. The predicament is that as our laws currently stand there is very little we can do to curb the continuation of this problem. We do not have enough information to regulate these emerging contaminants and we do not dedicate enough resources to research the 1,000 new chemicals that are being introduced every year. Without a substantial change in the way we approach toxic regulations this problem will be self-perpetuating.

On the bright side, implementing a new regulatory regime may be less difficult now than ever before, given that many U.S. companies have to meet REACH standards to do business in the European Union.¹⁸³ With chemical manufacturers in the United States being forced to conform to REACH requirements, implementing REACH type policies in the United States would be disruptive only to those not currently participating in the global market.¹⁸⁴ Additionally, the experience gained from watching the implementation of REACH in the European Union would allow U.S. regulators to address any inadequacies when translating such a regime to the United States. More than thirty years have passed since many of our statutes were enacted. Since then, our problems have changed and so too must our approach to regulation.

While OWCs may be easy to dismiss given their low concentrations, uncertain effects, often beneficial role in our society, and the presence of more publicized issues such as global climate change, it is important that we do not overlook them. Let us not forget about the ozone hole problem of the 1970s and 1980s that was caused by an atmospheric chlorine concentration of only around two parts per billion.¹⁸⁵ Even small, little known problems can have far reaching effects. Let us learn from Judge Wright and instead of equipping our agencies with crystal balls, equip them with sound science, so that our environmental regulations are shaped by what we know rather than what we do not.

183. David A. Wirth, *The EU's New Impact on U.S. Environmental Regulation*, 31 FLETCHER F. WORLD AFF. 91, 103 (2007).

184. REACH, *supra* note 154, at art. 6(1) (stating that importers are bound by the registration requirement).

185. DIANNE DUMANOSKI, *THE END OF A LONG SUMMER: WHY WE MUST REMAKE OUR CIVILIZATION TO SURVIVE ON A VOLATILE EARTH* 62 (2009).

Drilling in Ecologically and Environmentally Troubled Waters: Law and Policy Concerns Surrounding Development of Oil Resources in the Florida Straits

Jonathan P. White*

ABSTRACT

Suspicion, hostility, and political disengagement have attended the relationship between the United States and Cuba since Fidel Castro's 1959 Revolution. Separating the two nations ideologically and geographically are the Florida Straits, a body of water that serves as a conduit for the Gulf Stream, as well as the location of potentially lucrative offshore oil reserves. Cuba has made overtures to begin drilling in the Florida Straits. In light of the Deepwater Horizon oil spill catastrophe in the Gulf of Mexico, the environmental ramifications of drilling in the Florida Straits are glaring. There is the risk that oil from any spill could get caught in the Gulf Stream current passing through the Florida Straits and disperse to Florida beaches, a grave risk that the Deepwater Horizon spill itself poses. The Florida Straits also lie in an active hurricane zone. The potential for ecosystem disruption is large if drilling progresses haphazardly. Moreover, while Cuba has adopted progressive environmental laws, whether the country has the economic ability and political will to enforce those laws should offshore oil development proceed is unknown. For these reasons, Washington and Havana cannot expect their longstanding animosity to prove beneficial if either nation exploits offshore oil reserves in this region. This Note

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recommends that each nation take incremental steps to support pre-existing scientific and academic collaboration between parties in the United States and Cuba so that if drilling moves forward, there is a shared sense of purpose in ensuring that the ecological integrity of the Florida Straits does not suffer. This Note also examines U.S. and Cuban laws that may come to bear on offshore drilling, as well as the environmental and economic issues surrounding drilling in the Straits.

I. INTRODUCTION

Are the Florida Straits, the ninety-mile-wide body of water separating the Florida Keys from the island of Cuba, a new flashpoint in the race to exploit the world's oil reserves? If so, how might offshore oil development in the Florida Straits impact the complicated political relationship between the United States and Cuba, and what does development mean for the ecological integrity of the Straits?

Taking the first steps towards the industrialization of the Florida Straits, Cuba has allowed international energy companies to lease portions of the Straits for oil exploration.¹ In the United States, political fallout from high energy prices led Congress to lift an offshore drilling ban in 2008, though as this Note goes to print in May 2010, a massive oil spill in the Gulf of Mexico following the April 20, 2010, explosion and subsequent sinking of the Deepwater Horizon oil rig has put offshore drilling in limbo, with the Obama administration freezing plans to open more offshore waters for drilling.² The environmental and political consequences of the Gulf of Mexico spill could destroy momentum in both countries to drill for oil in the Florida Straits, though long before the Deepwater Horizon spill, some U.S. politicians cited Cuba's moves to drill for oil as a compelling reason to open U.S.-controlled portions of the Florida Straits for oil and gas leasing.³

The industrialization of the Florida Straits remains theoretical; there is no drilling taking place in U.S. or Cuban waters, though drilling off Cuba might occur in the near future through joint ventures between Cuba and Brazilian, Spanish, Indian, and Norwegian companies.⁴ In recent

1. Michael Janofsky, *Cuba Plans Offshore Wells Banned in U.S. Waters*, N.Y. TIMES, May 9, 2006, at A1.

2. John M. Broder, *Obama to Open Offshore Areas to Oil Drilling for First Time*, N.Y. TIMES, Mar. 30, 2010, at A1; David Ivanovich, *House Votes to Lift Offshore Drilling Ban*, HOUSTON CHRON., Sept. 24, 2008, at Business 1; Campbell Robertson & Henry Fountain, *President Warns of Wide Damage from Gulf Spill*, N.Y. TIMES, May 3, 2010, at A1.

3. Janofsky, *supra* note 1, at A1.

4. FactCheck.org, *Are the Chinese Drilling off the Coast of Cuba?*, <http://www.factcheck.org>.

years, the only oil exploration to occur in these waters took place when the Spanish oil company Repsol undertook prospective drilling ninety-five miles offshore of Key West, Florida, in 2004.⁵ Repsol discovered oil, though in insignificant quantities.⁶ Further indicative of the uncertain nature of any Florida Straits oil rush is the fact that drilling for oil off Florida has been controversial for decades.⁷ This debate has been so contentious that the pro-drilling administration of President George W. Bush looked to repurchase drilling leases in the Gulf of Mexico off the Florida panhandle in 2002.⁸

Nonetheless, it is conceivable that the Florida Straits will undergo some form of industrialization, in which case environmental laws in both Cuba and in the United States will play a critical role in protecting this shared tropical ecosystem. As Juan Leon, an employee at the Florida Keys Wild Bird Center, in Key Largo, Florida, told the *Atlanta Journal-Constitution* in 2006, drilling in Cuban waters necessarily affects Florida's coast. Leon commented on the prospect of drilling off Cuba: "That's absolutely scary. The [Florida] Keys don't have sandy beaches and you couldn't just scoop up oil if there was a spill."⁹ Moreover, the risk of oil development in the Straits threatens the entire ecosystem. Oil spills and industrial contamination do not adhere to political boundaries.¹⁰ Nor does aquatic life respect territorial boundaries; for example, dolphins stranded in 2005 in the Florida Keys immediately returned to Cuban waters once re-released into the wild.¹¹

factcheck.org/askfactcheck/are_the_chinese_drilling_off_the_coast.html (last visited May 2, 2010); David J. Lynch, *Cuba's Known for Cigars Now, But Oil Could Change That; Nation Could End Up Drilling as Close as 60 Miles off U.S. Shores*, USA TODAY, Feb. 22, 2007, at 1B; Anya Landau French, *Deepwater Horizon Oil Spill, A Lesson for U.S. – Cuba Engagement*, HAVANA NOTE, May 6, 2010, http://thehavananote.com/2010/05/deepwater_horizon_oil_spill_a.html#more (noting that a Spanish company might commence drilling in the Florida Straits in 2010).

5. Lynch, *supra* note 4.

6. *Id.*

7. See generally Edward A. Fitzgerald, *The Seaweed Rebellion: Florida's Experience with Offshore Energy Development*, 18 J. LAND USE & ENVTL. L. 1 (2002) (tracing the history of conflicts between Florida and the federal government over industrial development off the Sunshine State).

8. *Id.* at 67.

9. Mike Williams, *Oil Find Off Cuba Stokes Fears in U.S.*, ATLANTA J.-CONST., Dec. 31, 2006, at 4C.

10. The United States and Cuba agreed to a boundary splitting sovereignty over the Florida Straits in a series of diplomatic letters in 1977. See United States of America Cuba Maritime Boundary Modus Vivendi Effected by Exchange of Letters, U.S.–Cuba, Apr. 27, 1977, 28 U.S.T. 5285.

11. Transcript, A New Era for U.S.–Cuba Relations on Marine and Coastal Resources Conservation, Brookings Institution Panel Discussion (Apr. 28, 2009),

In examining possible Florida Straits oil drilling, this Note surveys the environmental laws in the United States and Cuba that may impact offshore drilling, as well as the ecological, economic, and infrastructural challenges associated with drilling in these troubled waters. Rather than critiquing each nation's environmental laws, this Note recognizes that the Florida Straits drilling matter brings into focus the turbulent relationship between Cuba and the United States. Thus, the Note's central recommendations center around easing barriers to dialogue between scientists and policy leaders on both sides of the waters.¹² Whether each nation has effective environmental laws is less relevant if dialogue over the shared Florida Straits ecosystem does not exist.

As a practical matter, this Note begins with a discussion of the environmental laws in both Cuba and the United States that will come to bear on offshore mineral development. Second, the Note examines the United Nations Convention on the Law of the Sea treaty and ways that this global treaty might impact protection of these waters. Third, this Note explores non-legal economic and environmental issues involved in the drilling debate, notably the risks posed by industrial pollution in the Florida Straits and whether Cuba has the economic wherewithal to spearhead industrialization. The Note concludes with an argument that the Florida Straits drilling issue has the potential to be a starting point for a more productive U.S.-Cuban relationship if both countries come to recognize the value of collaboration over protecting these tropical waters. Cuban and U.S. scientists and attorneys already speak to each other regarding protecting the marine resources of the Florida Straits, and laws should encourage, rather than hamper, their continued collaboration.

II. LAWS CURRENTLY GOVERNING OIL AND GAS DEVELOPMENT IN THE FLORIDA STRAITS

A. United States Environmental Law

In order for oil drilling to occur in U.S.-controlled waters off the Florida Keys, federal and state interests must align, and the Department of the Interior must perform environmental impact assessments. The

available at www.brookings.edu/~media/Files/events/2009/0428_cuba/20090428_cuba.pdf, at 89 (remarks by Dr. Robert Hueter, Senior Scientist and Director, Center for Shark Research, Mote Marine Lab).

12. Some have noted that the April 2010 Deepwater Horizon oil spill in the Gulf of Mexico makes dialogue between the United States and Cuba an imperative if Cuba drills in its offshore waters because the two countries share the ecosystem and need joint contingency planning. *See* French, *supra* note 4.

following overview of the U.S. laws governing offshore development notes the federal-state cooperative relationship, which is critical to the issue of offshore development in the Florida Straits because of Florida's historic intransigence over any offshore development that might threaten its economically important marine resources.

As a general matter, the United States federal government oversees offshore oil drilling pursuant to an Executive Order issued by President Harry Truman in 1945 that declared "that the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas . . . appertain to the United States."¹³ The individual states generally control tidal areas up to three miles offshore, though along Florida's Gulf coast, state-controlled waters extend nearly nine miles offshore.¹⁴ Accordingly, responsibility for the development of oil in U.S.-controlled waters of the Florida Straits vests in the federal government.¹⁵

Despite federal control of offshore resources, the State of Florida has influence over the management of the Florida Straits under the terms of the federal Coastal Zone Management Act ("the CZMA"). The CZMA envisions a cooperative relationship between the states and the federal government over coastal resources.¹⁶ Under the CZMA, projects initiated by federal agencies in offshore areas that impact state-controlled coastal waters must be "consistent to the maximum extent practicable" with individual state coastal management plans.¹⁷ In exchange for the federal government's obligation to ensure consistency with individual state plans, the CZMA requires coastal states to implement their own state-specific coastal zone management plans.¹⁸ Therefore, the federal government must consider Florida's designs over management of its coastal waters in light of the CZMA's model of "cooperative federalism."¹⁹ In the end, however, the Secretary of Commerce must

13. Exec. Order No. 9,633, 10 Fed. Reg. 12,305 (Sept. 28, 1945).

14. 43 U.S.C. § 1301(a)(2) (2010); *U.S. v. Louisiana*, 364 U.S. 502, 503 (1960) (noting that the state-controlled waters off the Florida and Texas Gulf coasts extend three leagues). See [Unitconversion.org](http://www.unitconversion.org/length/league-conversion.html), League Conversion, <http://www.unitconversion.org/length/league-conversion.html> (showing that three leagues is nine miles) (last visited Apr. 7, 2010).

15. *United States v. California*, 332 U.S. 19, 34 (1947).

16. Rachael E. Salcido, *Offshore Federalism and Ocean Industrialization*, 82 TUL. L. REV. 1355, 1381–82 (2008) (tracing the development of offshore development laws and detailing the interaction between state and federal laws in managing offshore development).

17. 16 U.S.C. § 1456(c)(1)(A) (2010).

18. *Id.* § 1455(d) (2010).

19. Salcido, *supra* note 16, at 1382–83 (noting that one of the shortcomings of the federal–state consistency approach is that states often have shorter time frames for completing their consistency findings than the federal government has for conducting its environmental impact reviews, making harmonization of federal and state plans difficult).

approve each state's coastal zone management plan, and the Secretary of Commerce is the final decisionmaker if a state challenges a federal offshore drilling plan on the grounds that the plan is inconsistent with the state's coastal zone management plan.²⁰ As a result, a federal imprimatur constrains state plans.

Turning to Florida law, the state's coastal zone management plan operates as the Florida Coastal Management Program ("the FCMP"), promulgated under the Florida Coastal Management Act.²¹ The FCMP comprises twenty-four statutes designed to "protect and enhance" Florida's "natural, cultural, and economic coastal resources."²² A portion of the FCMP details how consistency analyses should be conducted.²³ One pertinent FCMP section for offshore energy exploration is Florida's Ocean and Coastal Resources Act.²⁴ The Ocean and Coastal Resources Act mandates environmentally sustainable development of the Sunshine State's coastal areas, and that mandate, however ambiguous, must be reconciled with federal plans for oil drilling off Florida's coast.²⁵ The Ocean and Coastal Resources Act thus memorializes the importance of Florida's marine environments.²⁶ The law states that "Florida's oceans and coastal resources comprise habitats that support endangered and threatened species and extraordinary marine biodiversity," and that "[t]he coral reefs of southeast Florida and the barrier reef of the Florida Keys, the only barrier reef in the United States, are a national treasure and must continue to be protected."²⁷ These words set a high bar for environmentally sensitive offshore development, though at the moment, Florida does not have laws addressing offshore drilling because of the various drilling moratoria protecting the state's coastal waters.²⁸ Lastly,

20. 16 U.S.C. § 1454 (2010); *Mobil Oil Exploration & Producing Se., Inc. v. United States*, 530 U.S. 604, 610 (2000) (noting states can object to federal offshore development proposals but that the Secretary of Commerce may override the state objections). *See also* Florida Department of Environmental Protection, Florida Coastal Management Program: Federal Consistency, <http://www.dep.state.fl.us/cmp/federal/index.htm> (noting the Department of Commerce may override a state's consistency findings) (last visited May 16, 2010).

21. FLA. STAT. § 380.20 (2010); Florida Department of Environmental Protection, Florida Coastal Management Program, <http://www.dep.state.fl.us/cmp/default.htm> (last visited May 16, 2010).

22. Florida Coastal Management Program, *supra* note 21.

23. FLA. STAT. § 380.23 (2010).

24. Oceans and Coastal Resources Act, FLA. STAT. §§ 161.70–161.76 (2010).

25. *Id.* at § 161.72(m). *See generally* Florida Coastal Management Program, *supra* note 21.

26. *Id.* at § 161.72(a)–(m).

27. *Id.* at § 161.72(d), (e).

28. COLLINS CENTER FOR PUBLIC POLICY, POTENTIAL IMPACTS OF OIL & GAS EXPLORATION IN THE GULF: A REPORT TO THE CENTURY COMMISSION FOR A SUSTAINABLE

under the FCMP, the Florida State Clearinghouse serves as the primary state agency for consistency reviews, and that agency consults with eight other state agencies to evaluate and comment upon any proposed federal program.²⁹ Considered together, these laws suggest that protection of Florida Straits marine resources in U.S. waters will occur through a collaborative evaluation period among both state and federal agencies.

Federal-state consistency is not the only prerequisite for drilling to proceed in U.S. waters. Returning to federal law, in order for drilling to commence in U.S.-controlled portions of the Straits, the Secretary of the Interior (“the Secretary”) must undertake an environmental review process.³⁰ First, before the actual environmental review takes place, the Secretary must develop a five-year leasing program that authorizes drilling, a requirement imposed by the Outer Continental Shelf Lands Act (“the OCLSA”).³¹ The OCLSA states that the Secretary’s lease program shall include a schedule for prospective lease sales that details the lease size, timing, and location.³² The lease program is comprehensive; it covers all potential development in all U.S. offshore waters in the specified five-year period.³³ The Secretary has authority under the OCLSA to grant a lease to the highest bidder once the Department of the Interior opens leasing pursuant to its planned schedule.³⁴ As a result, Florida Straits offshore waters would have to be included in a five-year offshore drilling lease plan in order to be opened to oil and gas exploration.

As mentioned, an environmental impact review must occur before any drilling takes place, and this step happens after the Secretary releases the five-year lease plan.³⁵ The Minerals Management Service (“MMS”), a bureau of the Department of the Interior, conducts the environmental impact reviews.³⁶ MMS oversees all oil and natural gas deposits located

FLORIDA 8 (2010), available at http://www.collinscenter.org/resource/resmgr/century_com_oil_drilling/final_oil_draft_-_formatted.pdf.

29. Florida Department of Environmental Protection, State Clearinghouse Manual, http://www.dep.state.fl.us/secretary/oip/state_clearinghouse/manual2.htm (last visited May 18, 2010).

30. 43 U.S.C. § 1346(a) (2010).

31. 43 U.S.C. § 1344(a) (2010).

32. *Id.*

33. See MINERALS MANAGEMENT SERVICE, OFFSHORE ENERGY AND MINERALS MANAGEMENT, <http://www.mms.gov/offshore/> (last visited May 2, 2010).

34. 43 U.S.C. § 1337(a)(1) (2010).

35. See 43 U.S.C. § 1346(a), *supra* note 30. See also 43 U.S.C. § 1344(a)(1)(H) (stating that a leasing program shall abide by “relevant environmental and predictive information for different areas of the outer Continental Shelf”).

36. See MINERALS MANAGEMENT SERVICE, OIL AND GAS LEASING ON THE OUTER CONTINENTAL SHELF 1–3, http://www.mms.gov/PDFs/5MMS_Leasing101.pdf (last

in the outer continental shelf.³⁷ If drilling in the Florida Straits proceeds, MMS will first prepare a comprehensive “Programmatic Environmental Impact Statement” supporting the Secretary’s five-year leasing plan and covering all areas proposed for leasing, be it Florida Straits, Gulf of Mexico, or Pacific Ocean waters.³⁸ MMS will then complete either a secondary environmental impact statement, or a shorter environmental assessment, once a specific block of offshore land has been leased, and this second environmental impact statement is specific to the block to be leased.³⁹ The OCLSA describes the procedure for the MMS to follow in conducting these environmental impact reviews.⁴⁰ The process contemplates a public notice and comment period, and a notice and comment period from individual state governments impacted by the proposed leasing.⁴¹ Importantly, the OCLSA obligates the Secretary to consider “the potential impact of oil and gas exploration on . . . the marine, coastal, and human environment.”⁴² Because U.S. laws mandate this environmental impact review process by MMS, proposed offshore industrial activities must conform to minimum environmental standards, underscored by the directive to consider potential impacts. This review process, along with the consistency requirements, creates a layering effect to environmental safeguards covering development in U.S. offshore waters. Following the Deepwater Horizon oil spill, controversy has engulfed MMS, and the Obama administration has proposed splitting the agency, separating its compliance section from other divisions to reform its allegedly industry-friendly practices.⁴³

visited May 2, 2010). The National Environmental Policy Act (NEPA) officially commands environmental impact statements by federal agencies. 42 U.S.C. § 4332(C) (2010).

37. *Id.* See also MINERALS MANAGEMENT SERVICE, ABOUT THE MINERALS MANAGEMENT SERVICE, <http://www.mms.gov/aboutmms/> (last visited May 2, 2010).

38. MINERALS MANAGEMENT SERVICE, ENVIRONMENTAL STEWARDSHIP AT MMS, <http://www.mms.gov/eppd/index.htm> (last visited May 3, 2010).

39. *Id.* See also Gulf of Mexico Outer Continental Shelf, Western Planning Area, Oil and Gas Lease Sale 200, 71 Fed. Reg. 16825 (Apr. 4, 2006) (providing an example of an environmental assessment, a type of study that is similar to, but shorter than, an environmental impact study, and which the MMS uses for offshore drilling lease sales); *Mid-Shiawassee County Concerned Citizens v. Train*, 408 F.Supp. 650, 654–55 (E.D. Mich. 1976) (describing an environmental assessment as a “mini EIS”).

40. 43 U.S.C. § 1344(c) (2010).

41. *Id.*

42. *Id.* at (a)(1).

43. Juliet Eilperin & Ed O’Keefe, *Offshore Drilling Agency to Be Carved in Two; Interior Secretary Wants Compliance Duties Split from Royalties Collection*, WASH. POST, May 12, 2010, at A1. MMS has come under fire following the Deepwater Horizon oil spill for corruption and lax, industry-friendly oversight of offshore drilling. See Eric Lipton & John M. Broder, *Regulators’ Warnings Weren’t Acted On*, N.Y. TIMES, May 8,

So far, this discussion of U.S. laws has detailed the environmental laws that would be triggered should offshore oil development proceed in waters off the Florida Keys. Yet before these laws come into play, politically inspired offshore drilling moratoria must first expire.⁴⁴ These moratoria are as relevant to the drilling issue as the legal regime governing development in U.S. offshore waters. In the event that the Deepwater Horizon oil spill becomes a far-reaching environmental calamity, these moratoria may see enhanced public support.

Moratoria on offshore drilling reflect skepticism among the American public over offshore energy development. Restrictions on offshore development have enjoyed public support in recent decades, with a massive 1969 oil spill off Santa Barbara, California, frequently identified as the catalyst for politically driven offshore development limitations.⁴⁵ The Santa Barbara spill scarred thirty-plus miles of Pacific coastline with inches-deep oil.⁴⁶ Emblematic of the subsequent erosion of public confidence in offshore development, offshore oil and gas leasing has been largely restricted since 1982.⁴⁷ Lately, opposition to offshore drilling has declined with increased gasoline and energy costs.⁴⁸ In July 2008, President George W. Bush lifted an executive ban on offshore drilling.⁴⁹ Responding to a change in attitude over offshore drilling, the U.S. House of Representatives let the long-standing ban expire in September 2008.⁵⁰ The move lifted the moratorium on offshore drilling off both the Atlantic and Pacific coasts.⁵¹ The Senate followed the House's lead, incorporating the lifting of the moratorium into a government spending bill that President Bush signed in to law on September 30, 2008.⁵² President Barack Obama's March 31, 2010, move to open large areas of the southeast Atlantic coastline, including areas off Florida's Atlantic coast, to oil exploration demonstrates the evolution in public attitudes towards offshore drilling, though the Obama administration has since backed down on its offshore drilling plans in light of the Deepwater Horizon oil spill.⁵³

2010, at A12.

44. See Fitzgerald, *supra* note 7, at 18–20.

45. Lynch, *supra* note 4.

46. *Id.*

47. Ivanovich, *supra* note 2.

48. *Id.*

49. *Id.*

50. *Id.*

51. *Id.*

52. Carl Hulse, *Congress Sends Interim Bill to Bush*, N.Y. TIMES, Sept. 28, 2008, at A29; *Bush Approves \$25 Billion Loan Package for Auto Makers*, Reuters, Oct. 1, 2008, available at <http://www.reuters.com/article/domesticNews/idUSTRE48Q2WI20081001>.

53. Juliet Eilperin & Anne E. Kornblut, *President Obama Opens New Areas to*

Despite Washington's recent approval of new offshore oil and gas development, drilling off Florida's coast is a more uncertain matter, given the moratoriums unique to that state's offshore waters. A 2006 moratorium on drilling off Florida's Gulf coast bars industrial leasing and development until the year 2022.⁵⁴ The moratorium, part of federal legislation entitled the Gulf of Mexico Energy Security Act, barred "leasing, preleasing, or any related activity" in areas of the Gulf within 100 or 125 miles of Florida's coast in exchange for opening 8.3 million acres for oil and gas leasing in other parts of the Gulf.⁵⁵ The discrepancy in the 100 or 125 mile limitation arises from the division of the Gulf of Mexico into several lease planning zones by the MMS.⁵⁶ The 2006 moratorium remains in effect despite the abandonment of offshore drilling bans by the federal government in the fall of 2008.⁵⁷ The prohibitions in the Gulf of Mexico Energy Security Act demonstrate that for drilling to proceed in the Florida Straits, Congress must repeal bans on drilling in offshore waters around Florida's Gulf coast.

These moratoria, along with the MMS environmental review process and the federal-state consistency review process, reveal the layered complexity of the U.S. legal regime relating to offshore drilling. The previously described legal checks indicate that drilling in the U.S.-

Offshore Drilling, WASH. POST, April 1, 2010, at A1; Robertson & Fountain, *supra* note 2. The impact of the Deepwater Horizon oil spill on public attitudes towards offshore drilling is uncertain as this Note goes to print. There is some evidence of a shift in public opinion against offshore drilling. See Eilperin & O'Keefe, *supra* note 43 (noting declining support for offshore drilling). Meanwhile, some May 2010 polls show many Americans still favor offshore drilling. See Louise Radnofsky & Jean Spencer, *Public Still Backs Offshore Drilling*, WALL ST. J., May 13, 2010, at A4 (noting six out of ten participants in a May 2010 survey expressed support for drilling).

54. 43 U.S.C. § 1331, Amend. Dec. 20, 2006, at 104(a) (2010).

55. *Id.*; MINERALS MANAGEMENT SERVICE, GULF OF MEXICO ENERGY SECURITY ACT, <http://www.mms.gov/offshore/GOMESARRevenueSharing.htm> (last visited May 18, 2010).

56. *Id.*; Press Release, Minerals Management Service, Fact Sheet, Minerals Management Service and the Gulf of Mexico Energy Security Act of 2006 (Mar. 20, 2008), available at <http://www.mms.gov/ooc/press/2008/FactSheet-MMSGOMSecurityActMARCH202008.htm>. Florida's Gulf of Mexico coastline lies adjacent to the MMS Central Planning Area, which spans the Gulf coast from the Texas-Louisiana border to the Alabama-Florida border, while the Eastern Planning Area encompasses the entire Gulf coast of Florida. See MINERALS MANAGEMENT SERVICE, MMS GULF OF MEXICO REGION PLANNING AREAS AND ACTIVE LEASES, http://www.gomr.mms.gov/homepg/lseale/mau_gom_pa.pdf (last visited May 15, 2010). Current moratoria on offshore drilling prohibits drilling within 100 miles of the Florida coast in the Central Gulf Planning Area, and 125 miles in the Eastern Gulf Planning Area. See 43 U.S.C. § 1331, Amend. Dec. 20, 2006, at 104(a) (2010).

57. Wes Allison, *Eastern Gulf Part of U.S. Energy Review*, ST. PETERSBURG TIMES, Feb. 11, 2009, at 2A.

controlled waters of the Florida Straits must meet environmental thresholds. The impact of drilling must be assessed by state and federal agencies, and undoubtedly litigation challenging the agencies' decisions will follow. Looking beyond the laws that might safeguard the Florida Straits, some have suggested that the best stewards of U.S. offshore waters are voters, who maintain pressure on politicians in states like Florida to limit offshore leasing.⁵⁸ In the end, public sensitivities over offshore drilling, heightened by the Deepwater Horizon oil spill, as well as the layers of legal hurdles, make drilling off Florida an uncertain matter.

B. Cuban Environmental Law

Environmental regulations in Cuba protect the Caribbean's "most ecologically diverse island."⁵⁹ The island's coastal zone harbors mangroves, tropical forests, coral reefs, estuaries, archipelagos similar to the Florida Keys, and long stretches of white sand beaches.⁶⁰ Cuba has embraced sustainability to protect these outstanding natural resources, and it has implemented laws reflecting sustainability's core tenets.⁶¹ This Section explores Cuban environmental laws that may impact development of the nation's offshore oil deposits, as well as the nation's policy-driven National Environmental Strategy as it pertains to offshore development.

Placed in historical context, Fidel Castro's speech at the 1992 World Summit in Rio de Janeiro was a watershed moment reflecting Cuba's emerging environmentalism.⁶² Castro spoke in Rio while Cuba found itself in an economic tailspin following the end of the Cold War and the Soviet Union's collapse; Moscow had been Havana's economic lifeline since the 1959 revolution ("the Revolution") that ushered in the Castro regime.⁶³ Signaling the start of a new era for the beleaguered nation, Castro aligned environmentalism with communist ideology in his Rio speech, stating: "If we want to save humanity from destroying itself, we have to distribute more equitably the riches and the available technologies on this planet No more transfer to the Third World of

58. See Fitzgerald, *supra* note 7, at 72.

59. Daniel J. Whittle, Kenyon C. Lindeman & James T.B. Tripp, *International Tourism and Protection of Cuba's Coastal and Marine Environments*, 16 TUL. ENVTL. L.J. 533, 534 (2003).

60. *Id.* at 538.

61. Oliver A. Houck, *Environmental Law in Cuba*, 16 J. LAND USE & ENVTL. L. 1, 13-15 (2000).

62. *Id.* at 15-16.

63. Whittle, Lindeman & Tripp, *supra* note 59, at 535, 548.

lifestyles and habits of consumerism that ruin the environment. Make human living more rational.”⁶⁴ Prior to Rio, Cuba took steps towards creating a national environmental mandate with Cuba’s 1976 constitution identifying the need to protect the air, water, and soil, and with Cuba’s adoption of a comprehensive environmental law in 1981.⁶⁵

Reflecting Castro’s Rio sentiments, the Cuban National Assembly of the People’s Power promulgated Law No. 81, the “Law of the Environment,” in 1997.⁶⁶ The law is Cuba’s flagship environmental statute.⁶⁷ This expansive law established the following foundations for environmental law in Cuba. First, it confirmed the Ministry of Science, Technology, and the Environment (“CITMA”) as the bureaucratic arm that oversees the nation’s environment and administers its environmental laws.⁶⁸ The Cuban government created CITMA three years prior in 1994.⁶⁹ Second, Law No. 81 charges the state with oversight of natural resources by reaffirming state sovereignty over the environment as expressed in the Cuban Constitution.⁷⁰ Third, Law No. 81 set six policy objectives, detailed as follows in Article 9:

- a) to create a legal context that favors the design and development of socioeconomic activities in ways that are compatible with the protection of the environment;
- b) to establish principles to guide the actions of natural and legal persons in environmental matters, including the mechanisms of coordination among the various agencies and bodies for efficient management;
- c) to promote public participation in environmental protection and in sustainable development;

64. Houck, *supra* note 61, at 16.

65. *Id.* at 14–15.

66. Law No. 81, Law of the Environment, National Assembly of the People’s Power (June 11, 1997), available at <http://www.medioambiente.cu/legislacionE/leyes/L-81.htm> (Spanish version). See also CUBAN ENVIRONMENTAL LAW: THE FRAMEWORK ENVIRONMENTAL LAW AND AN INDEX OF CUBAN ENVIRONMENTAL LEGISLATION (Jerry Speir ed., 1999) (English translation); Houck, *supra* note 61, at 23–25.

67. Whittle, Lindeman & Tripp, *supra* note 59, at 566–67.

68. Law No. 81, *supra* note 66, art. 11.

69. Oliver Houck, *Cuba’s New Law of the Environment: An Introduction*, CUBAN ENVIRONMENTAL LAW: THE FRAMEWORK ENVIRONMENTAL LAW AND AN INDEX OF CUBAN ENVIRONMENTAL LEGISLATION, *supra* note 66.

70. Law No. 81, *supra* note 66, art. 2; CITMA, NATIONAL ENVIRONMENTAL STRATEGY 2007–2010 at 11, available at http://www.edf.org/documents/9623_Cuba_Enviro_Strategy_2007-2010.pdf (citing art. 27 of the Constitution of the Republic) (last visited May 17, 2010).

- d) to develop public awareness regarding environmental problems by integrating education, disclosure, and environmental information;
- e) to regulate the development of evaluation, control and surveillance activities regarding the environment;
- f) to foster the protection of human health, improvement of the quality of life and of the environment in general.⁷¹

These ambitious objectives encompass matters ranging from passing laws, to educating the public, to managing human health. Imbued with this broad policy-driven foundation, Law No. 81 is the animating force behind any environmental measure that Cuba adopts, and it is in Law No. 81 that protection for Cuba's Florida Straits waters originates.

Towards that end, Law No. 81 may come to bear on offshore oil drilling in several ways. First, the law comprehends the regulation of marine resources and Cuba's maritime zones in Chapter IV.⁷² That chapter obligates Cuban citizens and "every natural and legal person" to protect and conserve the country's aquatic ecosystems in a manner that balances development with environmental sensitivities; this mandate presumably reaches corporations operating in offshore waters.⁷³ Chapter IV also issues strong prohibitions against water pollution.⁷⁴ Most importantly for Florida Straits drilling concerns, Article 103 of Chapter IV, which pertains to "activities directed at the exploration and exploitation of the seabed and its resources," requires that such activities take place without impairment to marine ecosystems.⁷⁵

Second, Law No. 81 will impact offshore drilling because it establishes environmental impact reviews and government licensing for projects initiated by any party, be it the Cuban government or foreign entities, provided that the project has "significant environmental effects."⁷⁶ The statute refers to the reviews as "Environmental Impact Assessments" ("EIAs"), and it includes an exhaustive list of activities subject to these EIAs.⁷⁷ On that list of activities are both mining and "drilling wells to extract hydrocarbons."⁷⁸ Thus, if oil drilling proceeds in Cuba's portion of the Florida Straits, Law No. 81 commands environmental permitting and review.

71. Law No. 81, *supra* note 66, art. 9(f).

72. *Id.* art. 99.

73. *Id.* art. 92(a).

74. *Id.* art. 93(b).

75. *Id.* art. 103.

76. *Id.* art. 24.

77. *Id.* art. 28.

78. *Id.* art. 28(e), (r).

Finally, Law No. 81 creates administrative, civil, and criminal causes of action for violations of environmental laws, and it outlines remedies. The law provides administrative penalties in the form of fines for “violations of the requirements established in legislation complementary to this Law.”⁷⁹ Other provisions provide civil liability for polluters for acts or omissions that harm the environment, and the same provisions mandate that polluters stop their harmful activities and clean up any damage caused.⁸⁰ The law alludes to criminal penalties for “socially dangerous acts . . . against the protection of the environment,” but provides little detail.⁸¹ Dr. Orlando Rey Santos, a Cuban attorney and the Director of the Environmental Directorate at CITMA, notes that the criminal penalty reference is critical, because it is the first time the environment itself received protection under a criminal statute.⁸² Presumably, as the language regarding administrative penalties above implies, Law No. 81 creates a foundation for more detailed laws and associated sanctions in the future.⁸³ Lastly, the law permits judicial review of conflicts arising from its specific provisions.⁸⁴ By incorporating these causes of action and suggesting that the government can expand upon these principles with future legislation, Law No. 81 is more than aspirational and sets forth an enforcement regime that complements the environmentalism Castro espoused at Rio.

In total, Law No. 81 creates the framework for regulation of offshore oil drilling in Cuban waters. Its expansive policy provisions, which create a “legal context” to encourage sustainable development, indicate that it is within the authority of the National Assembly of the People’s Power to pass additional laws to further this objective.⁸⁵ Theoretically, that political body could enact a more specific environmental statute under the auspices of Law No. 81 to address offshore drilling matters. Moreover, the fact that this cornerstone environmental law includes a provision dealing with seabed resource exploitation in Article 103 suggests that any regulation of future offshore drilling has a legal foundation whether or not Cuba passes further offshore environmental regulations. Lastly, the law provides a cause of action under Cuban law for environmental destruction that impairs the Florida Straits ecosystem.

79. *Id.* art. 67.

80. *Id.* arts. 70–74.

81. *Id.* art. 75.

82. E-mail from Dr. Orlando Rey Santos, CITMA (Mar. 9, 2010) (on file with Colo. J. Int'l Envtl. L. & Pol'y).

83. Law No. 81, *supra* note 66, arts. 67, 74.

84. *Id.* at Special Provisions, First.

85. *Id.* art. 9.

Beyond Law No. 81, another essential regulation that would impact offshore drilling in Cuba is Resolution 132/2009, a regulation established under Law No. 81's framework.⁸⁶ Resolution 132/2009 outlines environmental impact review in Cuba.⁸⁷ This law, put into effect in August 2009, updated a 1999 law with a similar purpose.⁸⁸ The law is important because it mandates the dissemination of information on environmental impacts with the goal of mitigating and controlling adverse impacts.⁸⁹ Under Resolution 132/2009, CITMA has jurisdiction over the environmental review process, termed "the Environmental Impact Evaluation" ("EIE") in a variation from the EIA name assigned under Law No. 81.⁹⁰ The EIE is an information gathering step towards the award of an environmental license. Resolution 132/2009 requires that new projects involving "integrated chemical and petrochemical installations," as well as "mining activities," undergo an EIE.⁹¹ To complete an EIE, the party behind the proposed project must submit a report that identifies environmental impacts, methods of preventing or mitigating problematic environmental impacts, as well as monitoring mechanisms.⁹² If the information submitted by the proponent of a project is insufficient, the branch of CITMA overseeing the review may solicit additional information.⁹³ The law empowers CITMA to grant an environmental license, reject a license, or subject approval of a license following the EIE to a more comprehensive study, the Environmental Impact Study ("EIS").⁹⁴

The EIS expands the information available to CITMA.⁹⁵ The EIS must include information in eighteen discrete categories.⁹⁶ These categories range from detailing the characteristics and duration of foreseen impacts on the environment, health, and quality of life of the Cuban people, to supplying information about an environmental

86. Resolution 132/2009, Regulation of the Environmental Impact Evaluation, pmbl., Ministry of Science, Technology, and the Environment (CITMA) (Aug. 11, 2009) (Spanish version).

87. *Id.*

88. *Id.* ¶ 4.

89. *See id.* ¶ 3.

90. *Id.* art. 8.

91. *Id.* art. 5.

92. *Id.* art. 18(p)–(q), (u).

93. *Id.* art. 20. *See also id.* art. 8 (noting that there are two "Competent Authorities" under CITMA involved in the environmental impact review: the Center for Inspection and Environmental Control of the Environmental Agency, as well as the Provincial Delegate).

94. *Id.* art. 21.

95. *Id.* arts. 24–26.

96. *Id.* art. 26.

monitoring program.⁹⁷ One of the eighteen categories of information that the EIS must address is an “evaluation of the potential to significantly affect the environment in any zone located outside the project area.”⁹⁸ This causes the EIS to cast a regional net, an important requirement, given that offshore drilling could have impacts beyond the localized area where the drilling occurs. The EIS provides an added measure of protection for projects with potentially adverse environmental consequences. At the conclusion of the study, CITMA retains the discretion to approve a license, impose additional requirements on the EIS, or reject the license altogether because of the proposed project’s harmful effects.⁹⁹

Given these various regulations, should CITMA require an EIS under Resolution 132/2009 before drilling in the Florida Straits commences, the EIS would, at a minimum, provide significant detail on the consequences of drilling. The provisions of the EIS mandate the dissemination of information that would, theoretically, heighten the protection of the ecosystem of the Florida Straits by preventing ad hoc decisions in a rush to drill.

Beyond Resolution 132/2009, a third law, Law No. 77, contemplates more environmental impact review should Cuba engage in offshore drilling. Law No. 77 governs foreign investment in Cuba and charges the Ministry of Foreign Investment and Economic Cooperation with oversight of international businesses.¹⁰⁰ As a procedural formality, before a project triggers CITMA’s environmental review, foreign companies seeking to operate in Cuba must apply for a license from the Ministry of Foreign Investment and Economic Cooperation.¹⁰¹ The ministry then refers the project to CITMA and its environmental impact review process to determine whether the license should be granted based on CITMA’s procedures.¹⁰² Further, Law No. 77 provides a threshold standard for CITMA to use in evaluating proposed developments referred by the Ministry of Foreign Investment and Economic Cooperation.¹⁰³ Article 54 of the law articulates this threshold, providing that the proposed business project must be made “in the context of sustainable development,” and it must provide for “the protection of the

97. *Id.*

98. *Id.* art. 26(k).

99. *Id.* art. 34.

100. Law No. 77, Foreign Investment Law, National Assembly of the People’s Power (Sept. 5, 1995), arts. 1.1, 3, *available at* <http://www.medioambiente.cu/legislacionE/leyes/L-77.htm> (Spanish version).

101. *Id.* art. 20.2.

102. *Id.* art. 55.

103. *Id.* art. 54.

environment and the rational use of natural resources.”¹⁰⁴ Thus oil drilling, whether conducted exclusively by a foreign company, or by a foreign corporation acting in a joint venture with the Cuban government, will undergo a CITMA-led EIE or EIS as described earlier. Pursuant to Law No. 77, it must also overcome another basic procedural check: a determination that the project promotes the protection of Cuba’s environment and judicious use of its natural resources.¹⁰⁵

Resolution 132/2009, Law No. 77, and the overarching Law No. 81, provide the legal foundation for drilling in Cuba’s offshore waters to proceed in an environmentally sensitive manner. Under the blanket Law No. 81, there is a general cause of action for environmental pollution that could be applied to offshore drilling. Meanwhile, Resolution 132/2009 requires the assembly of information on the environmental impact of a project in order to evaluate and mitigate the project’s undesirable consequences. These several laws contain a potential flaw in that the EIS completed pursuant to Resolution 132/2009 must be paid for by the company sponsoring the proposed project.¹⁰⁶ Resolution 132/2009 somewhat restrains this potential conflict of interest with the requirement that CITMA certify the entities conducting any EIS.¹⁰⁷ This issue aside, the three laws indicate that Cuba has the legal means to arrest pollution from drilling in the Florida Straits. An overarching theme is that Cuba has not shied away from protecting its natural resources with a series of environmental laws. The issue that emerges, and that this Note will contemplate, is Cuba’s willingness to enforce these protective laws.

An examination of Law No. 212, Cuba’s coastal zone management law, provides a useful conclusion to this review of Cuban environmental statutes related to offshore drilling, if not a glimpse into how Cuba might act should drilling advance on a large scale. Law No. 212 shows that the Cuban government has used additional codes promulgated under Law No. 81 to target environmental impacts generated by specific industries.¹⁰⁸ In 2000, Cuba issued its coastal zone management law, modeled on coastal management statutes from other countries, including the United States, and developed in collaboration with U.S. scientists and

104. *Id.*

105. See Whittle, Lindeman & Tripp, *supra* note 59, at 568–70 (explaining the role of the Ministry of Foreign Investment and Economic Cooperation’s role in imposing certain environmental standards).

106. Resolution 132/2009, *supra* note 86, art. 27.

107. *Id.* arts. 70–81.

108. Law No. 212, Coastal Zone Management, pmb., National Assembly of the People’s Power (Aug. 8, 2000), available at <http://www.medioambiente.cu/oregulatoria/CICA/legislacion/Decreto%20Ley%202012.pdf> (reciting Law No. 81 in the preamble to the Coastal Zone Management law).

attorneys.¹⁰⁹ The law restricts beachfront coastal development in a “coastal zone” and “zone of protection.”¹¹⁰ The coastal zone extends from offshore waters of 100 to 200 meters in depth to a point twenty to forty meters inland from the ocean shore’s high water mark.¹¹¹ The law forbids the construction of permanent structures in the coastal zone except for marinas and ports.¹¹² The public may use the coastal zone for recreation without user fees.¹¹³ The “zone of protection,” the second of the coastal zones set forth by the law, extends into the Cuban mainland from the upper, land-based boundary of the coastal zone for another twenty to forty meters inland.¹¹⁴ In this strip of land, Law No. 212 restricts development of permanent structures, though crops may be grown in the zone subject to the public right of way to the beach and provided that the crops do not disrupt the ecology of the beach.¹¹⁵ The ultimate effect of Decree Law No. 212 is to subject ocean-oriented development to set-back restrictions.¹¹⁶

Decree Law No. 212 is a touchstone despite having little immediate relevance to offshore drilling. The law underscores Cuba’s commitment to protecting the ecology of its shores and its unwillingness to let lucrative tourism-related development overrun the island’s scenic coastline.¹¹⁷ The passage of the law in 2000, a time when tourism was the only industry giving the nation an economic pulse, demonstrates that Cuba’s professed dedication to sustainability is genuine. The law may be an omen for future legislation that directly targets offshore oil drilling.

Finally, looking beyond Cuba’s environmental detailed thus far, Cuba has adopted a National Environmental Strategy that contemplates offshore drilling activities. The government adopted the first National Environmental Strategy in 1997; the current National Environmental Strategy covers 2007 to 2010.¹¹⁸ The National Environmental Strategy serves as a policy blueprint to direct new environmental regulations.¹¹⁹

109. *Id.*; Brookings Institution Panel Discussion, *supra* note 11, at 65-66 (Daniel Whittle noting that Professor Oliver Houck from Tulane Law School helped write Decree Law 212).

110. Law No. 212, *supra* note 108, arts. 4-5; Whittle, Lindeman & Tripp, *supra* note 59, at 576-77 (providing an excellent translation of the provisions of the Coastal Zone Management Law regarding development).

111. Law No. 212, *supra* note 108, art. 4.

112. *Id.* art. 15.1.

113. *Id.* art. 12.

114. *Id.* art. 5.1(2).

115. *Id.* arts. 16, 18.

116. *Id.*

117. Whittle, Lindeman & Tripp, *supra* note 59, at 536.

118. NATIONAL ENVIRONMENTAL STRATEGY, *supra* note 70, at 2.

119. *Id.* at 6 (referring to the National Environmental Strategy as the “guiding

Its focus is on sustainability, and it identifies economic and social developments that will impact environmental policy over the years addressed by the strategy.¹²⁰ The 2007–2010 National Environmental Strategy identifies increased petroleum and gas production as an ongoing area of transformation in the Cuban economy, and in Section 4.1.3.e, the document discusses the exploration and production of hydrocarbons.¹²¹ This section’s overarching objective is to diminish environmental pollution caused by oil development, and it sets forth specific goals for the government to attain, such as developing a regulatory framework to guide oil exploration, creating contingency plans for oil spills, and devising pipeline regulations.¹²² That Cuba has anticipated oil development in this most recent National Environmental Strategy suggests, along with the development of industry-specific laws such as Decree Law No. 212, that the nation willingly crafts regulations and policy to fit emerging environmental challenges. This forward-looking, rather than reactive, approach bodes well for future offshore development, though as will be seen, infrastructural and economic challenges create a drag on these otherwise laudable regulations.

III. THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

The United Nations Convention on the Law of the Sea (“UNCLOS”) may also come to impact oil development in the Florida Straits. UNCLOS obligates signatory countries to “protect and preserve the marine environment.”¹²³ Cuba became the thirteenth country to ratify UNCLOS on August 15, 1984.¹²⁴ The United States has not ratified UNCLOS.¹²⁵ Conservatives in the U.S. Senate have stalled ratification of the treaty for decades claiming the law affronts U.S. sovereignty.¹²⁶

document of Cuban environmental policy).

120. *See id.* at 2–6.

121. *Id.* at 3, 46.

122. *Id.* at 46–47.

123. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 21 I.L.M. 1245, 1271 [hereinafter UNCLOS].

124. United Nations Division for Ocean Affairs and Law of the Sea, Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements, [http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#The United Nations Convention on the Law of the Sea](http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#The%20United%20Nations%20Convention%20on%20the%20Law%20of%20the%20Sea) (last visited May 6, 2010).

125. Charles Babington, *Criticism Deep-Sixes Senate Vote on Sea Treaty*, WASH. POST, April 25, 2004, A04.

126. *Id.*

UNCLOS was originally adopted in 1982 after much debate in the United Nations.¹²⁷ It has been ratified by 157 countries since that time, including U.S. allies such as the United Kingdom, Australia, and Japan.¹²⁸

Having ratified UNCLOS, Cuba has committed to minimizing pollution in its marine waters.¹²⁹ UNCLOS also commits the island nation to limit activities in the seas under its jurisdiction that would impair marine and terrestrial environments in other countries.¹³⁰ The law further compels Cuba to combat pollution from infrastructure “used in exploration or exploitation of the resources of the sea bed, and subsoil.”¹³¹ Development of Cuba’s portion of the Florida Straits must consider the country’s commitment to this international protocol.

Should the United States ratify UNCLOS, both it and Cuba will have agreed to Article 197 of the treaty, which dictates that both countries cooperate with each other in stewarding the marine environment, an obligation encompassing the Florida Straits. Article 197 states:

States shall co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.¹³²

Article 197 of UNCLOS, with its regional cooperation command, would bind Washington and Havana to joint protection of the Florida Straits marine environment. When, if ever, the United States ratifies UNCLOS, the law would benefit the Florida Straits drilling issue because it would inspire official collaboration over the environmental health of the Straits.

IV. WHAT ARE THE PROSPECTS FOR RECOVERY FROM OIL DRILLING OFF FLORIDA AND CUBA, AND WHAT

127. United Nations Division of Ocean Affairs and Law of the Sea, United Nations Convention on the Law of the Sea, A Historical Perspective, http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm (last visited May 6, 2010).

128. Chronological Lists of Ratifications, *supra* note 124.

129. UNCLOS, *supra* note 123, at 1310.

130. *Id.* at 1308.

131. *Id.*

132. *Id.*

ARE THE ENVIRONMENTAL RISKS ASSOCIATED WITH RECOVERY?

Having explored the U.S. and Cuban laws that would govern oil development in the Florida Straits, as well as an international legal regime that could affect these waters, the next two portions of this Note explore non-legal issues regarding the exploitation of Florida Straits oil resources. The following Section first looks at the actual prospects for oil recovery in the Straits, before turning to the environmental concerns associated with exploiting oil in these waters.

A. Florida Straits Oil Deposits

United States Geologic Survey (“USGS”) data supports the idea that the Florida Straits may be a lucrative area for oil development.¹³³ In terms of resources in Cuban waters, the North Cuba Basin, off Cuba’s northwest coast, may hold up to 4.6 billion barrels of oil and 9.8 trillion cubic feet of natural gas, according to a 2004 report by the USGS.¹³⁴ Meanwhile, Cubapetroleo, Cuba’s state-owned oil company, generously forecasts 20 billion recoverable barrels of oil off Cuba, though there is debate over whether Cubapetroleo’s claims are a politically calculated exaggeration.¹³⁵ Of those estimated 4.6 billion barrels of oil in the North Cuba Basin, 4.1 billion barrels of oil lie in two exclusively offshore areas of that basin that the USGS terms the North Cuba Platform Margin Carbonate Assessment Unit and the North Cuba Foreland Basin Assessment Unit.¹³⁶ The remaining 0.5 billion projected barrels lie under near-shore coastal waters and on the Cuban mainland in the country’s western and central provinces.¹³⁷ As a point of comparison for the size of potential reserves in the North Cuba Basin, the 4.6 billion barrels of oil estimate is modest compared with the oil-rich Gulf of Mexico waters off the southern United States. The Central Gulf of Mexico Planning Region,

133. UNITED STATES GEOLOGIC SURVEY, ASSESSMENT OF UNDISCOVERED OIL AND GAS RESOURCES OF THE NORTH CUBA BASIN, CUBA, 2004 (2005), available at http://walrus.wr.usgs.gov/infobank/programs/html/factsheets/pdfs/2005_3009.pdf.

134. *Id.*

135. Tim Padgett, *How Cuba’s Oil Find Could Change the U.S. Embargo*, TIME, Oct. 23, 2008, available at <http://www.time.com/time/world/article/0,8599,1853252,00.html>.

136. ASSESSMENT OF UNDISCOVERED OIL AND GAS RESOURCES OF THE NORTH CUBA BASIN, *supra* note 133, at 2.

137. *Id.*

the USGS-defined area off the coasts of Louisiana, Mississippi, and Alabama, may have more than 22 billion barrels of recoverable oil.¹³⁸

As for reserves in U.S.-controlled waters of the Straits, the MMS projects that the Florida Straits Planning Area holds around 20 million barrels of oil and 20 million barrels of natural gas.¹³⁹ The Sunniland Formation, a rock layer lying 11,000 feet or more below southwest Florida and adjacent Gulf waters, holds oil deposits of up to 1 billion barrels.¹⁴⁰ Particularly enticing for oil development off southwest Florida is the fact that oil companies already operating in the Gulf of Mexico would not incur significant costs to drill in that region, given the proximity to existing infrastructure elsewhere in the Gulf.¹⁴¹ On the whole, considering projected deposits in U.S. waters and the proximity of the Florida Straits to existing infrastructure, along with projections for deposits in Cuban waters, drilling in the Florida Straits appears lucrative despite the limited yield from Respol's exploration south of Key West in 2004.¹⁴²

B. Environmental Risks Associated with Offshore Drilling

Drilling in the Florida Straits raises a number of environmental concerns for Cuba, Florida, the southeast United States, and the Bahamas. This portion of the Note presents these various concerns, concerns that might be reflected in an environmental impact statement conducted by either Cuban or U.S. agencies. The potential environmental degradation caused by the Deepwater Horizon oil spill in the Gulf of Mexico makes these ecological concerns perhaps the most salient part of the discussion over whether oil exploration will occur in the Florida Straits at all.

Even without a catastrophe like the Deepwater Horizon spill, as a basic matter, leaks from offshore drilling rigs pollute, and natural forces common to the Florida Straits, such as tropical cyclones, could

138. MINERALS MANAGEMENT SERVICE, ADDENDUM TO ASSESSMENT OF UNDISCOVERED TECHNICALLY RECOVERABLE OIL AND GAS RESOURCES OF THE NATION'S OUTER CONTINENTAL SHELF, 2006 at 2 (2006), available at http://www.mms.gov/revaldiv/PDFs/2006NationalAssessmentBrochure_update.pdf.

139. *Id.*

140. David Fleshler, *Searching for Oil, Florida's Black Gold; How Exploration Could Affect Us All*, SUN-SENTINEL, Aug. 17, 2008, at 1A, available at <http://www.sun-sentinel.com/news/local/southflorida/sfl-flbdrilling0817sbaug17,0,2778178.story?page=1> (the online source includes a series of graphics, one noting the Sunniland rock formation and its potential reserves).

141. Paul Kane, *Offshore Drilling Is Coming to a Vote*, WASH. POST, Sept. 14, 2008, at A4.

142. Lynch, *supra* note 4.

exacerbate spills or cause new spills and further contamination.¹⁴³ As an example of the impact of a benign tropical storm, in 2005, Tropical Storm Arlene damaged an oil platform off the coast of Louisiana, discharging 560 gallons of oil and causing the death of over 1,000 pelicans.¹⁴⁴ Beyond the otherwise-forgotten Arlene, the 2005 hurricane season saw the release of 717,234 gallons of oil into the Gulf of Mexico during the passage of Hurricanes Katrina and Rita.¹⁴⁵ Significant amounts of oil also spilled into Gulf waters that year from hurricane-damaged onshore refineries and holding facilities in Louisiana and Texas, resulting in estimated discharges of around 9 million gallons of oil.¹⁴⁶ This figure falls only slightly below the 10.8 million gallons of oil released into Alaska waters from the 1989 *Exxon Valdez* oil spill.¹⁴⁷ Moreover, dangerous tropical cyclones are common in the Florida Straits region, exemplified by Cuba suffering over \$10 billion in damages from Hurricanes Gustav, Ike, and Paloma in 2008.¹⁴⁸ Lastly, many scientists claim that the intensity and regularity of hurricanes will increase as the earth's climate warms, further subjecting the Florida Straits to catastrophic storms and creating additional hazards for oil infrastructure.¹⁴⁹ The 2005 and 2008 hurricane seasons demonstrate the risk in offshore oil drilling in the Florida Straits. Accordingly, one frequently-cited reason not to drill in the Florida Straits is the potential for hurricane-inflicted oil pollution, with Mark Ferrulo, director of the Florida Public Interest Research Group, stating that drilling proposals in the Straits amount to "putting hundreds of drilling rigs in the middle of a hurricane highway."¹⁵⁰

An additional geographical concern is that the Florida Straits comprise a main conduit for the Gulf of Mexico Loop Current, a flow of water that originates in the Gulf and passes through the Straits before entering the Atlantic Ocean as the Gulf Stream.¹⁵¹ A spill in the Straits poses not only localized effects, but could also leave oil deposits on Florida's Atlantic beaches.¹⁵² Any oil spill in the Florida Straits would

143. Fleshler, *supra* note 140.

144. *Id.*

145. *Id.*

146. Mike Salinero, *A Crude Awakening*, TAMPA TRIB., Aug. 18, 2006, at 1.

147. Fleshler, *supra* note 140; Salinero, *supra* note 146.

148. Will Weissert, *Chinese President Builds Economic Ties with Cuba*, ASSOCIATED PRESS, Nov. 18, 2008.

149. John Schwartz, *2 Studies Link Global Warming to Greater Power of Hurricanes*, N.Y. TIMES, May 31, 2006, at A16.

150. Salinero, *supra* note 146.

151. *See* Fleshler *supra* note 140 (specifically online graphics supplementing Fleshler's story).

152. *Id.*

reach Miami and Fort Lauderdale beaches because of the Gulf Stream current.¹⁵³

Meanwhile, oil drilling in the Florida Straits will stress an ecosystem already strained by development, a strain existing prior to the Deepwater Horizon oil spill. The mere presence of offshore drilling infrastructure will introduce heavy metals and hydrocarbons into Florida Straits waters surrounding industrial platforms.¹⁵⁴ The Florida Straits presently suffer assorted pollution problems. Discharge from agriculture, urban development, and sewage facilities in the United States and Cuba flows into the Straits and their coral reefs.¹⁵⁵ It is estimated that over seventy percent of wastewater generated in Cuba, including most of the human sewage in Havana, a city located on the Florida Straits, receives only minor treatment before being dumped directly into streams and surrounding Florida Straits waters.¹⁵⁶ Pollution-induced red-tides have also occurred in waters off Florida, and coral reefs in the state show signs of stress.¹⁵⁷

An unknown issue at the time this Note goes to publication is the environmental havoc the ongoing Deepwater Horizon spill in the Gulf of Mexico will cause in the Florida Straits. Recalling the previously discussed scenario of oil caught in the Gulf of Mexico Loop Current, scientists and oceanographers warn that the crude from the spill off Louisiana could enter the Gulf of Mexico Loop Current and pass through the Florida Straits, reaching the Atlantic Ocean, fouling south Florida beaches and ecosystems, and persisting in shallow coastal areas like Florida Bay for years.¹⁵⁸ Some oceanographers warn the oil spilled at the Deepwater Horizon site may be carried by the Gulf Stream and reach beaches as far away as those in North Carolina.¹⁵⁹ The spill itself, which continues to leak at the time this Note goes to print because a blowout preventer failed to activate, and because a series of fixes have not stopped the leak, reveals in grave detail the inherent risks in offshore drilling.¹⁶⁰

153. Richard Luscombe, *Florida in Cross Hairs of U.S. Hunt for Oil*, CHRISTIAN SCI. MONITOR, July 6, 2006, at 3.

154. Fleshler, *supra* note 140.

155. Whittle, Lindeman & Tripp, *supra* note 59, at 540–41.

156. *Id.* at 540.

157. Salinero, *supra* note 146.

158. David Fleshler, *South Florida's Ecosystem At Risk: As Oil Gushes From Gulf Sea Floor, Concerns Grow for Wildlife, Beaches*, SUN-SENTINEL, May 5, 2010, at 1A.

159. Joel Achenbach, *Scientists Envision Devastation for Gulf; Much Is Still Unknown, But 'Loop Current' Could Take Spilled Oil All the Way to N.C.*, WASH. POST, May 5, 2010, at A1.

160. *Id.* See also Bettina Boxall & Julie Cart, *Gulf Oil Spill: The Loss; Oil Containment Dome Runs Into Problems*, L.A. TIMES, May 9, 2010, at A20.

In conclusion, oil infrastructure and industrial development in the Florida Straits will compound this ecosystem's preexisting environmental problems. Even with stringent environmental controls and laws mandating environmental impact reviews, industrial development will introduce additional toxins into the Florida Straits, while placing the Florida and Cuba coasts at greater peril from oil slicks.

C. Infrastructural, Administrative, and Bureaucratic Hurdles in Cuba

Beyond the environmental risks associated with drilling in the Florida Straits, any industrialization of this maritime zone depends on Cuba's success in modernizing its refining capacity and reducing bureaucratic impediments to investment.¹⁶¹ While interest in oil leasing off Cuba has generated a "buzz," as indicated by the formation of joint ventures between international firms and Cubapetroleo, the considerable expenses associated with doing business with the communist nation may inhibit drilling.¹⁶²

In terms of infrastructure, Cuba's oil refineries, many relics from the Soviet-era, are in decrepit condition, and their poor repair may impede the nation's ability to exploit its offshore oil resources.¹⁶³ Cuba needs international investment to improve its refineries.¹⁶⁴ Without refinery refurbishment, some argue that Cuba will have no place to send its oil for refining, since nearby U.S. refineries will not accept it.¹⁶⁵ Whether Cuba receives foreign capital for its refineries depends on a host of factors including world oil prices, the actual size of the island's offshore deposits, and, most acutely in the near future, the continued economic and political support of other nations, such as its main regional ally, Hugo Chávez's Venezuela.¹⁶⁶ A November 2008 visit by Chinese President Hu Jintao suggests that China might become an active player in the island's economy, a role that could include revitalizing some of the country's poor infrastructure.¹⁶⁷ Tellingly, China has modernized

161. Padgett, *supra* note 135; Daniel P. Erikson, *The Future of American Business in Cuba: Realities, Risks, and Rewards*, 14 *TRANSNAT'L L. & CONTEMP. PROBS.* 691, 693 (2004).

162. See Lynch, *supra* note 4 (noting the nationalities of various companies seeking to tap Cuba's offshore oil reserves).

163. Padgett, *supra* note 135.

164. See generally *id.*

165. Geri Smith, *The Cuban Economy: After the Smoke Clears*, *BUS. WEEK.*, Mar. 10, 2008, at 52.

166. See *id.*

167. Ray Sanchez, *Hu's Visit Marks Close China-Cuba Ties*, *SUN-SENTINEL*, Nov. 19, 2008, at 11A.

Havana's public buses in recent years by delivering new buses to the capital to replace the city's dirty "camello" (camel) metropolitan transit buses, which were left from the Soviets.¹⁶⁸ China is also Cuba's second largest trading partner, behind Venezuela.¹⁶⁹ Whether investment from China or elsewhere improves Cuba's oil infrastructure is speculative, though modernization is essential to Cuba realizing its oil potential. In the end, some experts on Cuba politics believe that the only serious contenders for updating and expanding Cuba's oil infrastructure are U.S. oil companies presently barred from operating in Cuba.¹⁷⁰

Additionally, Cuba's ability to cultivate a flourishing oil industry depends on Havana's willingness to reduce bureaucratic obstacles to investment on the island. Writing in the *Journal of Transnational Law and Contemporary Problems*, Daniel Erikson of the Washington, D.C., policy organization The Inter-American Dialogue describes the sizeable institutional and bureaucratic hurdles facing foreign investment in Cuba:

Cuba remains a rigid communist state with a centrally controlled economic structure, a workforce with uncertain habits, low per capita income, and high levels of external debt. Canadian and European investors in Cuba cite numerous difficulties related to red tape, arbitrary treatment by Cuban regulators, interference in hiring decisions, and questionable labor practices.¹⁷¹

Accordingly, while Cuba's potential oil reserves have drawn willing investors, the extent to which drilling in Cuban waters thrives depends upon overcoming these infrastructural, administrative, and bureaucratic obstacles. China's recent replacement of Havana's relic "camel" buses may provide the best analogy of what is required to update and expand the infrastructure necessary for drilling. The example suggests that Cuba lacks the means or initiative necessary to expand and modernize existing infrastructure on its own, but welcomes foreign capital to accomplish those objectives. Whether that capital arrives is, at this stage, speculative.

Lastly, discussion of the many challenges Cuba faces in creating a robust oil industry on the island is incomplete without considering the impact of the U.S. economic embargo on Cuba's overall financial wherewithal. The travel embargo imposed by Washington deprives Cuba of millions of dollars annually.¹⁷² Such revenue could otherwise be harnessed to build new infrastructure for the oil industry.

168. *Id.*

169. *Id.*

170. Padgett, *supra* note 135. Luscombe, *supra* note 153.

171. Erikson, *supra* note 161, at 693.

172. Whittle, Lindeman & Tripp, *supra* note 59, at 550.

This Section of this Note has explored various non-legal issues surrounding Florida Straits oil drilling. Surveys indicate the region has potentially lucrative oil reserves, though it seems safe to assume that the area will not reach the productivity of the Louisiana coastal region. The Florida Straits' geographic location, serving as an active hurricane zone and as a main conduit for the Gulf Stream, highlights the risk associated with offshore drilling there. Finally, looking beyond environmental concerns and the actual size of oil deposits, those seeking to invest in Cuba confront decrepit infrastructure, bureaucracy, and dire economic conditions.

V. WHAT CAN BE EXPECTED OF CUBA AND THE UNITED STATES WHEN IT COMES TO STEWARDING THE FLORIDA STRAITS?

The Florida Straits drilling issue is not simply an environmental issue, but also a geopolitical issue. The matter focuses the tumultuous U.S.-Cuban relationship, as well as the potency of Cuba's progressive environmental laws. If drilling does proceed, each nation has the opportunity to use drilling to bring about a positive change in past environmental and political policies.

A. If Drilling in the Florida Straits Moves Forward, What Can Be Expected of Cuba?

Whether or not Cuba will pursue offshore development in an environmentally sensitive manner yields a variety of answers, from the intensely skeptical, to the cautiously optimistic. While the nation has laws in place to address potential environmental problems, whether they will be enforced is uncertain, and the nation has a spotty environmental record in light of both the massive pollution created by the island's nickel mining industry and the squalid conditions of Havana Bay.

On the one hand, Cuba's embrace of environmentalism might prompt Havana to act with an eye towards sustainable development as it opens Florida Straits waters. Writing in the *Tulane Environmental Law Journal* as part of Tulane Law School's 2003 examination of environmental law in Cuba, Daniel Whittle, Kenyon Lindeman, and James Tripp argue: "Cuba runs little risk of running off prospective investors with a cautious, pro-environmental protection foreign investment policy, as the country is simply too good of an opportunity to

pass up for investors”¹⁷³ These authors take heart in several instances of CITMA regulating foreign investment as examples of the Cuban government balancing development with environmental concerns.¹⁷⁴ Notably, the authors cite CITMA’s role in stopping development of a vineyard outside Havana that would have created unsustainable chemical runoff, as well as CITMA’s decision to condition approval of an international airport outside the tourist haven of Cayo Coco on developers satisfying several environmental conditions, as evidence of the proactive use of environmental laws.¹⁷⁵ Moreover, as mentioned, Law No. 212’s response to growing coastal tourism demonstrates a willingness to preserve the island’s environment.

Cuba’s embrace of environmental reforms in the 1990s has left others unmoved. Those who criticize Cuba observe that the nation’s communist ideology aligns with the Soviet model, which prized industrialization no matter the cost to the environment.¹⁷⁶ During the Soviet-era following Castro’s Revolution, plans circulated to drain the island’s massive swamps and to add 16,000 square kilometers of land to Cuba by infilling shallow seas between Cuba and Isla de Pinos or Isla de la Juventud (Isle of Pines or Isle of Youth), which lies to the south of the main island of Cuba.¹⁷⁷ Critics argue that the nation still adheres to this belief in massive industrialization, despite the Soviet Union’s collapse two decades ago.¹⁷⁸ They see little more than smoke and mirrors in Havana’s new-found environmentalism and related laws.¹⁷⁹ These criticisms are not without merit. Havana has, at times, looked the other direction when it comes to policing industrial effects on the environment. In writing about environmental and economic conflict in Cuba, Sergio Díaz-Briquets and Jorge Pérez-López, authors of *Conquering Nature: The Environmental Legacy of Socialism in Cuba*, a book exploring the environmental challenges Cuba faced in the 1990s, note that in Cuba “[w]hen economic and environmental priorities are placed on the balance, the former wins.”¹⁸⁰ Díaz-Briquets and Pérez-López affirm that examples of Cuba actively enforcing environmental regulations are rare, which they attribute to several factors including the ambiguity of laws,

173. *Id.* at 588.

174. *Id.* at 569–70.

175. *Id.*

176. SERGIO DÍAZ BRIQUETS & JORGE PÉREZ-LÓPEZ, *CONQUERING NATURE: THE ENVIRONMENTAL LEGACY OF SOCIALISM IN CUBA* 14–20 (University of Pittsburgh Press 2000).

177. *Id.* at 15.

178. *Id.* at 279–80.

179. *See id.* at 22.

180. *Id.* at 274.

bureaucracy, and economic necessities taking precedence over conservation.¹⁸¹ Furthermore, in a nation where the government stifles citizen dissent, a robust coalition of environmental groups does not exist to encourage conservation.¹⁸² Even moderate voices, such as the aforementioned Whittle and Rey Santos, note that Cuba's laudable environmental legislation is not without its shortcomings. For example, Law No. 212, simply regulates structural activity and does not remedy actual sources of pollution that impact the island's coastal zone.¹⁸³ The environmental credentials of the Revolution are, therefore, debatable.

Furthermore, the excessive pollution generated by nickel mines in eastern Cuba can be seen as indicative of a lax approach to environmental regulation and might serve as an alarming proxy for future oil development. Cuba contains approximately 5.3 percent of the world's available nickel resources and hosts a flourishing nickel mining and processing industry predating the Revolution.¹⁸⁴ Since the collapse of the Soviet Union in 1991, the country has entered into joint ventures with foreign companies to mine and process nickel.¹⁸⁵ The environmental consequences of Cuba's nickel production include erosion, acid rain, air pollution, the deposition of toxic wastes and runoff into oceans and streams, and the decline of coral reefs.¹⁸⁶ Residents living near a nickel plant at Moa Bay in Cuba's eastern Holguín province have told foreign journalists that rainfall in the area is so acidic that it stings the skin.¹⁸⁷ While nickel mining and its pollution occurred before the Revolution, Cuba's inability to deal with the pollution's results, despite its commitment to environmental reforms, undercuts the nation's environmental credentials. This is despite the positive steps mentioned above, where the government actively restrained development of an airport outside Cayo Coco and passed a law to limit coastal development.

Ultimately, the most significant obstacle to sustainable development in Cuba remains the paucity of financial resources to effect serious

181. *Id.* at 71.

182. Cornelia Dean, *Conserving Cuba After the Embargo*, N.Y. TIMES, Dec. 25, 2007, at F1 (quoting Tulane Law Professor Oliver Houck that in Cuba "there's no armed citizenry out there with high-powered science groups pushing in the opposite direction. What they lack is the counter pressure of environmental groups and environmental activists").

183. Daniel Whittle & Orlando Rey Santos, *Protecting Cuba's Environment: Efforts to Design and Implement Effective Environmental Laws and Policies in Cuba*, in CUBAN STUDIES 73, 85-86 (University of Pittsburgh Press 2006).

184. DÍAZ BRIQUETS & PÉREZ-LÓPEZ, *supra* note 176, at 176-77.

185. *Id.* at 178, 259. The Soviet Union was Cuba's primary trading partner. *Id.*

186. *Id.* at 178-183.

187. *Id.* at 182.

enforcement.¹⁸⁸ Cuba may have an educated populace and an interest in stewarding its ecological resources, but whether the country has the financial means, or will, to enforce its lofty environmental agenda remains to be seen.¹⁸⁹ Again, to fault Cuba entirely misses the deep financial impact of the U.S. embargo. Whittle, Lindeman, and Tripp explain that “Cuba . . . needs capital, and lots of it” to push forward with environmentally-friendly technologies.¹⁹⁰ Beyond the festering nickel plants, perhaps most emblematic of the divide between the actual state of things and Cuba’s professed pro-environment political and legal agenda is that the capital city’s main estuary, Havana Bay, is among the most putrid bodies of water in the Caribbean.¹⁹¹ The United Nations Environment Programme specifically cited Havana Bay’s severe pollution problems in its 2004 Global International Waters Report for the Caribbean Islands.¹⁹² The U.N. report noted that the bay suffers from industrial pollution, sewage discharge, and run-off from urban development, and the report affirmed that laws addressing the bay’s pollution “lack cohesion.”¹⁹³ If Cuba’s abdication of oversight over the health of the capital’s marine backyard illustrates its future attitude towards remote offshore oil drilling operations, the consequences for the Florida Straits could be “absolutely scary,” to recall the comments of Juan Leon of the Florida Keys Wild Bird Center regarding the prospect of oil drilling off Cuba.¹⁹⁴ Alternatively, Havana Bay and the Moa nickel mines represent environmental problems that have lingered for years; the government’s action in fettering the development of an international airport with conservation benchmarks suggests that regulation of new development, as opposed to existing industry, may be more aggressive.

B. U.S. Political Issues Raised by Offshore Drilling

Drilling off the coast of Cuba necessarily raises political issues surrounding the tumultuous relationship between the communist nation and its neighbor across the Straits. The United States has maintained its trade embargo on Cuba since the 1960s.¹⁹⁵ A travel ban parallels the

188. Whittle, Lindeman & Tripp, *supra* note 59, at 587–88.

189. *Id.*

190. *Id.* at 588.

191. U.N. ENVIRONMENTAL PROGRAMME, GLOBAL INTERNATIONAL WATERS ASSESSMENT: CARIBBEAN ISLANDS, GIWA REGIONAL ASSESSMENT 4 at 88 (2004), available at <http://www.unep.org/dewa/giwa/publications/r4.asp>.

192. *Id.* at 72–80.

193. *Id.* at 96.

194. Williams, *supra* note 9.

195. 22 U.S.C. § 2370(a) (2010); MARK P. SULLIVAN, CONGRESSIONAL RESEARCH SERVICE, CUBA: U.S. RESTRICTIONS ON TRAVEL AND REMITTANCES 2 (2007), available at

trade embargo.¹⁹⁶ The 1996 Cuban Liberty and Democratic Solidarity Act, commonly known as the Helms-Burton Act, formally placed Cuban economic and travel restrictions into the U.S. Code.¹⁹⁷ This law urged the U.S. president to impose sanctions on nations that provide assistance to Cuba.¹⁹⁸ Though this provision, one that chafed U.S. allies, has gone unenforced, the law sets the tone for the acrid relationship between the nations.¹⁹⁹ To this day, the complicated relationship between Cuba and the United States languishes.²⁰⁰

Cuba's moves to open the Florida Straits to drilling have generated a bifurcated American political response. Reminiscent of the Helms-Burton Act's effort to penalize foreign third parties, some U.S. politicians have responded to Cuba's moves by calling for laws that would deny U.S. visas to employees of foreign oil companies doing business in Cuba.²⁰¹ Legislation by Senator Bill Nelson of Florida seeks to ban companies drilling for oil in the Florida Straits from operating in the United States.²⁰² Other politicians have introduced legislation that would exempt U.S. companies from the expansive Cuban trade embargo in order to allow them to compete for leases off Cuba.²⁰³ The Cuban government, meanwhile, has encouraged American oil companies to bid for tracts in Cuban-controlled waters in the Florida Straits.²⁰⁴ So far, neither partisan faction has prevailed in this tug-of-war. Senator Nelson cited environmental concerns as a motivator behind his anti-drilling legislation, stating: "At risk are the Florida Keys . . . not to mention the \$8 billion Congress is investing to restore the Everglades."²⁰⁵ Advocates for rescinding the U.S. trade embargo cite the drilling controversy for evidence of the embargo's counterproductive effects on the U.S.

<http://fpc.state.gov/documents/organization/83002.pdf>.

196. SULLIVAN, *supra* note 195, at 2–4.

197. 22 U.S.C. § 6023(7)(A) (2010); Howard LaFranchi, *America's Embargo of Cuba: What Result After 35 Years?*, CHRISTIAN SCI. MONITOR, Sept. 25, 1997, at 1. The Helms-Burton Act received its name from its sponsors, Republican North Carolina Senator Jesse Helms and Republican Indiana Representative Dan Burton. See David E. Sanger, *U.S., Enforcing Cuba Curbs, Punishes Canadian Company*, N.Y. TIMES, July 11, 1996, at A1.

198. 22 U.S.C. § 6032(a)(2) (2010).

199. Rafeal Lorente, *Bush Puts Brake on Cuba Law: Trade War Could Result, Critics Say*, SUN-SENTINEL, July 17, 2001, at A1.

200. Marc Lacey, *In Cuba, Hopeful Tenor Toward Obama Is Ebbing*, N.Y. TIMES, Dec. 31, 2009, at A6.

201. Williams, *supra* note 9.

202. Janofsky, *supra* note 1.

203. Williams, *supra* note 9.

204. *Id.*

205. *Id.*

economy.²⁰⁶ In Florida itself, attitudes towards offshore drilling appear to be in flux. While Florida's federal congressional delegation continues to almost unanimously oppose offshore drilling, the Florida House of Representatives voted in April 2009 to allow drilling in state-controlled waters immediately offshore.²⁰⁷ Despite the feuding in the United States over how to respond to Cuban plans to drill in the Florida Straits, if momentum in the Sunshine State itself shifts in favor of drilling offshore in state waters, then drilling in the entire Florida Straits will perhaps become less-controversial. That said, the Deepwater Horizon oil spill could change public attitudes in Florida over offshore drilling. Either way, the lingering question is whether there is any hope for a productive dialogue between the two countries over stewardship of the Florida Straits.

VI. MOVING FORWARD: SHARED INTERESTS AND COLLABORATION

Looking forward, drilling in the Florida Straits presents the opportunity for political rapprochement between the United States and Cuba. While drilling in these politically troubled waters may increase tensions between the countries, or leave the two nations mired in political stalemate, recent collaboration among U.S. and Cuban scientists concerning Florida Straits environmental issues demonstrates that the drilling issue may lead to some form of official engagement, if not a defusing of tensions.

Broadly speaking, both nations have much to lose if they continue their tumultuous relationship and drilling advances. In the United States, Florida's economic dependence on its marine and aesthetic resources cautions against development that could jeopardize the integrity of those resources.²⁰⁸ In February 2009, the executive director of the St. Petersburg-Clearwater Convention & Visitors Bureau, D.T. Minich, told the U.S. House of Representatives Natural Resources Committee that any plans to drill for oil in the eastern Gulf of Mexico imperiled Florida's beaches and its tourist economy, stating: "[t]o protect the lucrative tourism industry and the beaches that are a cornerstone of that

206. *Id.*

207. William E. Gibson, *Floridians Resist Offshore Drilling*, SUN-SENTINEL, June 29, 2009, http://weblogs.sun-sentinel.com/news/politics/dcblog/2009/06/floridians_resist_offshore_dri_1.html; Josh Hafenbrack, *Legislators Advance Drilling, Tuition Bills*, SUN-SENTINEL, Apr. 28, 2009, at 8B.

208. See William Gibson, *Florida Witness Warns Against Offshore Drilling*, SUN-SENTINEL, Feb. 11, 2009 (online edition).

industry, we must not risk the potential damages of offshore drilling in Florida.”²⁰⁹ Tourism pumped over \$60 billion into Florida’s economy in 2005.²¹⁰ Florida cannot afford a lax approach to offshore oil development. The Deepwater Horizon spill’s risk to the Sunshine State’s beaches and ecosystems underscores this reality with dire forecasts of environmental damage to the Everglades and Florida Keys.²¹¹

Moreover, while the U.S. vision of stewardship of the Straits may continue to be an emphatic “no” to any drilling in its own waters, this is an untenable approach. Drilling off Cuba may go forward in Cuban waters despite the wishes of Floridians. The United States should view the drilling issue as an opportunity to take a fresh approach towards Cuba. This does not mean that the long-standing trade and travel embargo should tumble overnight, but small changes to accommodate collaboration would foster a shared sense of purpose and support a growing network of scientific and academic exchanges.

Cuba also has an inherent interest in balancing oil development with conservation and stands to lose if development occurs haphazardly. The island nation depends heavily on tourism, an industry that has flourished since the demise of the Soviet Union. In 1990, for example, an estimated 340,000 tourists visited Cuba; in 2007, the island welcomed approximately 2.1 million visitors.²¹² The government has encouraged the growth of this economic sector as part of an overall strategy to diversify the economy.²¹³ An oil boom in the Florida Straits could buttress a Cuban economy that remains tenuous despite growing tourism revenues and overall recovery from the post-Soviet doldrums.²¹⁴ Currently, oil drilling is not a robust industry on the island. Cuba imports approximately half of the oil it uses from Venezuela; its limited oil drilling and refining activity centers around Havana and the Matanzas province east of the capital.²¹⁵ Should Cuba experience an oil boom, it is in its interest to balance development and conservation so as to not disrupt the tourism juggernaut or damage the island’s relatively pristine environment.

Indeed, Cuba’s enforcement of environmental laws to protect its marine waters is critical, given the island’s unique ecological features. Despite Havana Bay and Moa Bay, the island is a Galapagos of endemic

209. *Id.*

210. Tom Stieghorst, *Visits to State Fall by 516,000; Last Year’s Hurricanes Blamed for Third-Quarter Decline*, SUN-SENTINEL, Nov. 28, 2006, at 1D.

211. Fleshler, *supra* note 158.

212. Smith, *supra* note 165.

213. Erikson, *supra* note 161, at 694–98.

214. Smith, *supra* note 165.

215. Lynch, *supra* note 4.

plants and animals, with offshore waters boasting some of the world's most undisturbed coral reefs.²¹⁶ The island's economic and political isolation have spared it the environmental ravages that plagued other developing nations.²¹⁷ The island's enviable environmental status should remain undisturbed by drilling in the Florida Straits. Cuba's ecotourism potential in a post-travel embargo era is large and a critical part of that potential arises in the island's pristine marine environments.²¹⁸

At present, the most encouraging activity when it comes to protection of the Florida Straits has been a series of conferences among U.S. and Cuban scientists, attorneys, and policy makers addressing ocean waters and marine resources that Cuba, the United States, and Mexico share. A landmark workshop was held in Cancún, Mexico, in November 2007 between Cuban environmental scientists and officials, including representatives from CITMA, as well as U.S. university professors, scientists, and conservationists from groups like The Nature Conservancy.²¹⁹ The Center for International Policy in Washington, D.C., and the Harte Research Institute at Texas A&M University-Corpus Christi coordinated the meeting, titled "Cuba-U.S. Collaboration in Marine Science & Conservation: To Advance Joint Activities for Science & Conservation in the Gulf of Mexico and Western Caribbean."²²⁰ The Ford Foundation was one of the sponsors.²²¹ Workshops addressed research on and conservation of coral reefs, sharks, sea turtles, dolphins, and fish in the Florida Straits and Gulf of Mexico, as well as ways to increase protection of areas in the waters around Cuba.²²² The group noted that Cuba has an "excellent framework" of environmental laws, but that issues remain on enforcement matters and educating the Cuban populace regarding protection of the island's natural resources.²²³ Taking stock of the absence of collaboration among scientists in the two nations during the Bush administration, the group proposed areas for future collaboration in an array of areas from dolphin observation to coral reef

216. Dean, *supra* note 182.

217. *Id.*

218. Brookings Institution Panel Discussion, *supra* note 11, at 110-11.

219. D.E. GUGGENHEIM & J.L. FERNÁNDEZ CHAMERO, CUBA-U.S. COLLABORATION IN MARINE SCIENCE AND CONSERVATION: TO ADVANCE JOINT ACTIVITIES FOR SCIENCE & CONSERVATION IN THE GULF OF MEXICO AND WESTERN CARIBBEAN: PROCEEDINGS OF AN INTERNATIONAL WORKSHOP at i (Executive Summary), 35 (Center for International Policy & Harte Research Institute for Gulf of Mexico Studies at Texas A&M University, Corpus Christi 2008) (on file with Colo. J. Int'l Env'tl. L. & Pol'y).

220. *Id.* at i (Executive Summary).

221. *Id.* at cover page.

222. *Id.* at i (Executive Summary).

223. *Id.* at 12.

studies.²²⁴ The group further noted that while U.S. scientists can travel to Cuba to conduct research, “harsh logistical and political realities” arising from the U.S. economic embargo and travel restrictions hamper joint research.²²⁵ The Cancún meeting indicates that parties on both sides of the Florida Straits desire to work together.

A March 2009 meeting in Veracruz, Mexico, followed the Cancún meeting.²²⁶ It included representatives from Mexico, and participants at Veracruz worked to refine priorities in marine conservation issues in U.S., Mexican, and Cuban waters.²²⁷ The group reconvened in Havana in October 2009.²²⁸ These meetings following the initial Cancún gathering reaffirm the bilateral desire to collaborate and also bring in a third party with a common stake in the region’s environmental quality: Mexico.

Meanwhile, in April 2009, U.S. policy leaders from organizations including the Environmental Defense Fund, the National Oceanic and Atmospheric Administration, the U.S. Department of State, and the Mote Marine Laboratory in Sarasota, Florida, attended a gathering at the Brookings Institution in Washington, D.C. hosted by the Brookings Institution and the Environmental Defense Fund and titled “A New Era for U.S.–Cuba Relations on Marine and Coastal Resources Conservation.”²²⁹ The change in U.S. presidential administrations, coupled with the Obama administration’s moderate approach to Cuba, inspired the meeting, which sought to make recommendations to the new administration.²³⁰ As was the case in Cancún, a dominant theme at this meeting was collaboration.²³¹ Daniel Whittle, an attorney with the Environmental Defense Fund and one of the aforementioned writers in the *Tulane Environmental Law Journal*’s examination of Cuban environmental laws, commented on the necessity of collaboration at the Brookings Institution gathering, stating that “[w]hat happens in Cuba doesn’t stay in Cuba. . . . we are so ecologically connected that despite

224. *Id.* at 3, 20–27.

225. *Id.* at 1. The United States is not alone in making conservation research difficult. The Cuban government heavily restricts access to the island’s northwest coast, the portion of the island closest to the United States, near where offshore drilling might occur and home to unstudied ecosystems. *See* Dean, *supra* note 182.

226. Brookings Institution Panel Discussion, *supra* note 11, at 78 (remarks by Dr. David Guggenheim, President, IPlanetIOcean).

227. *Id.*

228. *U.S. and Cuban Scientists Plan Joint Gulf Research*, Reuters, Oct. 28, 2009, available at <http://www.reuters.com/article/idUSTRE59R04B20091028> (last visited May 17, 2010).

229. *Id.* at 1–5.

230. *See id.* at 3–5, 9, 16 (remarks by Scott Edwards, Director, Latin America and Caribbean Oceans Program, Environmental Defense Fund).

231. *See generally id.* at 18, 29, 35, 55–68, 75–76.

the political divorce, there's no way around the ecological connection."²³² Geographic proximity makes collaboration desirable.

In terms of actual examples of collaboration, the Brookings Institution meeting revealed an array of ongoing activities. Whittle noted collaboration between the Environmental Defense Fund and Cuba's University of Matanzas to document the impacts of oil and gas development in the Gulf of Mexico.²³³ The study's results were to be shared with Cuban lawyers working to draft a comprehensive offshore energy law.²³⁴ Meanwhile, Dr. Robert Hueter of the Mote Marine Laboratory discussed his organization's collaboration with students from the University of Havana to do field research on sharks that migrate between Cuban and U.S. waters.²³⁵ Also notable at the Brookings Institution meeting were comments by Whittle that input from U.S. attorneys inspired some of Cuba's environmental laws.²³⁶ Professor Oliver Houck, at Tulane University Law School, helped prepare a draft version of Law No. 212, Cuba's coastal zone management law.²³⁷ In sum, this April 2009 meeting demonstrates that political disengagement is not coextensive with the comparatively vibrant research and academic exchanges between Cuban and U.S. policy leaders and scientists. Continued collaboration between these parties bodes well for management of the Florida Straits ecosystem in the event oil exploration proceeds.

Perhaps most emblematic of the desire for collaboration despite political headwind is the extent of the Environmental Defense Fund's decade-long environmental efforts in Cuba. The Environmental Defense Fund has been active in Cuba since 2000.²³⁸ The organization has helped develop a Cuban handbook on coastal conservation, and it helped develop the science for an island-wide network of marine protected areas.²³⁹ These efforts show that U.S.–Cuba dialogue over shared environmental priorities has thrived in spite of political obstacles. The path forward should assist this collaboration.

232. *Id.* at 60 (remarks by Daniel Whittle, Senior Attorney and Director, Southeast Oceans Program, Environmental Defense Fund).

233. *Id.* at 57.

234. *Id.* at 58.

235. *Id.* at 85 (remarks by Robert Hueter, Senior Scientist and Director, Center for Shark Research, Mote Marine Lab).

236. *Id.* at 65–66 (remarks by Daniel Whittle).

237. *Id.*

238. ENVIRONMENTAL DEFENSE FUND, CUBA VITAL TO MARINE CONSERVATION IN CARIBBEAN, <http://www.edf.org/page.cfm?tagID=48287> (last visited May 9, 2010).

239. *Id.* See also ENVIRONMENTAL DEFENSE FUND, THE NATIONAL SYSTEM OF MARINE PROTECTED AREAS IN CUBA (2004), available at http://www.edf.org/documents/3692_mpasCubaIngles.pdf.

Despite this productive private collaboration between U.S. nongovernmental organizations and Cuba, the ongoing political tension between the nations remains a major impediment. Speakers at the Brookings Institution meeting urged the Obama administration to ease restrictions on exchanges between the two countries so that Cuban scientists can come to the United States to meet with conservation leaders over shared Florida Straits ecosystem research.²⁴⁰ Of particular interest to those assembled were licenses for “people-to-people” exchanges so that scholars can share their ideas.²⁴¹ Certain conference participants recommended removing Cuba from the list of nations that sponsor terrorism.²⁴² Individuals meeting in Cancún in November 2007 also expressed their frustration with the political barriers to collaboration.²⁴³ The Cancún participants cited Cuban interference with Internet access for communication between the United States and Cuba, problems with bandwidth, and excessive communication costs.²⁴⁴ They stated that an inability to share information was among the largest obstacles to collaboration.²⁴⁵ The ecological and economic importance of the Florida Straits marine resources should promote a reassessment of policies in Washington and Havana so that the exchanges policy leaders desire can occur. The Cancún and Brookings Institution meetings show the interest in joint engagement; it is up to both governments to further this collaboration by taking steps to allow increased interaction.

VII. CONCLUSION

In the end, it is not laws such as Cuba’s Law No. 81 or U.S. environmental impact assessments that need the most attention if drilling in the Florida Straits advances. It is the economic means and political will to enforce those laws, along with open dialogue between Washington and Havana, that will have a lasting impact on the future of this mineral rich tropical ecosystem.

It is possible that drilling in the Florida Straits will prove an ephemeral issue. Along with the infrastructural and bureaucratic issues surrounding drilling described in this Note, oil prices have retreated from 2008 highs. The global financial crisis adds uncertainty to offshore

240. Brookings Institution Panel Discussion, *supra* note 11, at 15, 68, 95, 98–99.

241. *Id.* at 68.

242. *Id.* at 15 (Scott Edwards remarked that taking Cuba off the list of nations considered sponsors of terrorism would promote greater exchange of equipment, including computers, between the United States and Cuba).

243. GUGGENHEIM & FERNÁNDEZ CHAMERO, *supra* note 219, at 1.

244. *Id.* at 17, 27.

245. *Id.*

development prospects, and the Deepwater Horizon spill chills the rush to further exploit oil resources in and near the Gulf of Mexico. An intense hurricane season in 2008, resulting in over \$10 billion worth of damage in Cuba alone, underscores the liabilities oil companies face in drilling in the Florida Straits and may also stall an oil rush.²⁴⁶ Moreover, Cuba itself is in a relative state of flux following Fidel Castro's relinquishment of power in February 2008 to his brother, Raúl Castro.²⁴⁷

If either the United States or Cuba moves to develop the Florida Straits oil reserves, both countries should follow the lead of policy leaders and recognize that economic and environmental well being depends on a joint commitment to responsible oversight. Cuba could use the offshore drilling opportunity to demonstrate the depth of its commitment to environmental reforms. It may wish to put a better gloss on its environmental credentials than that revealed by Moa's nickel mines. For the United States, the risks development in the Florida Straits poses to Florida's marine resources present an opportunity for the Obama administration to take further steps towards normalized relations between the two countries.

As of this Note's publication, the U.S.–Cuban relationship remains mired in political rhetoric. On the positive front, President Barack Obama has eased restrictions on Cuba travel for Cuban Americans.²⁴⁸ The ranks of Congressional Republicans favoring a Cuba policy shift appear to be growing.²⁴⁹ Yet prospects for improved U.S.–Cuban relations under President Obama have dwindled.²⁵⁰ In late 2009, Cuba detained an American contractor giving away cell phones and laptops to Cuban civil society groups.²⁵¹ Both Fidel and Raúl Castro have made public statements denouncing President Obama, and planned U.S. diplomatic missions, such as a January 2010 mission to Havana to discuss cooperation in combating the drug trade, have been postponed or cancelled.²⁵² After the January 2010 Haitian earthquake, Fidel Castro denounced the U.S. relief effort in Haiti as an occupation force.²⁵³ On the whole, the relationship between the two nations remains sour.

246. David Adams, *Cuba's Aim: Tourist Magnet*, ST. PETERSBURG TIMES, Jan. 26, 2009, at 1A.

247. William E. Gibson, *Castro's Resignation Will Be No Revolution*, SUN-SENTINEL, Feb. 20, 2008, at 21A.

248. Lacey, *supra* note 200.

249. Karen DeYoung, *Lugar, GOP Senate Report Urge Fresh Look at Relations with Cuba*, WASH. POST, Feb. 21, 2009, at A3.

250. Lacey, *supra* note 200.

251. *Id.*

252. *Id.*

253. *Castro Decries U.S., Others Sending Troops to Haiti*, ASSOCIATED PRESS, Jan. 24, 2010, available at <http://abcnews.go.com/International/wireStory?id=9648443> (last

At this stage, perhaps the most sensible move would be for the Obama administration to ease research and education travel restrictions in spite of Cuba's recent behavior, if not reduce the costs of communicating and doing business with Cuba. Doing so would put the United States in a proactive role and force Cuba to change its tone. This would promote collaboration among parties interested in ensuring responsible development of offshore resources. Even if Washington and Havana cannot overcome decades of political reprisals and suspicion, the recent efforts of U.S. and Cuban scientists and policy leaders in places such as Cancún should receive assistance. In the aftermath of the Deepwater Horizon disaster, Anya Landau French wrote in *The Havana Note* that the oil spill demonstrates the necessity of dialogue, planning, and technological exchange between the United States and Cuba so that Florida Straits oil development proceeds responsibly.²⁵⁴ Such remarks are timely and vital; official engagement can only improve the odds that Florida Straits oil drilling proceeds safely. The alternative to engagement is the current political stalemate, under which drilling may move forward in the Florida Straits while the United States watches from ninety miles away to see whether Cuba's professed sustainable Revolution succeeds in protecting this shared marine ecosystem. Such a scenario has become entirely undesirable in light of the Deepwater Horizon oil spill and even without the unprecedented spill, an array of policy leaders, lawyers, and scientists have demonstrated an abiding commitment to collaboration. It is time Washington and Havana endorse this emerging collective vision.

visited May 9, 2010).

254. French, *supra* note 4. On May 26, 2010, the New America Foundation in Washington, D.C., hosted a discussion titled "U.S.–Cuba Engagement in the Gulf: Lessons from the Deepwater Horizon Oil Spill." The experts assembled noted that planning for contingencies is essential if drilling takes place in the Florida Straits, and that effective planning requires more direct exchange between the United States and Cuba. See U.S.–Cuba Engagement in the Gulf: Lessons from the Deepwater Horizon Oil Spill Panel Discussion, New America Foundation (May 26, 2010), available at http://newamerica.net/events/2010/us_cuba_engagement_in_the_gulf.