
Notes & Comments

Freezing to Heat the Future: Streamlining the Planning and Monitoring of Arctic Hydrocarbon Development

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I. INTRODUCTION

Hydrocarbon development in the Arctic is no longer a “what if” situation; it is the here and now. The future will bring more development, as evidenced by the actions and plans of the Arctic states. Policy statements from the Arctic states suggest one unified goal for the future: protecting the environment while pursuing development.¹

The environmental risks of Arctic hydrocarbon development can never be completely eliminated, but they can be managed by efficient use of the existing regulatory framework. Currently, overlapping legal and social regimes check operations. While the system could be improved with some tweaks, it is sufficient to meet the goal of protecting the environment while pursuing development.

This Note assumes a future that includes oil and gas development in the Arctic. Part II discusses the forces driving Arctic hydrocarbon development and the actions states have taken thus far. Part III shows how an approach based on the assumption of future Arctic development is more realistic than trying to convince the Arctic states to adopt a ban similar to the Arctic Treaty System (“ATS”). Part IV demonstrates how the current legal framework furthers the goal of encouraging investment and environmental protection, and suggests ways to improve the current system. Part V demonstrates how extra-legal drivers, such as corporate social responsibility, support legal environmental requirements. Finally, Part VI outlines guiding principles for moving into a collaborative, productive, and environmentally-sound future of Arctic oil and gas development.

II. BACKGROUND

The Arctic’s enormous hydrocarbon reserves, coupled with a legal framework that gives surrounding states—notably Canada, Denmark, Norway, the Russian Federation, and the United States—the opportunity to obtain sovereign control over these hydrocarbon-rich waters, create a great incentive for these states to pursue oil and gas development in the Arctic. Today, widespread consensus holds that Arctic oil and gas development will continue to increase in the future, and the impact of

1. *See, e.g.*, Ilulissat Declaration, Can.-Den.-Nor.-Russ.-U.S., May 28, 2008, available at http://www.oceanlaw.org/downloads/arctic/Ilulissat_Declaration.pdf.

development can be reduced through a combination of regulation, technology, and planning.²

The Arctic states are keenly aware of the Arctic's tremendous hydrocarbon potential. The U.S. Geological Survey estimates that undiscovered reserves north of the Arctic Circle are over 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids.³ Nearly eighty-four percent of the Arctic's reserves are estimated to rest offshore.⁴

Arctic states are also cognizant of the fact that the current legal framework provides an opportunity for them to obtain effectively sovereign control over the hydrocarbon-rich Arctic waters. The main goal of the United Nations Convention on the Law of the Sea ("UNCLOS"), the international regulatory framework governing the use of the world's oceans and seas, is to:

facilitate international communication, and . . . promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.⁵

Part VI of UNCLOS is key to Arctic hydrocarbon development because it governs the boundaries and extent of states' sovereign control over offshore natural resources.⁶ A state exercises "sovereign rights for the purpose of exploring [its continental shelf] and exploiting its natural resources" and may exclude other states from doing so without its consent within its continental shelf.⁷ As a default rule, a state's continental shelf extends to the greater of the outer edge of its continental margin⁸ (up to 350 nautical miles), or 200 nautical miles from the

2. SUSTAINABLE DEVELOPMENT WORKING GROUP, SDWG REPORT ON ARCTIC ENERGY 15, available at <http://portal.sdwg.org/media.php?mid=1012>; Ilulissat Declaration, *supra* note 1, at 1; RONALD O'ROURKE, CONG. RESEARCH SERV., R41153, CHANGES IN THE ARCTIC: BACKGROUND AND ISSUES FOR CONGRESS 13 (2011), available at www.fas.org/sgp/crs/misc/R41153.pdf.

3. U.S. GEOLOGICAL SURVEY, CIRCUM-ARCTIC RESOURCE APPRAISAL: ESTIMATES OF UNDISCOVERED OIL AND GAS NORTH OF THE ARCTIC CIRCLE 1 (2008), available at <http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>.

4. *Id.*

5. United Nations Convention on the Law of the Sea, Preamble, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

6. *See generally id.* pt. VI.

7. *Id.* art. 77.

8. A state's continental margin "comprises the submerged prolongation of the land mass of the coastal State, and consists of the seabed and subsoil of the shelf, the slope and the rise. It does not include the deep ocean floor with its oceanic ridges or the subsoil thereof." *Id.* art. 76.3

baselines⁹ from which the breadth of the territorial sea is measured.¹⁰ The burden is on the coastal state to establish that the outer edge of its continental margin extends beyond 200 nautical miles.¹¹ To do this, the state must submit certain information outlined in Article 76 to the Commission on the Limits of the Continental Shelf (“CLCS”).¹² The CLCS, consisting of twenty-one experts nominated by individual states and elected by all parties to five-year terms, can accept or reject the claims.¹³ If the CLCS rejects the claim, the state must revise its submission to conform to the formula set out in Article 76.¹⁴ The limits established by the state are final and binding.¹⁵ Finally, the state provides the Secretary-General of the United Nations with charts and relevant data describing the established outer limits, and then the information is published.¹⁶

The possibility of exercising sovereign control over increasingly accessible oil and gas reserves in the Arctic has led to “increased interest in developing offshore resources in the Arctic [and] has sparked efforts by nations bordering the Arctic Ocean to map the extent of their continental margins beyond the 200-mile [exclusive economic zone] limit.”¹⁷ The deadline for most countries to submit claims was May 14, 2009. However, due to backlog and a rush of last-minute preliminary submissions, the CLCS is likely to receive several more claims in the coming years.¹⁸

9. UNCLOS, *supra* note 5, art. 5, defines baselines as follows: “the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.” There are, however, exceptions to this general definition for: (1) islands on atolls or having fringing reefs, *id.* art. 6; (2) localities where the coastline is deeply indented or where there is a fringe of islands along the coast, *id.* art. 7; (3) internal state waters, *id.* art. 8; and (4) mouths of rivers, *id.* art. 9.

10. *Id.* art. 76.

11. *Id.* art. 76.4(a).

12. *Id.* art. 76.8.

13. *Id.* annex II, arts. 2.1–2.4; *id.* art. 76.8.

14. *Id.* annex II, art. 8; see also Anna Cavnar, *Accountability and the Commission on the Limits of the Continental Shelf: Deciding Who Owns the Ocean Floor* 15 (Inst. for Int’l Law & Justice Emerging Scholars, Paper 15, 2009), available at <http://www.iilj.org/publications/ESP15-2009Cavnar.asp>.

15. UNCLOS, *supra* note 5, art. 76.8.

16. *Id.* art. 76.9.

17. O’ROURKE, *supra* note 2, at 22.

18. See Nathaniel Gronewold, *Seabed Claims Mount, Swamping U.N. Commission*, N.Y. TIMES, May 14, 2009, available at <http://www.nytimes.com/gwire/2009/05/14/14greenwire-seabed-claims-mount-swamping-un-commission-10572.html?pagewanted=all>.

Canada, Russia, Norway, and Denmark are all in the process of preparing and submitting claims to extend their territorial claims into Arctic waters.¹⁹ For example, in 2001 Russia became the first state to submit a UNCLOS Article 76 claim.²⁰ In its claim, Russia asserted sovereignty over 1.2 million square kilometers of territory, including the North Pole and the sought-after Lomonosov Ridge, a geologic feature spanning the Arctic from Russia to Canada.²¹ This claim was rejected, and Russia is working to revise its claim.²² Norway submitted its UNCLOS claim in 2006. Canada and Greenland (the Kingdom of Denmark) could also potentially claim the Lomonosov Ridge, and the two are currently cooperating to acquire the necessary data.²³

Disputes are inevitable under a system where states have the opportunity to obtain economically valuable territory, and states were well aware of this fact during negotiations preceding UNCLOS.²⁴ The CLCS was chosen as the primary mechanism for preventing disputes between Article 76 claims.²⁵ UNCLOS does not explicitly provide for appeals of CLCS decisions.²⁶ However, some argue that if a state establishes limits that do not conform to the CLCS's recommendations, third-party challenges may be brought before the International Tribunal of the Law of the Sea ("ITLOS") or the International Court of Justice.²⁷ These possibilities are outside the scope of this Note, but are certain to become increasingly important as the CLCS completes more reviews of Article 76 claims.

19. O'ROURKE, *supra* note 2, at 11.

20. Mark Jarashow, Michael B. Runnels & Tait Svenson, *UNCLOS and the Arctic: The Path of Least Resistance*, 30 *FORDHAM INT'L L.J.* 1587, 1595 (2006).

21. *Id.* at 1595; O'ROURKE, *supra* note 2, at 13.

22. Jarashow, Runnels & Svenson, *supra* note 20, at 1595.

23. *LORITA-1, 2006: Fieldwork during April/May 2006 north of Canada/Greenland*, THE CONTINENTAL SHELF PROJECT, http://a76.dk/greenland_uk/north_uk/gr_n_expeditions_uk/lorita-1_uk/index.html (last modified Dec. 6, 2009).

24. Cavnar, *supra* note 14, at 11 (citations omitted).

25. *Id.* at 11–12 (citing Shirley V. Scott, *The Contribution of the LOS Convention Organizations to its Harmonious Implementation*, in *OCEAN MANAGEMENT IN THE 21ST CENTURY: INSTITUTIONAL FRAMEWORKS AND RESPONSES* 321–25 (Alex G. Oude Elferink & Donald R. Rothwell eds., 2004)).

26. See UNCLOS, *supra* note 5, pt. VI, annex II; see also Cavnar, *supra* note 14, at 14 (citing Gudmundur Eiriksson, *The Case of Disagreement Between a Coastal State and the Commission on the Limits of the Continental Shelf*, in *LEGAL AND SCIENTIFIC ASPECTS OF CONTINENTAL SHELF LIMITS* 251, 255 (Myron H. Nordquist, John Norton Moore & Tomas H. Heidar eds., 2004)).

27. See Cavnar, *supra* note 14, at 15–16 (citations omitted).

So far, the goal of the Arctic states seems to be cooperation in protecting the environment while encouraging investment in hydrocarbon development. This goal is reflected in both regional and country-specific documents. At a regional level, Arctic states have repeatedly declared goals for cooperation. For example, the Ottawa Declaration established the Arctic Council—the main regional coordinating body of Arctic states—in 1996 with the following mission statement:

[T]o provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues; in particular, issues of sustainable development and environmental protection in the Arctic.²⁸

More recently in 2008, five key Arctic states—Canada, Denmark, Norway, the Russian Federation, and the United States—adopted the Ilulissat Declaration, claiming a set of unified policy goals.²⁹ The Ilulissat Declaration captured the following regional policies of the Arctic States:

- commitment to the current legal framework and an observation that there is “no need to develop a new comprehensive international legal regime to govern the Arctic Ocean,”³⁰
- recognition of the role of the Arctic States in protecting the unique Arctic ecosystem; and
- commitment to a cooperative approach to making Arctic development a sustainable undertaking.³¹

Individual states have also unilaterally committed to this approach. For example, Denmark’s “Strategy for the Arctic 2011-2020” notes:

New opportunities and challenges must be handled proactively—with care, with long-term accountability and with respect for Arctic societies, the rights of Arctic indigenous peoples, the Arctic climate and the environment. The basis for the future of the Arctic is being created now, and the Kingdom must play a key role in the future international cooperation that lies ahead.³²

28. *History*, ARCTIC COUNCIL, <http://www.Arctic-council.org/index.php/en/about-us/history> (last visited Feb. 26, 2013).

29. *See* Ilulissat Declaration, *supra* note 1.

30. *Id.* at 1–2.

31. *See id.*

32. KINGDOM OF DENMARK STRATEGY FOR THE ARCTIC 2011–2020, at 9–10 (2011), *available* *at* <http://arctic->

As evidenced by these actions and policy commitments, Arctic hydrocarbon development is more than likely to continue.³³

III. THE ANTARCTIC TREATY SYSTEM IS NOT A FEASIBLE PATH FOR THE ARCTIC

The Environmental Protocol of the ATS bans commercial resource mining in Antarctica.³⁴ Critics of the Ilulissat Declaration argue for a similar regime banning exploration and exploitation of Arctic resources.³⁵ However, retraction of the Ilulissat Declaration and adoption of a legally binding agreement whereby the Arctic states tie their own hands regarding Arctic oil and gas production is not a feasible path.

This Part describes the approach taken toward Antarctic resource development and explains why that path is not suitable for the Arctic. While this Note is premised on a view of the future that includes Arctic hydrocarbon development and suggests working within the current framework to increase system efficiencies, some have suggested that an agreement modeled after the ATS is a preferable approach.

The ATS was signed in 1959 by twelve countries whose scientists had been active around Antarctica. The key provisions of the ATS require (1) use of Antarctica only for peaceful purposes; (2) freedom of scientific investigation in Antarctica; (3) the inter-country exchange of scientific plans and observations; and (4) that the ATS not be interpreted as a renunciation by any party of previously asserted rights or claims to territorial sovereignty in Antarctica.³⁶

council.org/filearchive/Arktis_Rapport_UK_210x270_Final_Web.pdf (Denmark is one of the Arctic states actively pursuing Arctic hydrocarbon development).

33. See Coalter G. Lathrop & Scott Borgerson, *The Road to the Arctic*, FOREIGN AFFAIRS, May/June 2008, available at <http://www.foreignaffairs.com/articles/64298/coalter-g-lathrop-scott-borgerson/the-road-to-the-Arctic> (“The Arctic is not the ‘legal vacuum’ invoked in Scott Borgerson’s article ‘Arctic Meltdown’ (March/April 2008); it is a region governed by international law and, for the maritime issues that are the main subject of the article, specifically by the international law of the sea.”); see also Ilulissat Declaration, *supra* note 1, at 2. See generally KINGDOM OF DENMARK STRATEGY FOR THE ARCTIC 2011-2020, *supra* note 32.

34. Antarctic Treaty System, vol. I, art. 7 (2011), available at http://www.ats.aq/documents/keydocs/vol_1/vol1_Volume_1_Complete_Document_e.pdf.

35. Kristin N. Casper, *Oil and Gas Development in the Arctic: Softening of Ice Demands Hardening of International Law*, 49 NAT. RES. J. 825, 827 (2009).

36. The Antarctic Treaty, art. I-IV (1959), available at http://www.ats.aq/documents/keydocs/vol_1/vol1_2_AT_Antarctic_Treaty_e.pdf.

An ATS-style ban or overarching regulatory regime is not suitable for the Arctic for two reasons. First, a regime banning Arctic oil and gas production will not materialize because it is not in the interests of the would-be signatories. Whereas the drafters of the ATS were interested in preserving the continent as a scientific sanctuary,³⁷ the Arctic states are already heavily invested in Arctic oil and gas development, not preservation of the region as a scientific sanctuary. For states to disregard those investments in exchange for a ban on development at this point is not feasible.

Second, the five Arctic states likely to have jurisdiction over Arctic waters—Canada, Denmark, Norway, the United States, and Russia—have already declared in unison that no new regulatory scheme is needed.³⁸ Furthermore, building consensus is difficult. For example, the United States' experience with state regulation of hydraulic fracturing disclosure demonstrates this point. In the United States, public outcry about the contents of hydraulic fracturing fluids has failed to induce a comprehensive national policy response, but instead has led to a flurry of state regulations in recent years.³⁹ States responded quickly to the call for regulation in divergent ways based on what local lawmakers saw as the best way to approach the situation. For example, while New York instituted a moratorium on the use of fracturing in the Syracuse watershed,⁴⁰ Colorado adopted regulations requiring disclosure of chemicals used in the process with an exception for trade secrets.⁴¹ Building consensus regarding a comprehensive regulatory regime between states within a single country is difficult enough, and building such a consensus between countries with no overarching sovereign body may be even more difficult.

37. Jonathan Blum, *The Deep Freeze: Torts, Choice of Law, and the Antarctic Treaty Regime*, 8 EMORY INT'L L. REV. 667, 667 (1994).

38. See Ilulissat Declaration, *supra* note 1.

39. See, e.g., Russell Gold & Stephanie Simon, *States Force Disclosure of Fracking Chemicals*, WALL ST. J., Dec. 14, 2011, available at <http://online.wsj.com/article/SB10001424052970204336104577096800431092304.html>; Bethany Hetef, *Texas Commission Requires Public Disclosure of Fracking Chemicals*, ENERGY BUS. L. (Jan. 23, 2012), <http://www.energybusinesslaw.com/articles/natural-gas/>.

40. Mireya Navaro, *N.Y. Assembly Approves Fracking Moratorium*, N.Y. TIMES (Nov. 30, 2011, 12:25 PM), <http://green.blogs.nytimes.com/2010/11/30/n-y-assembly-approves-fracking-moratorium/>.

41. See generally *In re Changes to the Rules of Practice and Procedure of the Oil and Gas Conservation Commission of the State of Colorado*, Order No. 1R-114, available at http://cogcc.state.co.us/RR_HF2011/Order1R-114FinalFracingDisclosureRule.pdf.

IV. LEGAL DRIVERS OF ENVIRONMENTAL PROTECTIONS IN THE ARCTIC

Since the ATS method will not work in the Arctic, environmental protection will likely be left to individual state governments. The law can protect the environment while promoting development in three ways: (1) streamlining environmental planning processes; (2) facilitating the inclusion of local input in planning; and (3) encouraging technological innovation.⁴² The current legal framework governing Arctic development uses two of these three methods—streamlined planning and indigenous participation. Individual states could improve the system by adopting properly designed regulations to encourage the development of new technologies that better protect the environment.

A. Planning: Environmental Impact Assessments

Environmental Impact Assessments (“EIAs”) are commonly used to plan and monitor the environmental impact of projects.⁴³ An EIA is a “*process which produces a written statement to be used to guide decision-making.*”⁴⁴ Most, if not all, oil and gas operations in the Arctic

42. See S. Jay et al., *Environmental Impact Assessment: Retrospect and Prospect*, 27 ENVTL. IMPACT ASSESSMENT REV. 287, 296 (2007) (citing C.M. Wood, *Environmental Impact Assessment: A Comprehensive Review* 331 (2d ed. 2003)) (noting the widespread perception that the implementation of strategic environmental assessment has “the potential to streamline and strengthen project EIA and to contribute towards the aims of sustainable development”); cf. Stefan Ambec et al., *The Porter Hypothesis at 20: Can Environmental Regulation Enhance Innovation and Competitiveness?* 7 (Res. for the Future Discussion Paper 11-01, 2011) (citing M. Porter & C. van der Linde, *Toward a New Conception of the Environmental-Competitiveness Relationship*, J. OF ECON. PERSP. 97 (2005)) (arguing that properly designed environmental regulation can spur environmental innovation); Jason Corburn, *Book Review: Street Science: Community Knowledge and Environmental Health Justice*, 19 MIT PRESS 210, 210 (2005) (“The book details four distinctly different . . . case studies to illustrate instances of environmental difficulties helped by community input of local knowledge.”).

43. PETER WATHERN, ENVIRONMENTAL IMPACT ASSESSMENT: THEORY AND PRACTICE 3 (1988); see also PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 799–800 (2d ed. 2003) (EIA is “now an established international and domestic legal technique for integrating environmental considerations into socio-economic development and decision-making processes.”); see generally BARRY SADLER, INT’L ASS’N FOR IMPACT ASSESSMENT, CANADIAN ENVTL. ASSESSMENT AGENCY, INTERNATIONAL STUDY OF THE EFFECTIVENESS OF ENVIRONMENTAL ASSESSMENT, FINAL REPORT, ENVIRONMENTAL ASSESSMENT IN A CHANGING WORLD: EVALUATING PRACTICE TO IMPROVE PERFORMANCE, 42–45 (1996), available at www.iaia.org/publicdocuments/EIA/EAE/EAE_10E.PDF.

44. SANDS, *supra* note 43, at 800 (emphasis in original).

will require transboundary EIAs under the current legal framework.⁴⁵ This discussion of EIAs and site-specific planning will start with an overview of the existing framework governing EIA processes—UNCLOS, the Espoo Convention, and state EIA procedures—to show that nearly all oil and gas development projects in the Arctic will require transboundary, consultative EIAs. Next, Russia and Denmark’s EIA procedures are compared and evaluated based on how efficiently each meets three goals of an efficient EIA.⁴⁶ These two countries are examined to juxtapose the effectiveness of EIAs in a country complying with the Espoo Convention—Denmark—with the EIA processes of a country that has not—Russia. Finally, this Subpart concludes with two suggestions for improving the current system: Russia complying with the Espoo Convention and the Arctic Council taking a more active role in data collection.

UNCLOS and the Espoo Convention comprise the main international framework relevant to EIAs in the Arctic. UNCLOS, as previously described, is the international framework governing use of the oceans and seas. The Espoo Convention obliges parties conducting major projects that are likely to have significant adverse environmental impacts across boundaries to conduct transboundary EIAs and consult with States that may be impacted.

Of the five key Arctic states that proffered the Ilulissat Declaration, all have ratified both UNCLOS and the Espoo Convention with two exceptions—the United States is not a party to UNCLOS and Russia has signed, but not ratified, the Espoo Convention.⁴⁷ In signing, Russia has voluntarily committed to follow the Convention to the extent that its provisions do not contradict state law.⁴⁸

45. See Espoo Convention, app. I (listing “offshore hydrocarbon production” as an activity automatically requiring a transboundary EIA if it is deemed likely to have a significant transboundary impact).

46. SANDS, *supra* note 43, at 800.

47. See *Status of Convention on Environmental Impact Assessment in a Transboundary Context*, UNITED NATIONS TREATY COLLECTION, http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4&chapter=27&lang=en (last visited Feb. 26, 2013) (listing Espoo Convention signatories); *Chronological lists of ratifications of, accessions and succession to the Convention and Related Agreements as at 23 January 2013*, OCEANS & LAW OF THE SEA DIV. FOR OCEAN AFF. & THE LAW OF THE SEA, http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.hth# (last updated Jan. 23, 2013).

48. Vladimir Ivlev, *Re: Inquiry for the international EIA procedure on Baltic NPP (Kaliningrad Region of Russian Federation)*, <http://www.anti-atom.ru/en/node/1123> (last visited Feb. 26, 2013).

UNCLOS contains a broad EIA requirement⁴⁹ and the Espoo Convention sets forth specific requirements for state EIA contents.⁵⁰ Generally, the Espoo Convention obliges parties to “take all appropriate and effective measures to prevent, reduce and control significant transboundary environmental impact from proposed activities.”⁵¹ Furthermore, when a proposed activity is “likely to cause a significant adverse transboundary impact,”⁵² the Espoo Convention requires the Party of origin to undertake an EIA process that includes consulting affected Parties in all countries whose territories are likely to be affected.⁵³ “Transboundary impact” is defined as “any impact, not exclusively of a global nature, within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part with the area under the jurisdiction of another Party.”⁵⁴ These are binding obligations on signatory countries, and disputes arising under the Espoo Convention may be settled by the International Court of Justice or through arbitration procedures set out by the Convention.⁵⁵

There are difficulties with the transboundary requirements of the Espoo Convention, including language and cultural barriers, and differing administrative regimes.⁵⁶ To help overcome these challenges, the Arctic Council should take a more active role in the process. These would require the Arctic Council to oversee policy implementation instead of mere coordination of policy. However, coordinating *policy* is very different from overseeing *implementation* of that policy. By taking a more active role in data collection, the Arctic Council could help streamline processes such as the transboundary EIAs required under the Espoo Convention. Furthermore, given the Council’s depth of expertise

49. See UNCLOS, *supra* note 5, art. 206 (“When states have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution or of significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments [at appropriate intervals to the competent international organisations, which should make them available to all states.]”).

50. Espoo Convention, *supra* note 45, app. II.

51. *Id.* art. 2(1).

52. *Id.* arts. 2(2), (4).

53. *Id.* art. 2(6).

54. *Id.* art. 1(viii).

55. *Id.* art. 15(2).

56. See, e.g., Nick Bonvoisin, *Workshop on SEA and EIA Implementation in Bulgaria, Romania, and Turkey*, at 7, http://www.unece.org/fileadmin/DAM/env/eia/documents/ActivityReports/SzentendreDec10/2.1UNECE_transb_EIA_SEA.pdf (last downloaded Feb. 22, 2012).

in scientific and environmental matters, it should play a more active role in regional-level environmental monitoring.⁵⁷

While the Espoo Convention contains many requirements for state EIA procedures, states still have discretion over how to implement their own EIA process.⁵⁸ Therefore, in order to evaluate the effectiveness of the Convention, it is necessary to evaluate each state's EIA procedures. Denmark and Russia provide two unique case studies that highlight the potential for the Espoo Convention to provide adequate planning for Arctic oil and gas operations. These two countries' EIA procedures will be evaluated based on the following three goals:

- presenting to decision makers information on the environmental consequences of proposed actions and alternative courses of action;
- requiring decisions to be influenced by that information; and
- providing for public participation in the decision making process.⁵⁹

In Denmark, EIAs became mandatory in 1989 in response to European Union ("EU") Directive 85/337/EEC (27 June 1985) ("EIA Directive").⁶⁰ Denmark signed the Espoo Convention in 1991 and approved it in 1997.⁶¹ In 1999, EU Directive 1997/11 amended the EIA

57. Arctic Council working groups include, for example, the Arctic Contaminants Action Program, Arctic Monitoring and Assessment Program, Conservation of Arctic Flora and Fauna, Emergency Prevention, Preparedness and Response, Protection of the Arctic Marine Environment, and Sustainable Development Working Groups. For more information, see the Arctic Council's working group website. *Working Groups*, ARCTIC COUNCIL (Apr. 15, 2011), <http://www.Arctic-council.org/index.php/en/about-us/working-groups>.

58. Kevin R. Gray, *International Environmental Impact Assessment Potential for a Multilateral Environmental Agreement*, 11 COLO. J. INT'L ENVTL. L. & POL'Y 83, 103 (2000).

59. SANDS, *supra* note 43, at 800.

60. Jens Staerdahl et al., *Environmental Impact Assessment in Malaysia, South Africa, Thailand, and Denmark: Background, layout, context, public participation and environmental scope*, 3 J. TRANSDISCIPLINARY ENVTL. STUDIES 1, 12 (2004), available at http://www.journal-tes.dk/vol%203%20no%201/Jens%20St%e6rdahl_lav.pdf?id=00028. For more information on the development of Denmark's EIA procedures, see PER CHRISTENSEN, LONE KØRNØV & ESKILD HOLM NIELSEN, MINISTRY OF ENV'T/AALBORG UNIV., *THE OUTCOME OF EIA IN DENMARK* (2003), available at ec.europa.eu/environment/eia/pdf/eia_outcome.pdf.

61. *Convention on Environmental Impact Assessment in a Transboundary Context*, Status as at: 28-02-2013, UNITED NATIONS TREATY COLLECTION, http://treaties.un.org/Pages/ViewDetails.aspx?mtdsg_no=XXVII-4&chapter=27&lang=en (last visited Feb. 28, 2013).

Directive to align it with the requirements of the Espoo Convention.⁶² Denmark's EIA system was adjusted significantly in 1999 to comply with EU Directive 1997/11 and, therefore, with the Espoo Convention.⁶³

Russia's EIA procedures, on the other hand, are not sufficient to meet the requirements of the Espoo Convention.⁶⁴ Russian law defines an EIA as a "type of activity on identification, analysis and consideration of direct, indirect, and other consequences of environmental impact of a proposed economic and other activity for decision-making, whether the activity can proceed or not."⁶⁵ The laws were significantly revised by the 2006 Special Legislative Acts (No232-FZ, 18 December 2006).⁶⁶ These revisions simplified the EIA process and shortened the list of activities requiring EIAs.⁶⁷ Because many activities are excluded from the list of those requiring an EIA, many projects with significant environmental impacts are not subject to an EIA.⁶⁸

The first point on which to evaluate these two processes is whether they provide decision makers with information and analysis necessary to choose among alternative development plans. The inclusion and analysis of alternatives is perhaps the most important information provided to decision makers through the EIA process.

Under the Espoo Convention, state EIA processes are required to document, at a minimum, descriptions of the following:

- (1) the proposed activity;
- (2) reasonable alternatives;
- (3) the environment likely to be affected;
- (4) the potential environmental impact;
- (5) mitigation measures;
- (6) predictive methods and underlying assumptions;
- (7) the environmental data used;
- (7) the gaps in knowledge and uncertainties acquired;

62. *Environmental Impact Assessment—EIA*, EUROPEAN COMM'N, <http://ec.europa.eu/environment/eia/eia-legalcontext.htm> (last updated Oct. 26, 2012).

63. Staerdahl et al., *supra* note 60, at 12.

64. Kaja Peterson & Valdur Lahtvee, *The Russian Federation and the Espoo Convention: Current Situation and Future Challenges*, ESTONIAN INST. FOR SUSTAINABLE DEV./STOCKHOLM ENV'T. INST. 18 (2007), available at www.seit.ee/failid/168.pdf.

65. *Id.* at 15.

66. *Id.*

67. *Id.*

68. *Id.* at 16.

- (8) an outline for monitoring and management programs (where appropriate); and
- (9) a non-technical summary of the project.⁶⁹

The Espoo Convention is silent on how alternatives shall be determined, but does require the inclusion of a “no action” alternative to the proposed activity.⁷⁰

While Denmark’s EIA procedures meet this standard, Russia’s do not. Denmark’s EIA procedures require full evaluation of all alternatives proposed by all parties, both proponent and non-proponent.⁷¹ Russia’s City Development Code (29.12.2004 No.190-FZ) and the Governmental Decree of 16 February 2008 No.87 require that the project proponent include a “[l]ist of environmental protection measures,” but there are no requirements or guidelines specifying what this list must include.⁷² By requiring only justifications for the activity without an analysis of alternatives, the Russian system does not provide decision makers with information relevant to the decision to approve the project as proposed. If, however, Russia were to ratify and conform to the Espoo Convention, it would have to adjust its EIA procedures to include the analysis of alternatives, including the “no action” alternative.⁷³

The second point on which to evaluate EIA procedures is whether the information presented in the EIA *influences* decision-making or, alternatively, just *checks* compliance with current laws.⁷⁴ By requiring decisions to be made after considering the environmental criteria addressed in the EIA, the EIA process can “address cumulative, synergistic, and often uncertain impacts of large projects.”⁷⁵

Under the Espoo Convention, final decisions must take account of the EIA documentation as well as public comments received from all affected areas and the results of consultations between the Party of origin

69. Espoo Convention, *supra* note 45, app. II.

70. *See id.* app. II (b)-(d).

71. Julie Teel, *International Environmental Impact Assessment: A Case Study in Implementation*, 31 ENVTL. L. REP. 10291 (2001).

72. Peterson & Lahtvee, *supra* note 64, at 15; Kryvonos Eugenia Valentinovna, *Environmental Impact Assessment: Domestic vs. International Approach*, OIL & GAS EURASIA (Apr. 2011), <http://www.oilandgaseurasia.com/articles/p/138/article/1465/>.

73. *See* Espoo Convention, *supra* note 45, app. II.

74. *See* Teel, *supra* note 71, at 10292 (“Experts analyzing the [Ukrainian EIA] system have since found that the role and influence were largely limited to checking compliance with existing environmental regulations. This hampered the SER's ability to address cumulative, synergistic, and often uncertain impacts of large projects.”).

75. *Id.* at 10292.

and the potentially affected State.⁷⁶ Furthermore, the Party of origin must specify the reasons and considerations upon which the final decision is made and furnish a copy to the affected Party.⁷⁷

Again, while Denmark's EIA procedures meet this standard, Russia's do not. In Denmark, final decisions after the completion of an EIA must be made public, along with the reasons behind the decision.⁷⁸ In Russia, the role of an EIA in decision-making is limited. While the federal law "On the Protection of the Environment" requires that the Russian Federation examine drafts and other documentation for activities likely to cause adverse environmental impacts, there is no indication that the results of an EIA necessarily inform the decision-making process.⁷⁹ Russia's EIA procedures, therefore, act more like a compliance check than a process for evaluating and mitigating potential environmental impacts. If Russia were to ratify and conform to the Espoo Convention, it would be required to adjust its EIA procedures to ensure that final decisions take "due account" of the results of the EIA.⁸⁰

The third point on which to evaluate these EIA procedures is public participation. Public participation is an essential element of any EIA process because it increases the likelihood of a final decision reflecting all the relevant environmental concerns,⁸¹ provides decision makers with timely and relevant information, and improves the transparency and legitimacy of the process.⁸² Two conditions must be met to have

76. Espoo Convention, *supra* note 45, arts. 6(1), 4(2), 3(8).

77. *Id.* art. 6(2).

78. Staerdahl et al., *supra* note 60, at 15 ("[R]elevant objections from the public during the public hearing phase [of the EIA process for constructing three major roads] have had an influence on the final design of the road.").

79. Peterson & Lahtvee, *supra* note 64, at 17. There are, however, limited instances where Russian EIAs influence permitting decisions. For example, the resolution, Order of Laying Underwater Cables and Pipelines in the Interior Marine Waters and Territorial Sea of the Russian Federation, adopted Jan. 26, 2000, amended November 9, 2004, No. 68, says that permits will only be granted for laying underwater cables and pipelines if the state ecological expertise concludes that the draft project documentation is sufficient.

80. Espoo Convention, *supra* note 45, art. 6(1).

81. Teel, *supra* note 71, at 10291.

82. See *Public Participation in the EIA Convention and SEA Protocol*, U.N. ECON. COMM'N FOR EUROPE, <http://www.unece.org/env/eia/about/publicpart.html> (last visited Feb. 26, 2013) ("Decision II/3 of the Second Meeting of the Parties to the EIA Convention highlights some of the values of public participation in EIA in a transboundary context: Public participation in EIA in a transboundary context will help to: Improve relations between peoples and countries, and prevent transboundary environmental conflicts; Develop civil society and democracy in the countries of the ECE region; Promote the timely disclosure of relevant information to participants in the environmental decision-making process; Make people understand and respect the final decisions on projects; Give an insight into environmental protection and long-term

effective public participation: (1) the laws must allow the opportunity for participation, including sufficient information and time; and (2) the public must act on the opportunities provided.⁸³

The Espoo Convention requires that public participation be included in state EIA procedures.⁸⁴ The public in all potentially affected areas, regardless of country, shall have an equal opportunity to participate through comments and objections in the EIA process.⁸⁵ Public participation in the EIA process varies widely across the EU, partially due to differing laws and partially due to differing levels of citizen participation in civil society in general.⁸⁶ Therefore, while the Espoo Convention requires the *opportunity* for public participation, it does not and cannot require that the public *actually* participate.

Denmark's EIA process meets both of these conditions: the legal process contains several opportunities for public participation, and the public does, in fact, participate in the decision-making process. Opportunities for public participation include: a mandatory hearing phase during scoping,⁸⁷ a public hearing phase lasting at least eight weeks after the draft EIA is prepared,⁸⁸ and a four-week period for the public to object once the final decision is made public.⁸⁹ Denmark's "Project Act" demonstrates that the public participates in and influences EIA decisions.⁹⁰ In that instance, the Danish Parliament decided to build three major roads in Denmark. Throughout the EIA process, three public

environmental problems"); *see also* United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3-14, 1992, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), Annex I (Aug. 12, 1992) (emphasizing in Principle 10 that environmental issues are best handled with the participation of all concerned citizens).

83. *See* UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE, ECE/MP.EIA/7, GUIDANCE ON PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENT IN A TRANSBOUNDARY CONTEXT 10, 27, (2006), *available at* <http://www.unece.org/fileadmin/DAM/env/documents/2006/eia/ece.mp.eia.7.pdf>.

84. Espoo Convention, *supra* note 45, art. 2(2).

85. *Id.* arts. 2(6), 3(1), 3(8), 4(2).

86. WORLD BANK, GUIDANCE NOTES ON TOOLS FOR POLLUTION MANAGEMENT: ENVIRONMENTAL IMPACT ASSESSMENT 3, *available at* <http://siteresources.worldbank.org/INTRANET/ENVIRONMENT/Resources/GuidanceNotesEIA.pdf>.

87. Staerdahl et al., *supra* note 60, at 14.

88. *Id.*

89. *Id.* For more information on Denmark's EIA process and recent modifications, *see The Commission to the European Parliament, On the Application and Effectiveness of the EIA Directive* (Directive 85/337/EEC as amended by Directive 97/11/EC), *available at* ec.europa.eu/environment/eia/pdf/report_en.pdf.

90. Staerdahl et al., *supra* note 60, at 14.

meetings with a total of 830 participants were conducted, and the Directorate of Roads received around 100 written objections to the project. “[R]elevant objections from the public during the public hearing phase have had an influence on the final design of the road.”⁹¹

While Russia’s EIA process provides for public participation,⁹² one article suggests that before Russia can achieve compliance with the Espoo Convention, it must support increased public participation by facilitating the development of environmental and other civil NGOs.⁹³ Therefore, even if Russia were to ratify and conform with the Espoo Convention, effective public participation in the process would require more than just an adjustment to the laws; it would also require developments not mandated by the Espoo convention, including the “development of civil society, public access to information, transparency of decision making, public access to justice and environmental decision making.”⁹⁴

Overall, the current system for planning Arctic development could immediately be improved in two ways. First, if Russia complies with the Espoo Convention to the same extent as Denmark, then the key Arctic states would all conform to a uniform, transboundary EIA process. Second, if the Arctic Council takes a more active role in data collection, it would streamline the transboundary EIA process and help ensure consistency of information. This second point is addressed further below.

B. Local Input in Project Designs and Decisions

In addition to providing mechanisms for planning, a legal system can help ensure environmental protections are considered by facilitating input from local communities. Local involvement in environmental planning serves two primary purposes. First, early inclusion of all stakeholder groups in the planning process helps avert conflicts that can arise between indigenous groups, governments, and developers.⁹⁵ Second, indigenous knowledge about the local environment can contribute greatly to other scientific analyses and planning processes.⁹⁶

91. *Id.* at 14–15.

92. Valentinovna, *supra* note 72 (citing Order No. 372 of 2000 of the Federal Committee on Environmental Protection Part IV (May 16, 2000)).

93. Peterson & Lahtvee, *supra* note 64, at 18.

94. *Id.* at 19.

95. Ken Macintyre & Barbara Dobson, *Factoring Aboriginal Environmental Values in Major Planning Projects*, 2 AUSTRL. ENVTL. L. NEWS (1999).

96. *See, e.g.*, RENEE THAKALI & LAWRENCE LESKO, U.S. DEP’T OF AGRIC., WISDOM OF THE AGES: TRADITIONAL KNOWLEDGE AND FOREST ECOSYSTEMS (1998), *available at*

Under the current framework, indigenous participation is supported by state policies and integrated into the Arctic Council. However, while there is indigenous participation in the arena of Arctic development, several reform options are available to improve the process.

At the state level, for example, Denmark's approach to Arctic development is premised on the goal of promoting indigenous rights. Denmark's "Strategy for the Arctic 2011–2020" notes that new opportunities in the Arctic must be pursued by actively working to promote "long-term accountability and . . . respect for . . . the rights of Arctic indigenous peoples."⁹⁷ Denmark has been involved with the international organization of indigenous groups since the 1973 Arctic Peoples' Conference. Its "Strategy for the Arctic 2011–2020" reaffirms its commitment to cooperate and "strengthen indigenous peoples' rights to control their own development and their own political, economic, social and cultural situation."⁹⁸

Indigenous groups have been substantially involved in the process of negotiating environmental cooperation between Arctic states from the beginning.⁹⁹ For example, indigenous participation in the Arctic Council led to the use of indigenous knowledge in the development of its Arctic Environmental Protection Strategy and related programs to identify "research areas, expand understanding of the natural world, and bring useful insights into natural processes."¹⁰⁰ Today the Arctic Council provides a working mechanism for indigenous participation. Six indigenous organizations sit as permanent participants in the Arctic Council.¹⁰¹ In this role, organizations representing indigenous peoples do not vote but "participate actively and are fully consulted in all deliberations and activities of the Arctic Council."¹⁰²

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5163026.pdf (discussing the contribution of American Indian tribes to the management of U.S. National Forests).

97. KINGDOM OF DENMARK STRATEGY FOR THE ARCTIC, *supra* note 32, at 9–10.

98. *Id.* at 10, 44.

99. Monica Tennberg, *Indigenous Peoples' Involvement in the Arctic Council*, IV N. NOTES 21 (1996), *excerpt available at* <http://Arcticcircle.uconn.edu/NatResources/Policy/tennberg.html>.

100. *Id.*

101. These six groups are: the Arctic Athabaskan Council, Aleut International Association, Gwich'in Council International, Inuit Circumpolar Council, Russian Arctic Indigenous Peoples of the North, and Saami Council. *Permanent Participants*, ARCTIC COUNCIL (Nov. 10, 2011), <http://www.Arctic-council.org/index.php/en/about-us/permanentparticipants>.

102. Ivalu Sovndahl Pedersen, *Indigenous Peoples*, ARCTIC COUNCIL (July 4, 2011), <http://www.Arctic-council.org/index.php/en/Arctic-peoples/indigenous-people>.

While the degree of indigenous involvement in the Arctic Council has been hailed as a model for indigenous representation in international law,¹⁰³ several reforms have been suggested. First, some argue that this structure is shortsighted because it does not give indigenous groups the same membership status as member states.¹⁰⁴ Additionally, there are several indigenous organizations that are not represented in the Arctic Council.¹⁰⁵ Continued participation by and consideration of indigenous groups is imperative to the future of Arctic hydrocarbon development. As a practical and policy matter, sovereign nations should be the only voting members in the Arctic Council. Systemic reform may be on the horizon, as a task force focused on “institutional issues” (such as the process for admitting observers) is set to report to the Arctic Council in 2013.¹⁰⁶

C. Improvement Through Encouraging Technological Innovation

While the status quo may be sufficient in terms of planning and encouraging local input, individual states could enhance the legal framework for protecting the Arctic’s environment by enacting regulations that encourage technological innovation and regulatory certainty.

Environmental economists are split on the effect of environmental regulation on firm behavior. A popular theory called the “Porter Hypothesis” posits that environmental regulation is necessary, for the most part, to spur the innovation that will add to profits.¹⁰⁷ While several studies over the past twenty years have returned conflicting empirical results on the validity of the “Porter Hypothesis,” one lesson to draw is that “properly designed environmental standards can trigger innovation that may partially or more than fully offset the costs of complying with them.”¹⁰⁸ “Properly designed” environmental regulations should: create the maximum opportunity for industry innovation; use market-based, rather than command-and-control regulation, to promote efficient

103. Timo Koivurova & Leena Heinämäki, *The Participation of Indigenous Peoples in International Norm-Making in the Arctic*, 42 POLAR REC. 101–09 (2006).

104. Jennifer McIver, *Environmental Protection, Indigenous Rights, and the Arctic Council: Rock, Paper, Scissors on the Ice?*, 10 GEO. INT’L L. REV. 147, 147 (1997–98).

105. Tennburg, *supra* note 99.

106. *Arctic Council Reform*, ARCTIC ATHABASKAN COUNCIL, <http://www.arcticathabaskancouncil.com/aac/?q=node/12> (last visited Feb. 26, 2013).

107. Jane S. Shaw & Richard L. Stroup, *Do Environmental Regulations Increase Economic Efficiency?*, 23 REG. 13 (2000).

108. *Id.*

compliance and enhanced technological innovation;¹⁰⁹ and eliminate uncertainty in the regulatory process through consensus-driven rulemaking.¹¹⁰

Enacting state-specific environmental regulations that adhere to these principles spurs further technological innovation and environmental protection while providing regulatory certainty to oil companies and investors. While it is hard to imagine the Arctic states adopting a hard law framework of uniform environmental regulations, a state-by-state effort may provide the same results.¹¹¹ A new role for the Arctic Council could be to use its expertise to develop model regulations that adhere to these three principles.

V. EXTRA-LEGAL DRIVERS OF ENVIRONMENTAL PROTECTIONS

Environmental protections provided for by the current legal framework are bolstered by the effect of extra-legal factors that impact development plans. Three main extra-legal factors that operators consider are social, environmental, and economic concerns.¹¹² The principal extra-legal factor that this Note focuses on is industry responsiveness to society's acceptance of corporate social responsibility as a trait characteristic of successful and sustainable business models.

After a brief overview of the concept of corporate social responsibility, this Note discusses two mechanisms through which society's demands for corporate social responsibility can incentivize the inclusion of environmental protections in development projects. First, socially responsible investment has become a mainstream investment philosophy that influences firm behavior regarding corporate responsibility activities. Second, society's expectations for a company, encapsulated in its "social license to operate," have changed in recent

109. See R.N. Stavins, *Lessons from the American Experiment with Market-Based Environmental Policies* 1-2 (Res. for the Future Discussion Paper 01-53, Nov. 2001), available at <http://www.rff.org/rff/Documents/RFF-DP-01-53.pdf>.

110. Ambec et al., *supra* note 42, at 7 (citing M. Porter & C. van der Linde, *Toward a New Conception of the Environment-Competitiveness Relationship*, 9 J. ECON. PERSP. 97 (1995)).

111. The fact that these states signed the Ilulissat Declaration proclaiming that there is no need for a new, overarching legal framework suggests that they would be unwilling to submit themselves to any hard law environmental regime.

112. IPIECA & OGP, REPORT NO. 2.85/332, KEY QUESTIONS IN MANAGING SOCIAL ISSUES IN OIL & GAS PROJECTS, at ii (2002).

decades to include a greater push for environmental protections beyond those required by law.¹¹³

Corporate social responsibility can be defined as “the assumption and fulfillment of responsibilities beyond those dictated by markets.”¹¹⁴ The convergence of three trends—globalization, increasing access to and use of information by civil society, and media campaigns promoting corporate accountability—has given corporate social responsibility a greater importance than it has had in the past.¹¹⁵ Citizen demands for corporate social responsibility have impacted the social context in which companies operate, the choices made by investors in key markets, and the accepted norms of industry action with respect to, among other things, environmental protection.¹¹⁶

Today, extra-legal initiatives such as publishing annual corporate sustainability reports are not mandated by law, but are required in a sense by investor expectations. These initiatives are no longer completely voluntary because “they [have] become the standard by which companies’ actions are judged in the global economy (including by institutional investors).”¹¹⁷ These global, extra-legal standards have created “new governance” regimes that are changing the social and financial context in which oil and gas companies make strategic decisions regarding environmental protection.¹¹⁸

A. Mechanism One: Socially Responsible Investment

The role of the corporate social responsibility norm in incentivizing environmental protection is becoming increasingly clear. Traditional business literature promotes the theory of “strategic” corporate social responsibility, under which investments in corporate social responsibility efforts will result in long-term profitability.¹¹⁹ A more recent study

113. Neil Gunningham, Robert A. Kagan & Dorothy Thornton, *Social License and Environmental Protection: Why Businesses Go Beyond Compliance* 1-2 (Ctr. for the Study of L. & Soc’y Faculty Working Papers, Aug. 28, 2002).

114. David P. Baron, *Private Politics, Corporate Social Responsibility, and Integrated Strategy*, 10 J. ECON. & MGMT. STRATEGY 7, 9 (2001).

115. Cynthia A. Williams, *Civil Society Initiatives and Soft Law in the Oil and Gas Industry Symposium Issue: Oil and International Law: The Geopolitical Significance of Petroleum Corporations*, 36 INT’L L. & POL. 457, 466–67 (2004).

116. *Id.* at 461.

117. *Id.* at 464.

118. *See, e.g.*, Baron, *supra* note 114, at 17.

119. Lee Burke & Jeanne M. Logsdon, *How Corporate Social Responsibility Pays Off*, 29 LONG RANGE PLAN. 495, 496 (1996), available at [http://dx.doi.org/10.1016/0024-6301\(96\)00041-6](http://dx.doi.org/10.1016/0024-6301(96)00041-6) (citing K. Davis, *The Case for and against Business Assumption of*

highlights the increase in “socially responsible investment,” an investment philosophy under which investors take into account the social responsibility efforts of companies that may not be reflected in traditional valuation models.¹²⁰ Socially responsible investment has become “mainstream” and is used as a tool by individual investors to influence the social and ethical decisions of the companies in which they invest.¹²¹ For the oil and gas industry, a desire to appeal to investors adhering to the philosophy of socially responsible investment creates an incentive for companies to invest in corporate social responsibility activities such as sustainability reporting. Additionally, international lenders today “place greater emphasis on social impact planning as a condition for project funding.”¹²²

Sustainability reporting in a world where corporate social responsibility is factored into investment decisions may help encourage the voluntary use of environmentally sound “best management practices” (“BMPs”).¹²³ Voluntary sustainability reporting is done in the form of annual reports compiled by the company, typically accompanied by a statement of assurance from a third-party auditor.¹²⁴ These reports are most valuable to investors when they employ a framework that allows the company to be compared to its competitors. This Note focuses on the concepts and incentives behind three such frameworks relevant to the oil and gas industry—the Global Reporting Initiative (“GRI”), the Environmentally Friendly Drilling (“EFD”) Scorecard, and the International Petroleum Industry Environmental Conservation Association (“IPIECA”) Guidance on Sustainability Reporting—concluding that a reporting framework combining elements of all three could be developed and managed by the Arctic Council as a way to

Social Responsibilities, in MANAGING CORPORATE SOC. RESPONSIBILITY (A. Carroll ed., 1977)); G. C. STEINER, *An Overview of the Changing Business Environment and its Impact on Business*, in BUSINESS ENVIRONMENT & PUBLIC POLICY: 1978 CONFERENCE PAPERS 3 (L. E. Preston ed., 1979).

120. See generally Russell Sparkes & Christopher J. Cowton, *The Maturing of Socially Responsible Investment: A Review of the Developing Link with Corporate Social Responsibility*, 54 J. BUS. ETHICS 45 (2004), available at <http://www.springerlink.com/content/q4jp8h110u854u1x/>.

121. *Id.* at 52–53.

122. IPIECA & OGP, *supra* note 112, at ii.

123. K.M. Mutz et al., *BMPs for Minimizing Environmental Impacts: A Resource for Communities, Government and Industry* 24 (Soc’y of Petroleum Engineers Conference Paper SPE-147503-PP, 2011) (on file with author) (comparing how the GRI, IPIECA, and EFD sustainability reporting frameworks encourage the use of BMPs).

124. See, e.g., BP, SUSTAINABILITY REVIEW 2010, at 42–43, available at http://www.bp.com/assets/bp_internet/globalbp/STAGING/global_assets/e_s_assets/e_s_assets_2010/downloads_pdfs/bp_sustainability_review_2010.pdf.

encourage the inclusion of BMPs in all Arctic hydrocarbon development projects.

1. GRI

The GRI reporting framework is developed through a multi-stakeholder process involving participants from business, community, labor, academic, and professional institutions.¹²⁵ The GRI is used to demonstrate organizational commitment to sustainable business practices. It compares the company to its peers and allows for a comparison of the company's performance over time both to itself as well as to other companies.¹²⁶ GRI's vision is "[a] sustainable global economy where organizations manage their economic, environmental, social and governance performance and impacts responsibly and report transparently,"¹²⁷ suggesting that companies view their social responsibilities as going beyond compliance with the law. GRI "grades" are based on the amount of information provided by the company in its sustainability report. Companies using the GRI framework have the option to either self-report and receive a grade from A to C, or have the report audited by a third-party neutral and receive a grade from A+ to C+.¹²⁸

The GRI framework's main strength is that it functions to compare a company's performance to its competitors and to itself over time. Furthermore, the oil and gas industry's use of the GRI framework has increased from two energy companies in 2000 to 143 in 2010.¹²⁹ The main drawback to applying the GRI standard to Arctic development is that GRI grades are based solely on the *amount* of sustainability information provided by a company rather than *how successful* the company was at employing sustainable practices.

125. GLOBAL REPORTING INITIATIVE, DEVELOPMENT PROCESS 2 (2007), *available at* <http://www.globalreporting.org/resourcelibrary/Due-Process-for-the-GRI-Reporting-Framework.pdf>.

126. *What is GRI?*, GLOBAL REPORTING INITIATIVE, <https://www.globalreporting.org/information/about-gri/what-is-GRI/Pages/default.aspx> (last visited Nov. 14, 2011); *see also* K.M. Mutz et al., *supra* note 123, at 24.

127. *About GRI: Vision and Mission*, GLOBAL REPORTING INITIATIVE, <https://www.globalreporting.org/information/about-gri/Pages/default.aspx> (last visited Feb. 26, 2013).

128. *Application Level Information*, GLOBAL REPORTING INITIATIVE, <https://www.globalreporting.org/reporting/reporting-framework-overview/application-level-information/Pages/default.aspx> (last visited Feb. 26, 2013).

129. K.M. Mutz et al., *supra* note 123, at 24.

2. IPIECA

The IPIECA guidelines are a tool for companies designing their sustainability reports. The guidelines cross-reference the GRI standards where appropriate, and can be used to create reports on a single operation, a large project, or a company's activities on a regional scale.¹³⁰ Overall, the IPIECA guidelines suggest a transparent, simple, and multi-stakeholder inclusive process in determining which issues to include in a sustainability report.¹³¹ The IPIECA guidance for the oil and gas industry "represents industry consensus on the most prevalent sustainability issues and indicators."¹³²

The strengths of the IPIECA guidelines are its flexibility in application, its cross-references with the GRI, and its connection to the oil and gas industry. The drawbacks of using the IPIECA guidelines is that each company could end up with a different framework for sustainability reporting and, therefore, not allow outsiders to compare companies to one another as easily as the GRI system. Efforts to integrate the benefits of each of these systems are currently underway.¹³³ For example, while the IPIECA guidelines do not contain specific data points that companies should or must include in their reports, the 2010 guidance maps its indicators against the GRI guidelines.¹³⁴ Furthermore, standalone guidance is being developed to align the flexibility of the IPIECA guidelines with the GRI Sector Supplement for Oil and Gas.¹³⁵

3. EFD

The third and final sustainability framework considered by this Note is the EFD Scorecard. This framework was developed by the Houston

130. IPIECA, OIL AND GAS INDUSTRY GUIDANCE ON VOLUNTARY SUSTAINABILITY REPORTING (2010), *available at* http://www.ipieca.org/sites/default/files/publications/voluntary_sustainability_reporting_guidance_2010_1.pdf; *see also* K.M. Mutz et al., *supra* note 123, at 25.

131. K.M. Mutz et al., *supra* note 123, at 25 (citing IPIECA, OIL AND GAS INDUSTRY GUIDANCE ON VOLUNTARY SUSTAINABILITY REPORTING (2010), *available at* http://www.ipieca.org/sites/default/files/publications/voluntary_sustainability_reporting_guidance_2010_1.pdf).

132. *Id.*

133. *See The Global Reporting Initiative*, IPIECA, <http://www.ipieca.org/topic/GRI> (last visited Feb. 28, 2013).

134. IPIECA, OIL AND GAS INDUSTRY GUIDANCE ON VOLUNTARY SUSTAINABILITY REPORTING—REPORTING 2010, at 136 (2d ed. 2010), *available at* http://www.ipieca.org/sites/default/files/publications/sustainability_reporting_guidance.pdf; *The Global Reporting Initiative*, *supra* note 133.

135. IPIECA, *supra* note 134.

Advanced Research Center and Texas A&M University.¹³⁶ The philosophy of the Scorecard is “what gets measured, gets done,” and it implements this by rating development projects based on the inclusion of certain BMPs.¹³⁷ The Scorecard evaluates a company’s performance based on six attributes: site (soil/sediment), water, air, waste management, biodiversity/habitat, and societal issues.¹³⁸ The project’s rating is determined based on practices employed by the project in each of the six attribute areas.¹³⁹ If a company complies with the “prerequisites,” which mainly consist of regulatory compliance, it can earn “credits” that are used for determining ratings by adopting voluntary measures above and beyond the prerequisites.¹⁴⁰

The EFD Scorecard’s main benefit is that it can be used to compare projects directly to one another, similar to the U.S. Green Building Council’s LEED™ building certification process.¹⁴¹ Adapting a “Scorecard” to Arctic hydrocarbon development would require taking into account the unique environment, technologies, and challenges that the region presents.

The Arctic Council could use a combination of these three approaches to rate and monitor Arctic development projects. Such a process would first require that the Arctic Council develop standardized criteria using a process similar to that suggested by the IPIECA guidelines. This process should consider including some of the data points suggested by the GRI Sector Supplement for Oil and Gas. Finally, in order to effectuate the reporting process, an Arctic Council representative could observe and collect data on all Arctic development projects. The data could then be analyzed using criteria similar to the EFD Scorecard attributes.¹⁴² By acting as a third-party authenticator in this role, the Arctic Council would: act as a filter for information coming out of these projects; be able to track compliance with local and regional laws; provide a storehouse of information useful to all stakeholders in planning subsequent developments; and help governments track industry

136. ENVIRONMENTALLY FRIENDLY DRILLING SYS., <http://www.efdsystems.org/Home/tabid/1253/Default.aspx> (last visited Oct. 21, 2012).

137. HOUSTON ADVANCED RES. CTR. (HARC), ENVIRONMENTALLY FRIENDLY DRILLING SYSTEM SCORECARD REFERENCE GUIDE 1 (Version 1.0 2010).

138. *Id.* at 8.

139. *Id.* at 13.

140. *Id.* at 13–14.

141. *Id.* at 6.

142. The specific criteria and data points used for Arctic development would differ from those used by the EFD Scorecard for onshore oil and gas developments.

norms and trends that will help governments apply consistent legal principles to permitting and investment decision.

B. Mechanism Two: Social License to Operate

Another mechanism through which corporate social responsibility can drive incorporation of environmental protections into development projects is via a company's desire to protect its "social license to operate." A social license to operate is defined by "the demands on and expectations for a business enterprise that emerge from neighbors, environmental groups, community members, and other elements of the surrounding civil society."¹⁴³ The purpose of the social license to operate is to foster discussion and negotiation between stakeholders and concerned parties throughout the life of a project, a process through which a company can earn the trust and credibility of investors and observers.¹⁴⁴

The idea of a social license represents a shift away from the traditional notion that corporations equate social expectations with legal standards.¹⁴⁵ Today, corporations increasingly recognize that the expectations of "social licensors"—all groups from civil society, including neighborhoods, environmental groups, community members, and others—can be tougher than legal standards, and this results in "beyond compliance, corporate environmental measures even in circumstances where these are unlikely to be profitable."¹⁴⁶ As a consequence of these expectations, low-probability, high-impact incidents, such as the 2010 Deepwater Horizon incident that killed eleven workers and spilled approximately 4.9 million barrels of oil into the Gulf of Mexico, can have reputational costs that exceed the direct financial costs to an oil and gas company.¹⁴⁷ In a world where social

143. Neil Gunningham, Robert A. Kagan & Dorothy Thornton, *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 L. & SOC. INQUIRY 307, 308 (2004).

144. Jacqueline L. Nelson, *Social License to Operate*, 20 INT'L J. OF MINING, RECLAMATION AND ENV'T 161, 161 (2006), available at <http://dx.doi.org/10.1080/17480930600804182>.

145. Gunningham et al., *supra* note 143, at 308.

146. *Id.* (citing J.D. McClelland & J.K. Horowitz, *The Costs of Water Pollution Regulation in the U.S. Pulp and Paper Industry*, 75 LAND ECON. 220, 221 (1999)).

147. *See, e.g.*, Don Stowers, *Offshore Industry Reels in Wake of Blowout*, OIL & GAS FIN. J. (July 1, 2010), http://www.ogfj.com/index/article-display/5579435701/articles/oil-gas-financial-journal/e-__p/offshore/offshore-industry.html; *see also* Melissa Gaskill, *How Much Damage Did the Deepwater Horizon Spill Do to the Gulf of Mexico?*, SCIENTIFIC AM., July 2011, available at

licenses are of increasing importance, these reputational costs will be a factor to any corporation considering the costs and benefits of employing expensive environmental protections.

VI. GUIDING PRINCIPLES GOING FORWARD

This Note outlines the past, present, and future of Arctic oil and gas development. The main forces driving Arctic hydrocarbon development today are a combination of economic opportunity and the possibility of earning effectively sovereign rights to hydrocarbon-rich waters under UNCLOS. Now is the time to coordinate our approaches to best meet the goal of pursuing development while protecting the environment. An ATS-style ban is not a realistic option because it is not in the interest of the states. The current legal framework is sufficient to further the goal of simultaneously encouraging investment and environmental protection. Two improvements that could be made to the system are Russia complying with the Espoo Convention and the Arctic Council taking a more active role in data collection. Additionally, extra-legal drivers such as corporate social responsibility bolster legal environmental requirements.

Considering the likely increase in future oil and gas development in the Arctic, this Note proposes a new role for the Arctic Council—a role as a third-party certification institution. In this capacity, the Arctic Council can continue to encourage information sharing and third-party analysis of the effects of Arctic oil and gas development in order to build public confidence through transparent processes and facilitate state-level regulatory consistency. This scheme is possible because of the legal and extra-legal factors that go in to the cost-benefit analysis done by countries and companies pursuing development projects. No stakeholder has an incentive to approach Arctic development in a haphazard manner, and using the Arctic Council to publicize the process can only aid the legal system in promoting the efficient use of environmental protections.

It is important to remember that the Arctic Council is not a governmental body, but rather an intergovernmental forum. Therefore, relying on it to “police” Arctic oil and gas development will not get us far. On the other hand, as an advisory, observatory, and respected third-party certification group overseeing Arctic development, the Arctic Council can help ensure availability of sound, reliable science and the consistent application of state law.