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Using the Tools We Have: An Integrated Approach to Protect the Sea of Okhotsk

JULIA LEMENSE HUFF*

Introduction

The Sea of Okhotsk¹ is a diverse large marine ecosystem² in danger of becoming the next Black Sea—overfished, polluted, and virtually devoid of endemic biota.³ The Sea of Okhotsk supports a tremendous, yet fragile, marine population, due in large part to the abundant plankton and benthic species found in the Sea.⁴ Many of the biota in the Sea of Okhotsk are species of economic

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1. The Sea of Okhotsk is a semi-enclosed sea located at the continental margin of Russia and Northern Japan. NATIONAL MARINE FISHERIES SERVICE, LARGE MARINE ECOSYSTEMS OF THE WORLD, LME # 52: SEA OF OKHOTSOK, Brief Description, at <http://www.edc.uri.edu/lme/text/sea-of-okhosk.htm> (last modified Oct. 24, 2002) [hereinafter LME 52]. The Sea of Okhotsk lies east of the Russian Federation territory of Khabarovsk and the Magadan Oblast, north of Sakhalin Island, south of the Kamchatka Oblast and the Koryak Region, and west of the Kuril Islands. See RUSSIA: A COUNTRY STUDY lii (Glenn E. Curtis ed., 1998).

2. A panel of scientists for Conservation International has identified seventy-four large marine ecosystems. A large marine ecosystem is a marine ecosystem, which is distinct and functional, therefore, making it the most effective unit for ocean management and conservation. COLIN WOODARD, OCEAN'S END: TRAVELS THROUGH ENDANGERED SEAS 251 (2000).

3. *Id.* at 3. The Black Sea is almost entirely enclosed—its only outlet to the Mediterranean is through the Bosphorus and Dardanelles Straits. *Id.* at 2. The Black Sea is bordered by Russia, Ukraine, Georgia, Turkey, Bulgaria, and Romania. *Id.*

Eutrophication, overfishing, the destruction of coastal habitats and wetland, and various forms of pollution had reduced the quantity, complexity and diversity of [the Black Sea's] web of life. This diminished its ability to respond to changes or unusual events—an oil spill, an unseasonably cold winter or drought, a strange disease or invader.

Id. at 21. The Black Sea's demise was slow at first, and then it collapsed suddenly. *Id.* at 3.

4. LME 52, *supra* note 1, § I.

importance to the Russian Federation, including Pollock,⁵ flounder, herring,⁶ Pacific salmon,⁷ halibut, Pacific sardine, cod, capelin, sand eel, smelts, crab and shrimp.⁸ In addition to the economically important fish stocks, this rich ecosystem is home to North Pacific right whales, bowhead whales, spotted seals⁹ and the last remaining small population of the endangered Asian or Western North Pacific gray whale, as well as ten other endangered species.¹⁰

Beneath the seabed of the Sea of Okhotsk lay enormous oil and natural gas reserves.¹¹ The ever-increasing oil and natural gas exploration and production activities in this region¹² are incompatible with the health of an already stressed marine environment. In what is becoming a race to mine this "black gold,"¹³ the ecosystem will be compromised unless immediate and integrated steps are taken to protect and preserve it.

This paper discusses the environmental impacts of oil and gas exploration on the Sea of Okhotsk and proposes a multi-faceted

5. The walleye pollock is fished mainly in the waters off of West Kamchatka and is the most abundant fish species, having a biomass of 10-15 million tons. *Id.* § II. Accordingly, the walleye pollock catch exceeds the catch of all other fisheries in the large marine ecosystem combined. *Id.*

6. Herring live in deep water, but migrate to shallower coastal waters to lay their eggs. ENCYCLOPEDIA BRITANNICA, HERRING (2002) [hereinafter HERRING]. Depending on her size, a female deposits from 20,000 to 185,000 eggs, which ultimately settle to the ocean floor where they are covered with seaweed and rocks. *Id.* Because the eggs rest on the ocean floor for several weeks before hatching, the eggs are a prime source of food for crabs, cod, baleen whales, seals and seabirds. *Id.* In addition to being an important food source in Europe, fishermen freeze herring and sell it to the cod and halibut fisheries for bait. *Id.*

7. Salmon are anadromous and may travel many thousands of miles in the ocean away from their home streams before returning to freshwater to spawn. ENCYCLOPEDIA BRITANNICA, SALMON (2002). Thus, salmon are considered a straddling fish stock, as their travels do not necessarily correspond to arbitrary state boundaries. *Id.* Salmon rely on the bounty of the ocean and the survival of the salmon in the Russian Far East depends on the cleanliness and accessibility of the freshwater streams. *Id.* The fishermen who catch salmon, as well as the millions of people who eat salmon every year, all depend on the viability of these fishes. *Id.*

8. LME 52, *supra* note 1, § II.

9. *See id.*

10. *See generally* INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE (IUCN), GRAY WHALE, *ESCHRICHTIUS ROBUSTUS: ASIAN OR WESTERN NORTH PACIFIC POPULATION* (2001), at <http://www.iucn.org/webfiles/doc/archive/2001/iucn893.doc> [hereinafter IUCN PAPER].

11. Sabrina Tavernise, *For Big Oil, Open Door in Far East of Russia*, N.Y. TIMES, Aug. 6, 2002, at W1.

12. *See infra* Part II.

13. *See* Jim Carlton, *In Russia With Fragile Ecology: Stymied in Alaska, Oil Companies Find Russian Rules Aren't as Strict*, WALL ST. J., Sept. 4, 2002.

approach to protecting and preserving this large marine ecosystem. Part I of this paper provides an overview of the Sea of Okhotsk and Sakhalin Island and one of its most endangered residents, the Western North Pacific gray whale. Part II discusses the oil and gas industry in Russia and describes the effects of oil and gas exploration and production on marine ecosystems. This paper acknowledges a few of the other approaches authors have suggested to protect the marine environment or lessen the environmental impacts of oil and gas production in the area, but for the reasons discussed in Part III of this paper, none of those solutions adequately address the immediate threat faced by this ecosystem.

Against this background, Part IV sets forth the elements of my proposal, which is as follows: (1) the Russian Federation should halt all oil and gas activities in the Sea of Okhotsk to allow time to complete studies of the entire marine ecosystem and the effects of offshore oil and gas production, as well as to complete studies on the migration patterns of the gray whale; (2) the Russian Federation should allow the Sakhalin-2 Project, which is currently producing oil, to continue producing only after implementing recommendations to ensure minimal impact on the marine environment and to prevent further despoliation; (3) the Russian Federation should establish a marine sanctuary or *zapovednik* in the feeding area of the endangered Western North Pacific gray whale and a larger state reserve or *zakaznik* to protect the shallow coastal waters of the Sea of Okhotsk; (4) the parties to the North West Pacific Regional Seas Programme should finalize and implement an oil spill contingency plan; and (5) the signatories to the International Convention for the Prevention of Pollution from Ships (MARPOL)¹⁴ and the United Nations Convention on the Law of the Sea (UNCLOS)¹⁵ should designate the Sea of Okhotsk as a "special area" under both Conventions and should approve and implement additional safety measures to protect the ecosystem and avoid whale-ship strikes and oil pollution. Finally, Part V concludes by providing evidence of support for this proposal in both Russian domestic law and international law and

14. International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, 12 I.L.M. 1319, amended by Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, Feb. 17, 1978, 17 I.L.M. 546 (entered into force Oct. 2, 1983) [hereinafter MARPOL].

15. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 21 I.L.M. 1261 (entered into force Nov. 16, 1994) [hereinafter UNCLOS].

a general argument for protection of marine environments on an ecosystem level.

I. Overview

A. Sakhalin Island and the Sea of Okhotsk

Together with the Kuril Islands, Sakhalin Island forms the Sakhalin Oblast (province) of the Russian Federation.¹⁶ Sakhalin Island is located between the Tatar Strait and the Sea of Okhotsk, fifty miles north of the Japanese island of Hokkaido.¹⁷ Sakhalin Island is 589 miles long and is approximately one hundred miles wide at its broadest point.¹⁸ There is a lowland plain in the northern portion of the Island, but the remainder of the Island is mountainous.¹⁹

Not surprisingly, fishing is a principal source of economic activity.²⁰ In addition to fishing, the Island supports coal mining and lumbering activities in the north.²¹ The main agricultural activity is livestock raising.²² Offshore petroleum and natural gas

16. RUSSIA: A COUNTRY STUDY, *supra* note 1, at lii.

17. *Id.* Japanese fishermen settled Sakhalin Island along its southern coasts. ENCYCLOPEDIA BRITANNICA, SAKHALIN ISLAND, available at <http://www.search.eb.com/eb/article?eu=6666> (last visited Oct. 7, 2002) [hereinafter SAKHALIN]. In 1853, the first Russians entered the northern part of Sakhalin Island. *Id.* Russia and Japan entered into an agreement in 1855 to share control of the Island, but two years later Russia acquired all of Sakhalin Islands in exchange for the Kuril Islands. *Id.* At the conclusion of the Russo-Japanese War, Russia and Japan entered into the Treaty of Portsmouth in 1905 pursuant to which Japan acquired that portion of Sakhalin Island lying south of the 50th parallel. *Id.* After the Russian Revolution, the Japanese again occupied all of Sakhalin Island. *Id.* Japan withdrew from the Island in 1924. *Id.* The Soviet Union eventually regained the southern half of the Island and the Kurils in 1945, at the end of World War II. *Id.* After the Japanese withdrew, the Japanese population of Sakhalin Island was repatriated. SAKHALIN, *supra*.

18. SAKHALIN, *supra* note 17. The Island covers approximately 30,000 square miles. *Id.*

19. *Id.* The vegetation ranges from tundra and stunted forests in the north to dense deciduous forest in the south. *Id.*

20. *Id.* In addition to the large walleye pollock fishery described in more detail in note 5, *supra*, it is estimated that the biomass of salmon stocks, which have been declining since the mid-1950s, is 200,000 – 320,000 metric tons. LME 52, *supra* note 1, § II. The total estimated biomass of halibut stocks is 750,000 tons. *Id.* A combination of over fishing and habitat degradation have led to an overall decline of all major fish stocks in the Sea of Okhotsk. *Id.* However, perhaps as much as 70% of the commercial fisheries products caught in Russia come from the Sea of Okhotsk. See ECA WATCH, BROKEN COMMITMENTS: SAKHALIN II AND ONGOING ENVIRONMENTAL, SOCIAL AND ECONOMIC PROBLEMS (Dec. 10, 2001), available at http://www.eca-watch.org/problems/russia/dec10letter_opic1.html [hereinafter BROKEN COMMITMENTS].

21. See SAKHALIN, *supra* note 17.

22. See *id.*

pursuits have increased in the past five years as transnational corporations (TNCs) have conducted seismic testing on and around the Island and located what are believed to be the second largest petroleum and gas reserves in the world.²³ The Russian Federation views the offshore oil and gas industry, and the foreign investment it brings, as the salvation of its fledgling, struggling market economy.²⁴ The United States, and the other countries that rely heavily on the Middle East for oil, view the Russian Far East as the answer to its petroleum and energy plan needs.²⁵ Natural gas is quickly becoming an attractive energy source, as Japan and other developed countries ratify the Kyoto Protocol and move toward cleaner burning fuels.²⁶

B. Western North Pacific Gray Whale

According to the International Union for the Conservation of Nature (IUCN), the Western North Pacific gray whale (gray whale) is listed as critically endangered and identified as a Criterion D species.²⁷ The gray whale is also listed as an endangered species in the Russian Federation's Red Book.²⁸ Scientists do not know the exact size of this population, although it is believed to be approximately one hundred individuals.²⁹ The gray whale was hunted to extinction in the North Atlantic Ocean over 150 years

23. *See id.*

24. The Soviet Union was historically one of the largest oil producing countries in the world. *See* Mark A. Stoleson, *Other International Issues: Investment at an Impasse: Russia's Production-Sharing Agreement Law and the Continuing Barriers to Petroleum Investment in Russia*, 7 DUKE J. COMP. & INT'L L. 671, 671 (1997). In 1991 the Soviet Union was in fact the largest crude oil and natural gas producer. *Id.* at 671 n.1 (citing Gary B. Conine, *Petroleum Licensing: Formulating an Approach for the New Russia*, 15 HOUS. J. INT'L. L. 317, 319 (1993)); *see also* Arina Shulga, Comment, *Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future*, 22 U. PA. J. INT'L ECON. L. 1067, 1072 (2001).

25. Tavernise, *supra* note 11. U.S. Energy Secretary Spencer Abraham paid a visit to Moscow on August 1, 2002 to present a plan to finance studies of the energy deposits in the Russian Far East. *Id.*

26. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, FCCC/CP/1997/L.7/Add.1, *reprinted in* 37 I.L.M. 22 (1998) (not yet entered into force).

27. IUCN PAPER, *supra* note 10.

28. Article 65, paragraph 1 of the Natural Resources Law creates the Red Book of the Russian Federation, as well as authorizes Red Books of the various regions as receptacles for the names of rare plants and animals, as well as threatened species. The Western North Pacific gray whale is listed in the Red Book at number 398(a). *See* RED BOOK OF THE RUSSIAN FEDERATION 398(a), *available at* <http://www.grida.no/en-ber/biodiv/biodiv/national/russia/state/00440.htm> (last modified Nov. 1, 1997).

29. IUCN PAPER, *supra* note 10.

ago and is now considered to be endemic to the North Pacific Ocean.³⁰ The gray whales migrate between an unknown mating and calving ground (strongly suspected to be in the South China Sea) and their primary feeding ground in the shallow shelf waters and offshore banks on the coast of Sakhalin Island in the west central Sea of Okhotsk, in an area that overlaps with the Odoptu oil field³¹ that is part of the Sakhalin-1 Project.³² Based on this migration pattern, the range states are Russia, Japan, Democratic People's Republic of Korea (North Korea), Republic of Korea (South Korea) and China, all of which are also parties to the North West Pacific Regional Seas Agreement.³³

The gray whale, a baleen whale, feeds in shallow waters because its diet consists of benthic and epibenthic crustaceans.³⁴ The initial decline in the gray whale population is widely attributed to commercial whaling ventures between 1890 and 1960.³⁵ In response to this concern, the International Whaling Commission (IWC) has protected this population under the International Convention for the Regulation of Whaling since 1946.³⁶

The current threats to the gray whale, whose migratory corridor is very industrialized and congested with ships, include pollution, ship strikes and harm from activities associated with oil and gas exploration and extraction.³⁷ In particular, activities such as high-intensity geophysical seismic surveying to locate oil and gas reserves, oil and gas drilling, ship and air traffic, dredging, underwater industrial noise and oil spills all pose threats not only to the whales and their habitat, but also the entire ecosystem including the habitat of the benthic prey communities relied upon by the gray whales and other marine species.³⁸

30. *Id.*

31. David Gordon, *Suckered at Sakhalin*, *THE ECOLOGIST*, Feb. 22, 2002, at 1, available at http://www.theecologist.co.uk/archive_article.html?article=226 (last visited Mar. 26, 2003) [hereinafter Gordon, *Suckered*].

32. IUCN PAPER, *supra* note 10.

33. *Id.*

34. *Id.*

35. *Id.*

36. International Convention for the Regulation of Whaling, Dec. 2, 1946, 161 U.N.T.S. 72, 10 U.S.T. 952. South Korea and China did not accede to the Whaling Convention until 1978 and 1980, respectively, and North Korea has not acceded as of November 20, 2002.

37. IUCN PAPER, *supra* note 10.

38. *Id.*

II. Russian Oil and Gas Exploration and Production

A. Russian Legal Regime

Russia has a myriad of laws that, taken together, control the complex landscape of oil and gas exploration and production in the Russian Federation.³⁹ The centerpiece of Russian oil and gas legislation is the 1995 Law on Production Sharing Agreements (1995 PSA Law). The goal of the 1995 PSA Law was to alleviate for foreign investors the high risks associated with investing in the oil and gas industry.⁴⁰ The law provided for greater revenue sharing by allowing parties to agreements to recover certain exploration costs prior to the realization of any profit.⁴¹ Negotiations of PSAs have been time-consuming and critics of the law complain that it failed to attain its goal due to protectionist provisions incorporated into the law designed to benefit Russian firms, who were concerned that the resources would be extracted by foreign entities without any benefit going to Russian firms.⁴² Others claim that the TNCs entering into PSAs exert an enormous amount of influence on the Russian Federation and are able to negotiate PSAs that do not necessarily comply with federal environmental laws.⁴³

In 1999, the Russian Federation adopted amendments to a variety of the laws affecting this sector, including the 1995 PSA Law.⁴⁴ The goal of all of these amendments is to attract foreign

39. Some of these laws are as follows: Foreign Investments in the RSFSR, RF, Law of the RSFSR No. 1545-1 (1991), *translation available at* LEXIS, Intlaw Library, RFLAW File Garant 10005717 (making it possible for foreign entities to invest in Russian oil and gas pursuits in three different ways: through share participations, through the formation of wholly foreign-owned operations and the outright acquisition of companies themselves, their property or their rights and providing various economic incentives and regulatory exemptions); *see also* Shugla, *supra* note 24, at 1084; Underground Resources, *Sobr. Zakond. RF*, Law of the Russian Federation No. 2395-1 (1992), *translation available at* LEXIS, Intlaw Library, RFLAW File, Garant 10004313 (attempting to expand the manner in which foreign investors could be involved in the oil and gas industry). The Law of Underground Resources was not clear as to the scope and extent of newly approved activities. *See* Shugla, *supra* note 24, at 1081. For an overview of these laws, *see generally* Shulga, *supra* note 24, pts. 4.1, 4.2, 5.2 & 6.

40. Production Sharing Agreements, *Sobr. Zakond. RF*, Federal Law No. 225-FZ, No. 160-FZ (1995) [hereinafter 1995 PSA Law], *translation available at* LEXIS, IntLaw Library, RFLAW File, Garant 10005771.

41. Shulga, *supra* note 24, at 1084.

42. *Id.*

43. BROKEN COMMITMENTS, *supra* note 20.

44. Foreign Investment in the Russian Federation, *Sobr. Zakonod. RF*, Federal Law No. 160-FZ, No. 19-FZ (1999), *translation available at* LEXIS, IntLaw Library, RFLAW File, Garant 12016250; Introduction of Amendments & Addenda into the

investment, essentially by opening up larger areas for resource exploitation. The laws are still criticized by some who take issue with the fact that PSAs are subject to existing laws relating to health, safety and environment, which require compliance notwithstanding the terms of the PSA.⁴⁵

Despite the great strides taken by the Russian Federation to make investment in Russia more appealing, industry advocates appear to want virtually unhampered and unfettered access to the Russian Federation's natural resources. Given Russian's economic plight, the potential for outside investment is proving to be irresistible. Those who argue that Russia should maintain a certain amount of control over the level and makeup of the foreign investment and activity in the Russian Federation are dubbed obstructionists and protectionists who are holding the Russian Federation back.⁴⁶ Foreign investors seek to protect themselves from all possible harm by pushing for changes in Russian law, while at the same time hiding behind clever project structures and political risk insurance policies.⁴⁷

Due to the high risks concomitant with investing in the Russian Federation,⁴⁸ coupled with the Russian Federation's passage of the 1995 PSA Law and amendments, one author has concluded that the project finance method of investment is the most preferred method.⁴⁹ This financing method encourages investment, but because of the involvement of export credit agencies (ECAs) and insurance and guarantee companies, such as Overseas Private Investment Corporation (OPIC), the risks that would otherwise fall on the investor are shifted essentially to the ECA. That shift allows the TNC to externalize the true costs of the project and also puts the ECA in the position of placing more emphasis on the financial success of the project for the borrowing TNC. Be-

Law of the Russian Federation on Subsoil, *Sobr. Zakonod. RF*, Federal Law No. 20-FZ (2000), *translation available at* LEXIS, IntLaw Library, RFLAW File, Garant 12017895; Introduction of Amendments & Addenda into the Federal Law on Production Sharing Agreements, *Sobr. Zakond. RF*, Federal Law No. 19-FZ (1999), *translation available at* LEXIS, IntLaw Library, RFLAW File, Garant 12014154. For an in depth discussion of each of these laws, see Shugla, *supra* note 24, pt. 6.

45. Shugla, *supra* note 24, at 1091.

46. See Stoleson, *supra* note 24, at 681.

47. See *infra* Part III (discussing political risk insurance and other project financing mechanisms).

48. Shulga, *supra* note 24, at 1070-71. The risks include governmental expropriation of the project, either by outright or slow and persistent changes in the law, nationalization of the oil and gas sectors, force majeure and political violence. *Id.*

49. *Id.*

cause the ECA bears the risk of loss, the ECA moves out of its role as a creditor requiring full compliance with all laws and into the perverse situation in which it strives for the success of the project at any cost. In the case of Sakhalin Island, the costs are sure to include degradation of the marine ecosystem, destruction of fisheries upon which the residents of the Russian Far East depend not only for food, but for their livelihoods, the extinction of the gray whale, and the despoliation of the interior of Sakhalin Island due to the construction of additional pipelines, a natural gas liquefaction plant and other equipment incidental to the oil and gas industry.

B. Projects

For many years, Soviet owned oil and gas companies shied away from further exploration in the Sea of Okhotsk due to its inhospitable and dangerous conditions.⁵⁰ The difficulties associated with oil and gas exploration and production in this area invariably increased the costs to the level where the cash-poor Soviet companies could not pursue these resources.⁵¹ Some authors have suggested that the uncertainty of the Soviet and Russian legal regimes with respect to oil and gas exploration and production served, and continues to serve, as a major barrier to foreign investment and progress in this sector.⁵² There are two sides to

50. This region is considered to be more hostile than any other area subjected to oil and gas drilling. FRIENDS OF THE EARTH-JAPAN, SAKHALIN OIL DEVELOPMENT WATCH, OIL EXPLORATION ON THE NORTHEASTERN SAKHALIN SHELF—ENVIRONMENTAL AND SOCIAL IMPACTS § 1.4 (1995), at <http://www.forests.org/achive/europe/sakfoe.html>. This area is subject to earthquakes, tidal waves, tsunamis, thick ice pack and ice shears. *Id.*

51. See Stoleson, *supra* note 24, at 671; see also Shulga, *supra* note 24, at 1067. Ms. Shulga's Comment describes Russia's economic crisis commencing in August 1998, after which the nation's gross domestic product fell from \$428 billion in 1997 to \$282 billion by the end of 1998. Shulga, *supra* note 24, at 1071-72. A combination of factors in response to the plummeting economy caused the level of foreign investment in Russia to fall by 44.5%. *Id.* at 1072.

52. See Stoleson, *supra* note 24, at 671. Mr. Stoleson argues that even with the enactment of Russia's Petroleum Sharing Agreement Law on December 30, 1995, the fact that production sharing agreements (PSAs) between the state and foreign investors continue to refer directly to and incorporate other laws and are not entirely self-contained and isolated from other Russian legislation "effectively shackl[es] any PSA contract to Russia's hostile legal environment. *Id.* at 673. Ms. Shulga describes some of these risks:

[T]he availability of a regulatory structure designed to provide guarantees and incentives to foreign investors, . . . the existence of necessary laws that would protect the investors' interests and alleviate tax burdens, the commercial viability of the projects, . . . local currency devaluation. . .

every story, of course, and Russians fear exploitation by foreigners without sufficient spending, as well as apprehension about losing control of Russian resources.⁵³ Due in large measure to the size of the reserves,⁵⁴ their proximity to the energy-devouring markets in Japan and Korea⁵⁵ and changes in the Russian Federation legal regime that encourage foreign investment in the oil and gas sectors, there are currently six different Sea of Okhotsk oil and gas exploration and production projects in various stages of development. The list of participants involved in these various projects reads like a "Who's who" of the oil and gas world. For purposes of this article, I will address the two most established projects.⁵⁶

[the] danger of outright expropriation of oil or gas projects by the government. . . , the risk of nationalization of the entire industry, [and] [f]inally, there is a risk of force majeure, including risk of political violence.

Shulga, *supra* note 24, at 1070-71.

53. Isabel Gorst, *West Feeling the Cold as Impasse Continues*, PETROLEUM ECONOMIST, Dec. 1, 1996, at 1.

54. *Id.*

55. See generally Tavernise, *supra* note 11.

56. This article will use Sakhalin-1 and Sakhalin-2 for purposes of discussion, because as of December 1, 2002, they were the only two projects covered by PSAs. The PegaStar Consortium holds the license for the Sakhalin-3 project. The three members of the consortium, Rosneft, ExxonMobil and ChevronTexaco, each own equal stakes in the project. PegaStar is conducting exploratory work pursuant to its license. *Rosneft and TNK Fight for Sakhalin*, PRAVDA.RU ON-LINE, at http://english.pravda.ru/comp/2002/07/25/33201_.html (last visited Dec. 2, 2002). BP first formed an alliance with its Russian partner, Rosneft, in 1998 for the Sakhalin-4 project. The parties intended to establish a joint venture in 2002 and hoped to commence drilling as early as 2004. BP has a 49% interest in the existing alliance, while Rosneft subsidiaries OJSC NK Rosneft and Rosneft-Sakhalinmorneftegas each hold 25.5% interests. *Sakhalin Go-Ahead*, ENERGY DAY, Aug. 15, 2002, at 10. In July 2002, the Russian Federation awarded Rosneft a five-year exploration license for "the Kaigansky-Vasuykansky Blocks of the East-Smidtovsky offshore area in the southern part of the Sakhalin V tract." *Id.* BP (49%), OJSC NK Rosneft (25.5%), and Rosneft-Sakhalinmorneftegas (25.5%) formed the joint venture in 1998 to develop the Sakhalin 5 Block's resources. *Id.* The Kaigansky-Vasuykansky Blocks of the East-Smidtovsky offshore area cover a total area of about 10,000 square kilometers. *Id.* The Alliance hopes to start drilling in 2004. *Id.* The Russian Ministry of Land and Resources awarded a license to explore part of the Sakhalin's Block 6 to Petrosakh, a subsidiary of Alfa-Eco. Despite the fact that Block 6 (located at the northern end of the Island between Sakhalin 4 and Sakhalin 5) has yet to be defined, Petrosakh has commenced exploration of this area. Alfa Group also owns 50% of Tyumen Oil, which received a license to explore the Lopukhovsky Block of Sakhalin 6. *Sakhalin 6 Development Commences, Consortium Sought*, OIL & GAS INT'L, Sept. 16, 2002, at <http://www.oilandgasinternational.com/> (last updated Sept. 16, 2002) (on file with author). Alfa-Eco owns 95% of Petrosakh. *Id.* Alfa-Eco is a subsidiary of the Alfa Group Conglomerate, a Russian conglomerate. *Id.*

1. Sakhalin-1 Project

The Production Sharing Agreement (PSA) for the Sakhalin-1 Project became effective in June 1996. The Sakhalin-1 Consortium⁵⁷ declared the project “commercial” on October 29, 2001, and the Russian Federation approved the declaration on December 3, 2001, which formally ended the exploration phase and signaled the commencement of the twenty-year development period authorized by the PSA. Sakhalin-1 includes the development of three fields off of the northwest shore of the Island.⁵⁸ The three fields are estimated to have total recoverable reserves of 325 million tons of oil and 425 billion cubic meters of gas.⁵⁹ The Sakhalin-1 Consortium expects to be producing oil by 2003, with gas production to follow in 2005.⁶⁰

2. Sakhalin-2 Project

The Sakhalin-2 Project involves two fields in the Sea of Okhotsk.⁶¹ Both fields are believed to contain recoverable oil reserves of approximately 140 million tons and recoverable gas reserves of 550 billion cubic meters.⁶² The fields are located approximately fifteen kilometers off of the Coast of Sakhalin Island.⁶³ The operator of this project is Sakhalin Energy Investment Company Ltd. (Sakhalin Energy), a joint venture comprised of Shell Sakhalin Holdings B.V. (55%), Mitsui Sakhalin

57. The Sakhalin-1 Consortium consists of Exxon Neftegas Limited, a subsidiary of Exxon Mobil Corporation registered in the Bahamas, which is the operator of the Sakhalin-1 Project and owns a 30% interest in the consortium. ONGC Videsh Limited, a subsidiary of Indian National Oil Company ONGC, holds a 20% interest. RN-Astra, a subsidiary of Russian national oil company Rosneft, holds an 8.5% interest. Sakhalinmorneftegas-Shelf, a subsidiary of Rosneft-Sakhalinmorneftegas, holds an 11.5% interest. Sakhalin Oil and Gas Development Co., Ltd., is a Japanese investment company (whose principal shareholders are JNOC, Japex, Itochu and Marubeni) and holds a 30% interest.

58. The Sakhalin-1 Project involves the development of the Chaivo, Odoptu and Arktun Daginskoye fields. See Gorst, *supra* note 53, at 8.

59. *News in Brief*, PETROLEUM ECONOMIST, June 1, 2002.

60. *Rosneft and TNK Fight for Sakhalin*, PRAVDA.RU ON-LINE, at http://english.pravda.ru/comp/2002/07/25/33201_.html (last visited Nov. 1, 2002).

61. SAKHALIN ENERGY INVESTMENT COMPANY LTD., THE SAKHALIN II PROJECT, available at <http://www.sakhalinenergy.com> (last modified Feb. 21, 2003) [hereinafter SAKHALIN II]. The Piltun-Astokhsokoye field contains primarily oil reserves and the Lunsokoye field contains primarily gas reserves. *Id.*

62. *Id.*

63. *Id.*

Holdings B.V. (25%) and Diamond Gas Sakhalin B.V., a Mitsubishi company (20%).⁶⁴

Sakhalin-2 consists of two phases.⁶⁵ The first phase is primarily focused on oil production and has been producing oil since 1999.⁶⁶ In 1998, OPIC, the Japan Bank for International Cooperation and the European Bank for Reconstruction and Development each invested U.S. \$116 million in the first phase of the Sakhalin-2 Project, which is valued at U.S. \$ 10 billion.⁶⁷ Production is operated out of the Vityaz Production Complex, which involves the use of a production platform called Molikpaq from which oil is transported to a floating storage and offshore unit (FSO).⁶⁸ From the FSO, oil is transferred to tankers where it is sold to Sakhalin Energy's customers.⁶⁹ Due to the logistics of this phase of the operation, production is limited to the ice-free season, which is approximately seven months.⁷⁰ Phase II involves the installation of an offshore platform in the Astoskhskoye oil field, as well as an offshore platform in the Lunskeye gas field.⁷¹ Both of these offshore platforms, together with Molikpaq, will transport oil and gas to Sakhalin Island directly by pipelines. Once onshore, the oil and gas will be transported the length of the Island via "an 800 km onshore pipeline to" the south end of the island, where Sakhalin Energy plans to build a liquefied natural gas (LNG) plant⁷² and an oil and LNG export terminal.⁷³ Unlike the current operations at Molikpaq as part of Phase I, Phase II will operate 365 days a year, regardless of ice conditions.⁷⁴

64. SAKHALIN ENERGY INVESTMENT COMPANY LTD., WHO WE ARE, *available at* <http://www.sakhalinenergy.com> (last modified Feb. 21, 2003).

65. SAKHALIN II, *supra* note 61.

66. SAKHALIN ENERGY INVESTMENT COMPANY LTD., THE SAKHALIN II PROJECT: PHASE I, *available at* <http://www.sakhalinenergy.com> (last modified Feb. 21, 2003) [hereinafter PHASE I].

67. ECA WATCH, CURRENT HIGHLIGHTS: SAKHALIN II PROJECT, *available at* http://www.eca-watch.org/problems/russia/sakh2_index.html (last visited Nov. 22, 2002).

68. *Id.*

69. *Id.*

70. *Id.*

71. SAKHALIN ENERGY INVESTMENT COMPANY LTD., THE SAKHALIN II PROJECT: PHASE II, *available at* <http://sakhalinenergy.com> (last modified Jan. 13, 2003) [hereinafter PHASE II].

72. Sakhalin Energy expects the LNG plant at Prigorodnoye to have an annual capacity of 9.6 million tons. *Id.* Sakhalin Energy predicts that the operation "will guarantee supplies of more than nine million tons a year for at least 25 years to Sakhalin's key markets in . . . Asia." *Id.*

73. *Id.*

74. PHASE I, *supra* note 66.

C. Environmental Impacts of Oil and Gas Production

The offshore oil and gas projects in the Sea of Okhotsk may cause a variety of adverse environmental consequences. Underwater noise, oil pollution from production facilities, drilling and cutting wastes and shipment via tanker, introduction of alien species through ballast water discharge, ship strikes of whales and increased aerial traffic all have the possibility of further weakening the Sea of Okhotsk. There is also a great deal of concern that oil spill response and clean up teams and contingency plans are insufficient to deal with an oil spill in the Sea of Okhotsk. An oil spill in this area would have catastrophic consequences for not only the marine ecosystem, but also Russia and nearby Japan.

1. Noise

During the exploratory phase of each project as companies search for oil and gas reserves, the operators utilize sonar and seismic testing to locate reserves.⁷⁵ Once the operators locate reserves, they utilize other underwater tests to determine the exact depth, size and scope of the reserve.⁷⁶ To the extent platforms are used, extensive underwater drilling and construction to erect the platform is required.⁷⁷ In addition, the pipeline equipment to connect the offshore drilling platform must also be installed, further contributing to the noise. There is also a great deal of noise generated by oil wells and drills themselves.⁷⁸ Tankers used to transport oil from floating units to Sakhalin Island also create massive amounts of underwater noise.⁷⁹ After oil and gas reach Sakhalin Island, the products must then be transported to the awaiting markets, further contributing to underwater noise. For example, Exxon Neftegaz intends to ship oil from the Sakhalin-1 Project by tanker through the Tatar Strait, which separates main-

75. Elena M. McCarthy, *International Regulation of Transboundary Pollutants: The Emerging Challenge of Ocean Noise*, 6 OCEAN & COASTAL L.J. 257, 265 (2001).

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.* Shipping contributes the greatest amount of low-frequency noise in the ocean in a number of different ways: engine noise, vibration and "propeller cavitation." *Id.* The approximately 127 supertankers currently operating in the world's oceans at any given time is the single "greatest continuous source of anthropogenic noise in the ocean." McCarthy, *supra* note 75, at 265-66.

land Russia from Sakhalin Island and is fully covered by ice in the winter months.⁸⁰

The effect of underwater noise on marine life is the continuing subject of study.⁸¹ Scientists have drawn connections between underwater noise and alterations in marine mammal migration, feeding and breeding habits.⁸² Other studies have shown that other marine life simply avoids areas of intense noise, which can alter the ecosystem over time.⁸³ In addition to the effects on marine mammals, there is growing concern in the scientific community that other marine animals suffer reduced growth and reproduction rates as a result of anthropogenic underwater noise.⁸⁴ Scientists studying the gray whale population in the Sea of Okhotsk documented observing "skinny whales," or malnourished whales believed too weak to survive migration or to breed, in 1999 and 2000 after Sakhalin Energy began seismic testing and drilling for oil near the feeding area.⁸⁵

2. Oil Pollution

Another adverse effect of offshore oil and gas projects in the Sea of Okhotsk is oil pollution. Oil pollution has many different sources, including the drilling mud and cuttings generated in the drilling process.⁸⁶ These substances are produced both in connection with exploratory drilling, as well as production of oil and gas.⁸⁷ These substances often contain unknown chemicals in ad-

80. GREENPEACE RUSSIA, SAKHALIN OIL PROJECTS HARMING ECOLOGY: TEST RUN THROUGH TATARSKY STRAIT PLANNED FOR SAKHALIN-1 TANKER IN LATE FEBRUARY (2002).

81. See McCarthy, *supra* note 75, at 269-70.

82. *Id.* For example, sonar interferes with an animal's echolocation, which is used to communicate and navigate. *Id.* at 269. Scientists are also concerned that powerful underwater sounds can cause hemorrhaging in lung and ear tissue, as well as other areas. *Id.* Underwater sounds may cause hearing loss and can also cover up natural sounds relied upon by marine mammals. *Id.* Studies of gray whales off the coast of California found that 80% of the whales changed their migration routes when faced with seismic testing levels in excess of 130 decibels. Gordon, *supra* note 31, at 2.

83. See McCarthy, *supra* note 75, at 270.

84. *Id.*

85. Gordon, *supra* note 31, at 1.

86. Rick Steiner, *Oil Spills: Lessons from Alaska for Sakhalin*, in ECONOMIC DEVELOPMENT AND THE ENVIRONMENT ON THE SAKHALIN OFFSHORE OIL AND GAS FIELDS II 131 (Slavic Research Center, Hokkaido University, 1999), available at <http://src-h.slav.hokudai.ac.jp/sakhalin/eng/71/steiner2.html>. "[D]rilling muds are chemically complex, formulated fluids circulated into the bore hole to control temperatures and pressures, to cool and lubricate the drill bit, and to remove drill cuttings from the bore hole." *Id.* at 132.

87. *Id.*

dition to hydrocarbons.⁸⁸ Many countries are moving toward or have required operators to abide by a zero percent waste requirement, which prohibits discharging these wastes into the sea.⁸⁹ The technology exists to meet this requirement, although Sakhalin Energy is not currently implementing it and has instead chosen to discharge these wastes into the sea.⁹⁰ The concerns of this discharge practice are two-fold. First, the discharge of drilling wastes into the water is damaging to the marine ecosystem simply because it introduces harmful chemicals into the environment, many of which bioaccumulate.⁹¹ Second, when drilling wastes are generated, the operator simply deposits the wastes on the ocean floor.⁹² In deep waters where there is in fact less marine life, this practice is only somewhat less disturbing. However, in the shallow waters of the Sea of Okhotsk, the discharged wastes cover the ocean floor and all of the benthic and epibenthic species in the area. In essence, this practice contaminates the food supply of the gray whale and all the other species that feed on these bottom dwelling creatures.

In addition to the underwater noise and the drilling wastes, the transport of oil and gas to foreign markets, in this case Asian and U.S. markets, necessitates the use of tankers in a sea that has been described as one of the most inhospitable in the world.⁹³ The tanker traffic to and from the Sea of Okhotsk in this sensitive marine environment poses several risks. We have become all too familiar with, even as recently as November 21, 2002, with the sinking of the *Prestige* off the coast of Spain, the risks involved in transporting fuel by tanker.⁹⁴ In the event of an oil spill, either

88. *Id.* The contents of the bactericides, corrosion inhibitors, lubricants and defoaming agents used in the drilling process are unknown. *Id.* In addition to the additional chemicals, drilling muds also cause an increase in heavy metals in the ocean, including mercury, lead, zinc, cadmium, arsenic and chromium. *Id.*

89. Steiner, *supra* note 86, at 132.

90. *Id.*

91. *Id.*

92. *Id.*

93. See FRIENDS OF THE EARTH-JAPAN, *supra* note 50.

94. The *Prestige* is the twenty-six year-old, Greek-owned, Bahamian-registered single-hulled tanker carrying twenty million gallons of Russian fuel oil, which was loaded onto the ship at a Latvian port in the Baltic Sea for transport to Singapore, that now lies in two pieces beneath 11,000 gallons of water 130 miles off the coast of Spain. Emma Daly, *Oil Tanker Sinks Off Spain, Threatening Disaster*, N.Y. TIMES, Nov. 19, 2002, available at <http://www.nytimes.com/2002/11/19/international/19CND-SHIP.html>. Two million gallons of fuel oil spilled before the ship was towed away from the coast, where it ultimately split in two and sank. Emma Daly & Andrew C. Revkin, *Oil Tanker splits Apart Off Spain, Threatening Coast*, N.Y. TIMES, Nov. 20,

from the drilling unit, the floating station or a tanker, this semi-enclosed sea will bear the brunt of the damage. The Sakhalin-2 Project has already experienced an oil spill at the Vityaz marine terminal on September 28, 1999.⁹⁵ Even with state of the art oil spill response plans, teams and counter-measures, an oil spill in this ecosystem would be disastrous, not only for the Russian Federation, but certainly for Japan as well.

III. Analysis of Other Approaches

A. Self-Regulation and Monitoring by Transnational Corporations

Some authors suggest that TNCs involved in the oil and gas industry should be allowed, and are in the best position, to monitor themselves and derive a universal set of standards to achieve the most environmentally sound oil and gas exploration and production processes and methods.⁹⁶ However, despite efforts by some TNCs and international organizations to “green” the industry with corporate codes of conduct,⁹⁷ standards to evaluate corporate activity⁹⁸ and principles,⁹⁹ the will to comply weakens in the

2002, available at <http://www.nytimes.com/2002/11/20/international/europe/20SHIP.html>. Miles of beach have been polluted and the oil spill will most likely collapse Spain's \$330 million per year fishing industry and is also threatening the coast of Portugal. Emma Daly, *Anger Spreads With Oil Spill Along Imperiled Spanish Coast*, N.Y. TIMES, Nov. 22, 2002, at A6.

95. David Gordon, *Time to Improve Sakhalin Oil Spill Prevention and Response Measures*, ALEXANDER'S GAS & OIL CONNECTIONS, July 4, 2000, available at <http://gasandoil.com/goc/news/ntr01499.htm> (last visited Oct. 28, 2002).

96. See Robert J. Fowler, *International Environmental Standards for Transnational Corporations*, 25 ENVTL L. 1, 2-3 (1995).

97. Following the United Nations' failed attempt at drafting the United Nations Code of conduct for Transnational Corporations, the Organization for Economic Cooperation and Development (OECD) Council of Ministers adopted a recommendation entitled the Declaration on International Investment and Multinational Enterprises. See DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 1410 (2d ed. 2002). The Declaration also contained voluntary guidelines for conduct of transnational corporations as it relates to the environment. *Id.* A multi-layered dispute resolution mechanism developed to implement and adjudicate these guidelines, but in the end the decisions of the Committee on International Investment and Multinational Enterprises are interpretive in nature and do not bind the parties. *Id.*

98. The Valdez Principles were developed in response to the Exxon Valdez oil spill by a group of consumers, investors and environmentalists. *Id.* at 1412. The Valdez Principles are now known as the Coalition for Environmentally Responsible Economies Principles (CERES Principles) and are broad standards used to evaluate corporate activity. *Id.* The goals of the CERES Principles are to simultaneously improve environmental performance and assist investors and consumers in making educated decisions. *Id.* at 1413. If a company chooses to adopt the CERES Principles, the company agrees to commits to monitor and improve the impacts of its natural resource

face of a diminished bottom line and enforcement is nonexistent.¹⁰⁰ Each of the measures or principles mentioned are attempts by the international community to address important international issues with impotent, ineffective provisions lacking any enforcement and implementation mechanisms.

The subsidiaries comprising Sakhalin Energy have had the opportunity and the funding to implement the most cutting edge technology and conduct the most exhaustive environmental impact assessments of the area. Sakhalin Energy has not risen to the occasion. In addition, the Sakhalin-2 Project has been mired in controversy over concerns about a lack of public participation and nonconformance with environmental regulations.¹⁰¹ Not only are TNCs not raising the bar and voluntarily adopting stricter safety, transportation and discharge standards, the financiers have also apparently lost the will to demand the best practices from these parties.

Voluntary codes and standards appear to be ineffective and cannot be relied upon when faced with the loss of or damage to the Sea of Okhotsk marine ecosystem. It is even more unlikely that TNCs will monitor and regulate their behavior in the best interests of the environment when some TNCs refuse to comply with existing laws. For example, after growing concern about the gray whale population and in response to the IWC's resolution to protect the whales,¹⁰² the Russian Ministry of Natural Resources ordered the local agency to halt the testing being conducted by the Sakhalin-1 Consortium while the whales were feeding.¹⁰³ The local agency informed Exxon of the directive, but the seismic testing

use, among other things. HUNTER ET AL., *supra* note 97, at 1413. In addition, participating companies must publish an annual CERES Report assessing the company's policies and practices with respect to each of the principles. Unfortunately, the variation in reporting practices among participating companies makes it difficult to compare one company to another, or to actually determine compliance with the principles. *Id.* at 1415. For more information on CERES, see CERES, *Network for Change*, at www.ceres.org/reports/main.htm (last visited May 27, 2003).

99. In July 2000, the United Nations introduced the Global Compact for TNCs to demonstrate "good global citizenship" in their operations. HUNTER ET AL., *supra* note 97, at 1418. The Global Compact is aspirational in nature and contains no enforcement provisions.

100. See Fowler, *supra* note 96, pt. IV.C.

101. Gordon, *supra* note 95.

102. Gordon, *supra* note 31, at 2. In the summer of 2001, the International Whaling Commission (IWC) passed a resolution calling for "every effort . . . to reduce anthropogenic mortality . . . to zero and to reduce various types of anthropogenic disturbances to the lowest possible level." *Id.*

103. *Id.*

continued for another three weeks until the Minister contacted Exxon directly. Exxon initially maintained that it was never officially directed by the local agency to stop the seismic testing, but that it was aware of the order from the federal government.¹⁰⁴ However, David Gordon of Pacific Environment argues that the reason Exxon refused to comply with the order had to do with the fact that the PSA for Sakhalin-1 required the TNC to complete the seismic portion of its operation in 2001; therefore, Exxon could not “afford” to wait until the whales migrated.¹⁰⁵ Had Exxon not completed the seismic testing by the end of 2001, the Russian Federation could have revoked the PSA and developed a new PSA for the project.¹⁰⁶

B. Reform of Multilateral Organizations

Other groups have suggested that the international export credit agencies,¹⁰⁷ multilateral lending institutions, development banks and other similar organizations that provide substantial funding for these projects can have a substantial impact on the environmental integrity of oil and gas production projects. Overseas Private Investment Corporation (OPIC),¹⁰⁸ the United States’ congressionally created ECA, is a major investor in the Sakhalin-2 Project.¹⁰⁹ Among its many guiding policy statements,

104. *Id.*

105. *Id.*

106. *Id.*

107. Export credit agencies (ECA) are public agencies created to provide a variety of financial services to domestic private corporations doing business in foreign markets that are financially and politically unstable. Pacific Environment, *Reforming Export Credit Agencies*, available at <http://www.pacificenvironment.org/ecas/intro.htm> (last visited Feb. 25, 2003). ECAs generally provide loan guarantees, government-backed loans, credits and political risk insurance. *Id.* ECA Watch, an international campaign of nongovernmental organizations designed to bring about reform to ECAs, estimates that ECAs support four times the number of oil, gas and mining projects as all of the multilateral development banks combined. *Id.*

108. Congress established the Overseas Private Investment Corporation (OPIC) as an agency of the United States under the policy guidance of the Secretary of State pursuant to the terms of the Foreign Assistance Act of 1961. 22 U.S.C. § 2191 (2000). The purpose of OPIC is “[t]o mobilize and facilitate the participation of United States private capital and skills in the economic and social development of less developed countries and areas, and countries in transition from nonmarket to market economies, thereby complementing the development assistance objectives of the United States.” *Id.* OPIC achieves these goals by providing political risk insurance and different types of financing for a variety of projects. See Kenneth Berlin, *Environment Issues in International Business Transactions—Keeping Out of the Abyss*, C990 ALI-ABA 377, 400 (1995).

109. ECA WATCH, *supra* note 67, at 1.

OPIC must ensure that projects it supports are consistent with certain environmental protection provisions.¹¹⁰ In addition, OPIC *may* refuse to become involved with a proposed project if it determines that the project will have either “an unreasonable or major” impact on the environment.¹¹¹ The oil and gas projects in the Sea of Okhotsk are certain to have a “major” impact on the environment, but because OPIC’s refusal to fund those projects is discretionary, and decisions to become involved in projects are made in relative obscurity, this provision only serves to provide an out for OPIC rather than a check or restraint on projects with potential to cause grave harm. OPIC’s involvement in the Sakhalin Island projects seem to fly in the face of the stated goals of the agency. However, because of the inclusion of discretionary language and self-activating exemptions, it appears difficult to demonstrate that OPIC is in violation of its own statutory mandate and internal policies.

Paying lip service to sustainable development concerns, the President of OPIC must take into consideration the effect the environmental impacts of projects by requiring an environmental assessment of projects that may significantly affect the environment of a foreign country,¹¹² unless of course to do so would be “seriously detrimental to the foreign policy interest of the United States.”¹¹³ The effectiveness of the requirement that the President of OPIC consider environmental affects is completely com-

110. OPIC projects must be consistent with the environmental provisions of 22 U.S.C. § 2151. 22 U.S.C. §2191(3). OPIC requires an environmental impact statement for projects that will have a substantial impact on the environment, which are classified as Category A projects. OVERSEAS PRIVATE INVESTMENT CORPORATION, ENVIRONMENTAL HANDBOOK App. E, *available at* www.opic.gov (last visited Nov. 3, 2002) [hereinafter OPIC ENVIRONMENTAL HANDBOOK]. Category A projects include those projects relating to transportation infrastructure, oil and gas development, oil and gas pipelines and offshore hydrocarbon production. *Id.* Category A projects require environmental impact assessments that are acceptable to OPIC in its sole discretion. *Id.* Significantly, section 2199(g) incorporates the requirements for environmental impact statements and environmental assessment found in Section 2151p(c) for all OPIC projects. 22 U.S.C. § 2199(g). Congress also directed OPIC to operate its programs consistent with the intent of sections 117, 118 and 119 of the Foreign Assistance Act relating to environmental impact assessment, tropical forests, biological diversity and endangered species. OPIC ENVIRONMENTAL HANDBOOK, *supra*.

111. 22 U.S.C. § 2191(n).

112. 22 U.S.C. §§ 2151p(c)(1)-(2). In addition to the guidelines referenced above, OPIC requires all projects to comply with host country environmental regulations. OPIC ENVIRONMENTAL HANDBOOK, *supra* note 110. However, OPIC requests but does not require applicants to provide copies of relevant host country regulations as part of the environmental impact statement process. *Id.*

113. 22 U.S.C. § 2151p(c)(2).

promised and virtually ineffective when coupled with this level of discretion. It would be difficult to challenge the decision that foreign policy interests were adversely affected, and in fact this exception may just as easily allow the President of OPIC to finance environmentally damaging projects that are in contravention of sustainable development when the end result of those projects (in this case, a new supply of oil and gas separate from the Middle East) is in fact good for the United States. If the project does not comply with host country environmental regulations, which has been asserted by an environmental organization in Russia against the Sakhalin projects,¹¹⁴ but OPIC has already disbursed the funds or issued insurance policies or loan guarantees, there do not appear to be any adverse consequences to the project operator.

The Export-Import Bank of the United States (Ex-Im Bank) provides many of the same services as OPIC.¹¹⁵ Ex-Im Bank guarantees working capital loans for U.S. exporters, guarantees the repayment of loans for purchasers of U.S. exports, makes loans to foreign purchasers of U.S. goods and services and provides credit insurance against failure of foreign buyers to pay for goods due to political or commercial upheaval.¹¹⁶ With respect to environmental issues arising in financing projects, Ex-Im Bank's Charter authorizes the Board of Directors to grant or withhold financing support "after taking into account the beneficial and adverse environmental effects of proposed transactions."¹¹⁷ While Ex-Im Bank's primary objective is to maintain or gain a competitive edge in the global marketplace, it also seeks to ensure that the projects supported by Ex-Im Bank's financial involvement are environmentally responsible.¹¹⁸ However, like OPIC, the Board of

114. See *infra* note 118 and accompanying text.

115. Congress originally created the Export-Import Bank of the United States (Ex-Im Bank) in 1934 and established under its present law in 1945 to aid in financing and facilitating exports of U.S. goods. After World War II, the Ex-Im Bank helped U.S. companies participate in the economic boom accompanying the reconstruction of Europe and Asia. BANK OF THE UNITED STATES, HISTORY OF EX-IM BANK, available at <http://www.exim.gov/history.html>. (last visited Mar.13, 2003).

116. *Id.* As a counterbalance to these investment and insurance activities, Ex-Im Bank must be reasonably assured of repayment. *Id.* However, Ex-Im Bank is not an aid or development agency, but rather a governmentally-held corporation. *Id.*

117. *Id.*

118. Ex-Im Bank has established and adopted Environmental Procedures and Guidelines listing qualitative and quantitative limits for certain elements, such as air and water quality, against which the Ex-Im Bank's Engineering and Environment Division will evaluate the environmental effects of projects within certain industrial sectors. *Id.*

Directors has discretion and is not obligated to oppose or withhold financing of environmentally irresponsible or harmful projects.

While these controls and provisions appear on their face to provide protections for the host country and the environment, upon closer examination, these provisions appear to have little or no ability to stop environmentally unsound or damaging development. Environmental nongovernmental organizations that are well aware of the work of OPIC and other ECAs have been unable to bring about any significant reform.¹¹⁹ While these multilateral organizations have made some strides toward implementing environmental review and assessment standards, the presumption is still that proposed projects will ultimately be approved, there are no universal standards and there are no consequences for the failure to implement certain environmentally sound procedures. Therefore, the impetus for change and improvement in these offshore oil and gas projects will not come from export credit agencies, multilateral lending agencies or insurers.

C. Actions by Nongovernmental Organizations and Private Citizens

Still, other authors have suggested that the way to cause a change in the business practices of major oil and gas transnational corporations, operating in sensitive environments, is to allow or encourage interested parties and indigenous peoples in affected areas to bring lawsuits to force compliance with domestic laws.¹²⁰ Nongovernmental organizations can also bring pressure to bear on TNCs with educational and media campaigns, as well as legal pressure.¹²¹ These approaches are positive to the extent

119. The creation of ECA Watch in 1996 led to the development of the Jakarta Declaration in May 2000. Pacific Environment, *supra* note 107. The Jakarta Declaration is a global call for reform of ECAs, including increased transparency and binding environmental and social guidelines. *Id.*

120. See generally Stephen R. King, Comment, *Getting a Seat at the Table: Giving the Indigenous Peoples of the Russian Far East Control Over Local Government*, 7 PAC. RIM L. & POL'Y J. 803 (1998).

121. In August of 1999, Ecojuris Institute, a Russian environmental law group based in Moscow, filed an action against the Russian Federation on behalf of 30 Russian grassroots organizations and private citizens. *Russian Environmentalist Sue to Protect Far Eastern Seas: First Suit by Citizens Demanding that the Russian Government Apply Environmental Laws to Transnational Corporations*, EARTHJUSTICE: NEWSROOM, Aug. 18, 1999, at <http://www.earthjustice.org/news/display.html?ID=136> (last visited Mar. 12, 2003). The complaint alleged that the Russian federal government issued a decree waiving a requirement that the Sakhalin-1 Project abide by the zero-discharge standards set forth in the Russian Water Code. *Id.* In addition, the plaintiffs alleged that the decree itself violated Russian law, because the decree was

that they recognize previously overlooked stakeholders, but in most instances these remedies are reactive and are available only after harm occurs and damage, potentially irreversible, has been done. The Russian Federation has some profound and provocative laws¹²² currently in effect that guarantee certain rights to citizens and impose certain responsibilities on the government. Not surprisingly, the exercise of those rights requires an aggrieved person, akin to David, to take on a Goliath. Furthermore, this approach also requires a certain amount of political will. In addition, courts are under-funded and judgments and orders go unenforced.¹²³ Nongovernmental organizations can play a role in providing support and education to the people of Sakhalin Island most directly affected by the oil and gas projects in the Sea of Okhotsk, but those efforts can only go so far.¹²⁴

IV. A Multi-Faceted Approach to Preserving the Sea of Okhotsk

A. Cessation of Current Projects

The first step in the proposed protective strategy is for the Russian Federation to immediately halt oil and gas activities in the Sea of Okhotsk to allow time for scientists to complete studies of the effects of offshore oil and gas production on the entire marine ecosystem, as well as to complete studies on the migration patterns of the gray whale. Russian domestic law not only supports the cessation of the Sakhalin oil and gas projects to protect

not subjected to the required environmental assessment. The plaintiffs were victorious. *Id.* On February 14, 2002, the Presnensky Inter-Municipal Court in Moscow heard arguments of fourteen organizations and seventy-two individuals who filed an action to ban the implementation of the Sakhalin-1 and Sakhalin-2 projects. *See generally* GREENPEACE RUSSIA, SAKHALIN OIL PROJECTS HARMING ECOLOGY, *supra* note 80. The plaintiffs charged that the projects threaten the gray whale in the Sea of Okhotsk. *Id.* The action named as defendants the Natural Resources Ministry, Exxon Neftegaz Limited and Sakhalin Energy. *Id.* The plaintiffs requested a ban on oil and gas activities in Piltun Bay, the primary feeding area of the gray whale, and the Piltun spit. *Id.* The Court rejected the suit on May 16, 2002. *Id.*

122. *See* discussion *infra* Parts IV.A. and V.

123. King, *supra* note 120, at 817.

124. When the local agency failed to implement the order from the federal government directing Exxon Neftegaz to halt seismic testing, Dr. Lisitsyn of Sakhalin Environmental Watch personally visited the scientists studying the gray whales and informed them of the situation. Gordon, *supra* note 31, at 3-4. In response, the scientists wrote to the Minister of Natural Resources and explained that its order had not been implemented and why. *Id.* In response, the Ministry of Natural Resources directly ordered Exxon Neftegaz to stop seismic testing activity by September 15, 2001. *Id.* Exxon Neftegaz complied with the order on September 8, 2001. *Id.*

and allow for additional study of the effects on the marine ecosystem and the gray whale, the law demands it. Specifically, all Russians have an affirmative obligation under the Russian Federation Constitution to “preserve nature and the environment, and care for natural wealth.”¹²⁵ As a complement to and in furtherance of this affirmative obligation, the Duma enacted its Law of the Russian Federation No. 2060-1 of December 19, 1991 on the Protection of the Natural Environment (Natural Resources Law).¹²⁶ The goal is to provide all citizens with the possibility of residing in a healthy environment.¹²⁷ The Russian Federation envisions itself as the enforcer and suggests that governmental control over resources will accomplish these goals.¹²⁸

The Natural Resources Law contemplates the use and exploitation of natural resources upon the conclusion of an “ecological expert examination concerning the anticipated economic or any other activity and of the license (permit) for comprehensive Nature use.”¹²⁹ Such agreements between the government and the user are to include conditions on the use of the natural resources, as well as an affirmative statement of the rights and responsibilities of the user with respect to such use.¹³⁰ However, the Natural Resources Law specifically declares that certain land areas and threatened species listed in the Red Book of the Russian Federation constitute the “natural preserve stock” of the country and *are to be afforded special protection by the State for present and future generations*.¹³¹

The gray whale is a threatened species.¹³² “Plants and animals relating to the species entered in Red Books shall be everywhere withdrawn from general economic use. It shall be

125. KONST. RF art. 58 (Russian Federation Constitution).

126. Protection of the Natural Environment, Law of the Russian Federation No. 2060-1, *translation available at* LEXIS, IntLaw Library, RFLAW File, Garant 10008049 (amended 2001) [hereinafter Natural Resources Law].

127. *Id.*

128. *Id.*

129. *Id.* art. 18, ¶ 1.

130. *Id.* art. 18, ¶ 2. Article 25 states that standards will be developed to allow for a certain acceptable level of impact on the environment which will allow for the “rational use” of the resources with an eye toward sustainable development, while at the same time guaranteeing the “ecological safety of the population and the preservation of the genetic stock.” *Id.* art. 25.

131. Natural Resources Law, *supra* 126, art. 60, ¶ 1. Article 65, paragraph 1 of the Natural Resources Law creates the Red Book of the Russian Federation, as well as authorized Red Books of the various regions as receptacles for the names of rare plants and animals, as well as threatened species. *Id.* art. 65, ¶ 1.

132. *See supra* Part I.B.

forbidden to carry on the activity that leads to the reduction of the numbers of plants and animals *and deteriorates their habitat*.¹³³ TNCs who wish to make use of an area in which there are threatened species must take measures to “protect and reproduce these species of plants and animals.”¹³⁴ However, the Natural Resources Law contains a strong statement that seems to elevate protection of the health of the individual and the natural environment over economic activity in those instances where there will be unfavorable changes of irreversible consequences.¹³⁵ How the exploration and production of oil and gas in the last known feeding grounds of an endangered species can avoid prohibition under this provision is an interesting question, to say the least.

Until more is known about the Sea of Okhotsk ecosystem and the gray whale, no TNC is able to protect this threatened species and its habitat. Because both the Russian Constitution and the Natural Resources Law are clear as to Russia’s commitment to the precautionary principle¹³⁶ and the protection of the environment for future generations,¹³⁷ it is entirely appropriate and within the power of the Russian Federation to halt oil and gas activities in the Sea of Okhotsk until special protections can be devised and implemented. Given the severity of the threat to the gray whale, it is unlikely that TNCs will be able to fashion suitable measures. The proposed gray whale protection plan proffered by Sakhalin Energy was sharply criticized as insufficient.¹³⁸ Until approved measures are implemented, if ever, it is a violation of the Natural

133. Natural Resources Law, *supra* note 126, art. 65, ¶ 2 (emphasis added).

134. *Id.* ¶ 3.

135. *Id.* art. 57.

It shall be forbidden to elaborate and realize economic projects associated with the breaches or destruction of the highly productive natural ecological systems and the natural equilibrium the unfavourable changes in the climate and ozone layer of Earth, the distraction of the genetic stocks of plants and animals, the onset of other irreversible consequences for human health and the natural environment.

Id.

136. The Precautionary Principle recognizes that scientific certainty often comes too late to design effective legal and policy responses for preventing threats. Therefore, this principle requires states to proceed with caution rather than forging ahead when the consequences are unknown. *See generally* PATRICIA BIRNIE & ALAN BOYLE, INTERNATIONAL LAW AND THE ENVIRONMENT 115-121 (2002) (examining the development and essence of the precautionary principle). This principle is particularly relevant in the context of offshore oil exploration in the Sea of Okhotsk.

137. *See infra* note 188 and accompanying text.

138. *See, e.g.*, email from Dmitry V. Lisitsyn, Chairman, Sakhalin Environment Watch, et al., to Julian Barnes, External Affairs Manager, Sakhalin Energy Investment Company Limited (Aug. 15, 2002), available at <http://www.eca-watch.org/prob>

Resources Law to allow these activities to continue to endanger the gray whale and deteriorate the Sea of Okhotsk.

B. New Standards for Sakhalin-2

Sakhalin Environment Watch (SEW) and Pacific Environment Resources Center, two nonprofit environmental organizations, solicited the help of three independent experts in the oil and gas industry to review the Sakhalin projects and provide recommendations for ways in which the operators could improve the projects and prevent damage to the Sea of Okhotsk ecosystem. As a result, Dan Lawn, Rick Steiner, and Jonathan Wills produced a detailed report containing seventy-eight recommendations entitled "Sakhalin's Oil: Doing It Right."¹³⁹ SEW provided the report to Sakhalin Energy, but as of December 1, 2002, Sakhalin Energy has not implemented the recommendations.¹⁴⁰ Some of those recommendations include: establishing a citizens advisory council, minimizing noise pollution, making mandatory weather and visibility limits and increasing oil spill response equipment.¹⁴¹ For instance, this panel of experts, as well as scholars at Hokkaido University in Japan,¹⁴² recommended the immediate use of double-hulled tankers in the Sea of Okhotsk. The IMO has ordered the phase out of single-hulled tankers by the year 2015.¹⁴³ Unfortunately, the deadline was too late for the people of Spain and the marine ecosystem in the Galicia region.¹⁴⁴ In response to this latest oil spill, on December 3, 2002, the European Union

lems/russia/whaleplan_response.html (setting forth responses to "Western Gray Whale Protection Plan").

139. DAN LAWN, ET AL., *SAKHALIN'S OIL: DOING IT RIGHT, APPLYING GLOBAL STANDARDS TO PUBLIC PARTICIPATION, ENVIRONMENTAL MONITORING, OIL SPILL PREVENTION & RESPONSE AND LIABILITY STANDARDS IN THE SAKHALIN OBLAST OF THE RUSSIAN FEDERATION* (1999), at <http://www.pacificenvironment.org/infocenter/Reports/doing.htm>.

140. See *SAKHALIN II*, *supra* note 61.

141. LAWN, ET AL., *supra* note 139, at 1, 17, 23, 57.

142. SLAVIC RESEARCH CENTER, HOKKAIDO UNIVERSITY, *OIL SPILLS: LESSONS FROM ALASKA FOR SAKHALIN, ECONOMIC DEVELOPMENT AND THE ENVIRONMENT ON THE SAKHALIN OFFSHORE OIL AND GAS FIELDS II 2* (1999), available at <http://src-h.slav.hokudai.ac.jp/sakhalin/eng/71/steiner3.html>.

143. *Id.*; see also Stefano Ambrogio, *No End to European Oil Pollution Threat Until 2015*, ENVTL. NEWS NETWORK, Nov. 20, 2002, at <http://enn.com/extras/printer-friendly.asp?storyid=48988>.

144. See *supra* note 94 and accompanying text for a discussion of the Prestige oil spill.

called for a ban of single-hulled tankers and identified sixty-six ships that are considered safety hazards.¹⁴⁵

It is not completely unheard of for oil companies to agree to changes in procedures or recommendations to increase safety. For example, in July, 2002, a subcommittee of the International Maritime Organization, which is the international body responsible for ship safety, and Transport Canada, the maritime safety governmental agency, agreed to relocate shipping lanes in the Bay of Fundy to protect feeding areas of right whales.¹⁴⁶ Members of World Wildlife Fund's Ocean Rescue initiative presented data collected over fifteen years that demonstrated that the right whales, whose numbers in the North Atlantic are down to about 350, feed in the same spot every year.¹⁴⁷ The whales were competing with shipping traffic and in danger of being struck and killed.¹⁴⁸ Because of the small population, scientists recognized the need to protect the remaining members.¹⁴⁹ To its credit, Irving Oil, the company with the largest commercial fleet in the area, recognized the risks to the whales and the relative simplicity of the solution and endorsed the plan.¹⁵⁰

In the case of the Sea of Okhotsk, not only should shipping lanes be examined with an eye toward species preservation, but tanker traffic in general should be regulated to avoid operation in inclement weather, such as rough seas, low visibility and other factors in order to prevent human and operator error. Before Sakhalin Energy, or any other TNC operating in the Sea of Okhotsk continues oil and gas related activities, the recommendations should be reviewed and discussed in a public forum to educate the public as to the dangers of the industry and the potential effects on the Sea of Okhotsk and Sakhalin Island. The Russian Federation should adopt these recommendations and require their implementation by any oil or gas company operating in the Sea of Okhotsk in furtherance of Russian domestic laws.

145. Constant Brand, *E.U. Demands the Ban of Single-Hull Tankers*, ENVTL. NEWS NETWORK, Dec. 4, 2002, at http://enn.com/news/wire-stories/2002/12/12042002/ap_49104.asp.

146. World Wildlife Fund, *Whales Win Right of Way in Summer Feeding Ground*, FOCUS, Nov/Dec 2002, at 1.

147. *Id.* at 7. The International Maritime Organization and the Canadian Parliament must approve the agreement. *Id.*

148. *Id.*

149. *Id.*

150. *Id.*

C. Establishment of Marine Protected Areas

Scientists and nongovernmental organizations are forming coalitions to protect this gray whale population. The Council on Marine Mammals and the Interagency Ichthyological Commission passed a resolution "calling for a ban on industrial activity, including seismic exploration and construction for oil and gas development, in the grey whales' feeding area."¹⁵¹ Clearly, there is support for the notion that certain areas need to be protected. The gray whales have provided the impetus to protect not only the whales, but the entire marine ecosystem. The Law of Natural Resources and the IWC already protect the gray whale.¹⁵² However, it appears that these species level protections are insufficient, as Sakhalin-2 continues to pump oil and Sakhalin Energy's plans to begin construction of Phase 2 continue. In addition, Sakhalin-1 forges ahead toward its 2004 oil production target. Therefore, the entire marine ecosystem can be protected by establishing a "specially protected natural area."

Marine reserves or sanctuaries are being used by many coastal nations on every continent to protect marine ecosystems.¹⁵³ Studies have shown that in as quickly as two years, marine ecosystems are recovering under a marine reserve regime.¹⁵⁴ Marine reserves preserve genetic material and biodiversity by protecting stressed and endangered species.¹⁵⁵ Marine reserves also promote recovery of fish stocks by allowing juvenile fish to reach sexual maturity and breed.¹⁵⁶ The American Association for the Advancement of Science announced that many scientists are of the opinion that marine reserves are the preeminent tool for protecting and restoring marine ecosystems.¹⁵⁷

The Russian Federation 1995 Federal Law on Specially Protected Natural Areas (1995 Law on SPNAs) provides for a number of different types of ecosystem protections.¹⁵⁸ The types of protec-

151. Gordon, *supra* note 31, at 4.

152. See *supra* notes 28, 36 and 131 and accompanying text.

153. Jeff Brax, *Zoning the Oceans: Using the National Marine Sanctuaries Act and the Antiquities Act to Establish Marine Protection Areas and Marine Reserves in America*, 29 *ECOLOGY L.Q.* 71, 97 (2002).

154. *Id.* at 100.

155. *Id.* at 103.

156. *Id.* at 102.

157. *Id.* at 100.

158. Specially Protected Areas, *Sobr. Zakonod. RF Federal Law No. 33, Item 3 (1995)* [hereinafter 1995 Law on SPNAs].

tions vary in type, scope and control.¹⁵⁹ The most protective of these designations are “zapovedniks, which are strict nature reserve areas set aside in the interest of science and can include biosphere reserves.”¹⁶⁰ The highest level of protection should be afforded to the feeding area of the gray whale in and around Piltun Bay. If designated as a zapovednik, the area would be set aside for protection, scientific research and education and would no longer be available for commercial exploits.¹⁶¹ If the main goal is to protect the ecosystem, with special protection afforded to the gray whale feeding habitat, and still allow for some commercial uses made in a sustainable manner, the entire ecosystem cannot become a zapovednik. However, another available designation is that of a state nature reserve, or “zakaznik,” the purpose of which is to “protect individual species by restricting the type of activity in a specific geographic area, or completely closing an area during migration and/or mating seasons.”¹⁶² Alternatives, such as limited take zones and no take zones in certain areas of the Sea of Okhotsk, should also be explored and incorporated into a zakaznik.

D. United Nations Environment Programme Regional Seas Programme

UNCLOS contemplates that certain marine ecosystem protection will come at the regional level with the reference in Article 122 to “enclosed or semi-enclosed seas.”¹⁶³ The United Nations Environment Programme (UNEP) established its Regional Seas Programme in 1974.¹⁶⁴ The North West Pacific region has been

159. See Oleg Kolbasov, *Legal Regimes of Specially Protected Areas in Russia*, ¶2, at <http://www.xcom.it/icef/abstracts/abstract6.html> (last visited Feb. 4, 2003). Some of the types of areas include: state natural zapovedniks, national parks, national parks, state natural reserves, natural monuments, and dendrological and botanical gardens. *Id.*

160. 1995 Law on SPNAs, *supra* note 158, art. 2, § 1.

161. David Ostergren, *An Organic Act After a Century of Protection: The Context, Content, and Implications of the 1995 Russian Federation Law on Specially Protected Natural Areas*, 41 NAT. RESOURCES J. 125, 135 (2001).

162. *Id.* at 139.

163. UNCLOS, *supra* note 15, art. 122. An enclosed or semi-enclosed sea is “a gulf, basin or sea surrounded by two or more states and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal states.” *Id.*

164. NOWPAP MER/RAC, UNEP'S REGIONAL SEAS PROGRAM, at http://merrac.nowpap.org/html/c_center.html. (last visited Mar. 19, 2003). There are eighteen regional programs, fourteen of which were established under the auspices of the UNEP. *Id.* Of these, thirteen have formally adopted regional action plans. *Id.*

identified as a Regional Sea under the United Nations Regional Seas Program.¹⁶⁵ The member nations include the People's Republic of China, Russia, Democratic Republic of Korea, the Republic of Korea and Japan.¹⁶⁶ These member states have recognized that the region suffers from a number of problems, including oil pollution.¹⁶⁷ The member states adopted the North West Pacific Action Plan in 1994.¹⁶⁸ "The plan focuses on the wise use, development and management of the coastal and marine environment in order to achieve the greatest long-term benefit for the human populations of the region while protecting human health and ecological integrity for future generations."¹⁶⁹

Although the protections are not as developed in this region as they are in some others, it is evidence of a desire by the member states to solve the existing problems and prevent future harms.¹⁷⁰ Regional agreements are a good vehicle by which to address issues that are specific to a particular region and allow for easier supervision, monitoring, and enforcement.¹⁷¹ In addition to the Action Plan, the North West member states developed a NOWPAP Regional Oil Spill Contingency Plan, which the parties expected to finalize by the close of 2002.¹⁷² The parties must finalize this contingency plan as soon as possible and act in concert to take advantage of protections that can be afforded to this regional sea by UNCLOS and MARPOL discussed in the following section.

E. Creation of Special Areas Under International Law

1. MARPOL

MARPOL came into existence because of the recognition that the marine environment is in need of preservation.¹⁷³ The Convention recognizes that the release of oil from ships is a source of

165. *Id.*

166. Ellik Adler, *North-West Pacific: Making History, United Nations Environment Programme*, at <http://www.unep.ch/seas/nwpcap.html> (last visited Mar. 19, 2003).

167. *Id.*

168. *Id.*

169. *Id.* The plan incorporates six projects to be implemented through a network of Regional Activity Centres (RACs). *Id.* Four of the projects have been implemented and address "information management, pollution monitoring, environmental assessment, and marine emergency preparedness and response." *Id.*

170. BIRNIE & BOYLE, *supra* note 136, at 355.

171. *Id.*

172. NOWPAP MER/RAC, NOWPAP OILSPILL CONTINGENCY PLAN, at http://merrac.nowpap.org/html/k_1.html (last visited Mar. 19, 2003).

173. *Id.* pmbl.

pollution that must be eliminated, with respect to intentional pollution, or greatly minimized, with respect to accidental discharges of oil.¹⁷⁴ All parties to the Convention are bound by Annex I, which sets forth the regulations for the prevention of oil pollution.¹⁷⁵ MARPOL has as its primary focus the regulation of oil pollution by the imposition of technical means to limit or eliminate discharges.¹⁷⁶ The Convention also contains an elaborate enforcement scheme that involves coastal states, port states and flag states.¹⁷⁷ Of particular interest to this paper is the provision in Annex I, Regulation 1 allowing for the establishment of a "special area" in areas requiring special protection from oil pollution.¹⁷⁸ The Sea of Okhotsk has oceanographical and ecological characteristics that necessitate establishing a "special area" that will protect this ecosystem from discharges.

2. UNCLOS

Article 211 of UNCLOS charges States with the duty of establishing "international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption . . . of routing [sic] systems designed to minimize the threat of accidents which might cause pollution of the marine environment."¹⁷⁹ The States must accomplish this task through the use of an international organization or a diplomatic conference.¹⁸⁰ In the event a State determines that the rules developed in accordance with Article 211, paragraph 1 of UNCLOS are insufficient to meet the goals of UNCLOS with respect to a particular marine area, Article 1, paragraph 6 provides a mechanism pursuant to which a State may adopt stricter standards. The State must have reasonable grounds to believe that additional protective measures are necessary to protect the marine environment located in the State's exclusive economic zone (EEZ).¹⁸¹

174. *Id.*

175. BIRNIE & BOYLE, *supra* note 136, at 363.

176. *Id.*

177. *Id.*

178. MARPOL, *supra* note 14, annex I, reg. 1, ¶ 10. A "special area" is defined as "a sea area where for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by oil is required." *Id.*

179. UNCLOS, *supra* note 15, art. 211, ¶ 1.

180. *Id.*

181. A major innovation of UNCLOS was the creation of the exclusive economic zone (EEZ), "which extends to 200 nautical miles from the territorial sea baseline and confers on coastal states sovereign rights over living and mineral resources, and juris-

A State seeking to institute additional protective measures must consult with other concerned states and the IMO. In addition, the State must provide evidence that the character of the area necessitates, for "recognized technical reasons," the adoption of measures and the designation as a "special area."¹⁸²

The IMO must make a determination as to the suitability and necessity of the additional measures within twelve months of receiving a request from the coastal State, and if approved, become applicable to foreign vessels fifteen months after the date of the original submission for consideration to the IMO by the coastal State. In addition to the protective standards approved by the IMO, the coastal State may adopt additional rules regarding discharges and navigational practices in the special area, which must be clearly defined,¹⁸³ but cannot "require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards."¹⁸⁴ These additional laws shall become applicable to foreign vessels fifteen months after the date of the original submission to the IMO, provided the organization agrees within twelve months after the submission of the communication.¹⁸⁵

It is important to note that the provisions of Article 211, paragraph 6 apply only to attempts by states to impose stricter rules and regulations affecting its EEZ, not its coastal waters or territorial seas.¹⁸⁶ To take advantage of Article 211, Russia would have to consult with Japan, as a concerned coastal state, and the IMO to impose stricter standards in Russia's EEZ. The additional provisions for special areas in UNCLOS, relating to discharges and navigational practices, would supplement the additional protections afforded to special areas under MARPOL. These two international devices, acting in concert with Russian domestic laws relating to water pollution, could protect all of the Sea of Okhotsk.

diction with regard to the protection and preservation of the marine environment." BIRNIE & BOYLE, *supra* note 136, at 373.

182. UNCLOS, *supra* note 15, art. 211, ¶ 1.

183. *Id.* art. 211, ¶ 6(b).

184. *Id.* art. 211, ¶ 6(c).

185. *Id.*

186. *Id.*

F. Justifications and Support for this Approach

1. Customary Principles of International Law

Because the Sea of Okhotsk lies within Russian territorial waters and its exclusive economic zone, it falls within Russia's sovereign control. Therefore, Russia has the sovereign right to exploit the resources of the Sea of Okhotsk. This sovereign right to exploit resources is tempered and, I would argue, superseded by several other customary principles of international law, including the precautionary principle, future generations and the right to a healthy environment. The precautionary principle is expressed in various Russian domestic laws as well as being incorporated into Russian law through the Law on Natural Resources.¹⁸⁷

The focus on future generations is embodied in many Russian laws and focuses on freedom and fairness while keeping in mind the rights and needs of future generations, in particular the need for healthy ecosystems and a healthy environment. The Preamble of the Constitution of the Russian Federation states that the people of the Russian Federation are united in their goals to honor the memories of their ancestors by respecting their homeland and to embrace their responsibility for their homeland not only for the present generations, but also for future generations.¹⁸⁸ The Natural Resources Law is sophisticated and echoes the provisions set forth in the Russian Constitution relating to the value of the natural world and a desire to protect the environment not only for the benefit of the present generation, but also the future generations.¹⁸⁹

With respect to environmental issues, all Russians have the right to "a favorable environment," access to reliable information about the condition of their environment, and furthermore (and rather remarkably) the right to receive compensation for damage to health or property caused by "ecological violations."¹⁹⁰ Article 11 of the Natural Resources Law sets forth the right of every individual to protection against the adverse health consequences associated with a degraded environment caused by "economic or any other activity, breakdowns, disasters, and natural calamities."¹⁹¹ To guarantee this right, the Russian Federation has committed

187. See *supra* note 131 and accompanying text.

188. KONST. RF pmbl. (Russian Federation Constitution).

189. Natural Resources Law, *supra* note 126, art. 11.

190. KONST. RF art. 42 (Russian Federation Constitution).

191. Natural Resources Law, *supra* note 126, art. 11.

itself to establish environmental quality standards, to engage in planning to prevent "ecologically harmful activity" and environmentally deleterious effects associated with "breakdowns, catastrophes, and natural disasters" and to improve the environment.¹⁹²

Echoing the provisions of the Russian Constitution, the Law of Natural Resources also contains a set of guiding principles relating to international cooperation with respect to environmental protection set forth in Article 92.¹⁹³ These principles support the constitutional right to a healthy environment, but also iterate the sovereign right of the State to use and develop its natural resources to satisfy the needs of the citizen.¹⁹⁴ This right of the sovereign is tempered by the recognition that one State may not act to the detriment of another State, and that economic activity will not damage the environment both within and outside of the State. These principles also embody the precautionary principle and mandate that "any kind of economic and other activity with unpredictable ecological consequences shall be inadmissible."¹⁹⁵ Article 93 reaffirms the superiority of the terms of international agreements that conflict with or supplement domestic law. Finally, Article 17 of the Russian Federation Constitution provides that "commonly recognized principles and norms of the international law shall be recognized and guaranteed in the Russian Federation and under this Constitution."¹⁹⁶

2. UNCLOS

The entry into force of UNCLOS signifies an express obligation to protect our marine environment.¹⁹⁷ Article 192 states that the general obligation of the parties is to "protect and preserve the marine environment."¹⁹⁸ More importantly, UNCLOS subordinates the sovereign right of states to exploit their natural resources to the duty to protect the marine environment.¹⁹⁹ The measures taken by states pursuant to Article 194 must also include those actions "necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or

192. *Id.*

193. *Id.* art. 92.

194. *Id.*

195. *Id.*

196. KONST. RF art. 17 (Russian Federation Constitution).

197. BIRNIE & BOYLE, *supra* note 136, at 351.

198. UNCLOS, *supra* note 15, art. 192.

199. *Id.* art. 193; *see also* BIRNIE & BOYLE, *supra* note 136, at 352.

endangered species and other forms of marine life.”²⁰⁰ Because the Russian Constitution states that international agreements of the Russian Federation become law of the Russian Federation,²⁰¹ the Russian Federation has an obligation to abide by the terms of UNCLOS. The course of action this paper suggests is clearly supported by UNCLOS and would be in furtherance of Russia’s obligation under that instrument.

V. Conclusions

Resource extraction in the Russian Far East may be inevitable, but the cost should not be the degradation of the environment and the extinction of at least one species. The Russian Federation has the authority to take an extraordinary and proactive approach and establish a marine protected area for the gray whale pursuant to its Law of Natural Resources and at the same time protect the entire ecosystem. This would allow time for all interested parties to review recommendations made regarding best available technology and truly independent investigations of gray whale population studies.

Colin Woodard, in *Ocean’s End: Travels Through Endangered Seas*, advocates for the need for management of our oceans on an ecosystem basis.²⁰² The Sea of Okhotsk is one such large marine ecosystem entirely within the jurisdiction of the Russian Federation, which has an obligation not to cause harm to its neighbors. In addition to the customary principles of international laws that bind the Russian Federation, Russia has in place extraordinary environmental laws embracing the concept of future generations, the precautionary principle and the right of each Russian to a healthy environment. Accordingly, the first step to protect the Sea of Okhotsk must be taken by the Russian Federation.²⁰³ In furtherance of the aforementioned principles already embodied in Russian law, the Russian Federation must first halt all offshore oil and gas activities in the Sea of Okhotsk. The purpose of the cessation is to allow sufficient time for operators and

200. UNCLOS, *supra* note 15, art. 194(5).

201. KONST RF art. 17 (Russian Federation Constitution).

202. WOODARD, *supra* note 2, at 229.

203. Sadly, protection of the creatures that live or migrate though the high seas will remain under the auspices of international treaties and regimes, which are difficult to negotiate or enforce. We must concentrate our attention on the parts of the ocean that are within national jurisdictions. Not because the high seas are unimportant but because both ocean life and the threats to it are concentrated near land. *Id.* at 230.

the Russian Federation to each determine in more detail the impacts of these activities in the Sea of Okhotsk and to allow time for Sakhalin-2 to implement comprehensive safety regulations to minimize risks using all best and available technology.

The remaining five projects should be permanently abandoned unless an operator can locate a natural gas field away from the shallow coastal waters of the Sea of Okhotsk. The Russian Federation should also take advantage of its law on Specially Protected Areas to establish a marine sanctuary or preserve in the feeding area of the gray whale, as well as some protection of the migratory path. Other coastal areas should be reviewed for various types of protection: limited take zones, no take zones, coastal zone management areas, scientific study, recreation and tourism. Marine protected areas have already proven themselves to be effective ways to rejuvenate fish stocks and rehabilitate degraded marine environments.

In the event the Russian Federation determines that it is prudent and lawful to allow Sakhalin-2 to proceed with oil and natural gas extraction, then Russia and the rest of the international community, in particular the member nations of the North West Pacific Regional Sea Programme, should take a lesson from history—Exxon Valdez,²⁰⁴ Torrey Canyon,²⁰⁵ Braer,²⁰⁶ Prestige²⁰⁷—

204. See LAWN ET. AL., *supra* note 139, at 32-34. On March 23, 1989, the then state of the art, single-hulled tanker "Exxon Valdez" headed out into Prince William Sound loaded with 1.3 million barrels of crude oil. *Id.* The ship's master diverted the ship from established tanker lanes, with U.S. Coast Guard permission, to avoid ice floes. *Id.* Increasing the speed to fourteen knots (full speed), the master put the ship on autopilot and left it in the hands of the third mate without a pilotage certificate to reenter the shipping lanes before encountering Bligh Reef. *Id.* The vessel slammed full steam into the reef at 12:04 a.m. on March 24th. *Id.* The impact ruptured eight of eleven cargo tanks and majority of the 40,000-80,000 tons of oil left the tanker as the tide fell. *Id.* The clean up and response efforts were woefully inadequate. See LAWN ET. AL., *supra* note 139, at 32-34. A storm dispersed the oil beyond control on the third day. *Id.* Only approximately five percent of the oil was recovered from the beaches of the Sound. *Id.* The spill affected a "very productive, pristine, cold-water nearshore environment at a critical time of biological activity. Seabirds, whales, and herring were returning to the Sound and juvenile salmon were emerging from streams." *Id.* The oil covered over 16,000 square kilometers of Alaska's coast and spread as far as 1,000 kilometers from the site of the grounding. *Id.* A US \$2 billion cleanup effort yielded less than one million gallons of recovered oil. *Id.* 3,500-5,500 sea otters, hundreds of harbor seals and dozens of whales died. LAWN ET. AL., *supra* note 139, at 32-34. About one million seabirds died. *Id.* "Much of the intertidal zone was essentially sterilized by the toxic shock of oil, and invertebrate communities were severely altered." *Id.* In addition to these short-term effects, the profound long-term effects include brain lesions in marine mammals, reproductive failure in birds, morphological deformities, etc. *Id.* The fish stock collapsed. *Id.* Ten years after the oil spill, there is little evidence of recovery. *Id.* In addition to the effects on the animal

and demand the use of double—hulled tankers, and a myriad of other safety measures that Dan Lawn, et al. recommended in their report. In connection with this aspect of protection, the Russian Federation and Japan should spearhead the creation of a special area under MARPOL and UNCLOS.

Although some may find a certain degree of irony in expecting Russia and Japan, two traditional whaling countries, to protect the gray whale, this view is myopic. Both of these nations and the health of their people depend in large part, and more directly than others, on the bounty of the seas. While protecting the sea to the detriment of the economy due to the decrease in oil and gas production may be difficult and unpopular in the short term, we have learned that what is in our best interests in the short term is not always the guiding factor.

The author is aware that aspects of this proposed solution will meet with resistance. The success of the integrated proposal described in this paper requires political will on the part of the Russian Federation, as well as the regional government and the governments of the North West Pacific Regional Seas Programme member states. It is not very often that we see the type of political will exerted by Costa Rica in its decision to turn away foreign investors in its oil sector.²⁰⁸ It requires the faith of the people of the Russian Far East and Sakhalin Island in the idea that they in fact can make a difference – and that the national government will eventually listen. It demands hard work on the part of scientists to study a species of whale that has thus far proven to be fairly elusive so that proper measures can be taken to protect it and the larger ecosystem. It depends upon the support of the international nongovernmental organizational community to continue to monitor the activity in the Sea of Okhotsk. It requires the cooper-

world, there was a profound effect on the community, with well-documented increases in stress disorders, suicides, depression and drug abuse. LAWN ET. AL., *supra* note 139, at 32-34.

205. *See id.* at 39. In 1966, the Torrey Canyon rammed full speed into a reef off the southwest coast of England when her master made a “simple navigational error.” *Id.* The accident caused severe pollution and damaged wildlife, fisheries and tourism. *Id.*

206. *See id.* at 37. On January 5, 1993, the Liberian-registered, American-owned tanker Braer grounded in the Fair Isle Channel, south of the Shetland Islands, spilling 80,000 tons of crude oil and 5,000 tons of fuel oil. The spill destroyed millions of farmed salmon and forced the closure of fishing grounds for two years. *Id.*

207. *See supra* note 94 and accompanying text for a discussion of the Prestige oil spill.

208. Julie Kay, *Costa Rica Just Says No to Oil Development*, ENVTL. NEWS NETWORK, Sept. 20, 2002, at http://www.enn.com/news/enn-stories/2002/09/092022002/s_48254.asp.

ation of sovereign nations to utilize the available legal instruments, like MARFOL and UNCLOS, and to perhaps push for faster implementation of tanker safety standards to prevent another tragedy like the one recently visited upon the citizens of Spain. Finally, it demands a sacrifice by each of us to reduce our energy consumption currently fed by fossil fuels and support the quest for renewable, clean energy sources.

The Russian Federation, and the people of the Sakhalin Oblast, are in a unique position where they have control over a commodity desired by many. It is shortsighted of the Russian Federation to allow environmentally irresponsible mineral extraction because after the reserves are gone, all that will remain is what the TNCs choose to leave. Can the Russian Federation afford to lose the forests in southern Sakhalin Island to pipeline and other infrastructure construction? Can it afford to see its fish stocks destroyed? The Russian Federation can embrace its constitutional principle of concern for the natural environment and future generations by holding TNCs to a higher standard and protecting the Sea of Okhotsk, or it can turn its back on these guiding principles for this new democracy. The Russian Federation also has a variety of obligations to the international community. Can the fledgling Russian Federation afford to violate its treaty obligations and customary principles of international law? The oil and gas reserves are not going anywhere. The market can only continue to improve given the consumption rates of China, Japan and Korea. The markets have waited this long—to the advantage of TNCs—but time is running out for the people of Sakhalin Island, the Sea of Okhotsk and the gray whale.

The Russian Federation, and in particular the residents of Sakhalin Island, cannot rely on transnational corporations to police themselves. The existing codes and guidelines for transnational corporations are, in and of themselves, insufficient to cause these major oil industry players to conduct their business in the most environmentally sound manner. Past oil and gas exploration and production endeavors have shown that the bottom line is the pre-eminent concern. It is not enough to simply wait for oil and gas pursuits to destroy the Sakhalin oblast ecosystem and the tremendous biodiversity it supports—the Russian Federation is in the unique position to establish new rules to govern the exploration of the Russian Far East. The Russian Federation has the tools available to protect the Sea of Okhotsk, the question remains whether or not it will use those tools.