

International Insurance-driven Internalization of Natural Resource Damages

by

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Abstract

Developed countries generally fall on the downward slope of the Environmental Kuznets curve, reflecting their efforts to reduce environmental harms in the wake of industrial growth.

However, these same countries also have domestic businesses which operate in less developed

States (multinationals) that may not have the desire, awareness or ability to enforce an environmental liability mechanism. The natural resources of these countries are therefore in jeopardy and the burden of internalizing that risk should fall on developed countries as an established principle of international law. Funding and monitoring impose the biggest hurdles for the implementation of an effective international natural resource liability regime. Insurance industry involvement will help to internalize risk and provide a mechanism for continuous monitoring through open market structures. Specifically incorporating the insurance industry into the Proposed Treaty negotiations will ensure the feasibility of adequate coverage and the expertise of industry representatives. The insurance industry also has the unique ability of acting as compliance monitors even though there are no specific best practices outlined in the Proposed Treaty. The insurance market will help to drive best practices unique to specific businesses as they strive to reduce policy premiums. The Proposed Treaty would create a fund to cover catastrophic environmental damages that is financed by the insurer, thereby still giving the insurer incentive to monitor best practices even in the face of a catastrophic loss above applicable policy limits.

I. Introduction

A State's natural resources provide quantifiable services and value to that State and are best protected by bringing them within the realm of statutory and market structures. Most casualty insurance provides coverage for damages to an individual's health or property, but not for common good natural resource damages (NRDs) which have traditionally been regarded as a

State's burden to bear.¹ First party insurance typically covers damage to people and property whereas the purpose of NRD liability is to restore damaged resources to their original condition and compensate the general public for the value of the lost use of the resource.² The United States and European nations have implemented legislation designed to identify responsible parties and impose liability for damages to broadly defined natural resources of the participating States.

Financial assurance requirements, contained in natural resource damage legislation, create proper incentives for reducing risk to affected resources.³ Insurers constantly develop new products based on emerging liabilities and new information. Global insurance markets are equally capable of addressing this new risk on businesses. Total involvement and advocacy by the industry to bring NRDs within insurance-based monitoring systems will create a more effective liability regime and could ultimately protect other insurer interests.⁴

Insurance markets have responded well to domestic and European legislation. The continuing availability of coverage indicates that this is a product insurers are willing and able to provide.⁵ The purpose of this paper is to express how this intra-developed country success can translate to a global context, in particular to developing countries housing foreign operations

¹ Gerd Winter, Jan H. Jans, Richard Macrory & Ludwig Kramer, *Weighing Up the EC Environmental Liability Directive*, 20 J. ENVTL. L. 163, 164 (2008) (hereinafter *Weighing Up EC Directive*).

² Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage OJL 143/56 (hereinafter *EC Directive*), recital 2 (polluter pays principle).

³ See Commission (EC), 'White Paper on environmental liability' COM (2000) 66 final, 9 February 2000 (hereinafter *EC White Paper*), Forward.

⁴ David Hunter, James Salzman & Durwood Zaelke, *International Environmental Law and Policy* 140 (3d ed. 2007) (hereinafter *International Environmental Law*) (insurance industry among most vocal advocates for international action to control global warming).

⁵ E.g., Marsh and Philadelphia Insurance Companies offer NRD protection for contractors, Great American Insurance Group offers a similar product with \$25M limit capacity. See Contracted Study DG Environment 070307/2008/516353/ETU/G.1 (EC), 'Implementation efficiency of the environmental liability directive (ELD) and related financial security issues; Tony Lemon (Chubb Insurance Company of Europe), Workshop: Implementation Efficiency of ELD (Brussels 10 July 2009) available at <http://www.biohost.org/eld/workshop09/> (hereinafter *ELD Workshop*).

with exposure to potential natural resource damage. Lack of monitoring and reporting act as barriers to a transparent and optimally functioning liability regime, but through proper structuring of international treaties and co-development with the insurance industry, developing countries may gain protection of their invaluable assets.

This paper will first discuss the need for an international regime to protect natural resources.⁶ The paper then recaps existing State and international natural resource damage acts and runs through important components of existing legislation. Following that a brief explanation of the development of the environmental liability insurance market and explanation of why the industry is best suited to address natural resource damage liability on an international scale. Finally, and for the largest portion, the paper proposes a new international treaty and suggests potential incentives for States to participate.

II. International Need

The challenge presented is to bring developing countries within the fold of natural resource protection. The Rio Declaration espoused the desire to effectuate international liability regimes by proclaiming that “States shall co-operate...to further develop international law regarding liability and compensation for adverse effects of environmental damage...”⁷ Developing countries may be unable to enact domestic legislation for such protection due to

⁶ Martin Khor, *The double standards of multinationals*, Guardian (June 25, 2010), <http://www.guardian.co.uk/commentisfree/cif-green/2010/jun/25/double-standards-multinationals-ecological-disasters>.

⁷ Rio Declaration on Environment and Development, UN Doc. A/CONF 151/26 (vol. I); 31 ILM 874, Principle 13 (1992) (hereinafter Rio Declaration).

adverse economic and political drivers.⁸ This precipitates a need to address the gap on an international level. One justification for initially applying liability to developed country-based multinationals in developing countries is to avoid so-called pollution “safe havens.” Extending liability regimes to under developed countries may help to ensure that these countries do not become “safe havens.”⁹ However, environmental costs are generally such a small portion of a business’ overall expenditures that the incentive for changing the country of operation is generally not present.¹⁰ One study found that multinational businesses that adopt stringent uniform environmental standards, regardless of the country of operation, typically have much higher market values. The study goes on to warn developing countries about trying to attract the more dangerous operations.¹¹

A business may operate in a developing country simply because that is where resources (natural and human) are located. This begs the question: why would the international community need to develop a liability and compensation regime targeted at protecting natural resources of developing countries? First and foremost, the Proposed Treaty would be geared at developed country-owned businesses that enjoy laxer pollution standards as a perk of operating overseas despite it not being the decisive factor for the location. Even if a host country has stringent national environmental damage legislation it may lack the resources to adequately monitor and enforce its decrees.

If polluters are given an inch they may want to then take the proverbial mile to help the bottom line. An international treaty would incentivize prompt reporting and action. Texaco, later

⁸ See Susmita Dasgupta, Benoit Laplante, Hua Wang & David Wheeler, *Confronting the Environmental Kuznets Curve*, 16 J. ECON. PERSP. 147, 152-53 (Winter 2002) (hereinafter *Environmental Kuznets Curve*).

⁹ *Id.* at 149.

¹⁰ *Id.* at 159-60.

¹¹ Glen Dowell, Stuart Hart, Bernard Yeung, *Do Corporate Global Environmental Standards Create or Destroy Market Value?*, 46 MGMT. SCI. 8 1059, 1060 (Aug. 2000).

merging with Chevron, apparently took such a lackadaisical approach towards its Ecuadorian operations.¹² The damaging operations supposedly ceased in 1990 but other operations around the world are flying under the radar of international outcry.

The oil rich Niger Delta in Nigeria is a good current example of the problems faced by developing nations in their attempts to attach liability for environmental damages. Royal Dutch/Shell Group is just one international business with Nigerian oil operations. Its Nigerian branch is operated as a joint venture with the Nigerian federal government which received about \$36 billion from Shell between 2005 and 2009.¹³ However, the federal government in turn chooses how it disperses the earnings and Shell admits that corruption imposes a barrier to aiding Nigerians in need, particularly to those most affected by the operations.¹⁴ Shell is accused of allowing thousands of gallons of oil to seep into the delta, harming local ecosystems and water supplies.¹⁵ While Shell may not have harmful intentions, it is taking a hands-off approach that leaves much discretion to the central government (which authorizes the operation). The current protocol is for local communities to report environmental grievances to Shell who may take six months or more to even address the concern.¹⁶ The animosity between Nigeria's corrupt central government and the communities affected by international operations deters timely reporting and action. As such, an independent international regime is needed in order to effectuate monitoring and reporting at the community level.

Another reason for mandating an international regime is that a host country or community may not be concerned about the long run stability or quality of an operation if the

¹² *Texaco faces \$1bn lawsuit*, BBC News Americas, Oct. 22, 2003, <http://news.bbc.co.uk/2/hi/americas/3212698.stm>.

¹³ Royal Dutch Shell plc company report: *Shell in Nigeria: Our Economic Contribution* (May 2010), available at http://www-static.shell.com/static/nga/downloads/pdfs/briefing_notes/economic_contribution.pdf.

¹⁴ *Id.*

¹⁵ John Vidal, *Nigeria's agony dwarfs the Gulf oil spill*, The Guardian, May 30, 2010, <http://www.guardian.co.uk/world/2010/may/30/oil-spills-nigeria-niger-delta-shell>.

¹⁶ *Id.*

business provides jobs and funding in the short run. A local community in an underdeveloped nation could conceivably take cash payments to not report any potential damage to its resources. This scenario ensures that the community housing the foreign owned operation is compensated for the damage rather than lawyers or the central government.¹⁷ This potential outcome may also arise from a genuine lack of knowledge about the damaging effects of particular operations. An international organization like the United Nations is needed to address attempts to skirt liability.

Conflicts nonetheless abound despite the altruistic motives behind drafting an international treaty for the protection of natural resources. Namely, a developing country could view this as a paternalistic step in violation of its State sovereignty.¹⁸ Developing countries, in an effort to change that label, encourage domestic production and often welcome foreign investments. Taking environmental regulation out of the control of an individual State may tie its hands in the quest to gain the “prosperity” of the developed world. Use and abuse of its own natural resources aid in this quest. The famous Kuznets Curve has been applied to not only graphically show that wealth disparity increases and then eventually decreases as a State develops but also to environmental degradation over time such as to water and air quality.¹⁹ A State may then just want the opportunity to reach the downward slope of the curve by first increasing its average income. Therefore, the potential harm to foreign investment warrants a cautious approach to the application of a proposed treaty.

The principle of common but differentiated responsibility charges developed countries to bear a greater burden in addressing global environmental degradation as a result of their past

¹⁷ For instance, the Nigerian federal government does not even appear concerned about the environmental effects, let alone those to the natural resources of local communities.

¹⁸ Rio Declaration, *supra* note 7, Principle 2 (“States have...the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies.” The Principle only limits this proclamation by requiring States to ensure they do not cause extra-jurisdictional harm).

¹⁹ David I. Stern, *The Environmental Kuznets Curve*, INT’L SOC’Y for Ecological ECON., Internet Encyclopedia of Ecological Economics (June 2003), available at: <http://www.ecoeco.org/pdf/stern.pdf>.

contributions and greater economic and technological resources.²⁰ As such, the onus to internalize damage to natural resources should fall on developed country-based businesses operating in developing countries, though drafters should also look to the future and ways to encourage domestic legislation in these developing countries.

III. Current Legislation

Several international treaties address environmental liability; however, they are not sufficient in scope or structure. The international community should also look to insurance market response to current United States and European Commission legislation.

Current international natural resource damage liability regimes primarily focus on liabilities in the course of transporting potential pollutants. The Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage and the 1992 Fund Convention were adopted under the auspices of the International Maritime Organization.²¹ The Conventions cover compensation for clean-up costs and costs of reinstatement of the environment. However, they also cover property damage, consequential economic loss and pure economic loss.²²

²⁰ *The Principle of Common but Differentiated Responsibilities: Origins and Scope*, Part I CISDL Legal Brief For the World Summit on sustainable development 2002 (Johannesburg 26 Aug. 2002).

²¹ International Maritime Organization Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969 (London 27 Nov. 1992), available at: <http://www.admiraltylawguide.com/conven/protocivilpol1992.html> (hereinafter Protocol on Oil Pollution Damage).

²² Joe Nichols, *Scope of Compensation for Environmental Damage Under the 1992 Civil Liability Convention and the 1992 Fund Convention* from Marine Resource Damage Assessment 60 (Frank Maes ed., Springer 2005) (hereinafter Marine Resource Damage Assessment).

The Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal²³ (Basel Protocol) was adopted in response to Principle 13 of the 1992 Rio Declaration and covers, in part, lost income from environmental impairment and restoration of the impaired environment.²⁴ The liability regime only applies to incidents during the course of a transboundary movement of hazardous waste, so the Protocol would not address stationary sources of natural resource damage impairment.²⁵ The 1997 Convention on Supplementary Compensation for Nuclear Damage expounded on the prior Paris and Vienna Conventions on nuclear liability and includes damages to the environment but much like the Basel Protocol is limited in application to only those States that have nuclear capability or are active in the export/import of oil.²⁶ This necessarily excludes many developing countries that nonetheless host foreign operations.

The Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Oil Pollution Act of 1990 (OPA) have been leading documents in the development of liability regimes for natural resources in the U.S.²⁷ Europe looked to U.S. legislation for guidance in establishing a trustee system and definition of public natural resources.²⁸ The European Commission's White Paper on Environmental Liability, published in 2000, set out guidelines and provided recommendations on how to structure and implement natural resource liability among its Member States. The European Commission's 2004

²³ Not yet in force, currently has 13 signatories and 10 parties and needs 20 ratifications to enter into force. See <http://www.basel.int/ratif/ratif.html> (for ratification and updated information).

²⁴ Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, UN Doc. UNEP/CHW.1/WG.1/9/2, Art. 2 (1)(c) (Basel 10 Dec. 1999) (hereinafter Basel Protocol).

²⁵ *Id.*, Art. 3(1).

²⁶ Convention on Supplementary Compensation for Nuclear Damage, International Atomic Energy Agency, INFCIRC/567 Art. V (Vienna 12 September 1997).

²⁷ Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C.A. §§ 9601-9675 (2006) (hereinafter CERCLA); Oil Pollution Act of 1990, 33 U.S.C.A. §§ 2701-2762 (2006) (hereinafter OPA).

²⁸ Marine Resource Damage Assessment, *supra* note 22, at 4.

Environmental Liability Directive emerged following comment on the White Paper. The Directive, unlike the White Paper and U.S. legislation, does not contain a financial assurances mandate, thereby taking away some of the bite from the initial proposal.²⁹ The Directive states that it would be preempted by international (extra-Europe) treaty³⁰ so a proposed U.N.-backed multilateral treaty should be a quantifiable improvement on the current model in order to justify supplanting the Directive.

Despite the lack of financial assurances in the Environmental Liability Directive, it remains a beneficial structure for the assessment of an international NRD liability regime. The Directive has paved the way with insurance markets by putting them on notice of the emerging trans-national liabilities it seeks to impose. This “testing of the waters” should help insurance companies to prepare products and services which they can more easily translate to a global scale.

The “polluter pays” principle serves as a common foundation for both European and North American legislative action.³¹ This is preferable to a system which provides for restoration and compensation to public resources through a governmental fund, detached from the potential sources of environmental degradation.³² The trickle-down incentive structure for businesses would not exist without the “polluter pays” capstone. A strict liability application of damages often follows in order to effectuate a prompt distribution of funds to affected resources.

²⁹ EC Directive, *supra* note 2, Art. 14 (Member States are instead encouraged to develop financial assurance markets within their own territory).

³⁰ EC Directive, *supra* note 2, recital §12.

³¹ *E.g.*, EC Directive, *supra* note 2, recital §2. *See generally*, Ian Brownlie, *Principles of Public International Law* 279 (7th ed. Oxford University Press 2008) (hereinafter *International Law*).

³² *U.S. v. Burlington N. & Santa Fe R.R. Co.*, 502 F. 3d 781,792 (9th Cir. 2008), citing *U. S. v. Chem-Dyne Corp.*, 572 F. Supp. 802, 805-06 (S.D. Ohio 1983).

IV. Components of NRD Legislation

a. Valuation:

All legislation defines the scope of liability imposed for damage to natural resources. Insurance policies are narrowly tailored so insurers and businesses must understand exactly what will be covered when NRD claims arise. Without a well defined risk, insurers are unenthusiastic about offering a product at all.³³ NRD claims are solely for damages to publicly-beneficial natural resources, so damage to individuals or private property is beyond the scope of this emerging liability.³⁴ NRD costs have two prongs. Primary response costs are to restore injured resources and services provided by these resources. Compensatory costs are incurred for the value of lost use and restoration often including “acquisition of equivalent.” (e.g., wetland mitigation bank).³⁵ This serves to compensate the public for its collective loss.^{36 37}

One useful valuation method incorporates the quantifiable services which the ecosystem provides to humans living in it. A benefit of calculating based on ecosystem services is that it avoids the need to distinguish between public and privately owned land. It also may be a less controversial means by which an insurer can attempt to put a monetary value on a public

³³ ELD Workshop, *supra* note 5.

³⁴ CERCLA, *supra* note 27, § 9601(16) (“held in trust by, appertaining to, or otherwise controlled by the United States, ... any State or local government, any foreign government, any Indian tribe”).

³⁵ Tim Donnellon, *Natural Resource Damages: The Evolving Risk of environmental Impairment Liability*, RISK MGMT.(Jan. 1, 2005), available at: <http://www.allbusiness.com/finance/insurance-risk-management/975603-1.html>.

³⁶ See USEPA Natural Resource Damages: A Primer (last updated Oct. 1, 2010), available at: <http://www.epa.gov/superfund/programs/nrd/primer.htm>.

³⁷ *Id.* (the measure of damages is the cost of restoring injured resources to their baseline condition, compensation for the interim loss of injured resources pending recovery, and the reasonable cost of a damage assessment) citing to Natural Resource Damage Assessments, 43 CFR §11 (2009); Natural Resource Damage Assessments under OPA, 15 CFR § 990 (2009).

resource.³⁸ The European Commission's treaty allows for recovery for damages to natural resources regardless of legal status of land as long as it is a public resource.³⁹ Rather than having to negotiate the legal status of land within various national legal contexts, ecosystem services valuations look to the public benefit of various resources. As an example, recovery might not be attainable for soil contamination on private property but would if that contamination seeped into an aquifer such that the ground could no longer perform its filtration function. The Directive does not invoke an explicit cap on damages but guidance limits recovery to "reasonable" assessments and restoration measures.⁴⁰ Nonetheless, controversy remains over guidelines for assigning values to these services and such discussion is beyond the scope of this paper.⁴¹

Some countries, such as Latvia, have legislation that articulates formulas by which to value ecological damage.⁴² The U.S.'s OPA legislation defines natural resource damages as including destruction of, loss of, or loss of use of, natural resources as well as the reasonable costs of assessing the damage.⁴³ OPA provides for some private claims, unlike the Directive, such as claims for lost profits or loss of earning capacity due to injury of the natural resource.⁴⁴

The D.C. Court of Appeals found that Congressional intent concerning CERCLA clearly showed a strong preference for restoration costs as the measure of recovery for natural resource

³⁸ Marine Resource Damage Assessment, *supra* note 22, at 63.

³⁹ EC Directive, *supra* note 2, recitals 11, 14, 15, Art. 3(3).

⁴⁰ EC Directive, *supra* note 2, Annex II, para. 1.3.1.

⁴¹ *See generally*, J.B. Ruhl, Steven E. Kraft & Christopher L. Lant, *The Law and Policy of Ecosystem Services* (Island Press 2007).

⁴² *See*, Marine Resource Damage Assessment, *supra* note 22, at xiv.

⁴³ OPA, *supra* note 27, §2702(b)(2)(A).

⁴⁴ OPA, *supra* note 27, §2702 (b)(2)(E).

damages rather than mere lost use value of the resource.⁴⁵ However, when lost use value of resources is calculated, Congress had a preference for market-based calculations.⁴⁶

b. Strict Liability:

Strict liability regimes efficiently provide compensation to victims and give clear guidance to businesses about the extent of their exposures. Two policy goals justify a strict liability standard: cleanup of contaminated substances (as well as restoration costs) and deterrence of future contamination.⁴⁷ However, strict liability may serve to altogether discourage a beneficial activity if contribution is not available.⁴⁸ Further, strict liability may simply appear on its face to be an unfair, unjustified and costly measure to impose.⁴⁹ Recognizing that strict liability will increase the costs of an insurance policy, it will also create a much more predictable liability regime in which insurance companies can operate. Negligence regimes are subject to often divergent and evolving interpretations that make it difficult to quantify a risk in an actuarially meaningful way.⁵⁰

The EC Directive allows Member States to impose strict liability for certain industries and negligence standards for others.⁵¹ This stems from the notion that applying strict liability to ultra hazardous/inherently dangerous activities will either encourage the best-monitored operation or place the operation out of business but also recognizing that other operations to not pose the same risk of high social costs.

⁴⁵ Ohio v. U.S. Dep't of the Interior, 880 F. 2d 432, 459 (C.A. D.C. 1989) (rejecting "lesser of" interpretation by DOI while acknowledging DOI could still account for economic infeasibility or showing of grossly disproportionate cost to use value).

⁴⁶ *Id.* at 462.

⁴⁷ Edmund B. Frost, *Strict Liability as an Incentive for Cleanup of Contaminated Property*, 25 HOUS. L. REV. 951, 951 (1988) (hereinafter *Strict Liability as an Incentive*).

⁴⁸ *See generally*, Richard A. Posner, *Strict Liability: A Comment*, 2 J. LEGAL STUD. 205, 207 (Jan. 1973).

⁴⁹ *Strict Liability as an Incentive*, *supra* note 47, at 951.

⁵⁰ Robert D. Chesler, Michael L. Rodburg & Cornelius C. Smith, Jr., *Patterns of Judicial Interpretation of Insurance Coverage for Hazardous Waste Site Liability*, 18 RUTGERS L.J. 9, 13-14 (Fall 1986).

⁵¹ EC Directive, *supra* note 2, Art. 8(4).

Predictability is necessary to facilitate the growth of insurance markets. Insurance operates most efficiently when the frequency and magnitude of losses is constant or at least predictable.⁵² The beneficial gain in predictability could outweigh the additional premium prices associated with strict liability, especially when weighing if an insurer will even enter the market. Strict liability may fail to induce businesses to take precautions and effectively compensate the public when businesses are undercapitalized relative to the financial obligations implied by their liability.⁵³ Insolvency problems under strict liability regimes thus necessitate the need for financial assurance requirements so that the business will internalize their natural resource damage exposure upfront and will ensure that the public is appropriately compensated for its loss.

c. Financial Assurances:

Financial Assurances are the most incentivizing driver contained within natural resource damage liability systems.⁵⁴ Not only do these provide *ex ante* coverage for future liabilities but they also can create a monitoring and feedback role for the insurance industry. Financial assurances are particularly useful for latent environmental risks which go unnoticed until a business has ceased to exist. Insurance is but one means to meet a financial assurance requirement though this paper sets out to show why incorporation and consultation with insurers

⁵² Benjamin J. Richardson, *Mandating Environmental Liability Insurance*, 12 DUKE ENVTL. L. & POL'Y F. 293, 301 (Spring 2002) (hereinafter *Mandating Environmental Liability Insurance*).

⁵³ James Boyd, *Financial Assurance Rules and Natural Resource Damage Liability: A Working Marriage?*, Resources for the Future Discussion Paper §2.1 (April 2001), available at: <http://www.rff.org/Publications/Pages/PublicationDetails.aspx?PublicationID=17180> (hereinafter *Financial Assurance Rules*).

⁵⁴ CERCLA legislation does not impose financial assurances requirements on all facilities that have risks associated with the "production, transportation, treatment, storage or disposal of hazardous substances." This is despite the fact that CERCLA §108(b)(1) has recently been interpreted in *Sierra Club v. Johnson* (2009 WL 482248 – N.D. CA) as a nondiscretionary duty to identify certain classes of facilities which require financial assurances for all liabilities under the Act. However, FARs have been required for NRDs ever since Congress enacted the legislation.

will help to create the most efficient system. Surety bonds, self-insurance, financial guarantees and insurance are all means by which to satisfy a financial assurance requirement.⁵⁵

Incentives to maintain best practices are highest by mandating participation in an insurance or surety bond market. This places responsibility on third parties so that they act as monitoring forces upon their insureds. The major difference between the bond-based assurance guarantees and guarantees through liability insurance is the ability to more exactly quantify future costs. A bond may be more appropriate in the typical “Superfund” site scenario where sealing is required at the end of an operation’s life. In that context, the performance requirement is dictated by regulation based on the operation and the facility. Liability insurance is more applicable in the NRD context for uncertain future requirements.⁵⁶

As it stands under United States law, not all businesses with natural resource damage risks are required to provide financial assurances. Only certain commercial operations, like “vessels” carrying hazardous waste, are required to maintain financial assurances under CERCLA and OPA.⁵⁷ Germany’s Environmental Liability Act of 1990 requires financial assurances but the Act does not apply to damages to natural resources as they have been defined in CERCLA and the White Paper.⁵⁸

Financial assurance requirements may dictate a maximum threshold of damages that a business must cover, but that alone does not provide full guidance to insurers. Underwriters want to know not only the policy limits and circumstances of imposed liability, but also the values of particularized losses in monetary terms. Quantifying damages to natural resources, wildlife or an

⁵⁵ Financial Assurance Rules, *supra* note 53, §5.4.

⁵⁶ Lawrence R. Moelmann, Matthew M. Horowitz & Kevin L. Lybeck eds., *The Law of Performance Bonds* 6-8 (ABA 2d ed. 1999).

⁵⁷ Financial Assurance Rules, *supra* note 55, §1.2.

⁵⁸ Umwelthaftungsgesetz, §19 [German Environmental Liability Act], Dec. 10, 1990 RGBl.

entire ecosystem is a disputed task and one that left insurers questioning their ability to offer an appropriate product in the wake of the European Commission's White Paper.⁵⁹

d. Public Ownership and Public Trustees:

Current United States and European legislation adopts a broad definition of natural resources. Protected resources may include land, fish, wildlife, biota, air, water, groundwater and other resources.⁶⁰ United States legislation requires "public ownership" of resources. This means the resources are owned, controlled or managed by federal, state or other governmental entities including foreign governments.⁶¹ Like other federal environmental legislation, the act is triggered by merely demonstrating a "substantial degree of government regulation, management, or other form of control over the [injured] property."⁶² As a result, trustees are often designated to quash issues of standing that have arisen in the past.⁶³

The appointment of public trustees in U.S. legislation serves to create statutory standing and to create local, objective assessments of actual damage.⁶⁴ Public trustees give local communities an ear to which the public can voice its concerns and act as a safeguard against poor environmental monitoring and reporting. The E.C.'s Directive prohibits NGOs from making claims but these organizations can request action from competent authorities.⁶⁵ This seems reasonable given that the competent authorities will have the best interest of a particular State or

⁵⁹ Lisa S. Howard, *Superfund's Lessons Cause European Union to Proceed with Caution on Pollution Liability*, 104 NAT'L Underwriter PROP. & Casualty RISK & Benefits MGMT. 8 3, 3-4 (Feb. 21, 2000).

⁶⁰ OPA, *supra* note 27, §2701(20); CERCLA, *supra* note 27, §9601(16). EC Directive, *supra* note 2, Arts. 3, 2(1), 2(3) (depending on activity, but generally damage to protected species and habitats, within Wild Birds and Habitats Directive, contamination of land, damage to waters covered by the Water Framework Directive).

⁶¹ OPA, *supra* note 27, §2701(20); CERCLA, *supra* note 27, §9601(16).

⁶² Ohio v. U.S. Dep't of the Interior, *supra* note 45, at 460-61.

⁶³ See, *Sierra Club v. Morton*, 405 U.S. 727 (1972) (holding that the organization could not bring suit but recognizing individual's ability to bring suit with a showing of particularized harm)(Douglas, J., dissenting, arguing that natural resources ought to have standing to sue for their own protection).

⁶⁴ EC Directive, *supra* note 2, Art. 6; CERCLA, *supra* note 27; OPA, *supra* note 27.

⁶⁵ EC Directive, *supra* note 2, Art. 12.

region in mind and by cutting out NGOs the process of providing compensation for legitimate claims may be more streamlined.

e. Central Fund:

United States and European legislation incorporates government-run funds in order to provide a cap on private liability for certain environmental catastrophes. Funds serve a compensatory function and help cover situations of insolvency. Funds, however, remove a liable party from the compensation function and could discourage marginal increases in financial assurances by knowing that liability is capped when the fund steps in.

The International Maritime Organization's 1992 Fund Convention created a fund for supplementing payouts for natural resource damages during the course of oil transportation.⁶⁶ The Civil Liability Convention has a compulsory insurance requirement and liability is limited according to a ship's tonnage, at which point the fund steps in. The International Oil Pollution Compensation Fund provides a blanket to insurers by capping the total of ship owner, insurer and fund pay-ins at roughly \$300 million.⁶⁷ Oil receivers, not governments, pay into the fund, much the way a land-based business operating overseas could pay into a fund upon purchasing insurance and pass the costs on to those that receive their goods.⁶⁸ The Fund's ability compensate for natural resource damages was tested in 1997 by the *Nissos Amorgos* incident near Venezuela. Fishermen in the area were able to show that the decline in shrimp harvest was at least partially

⁶⁶ Protocol on Oil Pollution Damage, *supra* note 21.

⁶⁷ Marine Resource Damage Assessment, *supra* note 22, at 60.

⁶⁸ Joe Nichols, *Financing of the International Oil Pollution Compensation Fund*, Deputy Director International Oil Pollution Compensation Funds, presented at AFCAC/ICAO Conference on Funding and Organisation of SAR Services for Africa (Saly-Portudal, Senegal 25-28 October), available at: http://www.icao.int/icao/en/anb/atm/SARafrica/docs/Saly_Conf/en/IOPC_Funds_3-2ppt_en.pdf

due to the oil. Their claims would be, in principle, covered damages even under the strict avoidance of theoretical damage calculations in favor of pure economic loss calculations.⁶⁹

V. History and Function of Insurance Market

Liability insurance has three functions that make it the preferred method for covering NRD liability.⁷⁰ First, the risk spreading function allows for businesses to affordably address future liabilities. Risk spreading or diversification is also an operating principle of insurance markets. Markets are most sustainable when there is a large pool of similarly situated risks that are not exposed to the same losses at the same times and in the same locations.⁷¹ Within the realm of a given risk, insureds must be diverse enough so as to spread the liability over time and policy holders. Spreading risk is necessary for insureds to afford to operate and is necessary for insurers to offer a product.⁷²

Second, insurance can act to incentivize deterrence of risky activities. An insurance policy that was underwritten only once would not deter risky behavior in the long run. Beyond insurers not knowing the evolving exposures of a business, the business would have no incentive to reduce risks since liability is passed to the insurer. Self-reporting, third party monitoring and frequent underwriting is needed to truly effectuate best practices by charging a premium reflective of a business' liabilities at any given time. Insurance companies then in essence act as

⁶⁹ Marine Resource Damage Assessment, *supra* note 22, at 64-65.

⁷⁰ This is compared to other possible means by which to cover NRD costs including "pools," self-insurance," surety bonds and other financial guarantee mechanisms.

⁷¹ Charles M. Nyce, Foundations of Risk Management and Insurance ch. 4 §11 (American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America 2006).

⁷² A notable lack of adherence to the risk spreading principle surfaced among property insurers in the wake of Hurricane Katrina. The storm affected such a large swath of Gulf Coast property not previously anticipated by insurers. Companies recoiled after paying extreme losses by both reducing carrying capacity in coastal areas and capping the number of locations insured within given regions.

the enforcers of policy promulgated in environmental legislation. An insurer works with its insureds to manage risk and if an insured does not follow best operating procedures or take other affirmative actions to reduce risk then the insurer can charge action-forcing premiums or refuse to offer coverage all together, preventing a business from operating.

Finally, and most uniquely in a public NRD context, liability insurance has a compensation function. All insurance policies function to provide compensation in the event of qualifying claims, but NRD legislation provides for compensation to the public who may otherwise not have an insurable interest. Insurance assures compensation in the face of insolvent or under-financed operations. NRD compensation attempts to lower the social costs of operations through reimbursement but this function will also be borne by the public who wish to engage in business with the insured companies.

Many different businesses will have exposure to NRDs. Manufacturing, resource extraction and contracting companies are the most prominent but any operation handling potentially toxic substances should assess its liabilities. A standard Insurance Office Services (ISO) Commercial General Liability (CGL) policy typically includes a pollution exclusion though the evolution of pollution coverage has been a direct reaction to the implementation of statutory liability regimes like CERCLA. The ISO CGL pre-CERCLA policy covered only “sudden and accidental” pollution coverage. However, courts often viewed the phrase as ambiguous so attached the meaning “unexpected or unintended.”⁷³ This meant that insurers would be on the hook for damages that occurred over many years, before any liability was imposed, unless the insured business actually intended to pollute. This caused insurers to leave the market which created a gap in coverage resulting in the ISO CGL’s 1986 “absolute pollution

⁷³ Craig F. Stanovich, *The CGL Pollution Exclusion* (March 2003), available at: <http://www.irmi.com/expert/articles/2003/stanovich03.aspx>.

exclusion” when insurers did continue to write policies. The exclusion explicitly applied to bodily injury, property damage and most pertinently to clean up costs. The exclusion did not apply to products and completed operations which tend not to have the same long run and gradual pollution exposures as would a continuing operation. The ISO CGL form was revised again in 2001 and may allow for some remediation expenses but is not a practical coverage for businesses with more than minimal or incidental pollution exposures. As such, the market has responded with a wide array of separate pollution coverage policies.

Insurance companies, through the underwriting process, gain valuable information about the nature and scope of an insured’s operation. Insurers can also act reflexively to changes in conditions which induce businesses to more quickly internalize their exposures. Through periodic site surveys, reporting, setting coverage conditions and ultimately generating an appropriate premium, insurers induce improved protective measures.⁷⁴ Insurance policies for natural resource damages also reduce transaction costs by providing an *ex ante* determination of which party will intervene.⁷⁵

VI. Recommendations for Implementation

Proponents of an international treaty cannot escape outcries of paternalism altogether since the Proposed Treaty would initially need to differentiate between “developed” and “developing” countries. Line drawing is an initial hurdle for drafters to negotiate. Should a country be defined as developing purely based on its level of industry and economic output or

⁷⁴ Mandating Environmental Liability Insurance, *supra* note 52, at 295.

⁷⁵ See, Goran Skogh, *Mandatory Insurance: Transaction Costs Analysis of Insurance*, 2 Encyclopedia of L. and ECON. 521, 529 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000), available at: <http://encyclo.findlaw.com/2400book.pdf>.

should the treaty distinguish based on the existence of environmental legislation and the enforceability of that legislation? The latter approach may help to quell state sovereignty concerns if a nation is not in a position to monitor degradation to its own resources.⁷⁶

Coordination with insurance carriers will be an important component of any international effort addressing NRDs. While such efforts may initially slow down the treaty making process, ultimately it will allow for a much more robust and sustainable market. Additionally, insurer input is essential since the bulk of “compliance monitoring” will need to be handled by insurers.

With a strict liability system supported by insurance markets, enforcers do not need to distinguish between recovery fees and punitive fines. The Proposed Treaty will only be concerned about restoring natural resources and doesn’t look to monitor or impose fines.⁷⁷ The Proposed Treaty merely sets a liability regime and a financial assurance requirement. Under a strict liability regime insurance companies have no wiggle room to make negligence claims that tie up payments in extended litigation. Rather, strict liability incentivizes the insurance companies to monitor their exposures more closely and provide guidance in the form of risk management to their clients. Unlike in the EC Directive, the Proposed Treaty does not distinguish between ultra hazardous activities warranting strict liability and other businesses operating under a negligence regime since the insurer will charge an appropriate premium for businesses that are seen as posing an “ultra hazardous” or “inherently dangerous” threat to natural resources. This has the effect of pricing some sloppy operations out of the market which is a risk this Proposed Treaty accepts and even encourages.

Ideally, the Proposed Treaty would have no cap on liability for natural resources though this is virtually unattainable in practice. A cap on liability will nurture insurance markets and

⁷⁶ *De facto* sovereignty requires that a state have actual control judged by the sufficiency of its police power and the tendency for subjects to obey it. *See*, International Law, *supra* note 31, at 110.

⁷⁷ Weighing Up EC Directive, *supra* note 1.

allow insurers to initially set premiums based on the total potential liability of their insureds.⁷⁸ A natural market is unlikely to develop without an initial cap. The primary problem with the cap is that an insured would have uncovered liabilities that it has no incentive to monitor. However, the cap need not be set at a low level and may feasibly cover 99% of instances of damage to a host State's natural resources.⁷⁹ Certainly a catastrophic loss is the most feared but also the rarest. The Proposed Treaty would need to provide for a fund to aid in instances where there is a gap in coverage. The OPA Fund is capped by a per occurrence limit but nonetheless provides some relief for an otherwise insolvent business.⁸⁰ This paper discusses only damage to publicly held natural resources, but compensation for damage to private property or bodily injury would still be available through other means and would likely be the biggest source of monetary payouts in the event of an environmental catastrophe.⁸¹

Insurers should collect Fund pay-ins who can then pass that charge onto the insureds on a per policy basis. The Proposed Treaty would provide for some quota sharing of claims over a certain threshold, set high enough to avoid all but the most severe claims. This incentivizes the insurer to accurately price for a business' catastrophe exposure since it will ultimately share in the loss. A simple 5% charge of total policy premium may be a sufficient basis from which to build a centralized fund.⁸² Costs associated with determining fees paid into a common fund are

⁷⁸ Weighing Up EC Directive, *supra* note 1, at 171.

⁷⁹ For instance, the National Oceanic and Atmospheric Administration Damage - Assessment, Remediation, and Restoration Program - Office of Response and Restoration's 2006 Cost summary indicates that the vast majority of remediation projects incurred total costs less than \$50,000. Available at http://www.darrp.noaa.gov/library/pdf/ORR_Rate_Report_FY2006.pdf.

⁸⁰ OPA, *supra* note 27, Title I Oil Spill Liability Trust Fund (hereinafter Oil Liability Fund).

⁸¹ Douglas Helton & Tony Penn, *Putting Response and Natural Resource Damage Costs in Perspective*, International Oil Spill Conference, paper ID # 114, 1 (1999), available at: <http://www.darrp.noaa.gov/library/pdf/costsofs.pdf>.

⁸² The fund may need an initial boost supplied proportionally by member states with operations in developing countries. *See e.g.*, Oil Liability Fund, *supra* note 80 (pay in scheme based on receipt of barrels of oil).

minimized by assigning risk evaluation to insurers. For example, the Terrorism Risk Insurance Act (TRIA) aides insurers by providing a viable reinsurance market and reduces administrative costs for the federal government by having insurers calculate and track pay-ins on individual policies.⁸³ By tying fund pay-ins to policy premiums, an insured would pay an actuarially reasonable portion of its catastrophe exposure. Again, this precludes the need to distinguish between types of operations in applying the strict liability regime.

Initially, damage claims to natural resources should not apply retroactively until the insurance market has developed and businesses are on notice of potential liabilities. Retroactive imposition may be appropriately phased in after several years.⁸⁴

Insurers may also prefer a more narrow definition of natural resource damages than those in Europe and the United States. This is probably not a sticking point for the industry since definitiveness, regardless of scope, is more important and underwriters can probably assess a business' ultimate risk based on the nature of operations rather than on the particular resource in question. Initially insurers may prefer a limited definition so to not overextend the market.

The Proposed Treaty could limit liability in any number of ways in order to induce participation by States and insurers. One such way is to account for the ability of the environment to restore itself in the long run.⁸⁵ Another possibility is limiting soil pollution recovery to instances when there is a “significant risk of human health being adversely

⁸³ TRIA was enacted to provide reinsurance in order to prop up the insurance industry following September 11th and to allow the industry time to develop its own terrorism products. The Proposed Natural Resource Fund would act as a shelter to the emerging insurance market and can be amended to attach at higher levels of coverage as the market develops capacity. TRIA originally attached at \$5M and in 2007 rose to \$100M which still may exceed what an insured can obtain in the market. As this is potentially publicly subsidized, an individual insurer need only pay up to 20% of total written premiums. TRIA does not pay into a fund but does provide caps on total liability for insurers to make sure the market is not insolvent.

⁸⁴ See e.g., CERCLA, *supra* note 27, §107(f) (does not impose liability if release and damage occur prior to the enactment of the statute).

⁸⁵ EC Directive, *supra* note 2, Annex I.

affected.”⁸⁶ The Proposed Treaty might also place a burden on the claimant to show that the resource damaged provided a beneficial ecological service to the public in order to impose liability. The death of a non-native species would be a much less valuable loss than a species central to an ecosystem’s sustainability.

Beyond nurturing growth of insurance markets, coordination with carriers is necessary to ultimately enforce the liability regime. Sheer resources are one of the biggest impediments to the United Nation’s authority and ability to garner support for its projects.⁸⁷ Neither the United Nations nor developing countries have the resources or the expertise to properly monitor the varied businesses. By definitively establishing the scope of liability and requiring financial assurances, market forces will drive businesses to minimize their risks to natural resources. The United Nations would be able to justify drafting new treaty terms more easily if the major costs are passed on to the market participants. The marginal costs for the end consumer of these regulated industries’ products may be negligible but the savings to the U.N. could make the difference in reaching a treaty. If insurers are able to adequately monitor the activities of their insureds, the establishment of a registration system and adjudication following non-compliance with the terms of the treaty would be the largest costs to the U.N. Insurers can easily report non-compliance when an insured has stopped paying its premium. That alone would be enough to trigger action on the part of the United Nations. The onus would be on developed country States to the treaty to report their businesses abroad and initially ensure compliance with the financial assurances provision.

To improve the chances of international cooperation and ratification of a multilateral treaty, costs to the United Nations and to Member States need to be as low as possible.

⁸⁶ EC Directive, *supra* note 2, Art. 2(1)(c).

⁸⁷ Irene Martinetti, *Reforming Oversight and Governance of the UN Encounters Hurdles*, Center for UN Reform Education (Dec. 1, 2006), available at <http://www.centerforunreform.org/node/226>.

Basically, the increased liability exposure amounts to a tax on consumers of the products of these developing country-based operations.⁸⁸ The Proposed Treaty is narrow in scope and need not define any particular targets or measures to take. By leaving the “compliance monitoring” function in the hands of insurers, the market will drive innovation so as to most efficiently reduce initial risks and subsequent contamination. A mere prescriptive regulation treaty would not provide the appropriate incentives for continual innovation after its requirements are met.⁸⁹

Liability insurance, more than any other financial assurance, would ensure that risky operations were at a minimum complying with generally accepted controls within a given industry. Knowing the insurer is on the hook for millions of dollars incentivizes it to not only charge an appropriate premium at a policy’s inception but also to continually inspect the operation and adjust its premium accordingly. The premium in turn burdens the insured and given the alternative of non-operation would force the business to comply with the insurer’s requests.

VII. Benefits to Participating States:

State sovereignty could be seen as a barrier to the imposition of this Proposed Treaty regime within developing countries; however, the effects may not only benefit a state’s natural resources but also its economic status as well. Insurer-sponsored presence at a facility would help to avoid any potentially existing problem of businesses “paying off” community members to not report damages. In an effort to reduce travel expenses, an insurer could train and employ locals within a community to monitor the operations and report any potential claim for damages.

⁸⁸ See, Michael Porter, *Innovation Offsets: Toward a New Conception of the Environment*, 9 J. of ECON. PERSP. 4, 132 (Fall 1995) (the liability regime would function as a Pigouvian tax).

⁸⁹ International Environmental Law, *supra* note 4, at 129.

It would often be in an insurer's best interest to address the problem as soon as discovered so they do not have an incentive to reward inspectors that fail to report problems. These inspectors would also report on a quarterly to annual basis for underwriting purposes to ensure the premiums accurately reflect the current risk.

While the same standards may not even apply to a developing country's domestic facilities, this increased awareness could serve to spark domestic legislation and environmental responsibility. For instance, the Niger Delta pollution is caused in part by militants and illegal line tapping.⁹⁰ If local communities were able to ensure protection of their resources then the sense of empowerment and accountability could help improve overall environmental standards. Domestic participation and employment also mesh with the principles of community participation espoused in the Aarhus Convention and the Rio Declaration.⁹¹

The Proposed Treaty would be an important step towards sustainable development since preservation of resources for the future is a key aspect of sustainable development ideology and the Proposed Treaty does not directly burden or deter international investment.⁹² The U.N. would need to assign independent third parties to provide damage assessments since at that point insurance companies have incentive to undervalue claims. The damage assessment would be only a rebuttable presumption and an insurance company may offer evidence of value of ecosystem services. The U.N. would appoint public trustees who may need some nominal funding to work in their capacity as the voice of a community. This local level voice is especially needed in places like the Ecuadorian rain forest where there is not necessarily an accountable

⁹⁰ Nigeria's agony dwarfs the Gulf oil spill, *supra* note 15.

⁹¹ *See*, Report of the United Nations Conference on the Human Environment, U.N. pub. No. E.73.II.A.14, chap. I (Stockholm 5-16 June 1972); Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), 2161 UNTS 447, Art. 1 objective (1999); Rio Declaration, *supra* note 7, Principle 10.

⁹² *See, supra* pg. 4, no evidence that environmental costs alone drive a business to operate overseas, so likewise increased environmental costs not likely to drive a business out of that country.

relationship with the central government. Developing countries tend to take on foreign investment in efforts to increase their international status while at the same time forfeiting some of their state control. By integrating community members into the compliance and reporting process, they remain in control of what is left after the foreign investor is long gone.

The Proposed Treaty would also provide benefits to developed States that would encourage participation and ratification. Awareness campaigns can be effective in creating a market for alternative businesses. Some consumers may be willing to spend the small marginal price increase to ensure their products are coming from businesses whose country of origin subscribes to the Proposed Treaty, thereby acknowledging the importance of global stewardship with their wallets.⁹³ Despite the state sovereignty concerns previously discussed, the Proposed Treaty would likely have the effect of engendering good will between developed and under developed nations on the whole. Additionally, on a purely self-serving level, developed countries will want to ensure that the resources they extract or depend upon for their operations are available for future use and extraction by the developed country-based business. The potential for catastrophic environmental losses is reduced by allowing the insurance market to serve the compliance function and may save the Member State from paying greater costs or suffering international condemnation in the long run.

VIII. Conclusion

Natural Resource Damage liability mechanisms serve to correct the market failure of resource damage externalities. International action is required in order to address enforcement

⁹³ John Vidal, *Damage control: How Niger Delta crisis threatened Shell's global brand*, Guardian, (Nov. 9, 2010), <http://www.guardian.co.uk/business/cif-green/2010/nov/09/niger-delta-shell-crisis>.

problems in some States. The United Nations should endorse a Proposed Treaty and begin highlighting its attractiveness for all Member States. Outsourcing the monitoring function and the majority of the administrative functions to insurance carriers will help to make it a feasible Proposal as well as one appealing to the U.N.'s shallow pockets. Coordination with the insurance industry will guarantee a sustainable and efficient market. Insured businesses subject to the Proposed Treaty will spread the cost of the increased natural resource protection to its customers. Buyers of their products in the open market can make a choice to buy from businesses based in States that are parties to the Proposed Treaty so NGO-sponsored public information campaigns may help to effectuate ratification. Further, by representing environmental practices with a monetized policy premium, investors can realize the impact of natural resource damages to the bottom line. Even if there were no Treaty in place, businesses may still be liable for various damages arising from poor environmental practices. The Proposed Treaty targets one type of damage to efficiently encourage best practices for all of a business' and all of a State's environmental damage exposures.