

Book Review: *Analysis of the Stockholm Convention on Persistent Organic Pollutants*, by Marco A. Olsen. Oceana Publications, 2003. 177 pp.

Laws without sanctions are no laws at all, some would say, placing the recent Stockholm Convention on Persistent Organic Pollutants¹ in the category of a harmless collective goodwill gesture, a collaborative effort in toothless public relations. Why, then, did the U.S. quarrel and negotiate as if some national interests were at stake?

Professor Marco Olsen offers a glimpse into the answer in his brilliant new book, *Analysis of the Stockholm Convention on Persistent Organic Pollutants*.² His concise treatise is the only book to date on the subject, but is comprehensive enough to give the reader a thorough grasp of the background, terms, and ramifications of the agreement. Olsen's writing is detailed and systematic, yet his style is clear and accessible enough to provide a basic introduction to the field of international environmental law. As the first monograph on an important new treaty, it is a smart addition to any library.

Olsen's book is as timely as it is well-written. The Bush Administration has proposed a bill to make the Convention's terms the law of the land in the United States; Democrats have sponsored a rival proposal that goes further and automatically incorporates by reference any future terms amended to the Convention.³ Regardless of which proposal wins, Stockholm is soon to be a

¹ The Stockholm Convention on Persistent Organic Pollutants was finalized on May 22, 2001. It goes into effect May 17, 2004. The full text of the treaty, as well as other helpful background information and updates, are available at the Convention's official website: <http://www.pops.int/documents/signature/signstatus.htm#notes>.

² MARCO A. OLSEN, *ANALYSIS OF THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS* (2003).

³ The Democratic rival proposal, Senate Bill 2118, is popularly known as the "Jeffords Bill." For an analysis of both the recent Bush Administration proposal and the Jeffords Bill, see Pep Fuller & Thomas O. McGarity, *Beyond the Dirty Dozen: The Bush Administration's Cautious Approach to Listing New Persistent Organic Pollutants and the Future of the Stockholm Convention*, 28 WM. & MARY ENVTL. L. & POL'Y REV. 1 (2003). Fuller and McGarity are critical of the Bush proposal because it implements only the existing terms of the Convention (focused on the

legal reality confronting American corporations and exporters. The Convention itself is scheduled to go into effect in May 2004, now that the requisite number of countries has ratified it.⁴ It calls for the elimination of certain dangerous pesticides (such as DDT) whose use was banned in developed countries years ago.

Olsen's book provides a colorful account of the crisis the Stockholm Convention addressed: worldwide use of persistent organic pesticides. Designated "POPs" in the alphabet soup of acronyms that make up environmental law, these pesticides do not biodegrade for generations; once applied (usually in ample amounts), they remain in the environment almost permanently. Worse, they also migrate through the air, waterways, and up the food chain.

The Stockholm Convention singles out twelve notorious POP's, usually called quaintly "the dirty dozen."⁵ Olsen explains that all roads for the dirty dozen lead to the polar ice caps.⁶ Air and ocean currents constantly push there, and compounds that are fat-soluble rather than water-soluble (as these pollutants are) accumulate fastest in creatures carrying the most body fat – those living in cold climates.⁷ Hence walrus, whales, salmon, and arctic fisherman are among those

elimination of twelve identified pollutants), without a provision that would allow Convention committees or delegates to add additional chemicals to the list later with an automatic application to American law. Fuller and McGarity argue that this limitation is a betrayal of the Convention's goals and purposes. The Stockholm Convention drafters apparently envisioned that a committee of delegates could study additional toxic chemicals to add to the list of the original twelve (provisions found in Article 8), rather than undertaking another series of global meetings for such an incremental change.

This is frequently an issue with international treaties, of course; on the one hand, it seems tedious (and expensive) to send delegates to meetings and negotiations each time a minor amendment or update is necessary, besides the hassle of repeated ratifications. On the other hand, such committees could become dominated by environmentalist activists, who might try to foist onerous new prohibitions onto the participating.

⁴ At the time of writing, over 150 countries are signatories, while fifty-one have ratified the treaty. See <http://www.pops.int/documents/signature/signstatus.htm#notes>.

⁵ DDT, aldrin, dieldrin, endrin, chlordane, heptachlor, hexachlorobenzene, mirex, toxaphene, polychlorinated biphenyls, dioxins and furans. Olsen's book includes an entire chapter (ch. 2, approximately thirty pages) with a subheading devoted to each of the twelve, describing molecular structure, commercial use, toxicity and side effects, and where/how the substance is currently produced.

⁶ See OLSEN, *supra* note 2, at 38-41.

⁷ *Id.*; see also Sarah R. Hamilton, Comment, *Toxic Contamination of the Arctic: Thinking Globally and Acting Locally to Protect Arctic Ecosystems and People*, 15 COLO. J. INT'L ENV'T'L. L. & POL'Y 71, 81-83 (2004) (discussing the high concentrations of POP's and other pollutants, such as heavy metals and radiation, in the Arctic region, resulting in some of the highest levels of marine animal contamination on earth).

suffering the greatest indirect effects.⁸ More immediate effects fall upon subsistence-wage plantation workers in Guatemala⁹ and similar nations whose unregulated work conditions frequently leave them covered in toxic powder at the end of a workday.

Of course, the pesticides are used because they are invaluable for killing insects that carry diseases (especially malaria) or devour crops needed for subsistence. The inventor of DDT received a Nobel Prize, in fact, for his life-saving discovery, which Stockholm signatories are now scrambling to remove from stockpiles and storerooms.¹⁰ It is like a pendulum swinging between pestilence and pesticides; right now pesticides are more out of favor.

POP's can thus kill mosquitoes, Guatemalan farmhands, and Inuit fishermen in the same application, as the chemicals are resilient and migrate to the north and south poles. The crusade to eradicate POP's, not surprisingly, has originated with countries having arctic territories (Canada, Sweden, etc.) and those in the hot climates of Central America, Africa, and Southeast Asia.¹¹ In between the members of this rather unusual, climate-diverse consortium are the industrial nations who manufacture the "dirty dozen" to sell it to the developing countries to their south.¹² Most of these industrial states banned the use of these chemicals within their own borders in the 1970's and 80's, bowing to internal political pressure created by exposé's like Rachel Carson's book *Silent Spring*.¹³ Production continued, however, for export to nations with nascent agricultural systems and pandemic insect-borne diseases.

⁸ See OLSEN, *supra* note 2, at 38-41, discussing 450 Inuits in Canada who have a disproportionately high incidence of birth defects traced to POP's in their food supply.

⁹ *Id.*

¹⁰ *Id.* at 22-24 (discussing Swiss chemist Paul Muller's discovery of DDT's properties as an insecticide and resultant 1948 Nobel Prize).

¹¹ *Id.* at 87-91.

¹² *Id.* at 4-12.

¹³ RACHEL CARSON, *SILENT SPRING* (1962); see discussion in OLSEN, *supra* note 2, at 25, 43-44. See also Erin Perkins, *The Stockholm Convention on Persistent Organic Pollutants: A Step Toward the Vision of Rachel Carson*, 2001 COLO. J. INT'L ENVTL. L. & POL'Y 191, 191-2 (2001).

The Stockholm Convention mandates a phase-out of production and export of the “dirty dozen” except for extenuating circumstances, such as malaria epidemics that require drastic, immediate action. One fascinating section of Olsen’s book offers charts that illustrate where each chemical is produced today.¹⁴ Interestingly, different industrialized nations specialize in manufacturing different chemicals; Germany has a corner on the market of Heptachlor,¹⁵ for example (apparently not produced in the U.S.), while the U.S. appears to be the major producer of Chlordane.¹⁶ This provides an opportunity for a type of competitive environmental game: Germany could spearhead a crusade for more draconian measures against Chlordane, which would harm chemical companies in the U.S. that compete in other areas with German chemical firms (few companies produce only one chemical). U.S. corporations, conversely, are more likely to lobby for strong international regulations against Heptachlor, which would mostly inconvenience their German rivals.¹⁷ As mentioned above, Sweden, which does not need the pesticides but faces environmental contamination from them, has played the part of both victim and vanguard in the area of regulating these pollutants. At the same time, its chemical firms produce none of the proscribed contaminants, so there is an additional potential benefit for them from the treaty.¹⁸ In

¹⁴ See discussion in OLSEN, *supra* note 2, at 6-8.

¹⁵ For an example of domestic litigation surrounding the effects of Heptachlor contaminating a home as a termiticide, see *Villari v. Terminix Intern., Inc.*, 692 F. Supp. 568 (E. D. Pa. 1988).

¹⁶ Although Chlordane was banned in the United States for most uses in 1988, it was applied as a pesticide (termite control) in approximately thirty million homes before that date. Subsequent studies have shown substantial neurophysiological problems in tested subjects who were exposed to the chemical in or near their apartments. See, e.g., Entry, 2051 *Chlordane—Neurotoxicity*, Vol. 8, No. 2 OCCUPATIONAL MED. DIG. 17 (1996), citing Kaye Kilburn & John C. Thornton, *Protracted Neurotoxicity from Chlordane Sprayed to Kill Termites*, 103 ENVIR. HEALTH PERSP. 690-694 (1995). For additional legal discussion of Chlordane, see *Texas High Court Declares Landlord's Contamination Claims Against Chlordane Maker Time Barred*, 1997 ANDREWS TOXIC CHEMICALS LITIG. REP. 25281 (July 28, 1998) (discussing *Velsicol Chemical v. Winograd*); *Toxicologist on Chlordane Exposure*, 10 Expert Witness J. 8 (1998) (discussing incompleteness of toxicologist's affidavit in *Vardaman v. Baker Center, Inc.*, 711 So.2d 727 (La. App. 1998)); *Home Seller Has No Duty To Disclose Chlordane Contamination*, 9 N.Y. REAL EST. L. REP. 6 (1995) (discussing holdings of New York case law on seller liability).

¹⁷ See OLSEN, *supra* note 2, at 6-8.

¹⁸ *Id.* at 45-48.

theory, savvy environmentalists could use strategic market forces to pit the chemical interests against each other, eventually covering all their bases.

Of course, it is also possible that U.S. chemical companies *want* German firms to produce Heptachlor, rather than switch to a product American companies currently sell. Competitors in industries with high entry barriers sometimes agree, tacitly or explicitly, to carve out geographic territories or to have exclusive product lines, giving each the benefits of a limited monopoly. Rival chemical companies in that case may have collusive incentives to oppose any of the regulations (even those that affect their overseas competitors), lest they be forced to compete over remaining permitted product lines. Fending off socially harmful coordination games can make a treaty particularly valuable.

The question of what products remain legal, however, leads to another possible strategic twist, as well as my only quibble with Olsen's book.¹⁹ The "dirty dozen" have been banned domestically for years; presumably the manufacturers have developed alternative products to replace them in the pesticide market. Olsen does not mention such substitutes, but one would imagine they either exist or are being developed by the same chemical conglomerates that brought us Chlordane and the rest. Encouraging or forcing the elimination of existing pesticide stockpiles creates an immediate demand for new supplies of pesticide, a potential windfall for the manufacturer.²⁰ This may be the best explanation for why the chemical industry has acquiesced to ratification of the Convention, rather than balking. They may have stood to gain more than they

¹⁹ Generally, the book lacks a discussion of substitutable products for the POP's.

²⁰ Once a factory is outfitted to produce a new alternative to DDT, one of the biggest obstacles to increasing its market would be the existing stockpiles of DDT, perhaps its own former product, in developing countries. Also, given that the manufacturers already must produce the alternative product for its domestic market, it is likely to be more efficient to manufacture only one, not two, pesticides, and this can be achieved by creating a large overseas market for its domestic product.

would lose under the treaty. Perhaps subsequent editions of Olsen's book could include some hard data about replacement product lines from the manufacturers of the original POP's.

The Stockholm Convention, like many other treaties, contains no enforcement mechanism or penalties for noncompliance.²¹ What is puzzling is that some countries, most notably the United States, invested resources to fight doggedly over the use of certain terms or phrases in the final text (most notably changing "precautionary principle" to "precautionary approach").²² On

²¹ See *id.* at 117, 123; see also Joel Mintz, *Two Cheers for Global POP's: A Summary and Assessment of the Stockholm Convention on Persistent Organic Pollutants*, 14 GEORGETOWN INT'L ENVTL. L. REV. 319, 332 (2001). Mintz laments the lengthy time allowance for ratification, but the requisite number of countries (50) have ratified the Convention since his writing, with France finally giving in as a last holdout. He also expresses concern over the two-decade phase-out periods for certain pollutants, most notably PCB's, and that phase-out methods are supposed to consider a cost-benefits analysis. See *id.* at 331 (discussing Annex C of the treaty).

²² See Olsen, *supra* note 2, at 86, 99-100. Olsen explains that "precautionary principle" is a term of art used in other treaties (and forerunner conventions to Stockholm) that functions as a type of rule of jurisprudence, requiring that tough cases always be resolved in favor of protecting the environment (as opposed to economic feasibility or other considerations). The diluted phrase "precautionary approach," on the other hand, has no pre-existing definition. See also DAVID HUNTER, JAMES SALZMAN, & DURWOOD ZAELKE, INTERNATIONAL ENVIRONMENTAL LAW & POLICY 360-363 (1998) ("In essence, the precautionary principle switches the burden of scientific proof necessary for triggering policy responses, from those who support prohibiting or reducing a potentially offending activity to those who want to continue the activity.").

The precautionary principle is a source of ongoing debate in other arenas besides the Stockholm Convention on POP's, as indicated by a spate of recent articles and student notes. See, e.g., Bernard D. Goldstein, *Implications of the Precautionary Principle for Environmental Regulation in the United States: Examples From the Control of Hazardous Air Pollutants in the 1990 Clean Air Act Amendments*, 66 LAW & CONTEMP. PROBS. 247 (2003) (arguing that the precautionary principle is problematic due to "potential inhibition of the development of more effective air pollution control technology . . . the inhibitory effect on further research . . . the loss of focus on those hazardous air pollutant compounds and sources that provide the greatest likelihood for toxicity, and misplaced focus on individual rather than population exposure . . ."); Cass R. Sunstein, *Beyond the Precautionary Principle*, 151 U. PA. L. REV. 1003 (2003) (arguing that the precautionary principle appropriately caters to various cognitive biases); David A. Dana, *A Behavioral Economic Defense of the Precautionary Principle*, 97 NW. U. L. REV. 1315 (2003) (arguing, *contra* Sunstein, that the precautionary principle is a necessary corrective for cognitive biases that mistakenly prioritize immediate, concrete concerns over long-term, uncertain harms); John S. Applegate, *The Taming of the Precautionary Principle*, 27 WM. & MARY ENVTL. L. & POL'Y Rev. 13 (2002) (arguing that the strength of the verbal formulation has been steadily diluted or eroded even as it has been more widely used); Stephen Charest, *Bayesian Approaches to the Precautionary Principle*, 12 DUKE ENVTL. L. & POL'Y F. 265 (2002) (discussing the distinction between ambiguity and true uncertainty in forecasting environmental harms, and the problems with using a single principle for these two distinct problems); Don Mayer, *The Precautionary Principle and International Efforts to Ban DDT*, 9 S.C. ENVTL. L. J. 135 (2002) (arguing that divergent interpretations and applications of the precautionary principle result in unpredictable results for attempts to ban DDT worldwide); Jan Bohanes, *Risk Regulation in WTO Law: A Procedure-Based Approach to the Precautionary Principle*, 40 COLUM. J. TRANSNAT'L L. 323 (2002) (arguing that procedures should be put in place to foster democratic decisionmaking about assumption of environmental risks); John S. Applegate, *The Prometheus Principle: Using the Precautionary Principle to Harmonize the Regulation of Genetically Modified Organisms*, 9 Ind. J. GLOBAL LEGAL STUD. 207 (2001) (arguing that the precautionary principle should be applied in the context of genetic modification practices); Jonathan H. Adler, *More Sorry Than Safe: Assessing the Precautionary Principle and the Proposed International Biosafety Protocol*, 35 TEX. INT'L L. J. 173 (2000) (arguing that application of the precautionary principle to biotechnology generally stifles valuable research and development).

wonders why they bothered, if the consequences for ignoring inconvenience provisions would be nil.

The paradox here is somewhat reminiscent of the familiar “no purchase necessary” line in contests used as marketing ploys, where most contest entrants make a purchase anyway. The ubiquity of these “no purchase necessary” contests indicates that companies find them to be effective marketing; the device would disappear if there were no payoff for the investment of resources that goes into the marketing and prizes. A number of people apparently buy the associated product merely because of the game (and not because they would have bought it anyway). Otherwise, the contest would have been unnecessary. “No purchase necessary,” a disclaimer added to satisfy various regulatory requirements, for some reason does not undermine consumers’ inclination to make a purchase.

Like a contest with no strings attached, the Stockholm Convention comes with no threats for noncompliance and therefore no apparent downside for signatories or parties.²³ The question remains, then, whether a law can have any real upside without a corresponding downside. In the process of achieving benefits, most domestic laws impose costs. Criminal laws, for example, impose not only penalties on wrongdoers, but also greatly complicate the planning and preparation of even the most successful (undetected) crimes. This makes perpetration of the crimes more costly, even where they go unpunished. There is also a chilling effect that falls on perfectly legal activities near the boundary of the rule – people steer clear of breaking the law by forfeiting choices that could come close to a violation. Similarly, administrative regulations carry not only civil penalties for violations (sometimes criminal as well), but also impose burdensome costs on

²³ See OLSEN, *supra* note 2, at 117, 123. It is possible, of course, that noncompliance could eventually affect trade partnerships, or future memberships in free-trade organizations, but the Stockholm Convention itself does not contain such provisions.

industries. The downside to such laws (whether statutes or binding regulations) is viewed as a necessary evil to achieve the upside, such as protection of property, personal safety, etc.

Granted, the Stockholm Convention's requirements, to the extent that they are honored voluntarily, contain costs for those currently selling – and those using – the twelve POP's. These costs, however, are not incurred in lieu of the costs of liability, unlike the costs incurred by those complying with criminal or administrative prohibitions. This could mean either that these laws (and others that similarly lack enforcement provisions) are ineffectual, or that we have found a new means of inducing people to do the right thing without threats. The latter would be a law with upsides but no downsides; could this be imported from the international law setting to less exotic areas like protecting property rights and eliminating interpersonal violence?

The “no purchase necessary” puzzle in international treaties overlaps with the issue of “soft law” and “hard law” in global rulemaking.²⁴ “Soft law” is an agreed-upon standard of conduct implicitly intended to be normative, while explicitly lacking official consequences for violators. “Soft law” seems like an oxymoron to those of us who take a more economic perspective on the law – there is no clear deterrence, nothing objective to shape individual incentives. This is not to say that norms do not motivate decision, but where parties have hammered out the rules themselves, voluntarily, the rules are more likely to reflect the parties' pre-existing preferences or values rather than to mandate something novel.

“Hammering out” terms sounds like the jargon of contract law, and that is one way to view “soft law” – as a voluntary agreement between individuals staked on mutual trust rather than court

²⁴ For a general overview of the differing viewpoints on the distinction, see Gunther F. Handl, W. Michael Reisman, Bruno Simma, Pierre Marie Dupuy, Christine Chinkin, & Rachel De La Vega, *A Hard Look at Soft Law*, 82 AM. SOC'Y INT'L L. PROC. 371 (1988); see also Cynthia Crawford Lichtenstein, *Hard Law v. Soft Law: Unnecessary Dichotomy?* 35 INT'L LAWYER 1433 (2001) (arguing that the form of the rule is less significant than the means of inducing compliance, citing examples of extralegal “persuasion” by the IMF); Robert O. Keohane, *International relations and International Law: Two Optics*, 38 HARV. INT'L L. J. 487 (1997) (arguing that “soft law” must be viewed as both moral normativity and rational pursuit of self-interest).

enforcement.²⁵ Mutual trust arrangements contain reputation incentives. Breaching the trust may limit one's future opportunities for desirable relationships, while keeping one's word can earn a reputation as a premier trade partner.

International markets, however, are inscrutably complex, at least in the aggregate, and not many countries are in a position to boycott major importers like the United States, even when the latter flouts some term of a particular international treaty.²⁶ The "contract" model of soft law therefore seems overly simplistic.²⁷

The Stockholm Convention is a treaty,²⁸ not an informal agreement or joint resolution, which means it falls somewhere between "soft law" and "hard law."²⁹ There is no accepted term to describe this in-between position, an awkward spot between innocuous well-wishing and coercive enforcement, between laws that are "hard" and those that are "soft." ("Firm law"? "Semi-soft"?). The possibility for such an in-between category raises interesting questions about the function of laws generally. Even without incentives like coercion or stigmatization, the rules have an aspirational function that manages to influence behavior over time. By making the norms "international law," environmentalist ideals are elevated to the status of a benchmark for behavior. Perhaps this benchmark of conduct will later mutate into a mandate backed by force; or perhaps it provides a moral "higher ground" for certain parties in future international agreements.

Corporations can boast of their voluntary compliance with the guidelines for public relations

²⁵ For more discussion of recent international environmental agreements and their relation to contract principles, see Mark A. Drumbl, *Poverty, Wealth, and Obligation in International Environmental Law*, 76 TUL. L. REV. 843 (2002).

²⁶ See HUNTER et al., *supra* note 22, at 1029-30 (describing how Mexico withdrew from a legitimate complaint against the United States for GATT violations – centering on a tuna embargo against Mexico – for fear of jeopardizing the NAFTA negotiations that were then underway).

²⁷ The Stockholm Convention was intended to go further than "soft law." Specific provisions allow for (or even call for) subsequent amendments to delineate enforcement mechanisms. For more detailed discussion of these specific provisions, see Mintz, *supra* note 21, at 332.

²⁸ See Handl et al., *supra* note 24, at 391-92, discussing the significance of treaty status for the outcome of subsequent litigation in domestic courts.

²⁹ See OLSEN, *supra* note 2, at 49-53.

purposes. If nothing else, it offers a definitive demarcation line between “good” and “bad,” right and wrong, when it comes to making/selling/using pesticides, helping individual actors characterize their choices in these terms.³⁰

Credos about what makes a country virtuous are not taken very seriously, however, even if mushy treaty provisions fetch universal assent more easily.³¹ The primacy of state sovereignty makes effete rules even more mysterious in their power to encourage compliance.

Eric Posner and Jack Goldsmith have published a series of important articles explaining the puzzle of “soft” and “semi-soft” international law using a classic rational choice approach. Their model eschews moral or normative explanations for voluntary compliance with unenforceable treaties, and instead posits very plausible self-interested reasons for the phenomenon.³² Applying their model to the Stockholm Convention, the United States and European nations must have had something to gain. Some suggestions have been posited above, such as creating a new, expansive market for replacement products by eliminating existing stockpiles of pesticides. This would also help explain the American insistence on the “precautionary approach” verbiage instead of the “precautionary principle;” the latter could have been used to obstruct the introduction of new pesticide products until the seller could prove their environmental safety. Similarly, Article 6 of the Convention calls for extensive reporting of the

³⁰ For more discussion of the view that international law helps shape norms, *see generally* Joseph F. C. DiMento, *Process, Norms, Compliance, and International Environmental Law*, 18 J. ENVTL. L. & LITIG. 251 (2003).

³¹ From the standpoint of everyday politics, it is understandable why non-coercive rules are expedient for international treaties, where everyone is concerned about preserving self-sovereignty. *See* Handl et al., *supra* note 24, at 375, recounting the observations of earlier commentators that soft law is able to “overcome deadlocks in the relations of states that result from economic or political differences among them, when efforts at firmer solutions have been unavailing. A substantial amount of soft law can be attributed to difference in the economic structures and economic interest of developed as opposed to developing, countries.”

³² *See* Jack L. Goldsmith & Eric A. Posner, *International Agreements: A Rational Choice Approach*, 44 VA. J. INT’L L. 113 (2003); Goldsmith & Posner, *Moral and Legal Rhetoric in International Relations: A Rational Choice Perspective*, 31 J. LEGAL STUD. 115 (2002); Goldsmith & Posner, *A Theory of Customary International Law*, 66 U. CHI. L. REV. 1113 (1999).

location and size of existing POP stockpiles in developing nations, information that other countries may find strategic for other reasons.

Posner & Goldsmith identify numerous reasons why hegemonic parties may accede to the formalities of a treaty with multiple developing nations, but it seems that most or all of them could be reduced to two general principles: either to draw the others “into the fold,” so as to better coordinate future activities together (isolationism often goes hand-in-hand with hostility to Western interests), or to “signal” the dominant party’s seriousness and willingness to cooperate, so as to win reciprocal concessions. These strategies are vaguely reminiscent of “dinners and roses” in courtships. Dinner dates are less about food and more about the opportunity to gain information about the other party – conversation skills, sense of humor, level of romantic interest, etc. – and each dinner makes the next dinner more likely to occur, signaling progress toward a desired relationship. “Roses” are more complex. Silk flowers last longer and cost more, and may be equally beautiful (they may even be convincingly scented), but are considered a less romantic gift. The fact that real roses last only a few days signals either willingness for ongoing expenditures or willingness to expend resources somewhat whimsically on the recipient; sacrificial actions are particularly valuable for signaling coordination in repeat player games.

The developed nations have long-term incentives to court the undeveloped nations into more and more treaties, leading to more cooperation and interdependence. Each treaty leads to divulgence of more information about what goes on within the developing countries, some very useful (like the locations of large chemical stockpiles in the third world). In addition, the U.S. and Europe may offer token sacrifices (“roses”) to signal their willingness to cooperate earnestly (or contribute financially) rather than simply dominating the others.

A final paradox of the Stockholm convention is the position of the developing nations, who as a block constitute the only remaining market for the banned pesticides. The irony is not that these countries portray themselves as the victims in the situation – everyone does that in international negotiations – but that the biggest customers for POP's would enthusiastically join the campaign to ban them. It is easy to see why Canada or Sweden would champion the cause, as they have little need for pesticides but are the unfortunate natural repository for them, given their proximity to the polar “drain holes” for these chemicals.

The developing countries are a different story. Signing onto a treaty to get a handout³³ is understandable; requesting a treaty that specifically bans products the nations regularly buys is more puzzling. Of course, developing nations often lack the necessary internal legal structures to control the importation or use of pesticides by private parties, such as wealthy plantation owners. To the extent that these governments are at odds with the local landowners, the ironic plea for America and Europe to shut off the faucet at their end, so to speak, is sensible enough. The underdeveloped nations tend to be smaller nation-states, however, where the landed gentry is in a particularly strategic position to exert influence over their officials and the positions they take at an international convention. If the pesticides are causing obvious harm in developing countries, why was a treaty necessary to stop themselves from buying? There is no purchase necessary.

³³ Articles 12-14 of the Stockholm Convention call for technical and financial assistance to be given from developed countries to those less developed. *See* OLSEN, *supra* note 2, at 115-16. This also explains some of the “victim” rhetoric used by the willing buyers of the POP's. Victims make good mendicants, and mendicants make good victims – at least for rhetorical purposes. An opportunity for additional foreign aid, funneled through the existing mechanism of the Global Environmental Facility (put in place by other treaties), certainly helps explain their eager participation and ratification, even if little is done locally to implement changes in practices.