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Regime Design Matters: Intentional Oil Pollution and Treaty Compliance

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ABSTRACT:

Identify able traits of the regime's compliance procedures determine whether a treaty prompts compliance from states or non-state actors. A need for tanker owners to install specific equipment yielded noticeably greater levels of compliance than a requirement for tanker operators to restrict their discharges under the international framework governing deliberate oil pollution. Since both rules had significant financial penalties for violations and applied to the same nations over the same time period, it is obvious that the differences in compliance between the two sub regimes may be attributable to their unique characteristics. The success of the equipment requirements was due to the creation of an integrated compliance system that increased transparency, offered strong and credible sanctions, reduced implementation costs for governments by leveraging already-existing infrastructures, and prevented violations rather than just deterring them.

KEYWORDS:

International, Pollution, States, Waste Oil.

I. INTRODUCTION

Regime structure matters. International agreements and regimes are only worthwhile if they motivate individuals to do action that they otherwise would not. Identify able features of the regime's compliance procedures determine whether a treaty results in compliance or other desired behavioral changes. Negotiators make decisions that have a significant impact on whether or not actors will comply as they choose to include certain regulations and omit others from a regime. Nations have drafted treaties for decades while both hoping that they would lead to better overall results and doubting their power to affect the behavior of governments or people. Theories on how and why international legal systems may and often do not have an impact on behavior have been developed by political scientists as well as lawyers. Two key questions must be addressed by compliance researchers [1], [2].

Is any of the compliance with international treaties that we witness the consequence of the treaty's effect, given that power and interests play key roles in driving behavior at the international level? Second, if agreements and regimes may influence behavior, what tactics can people who negotiate and create regimes do to ensure the highest level of adherence? This essay answers both of these questions by scientifically assessing the global system in place to prevent deliberate oil pollution. Data for comparing the various tactics for eliciting compliance within a shared environment that maintains many significant explanatory factors constant are provided by several attempts to raise the regime's initially low levels of compliance. The accords that support this system aim to reduce the amount of waste oil that tankers intentionally dump after delivering their cargo. To do this, these accords have created two quite distinct compliance frameworks, or "sub regimes," since the late 1970s [3], [4]. Operators of tankers are not allowed to discharge oil in excess of the established limitations, according to one. The owner of a tanker must install pricey pollution-reduction technology by a certain date under the other regulation. Both sub-regimes were considered as equally legal and obligatory by the signatories to the treaty. The same countries and tankers were subject to regulation under the two sub regimes within the same time frame. The lack of power and interest disparities would imply that compliance rates with the two sub-regimes would be relatively comparable. The subregime provisions required the powerful and concentrated oil industry to incur significant pollution control costs in order to provide diffuse benefits to the general public, making these cases among the least likely to provide evidence that regime design matters.

The reduced expense of observing discharge restrictions would actually imply that observing such limitations would need more compliance than observing equipment requirements. Limits on discharges have repeatedly been

violated, attesting to continued incentives to do so and validating the idea that oil pollution is a challenging collaborative challenge. However, it is puzzling that, in contrast to expectations, compliance with mandates to install costly technology that offered no economic advantages has been almost ubiquitous. Only precise variations in subregime design may account for the substantial variation across subregimes. The equipment subregime was successful in ensuring that parties with a motivation to abide by, monitor, and uphold the treaty have the capability and legal standing to carry out those crucial implementation obligations. By creating integrated compliance systems that increased transparency, offered strong and credible sanctions, reduced implementation costs for governments by leveraging existing infrastructures, and prevented violations rather than just deterred them, the regime was able to elicit compliance [5], [6].

Compliance theory and definitions

Understanding current views about compliance in international affairs is necessary to explain the puzzling phenomenon of higher compliance with a costlier and economically ineffective international regulation. The fact that the international system is characterized by anarchy and an inability to create centralized enforcement has led realists to conclude that international regimes generally lack the power to affect behavior. "Power considerations, not legal ones, determine compliance," Treaties reflect interests and power but do not alter conduct; they are epiphenomenal. This perspective doesn't suggest that disobedience is uncommon. Despite the fact that states will break laws anytime they have the means and the motive to do so, "the great majority of the rules of international law are generally observed by all nations," as the saying goes. Because both conduct and the rules reflect the interests of strong governments, the realist believes that treaty rules are commonly followed. Compliance is more particularly triggered by one of the following: a hegemonic power compels other nations to comply; the treaty rules codify the parties' present conduct or anticipated future behavior; or the treaty settles a coordination game in which no party has any incentive to break the rules [7], [8].

Although they influence it, treaty regulations do not guarantee compliance. Therefore, attempts to strengthen treaty provisions in order to boost compliance either reflect the shifting interests of strong nations or are mistaken exercises in fruitlessness. Due to this viewpoint's popularity, it is now common to pay far more attention to whether rules impact behavior than to the design elements that explain why one rule influences behavior while another does not. International lawyers and institutionalists, on the other hand, argue that states need not violate treaties whenever it suits them to do so in order for the anarchic international order to exist. Under the appropriate circumstances, other forces like openness, fairness, accountability, and regime-mindedness allow regimes to place major restrictions on international conduct. The institutionalist perspective implicitly assumes that a certain configuration of power and interests allows for states to choose amongst treaty provisions that will elicit varying degrees of compliance. Even in challenging cooperation challenges where there are significant and persistent incentives to violate, high compliance levels may be attained. Institutionalists do not rule out the notion that regimes, as opposed to just power-related reasons, might induce compliance [9], [10].

Is conduct ever altered from what it would have been in the absence of an agreement? Institutionalists believe that treaty-induced compliance is conceivable if we define it as conduct that complies with a treaty's requirements as a result of the treaty's compliance mechanism. Realists consider all compliance to be "coincidental compliance," or conduct that would have taken place even if the treaty's provisions hadn't been in place. The conflict between these ideas emphasizes the challenges facing research that aims to pinpoint, if any, features of a regime's design that account for observed levels of compliance. The dependent variable, compliance, is what I characterize as an actor's action that complies with a certain treaty clause. By referring to compliance with treaty provisions rather than a treaty itself, we may recognize that parties may readily abide by some of its requirements while breaking others. By combining violations of one condition with compliance with another, a study of "treaty compliance" would lose important empirical data.

The analyst is able to clearly and repeatedly discern compliance from noncompliance by limiting their research to the written regulations in a treaty-based framework. Of course, an emphasis on explicit rules misses other possible regime-influencing mechanisms like norms, principles, and knowledge-creation processes. The three components of any compliance system a main rule system, a compliance information system, and a noncompliance response system are distinguished in this article. The actors, laws, and procedures pertaining to the conduct that the regime is substantively targeting make up the fundamental rule system. The fundamental rule system establishes the demands and rewards for observance and contravention. The actors, regulations, and procedures that gather, examine, and distribute data on instances of infractions and compliance make up the compliance information system. The quantity, caliber, and applications of compliance and enforcement data are determined by the compliance information system. The actors, laws, and procedures controlling the official and informal responses used to persuade people who are not complying to do so make up the noncompliance response

system. These categories offer the context for this article's analysis of the reasons why the oil pollution regime's efforts to compel compliance have been successful and unsuccessful.

II. DISCUSSION

Two Subregimes for International Oil Pollution Control

The majority of people associate oil pollution with tanker mishaps like the Exxon Valdez. Although the waste oil produced during regular oil transport has historically represented a more widespread but diffuse impact, the oil from such incidents provides a concentrated but localized damage to the maritime environment. A little amount of oil that has adhered to the cargo tank walls after a tanker delivers its load still remains. About 300 tons of this oil were combined with saltwater during ballasting and tank cleaning processes, resulting in slops. The most convenient and affordable way to get rid of them was to throw them overboard when at sea. By the 1970s, an estimated million tons of oil per year were entering the seas as a result of deliberate releases conducted on thousands of tanker journeys. The effects of accidents and these persistent, low-concentration releases on seabirds and vacation beaches have led to ongoing worldwide attempts at regulation.

One of the first pollutants to be the focus of a global regulatory framework was intentional oil discharges. Nations addressed the issue of coastal oil pollution in the International Convention for the Prevention of Pollution of the Seas by Oil (OILPOL) of 1954 by restricting the amount of oil discharged close to shore. The Intergovernmental Maritime Consultative Organization (IMCO), or its committees and those of its successor, the International Maritime Organization (IMO), have hosted several diplomatic conferences where regulation amendments have been discussed. The International Convention for the Prevention of Pollution from Ships (MARPOL), which was created in the late 1970s, presently contains the regime's main rules, which include limitations on both tanker operations and tanker equipment that rely on quite distinct compliance procedures. Governments and nonstate actors have been instrumental in the implementation and enforcement of the regime, despite the fact that rule-making has consistently been international. Tanker owners and operators have been the targets of the regulations, while maritime authorities, classification societies, insurers, and shipbuilders have monitored and enforced them.

1. The Discharge Subregime

The original rules from 1954 served as the foundation for [MARPOL'S discharge subregime]. That agreement represented a compromise between Germany, the Netherlands, the United States, and other major states that saw any regulation as either environmentally unnecessary or harmful to their shipping interests and the United Kingdom, which had significant influence in the oil markets but was under pressure from powerful environmental nongovernmental organizations to reduce coastal pollution. The final agreement restricted the oil concentration of discharges produced within fifty miles of any shoreline to 100 parts oil per million parts water (100 ppm), despite the United Kingdom's desire to limit tanker releases across the ocean. The British successfully pushed through an amendment in 1962 that mandated that all discharges from new tankers, regardless of how close they were to land, must meet the 100 ppm limit. By 1969, enough countries agreed to restrict discharges by all tankers across the ocean, based on the idea that crude oil may drift far enough to prevent discharge zones from successfully protecting coastlines. This theory was the basis for the 1962 amendment. The 1954/62 Agreement was under pressure to be changed from two separate directions. On the one hand, the 35 million gallons of oil leaked in 1967 when the Torrey Canyon grounded off the coasts of Britain and France and the rise of environmentalism, particularly in the United States, encouraged a campaign for stricter rules.

The United States, which had previously been hesitant, took over as the main activist state from the United Kingdom and specifically worked to guarantee that revisions would address the mounting evidence of enforcement issues. On the other hand, oil corporations correctly saw the 1962 revisions as a warning that costly equipment requirements will soon replace discharge standards. In response, Shell Marine International created and pushed a practical method for tankers to cut down on oil discharges without purchasing new machinery. In the load-ontop process (LOT), ballast and cleaning slops were combined in a single tank, water was decanted from underneath the oil, and the subsequent cargo was loaded on top of the still-present slops. The beauty of LOT was that it wasted less freight, achieving both economic and environmental objectives. The issue was that LOT's regular functioning resulted in discharges that were higher than the required 100 ppm level. Tankers would have had to purchase expensive new equipment if this requirement had been upheld. Oil and shipping firms consequently also tried to change the pact with the backing of France, the Netherlands, Norway, and the suddenly less active United Kingdom. Oil firms believed LOT to be so successful that they urged diplomats to completely abandon the zonal strategy of 1954–1962. However, the demands for more environmental protection prompted

them to endorse the more constrained goal of changing the discharge limits from the 100 ppm "content" requirement to one that could be seen with the onboard technology already in place.

In 1969, more stricter and enforceable laws were drafted in a way that avoided equipment requirements in a compromise that was universally approved. Discharges were now limited to "clean ballast" outside of the fifty-mile zones and could not exceed 60 liters of oil per mile (60 l/m) inside the fifty-mile near-shore zones. The clean ballast clause's proponents said that it would enhance enforcement by turning any observation of a discharge into proof of a violation. The most significant adjustment was a new restriction that said cumulative discharges must not exceed one-fifteenth of a tanker's capacity. Shell's J. H. Kirby said that if a ship utilized LOT, it could operate within these rules even though compliance with this criterion required a tanker to cut its average discharges by about 98 percent. Additionally, because of the low total discharge restriction, port officials may presume that any ship with entirely clean tanks had broken the terms of the agreement. These regulations came into effect in 1978 and are still in place today thanks to the 1973 MARPOL agreement.

2. The Equipment Subregime

By the early 1970s, public concern was often bringing environmental concerns up in international politics. The 1972 London Dumping Convention negotiations and the United Nations Conference on the Human Environment prepared the ground for a significant revision of the OILPOL accord. A significant meeting to discuss the MARPOL pact was held in 1973 at IMCO. Its objective was to replace OILPOL regulations with regulations that would address all significant forms of vessel-source marine pollution. The U.S. administration had become increasingly worried that effective mitigation of the escalating oil pollution issue was being hampered by the ease with which tanker crews might violate discharge rules and the enormous resources and effort required to uncover infractions. By 1972, Congress had passed legislation that threatened to impose a costly pollution-reduction equipment requirement on all American tankers as well as all tankers entering U.S. ports. The law includes a suggestion to mandate the installation of double hulls on all big tankers to deal with unintentional spills and separated ballast tanks (SBT) to deal with purposeful discharges. The SBT system entailed positioning the ballast tanks and related pipework in a way that prevented ballast water from coming into touch with the oil being transported as cargo. Both the construction cost and the loss of cargo-carrying capability made the system pricey. The United States vowed to impose SBT unilaterally if necessary while seeking international consent to do so. Discharge criteria were unquestionably less expensive, more economically advantageous, and "in theory... a good idea." The United States and the United Kingdom supported regulations that provided simpler and more effective enforcement, but environmental pressures and mounting evidence that LOT was neither as pervasive nor as successful as had been envisaged.

Oil firms, which are mostly located in the United States, first opposed SBT restrictions but subsequently came to like them as being preferable to threatening U.S. unilateral laws. Several shipping states grudgingly agreed to support SBT standards. They felt that such demands would prevent a double bottom requirement, which would be considerably more expensive. It was also financially feasible since, thanks to a recent construction boom and the regulations' suggested wording, tanker owners wouldn't have to pay the higher expenses of SBT for many years, and only for big tankers. Governments representing independent tanker owners (Denmark, Germany, Greece, Norway, and Sweden), as well as those representing shipbuilding interests (France and Japan), disagreed with the provision. The conference approved a need for SBT for tankers over 70,000 tons constructed in 1980 and after by a vote of thirty to seven.

President Jimmy Carter proposed that SBT rules be extended to all tankers, not only big new tankers, in 1977 as a result of a string of incidents in the United States and ongoing enforcement issues. Given that (1) the US was once again openly threatening unilateral action and (2) just three governments had signed the 1973 MARPOL agreement, IMCO convened a second significant meeting in 1978. The fact that retrofitting current tankers with SBT would decrease each tanker's (and the fleet's) cargo capacity by around 15% was reflected in state stances. This was seen as a chance for Greece, Norway, and Sweden to reactivate a large number of their idle independent tankers. However, the majority of states considered SBT retrofitting to be quite costly. The 1973 MARPOL agreement spurred oil firms to create a method known as crude oil washing (COW), which included cleaning out cargo tanks with the cargo itself rather than with saltwater. This was similar to how the 1962 amendments had driven LOT development. Oil that would have been discharged as slops was converted into useful delivered cargo by using COW equipment during cargo delivery, decreasing oil pollution and improving cargo owner profits at the same time. The industry's suggestion that COW be used instead of SBT resulted in a compromise that required tankers constructed after 1982 to have both SBT and COW installed, while older tankers had to be retrofitted with either technology by 1985. The 1973 MARPOL agreement was expanded to include the 1978 Protocol Relating to the International Convention for the Prevention of Pollution from Ships. Despite the fact that

MARPOL and its protocol, also known as MARPOL 73/78, did not come into effect until 1983, its criteria became the norm for all new construction after 1979.

LOT

The reported rise in LOT use by tanker operators has nothing to do with the 1969 guidelines. Many tankers simply didn't use LOT or follow the discharge guidelines. The ongoing noncompliance with discharge regulations was caused by inadequate incentives to employ LOT, a straightforward method that did not need any additional equipment. Few effective methods for encouraging operators to adopt LOT were established by the subregime itself. The compliance system for the discharge subregime was unable to implement the monitoring and enforcement required to discourage violations. The subregime's inability to successfully identify, track down, prosecute, and punish offenders left tanker operators' incentives to abide by it largely unaffected. It is not unexpected to discover that economic factors easily explain the pattern of LOT use given the lack of these regime impact channels. The expenses associated with collecting waste oil, the price of that oil, and the ownership of the oil being carried all had an impact on a tanker operator's first-order incentives to employ LOT. Due to the latter mentioned issue, oil firms had far stronger incentives to embrace LOT than independent shippers did. They get payment for the initial quantity of oil loaded, not for the amount delivered, and transport oil on charter to cargo owners. Therefore, the independent carrier incurs no expense while disposing of waste oil at sea. As opposed to this, operators who control their cargo, as oil firms often do, may gain roughly $15,000 every journey.

When compared to any treaty prohibition, the decline in the average discharges of oil company tankers in the 1970s and the lack of a comparable decline in the discharges of independent tankers are more closely related to these conflicting motivations and the increase in oil prices. The average discharges of oil firms were lower than those of individual ships in 1972, and they also declined more quickly following the 1973 oil price increases, which may be attributed to their larger financial incentives to preserve oil. These reductions should have happened only after the overall discharge limitations became legally binding in 1978, if the regime were to be affecting oil company conduct. Because preserved oil had little value to independent producers, there was a far smaller fall in average discharge among them.

Facilitating Potent but Low-Cost Sanctions

Only when the compliance mechanism also triggered probable and effective punishments did greater openness translate into improved levels of compliance with equipment requirements. The discharge subregime's noncompliance response system was unable to achieve the same results detected infractions upon discharge. Due to the subregime's reliance on customary international law and its respect for flag state enforcement, many crimes routinely went unpunished. A government that discovered a discharge infraction at sea was obligated under OILPOL and MARPOL to provide all supporting documentation to the flag state for legal action. Since tankers flying their flag may only sometimes approach their ports, flag nations often lack the capacity to bring charges. They also lack incentives to pursue cases since zealous enforcement would encourage owners to transfer registrations and the high costs connected with them to a state with laxer regulations. In other words, the flag states had the power to bring charges but lacked the motivation to do so, and the coastal states had the power to bring charges but lacked the motivation to do so.

Even governments that really wanted to pursue and find a violation guilty had significant challenges under the discharge requirements. As was previously said, evidence of a violation sometimes failed to identify the offender, and even strong evidence frequently fell short of the legal standards of proof required for conviction. The ban on discharges that left visible traces should have made it easier to gather evidence. But even with overhead images of spills, tankers regularly escape punishment. Between 1983 and 1990, port and coastal governments dismissed an average of 36% of cases occurring in territorial waters due to a lack of evidence, and fewer than 33% of all discovered violators were successfully convicted and penalized. Less than 10% of all referrals resulted in penalties being enforced, while another 20% of high-seas cases reported to flag nations were not prosecuted for the same reason. There is no record of "a single case where the one fifteen thousandth rule was used for prosecution," despite the fact that many experts had thought that the more convincing evidence from inspections for total discharge breaches would solve these issues.

Governments seldom implemented punishments severe enough to prevent further discharge breaches, even when prosecution was obtained. In order to make up for poor detection and conviction rates, courts in the majority of states are unwilling to issue penalties that are out of proportion to the crime. The maxim "the punishment should fit the crime" sets a cap on penalties that, if identification and prosecution are challenging, may be too low to effectively prevent infringement. Since 1975, the average fine issued by states has declined with time and has never been more than $7,000. Even when a significant fine is imposed, it can be challenging to collect the fine

because of the length of time between the initial offense and the final sentencing as well as the unwillingness of most states to detain tankers for minor discharge violations. The equipment subregime depended on quite different methods of punishing noncompliance than the discharge subregime, which included legal action, convictions, and penalties. The capacity of classification societies, insurers, and flag state governments to refuse the classification, insurance, and pollution prevention certificates that a tanker required to undertake international commerce was one of the most urgent consequences. Tankers "cannot get insurance without certification, and can't get certification without compliance," as John Foxwell put it. These penalties amounted to forbidding any tanker with unauthorized equipment from doing business.

In addition to these market-based penalties, the equipment subregime required port states to either delay or forbid tankers with forged pollution prevention certifications or substandard equipment from entering the port. These reactions avoided the legal systems of the port state and the flag state as well as the nuances surrounding legal sovereignty by acting as administrative punishments. Contrarily, this tactic increased both flag nations' and port states' willingness to tolerate detention. Detention also had the benefit of forcing tanker owners to decide between taking the risk of detention and the more expensive course of not trading to those profitable markets, even when just a small number of large oil-importing governments used it. Detention of breaching tankers by industrialized powers effectively transferred the authority to impose sanctions to nations with far stronger internal political forces.

The legal and factual issues that make even obvious breaches of discharge regulations difficult to properly prosecute were totally resolved when the equipment requirements themselves were combined with these administrative fines. An operator of a tanker was compelled to forgo thousands of dollars per day in potential costs due to detention, and forced retrofitting might cost millions of dollars, significantly surpassing the penalty for discharge infractions.60 Detention has the advantage of being expensive enough to prevent additional infractions while not being so expensive as to be regarded an excessive reaction to the offense. In other words, detention was both more probable and more expensive.

III. CONCLUSION

Nations may create regime regulations to increase adherence. This article has shown that, even within a single problem area, it is required to make reference to the compliance systems' design elements around specific provisions in order to explain observed compliance variation. The same governments and corporations with the same interests cooperated with laws requiring the installation of costly equipment far more often than they complied with restrictions restricting the overall amount of oil discharged during the same time period under the system governing deliberate oil pollution. Differences in the sub regime’s compliance mechanisms easily explain why the earlier sub regime compelled strong players to comply with it but the later sub regime did not, while theories of hegemonic power and economic interests fail to explain this variance. Because the equipment standards chose a point for regulatory intervention that allowed for greater transparency, increased the likelihood of forceful responses to detected violations, built on already-existing institutions, and coerced compliance by preventing actors from violating them rather than just discouraging them from doing so, they significantly increased compliance. By regulating the industry’s most susceptible to compliance pressures and supporting the initiatives of the governments and non-state actors most likely to put such rules into effect and enforce them, policymakers may increase compliance. Any efficient compliance system would put the careful selection of the regime's principal rules at its core to ensure that regulatory burdens are matched to anticipated behavior. Once these fundamental guidelines have been established, the chance of compliance may be further increased by carefully designing the compliance information system and the noncompliance response system. Instead of laying requirements on resistant parties, oil pollution legislation succeeded by enabling the objectives of, putting responsibility on, and reducing the physical and legal constraints restricting those governments and commercial actors inclined to monitor and enforce agreements. An integrated set of regulations and procedures was essential to ensure that players were inside the strategic triangle of compliance and that they had the political and financial motivations, practical skills, and legal standing to carry out the responsibilities involved in putting the treaty into effect.65 Governments and private entities behaved differently when such efforts were successful than they would have had the system not been in place.

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