

## ***Criminal Liability of Individuals and Corporations in Marine Oil Pollution from the Perspective of International Law***

Mohammadmehdi Barghi\*<sup>1</sup>, Mohammadreza Ganjkanlo<sup>2</sup>,  
Amirhossein Abasi<sup>3</sup>

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### **Abstract**

**Background and Theoretical Foundations:** Marine oil pollution represents one of the most severe threats to the marine environment, with long-lasting ecological, economic, and social consequences. While civil liability regimes have been extensively developed under international conventions, the realm of criminal liability—especially for both natural and legal persons—remains fragmented and inconsistently applied across jurisdictions. Theoretical underpinnings of criminal liability are rooted in the principles of international environmental law, state sovereignty, and the evolving recognition of corporate culpability under international legal frameworks. Key conventions such as the United Nations Convention on the Law of the Sea (UNCLOS), the MARPOL 73/78 Convention, and the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) set the stage for state responsibilities and potential penal responses to pollution incidents, yet do not explicitly create unified standards of criminal prosecution for polluters.

**Methodology:** This article applies a comparative and analytical legal methodology grounded in the study of international treaties, customary international law, case law, and state practice. It examines both soft law

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<sup>1</sup> Associate Professor, Department of Law, Faculty of Theology and Islamic Studies, Meybod University, Meybod, Iran, (Corresponding Author), Email: barghi@meybod.ac.ir

<sup>2</sup> Master of Private Law, Department of Law, Faculty of Theology and Islamic Studies, Meybod University, Meybod, Iran.

<sup>3</sup> Master of Criminal Law and Criminology, Department of Law, Faculty of Theology and Islamic Studies, Meybod University, Meybod, Iran.

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instruments and binding conventions, alongside selected national laws and prosecutions.

**Findings:** The research reveals significant gaps in the international legal system's approach to criminal liability for marine oil pollution. While several instruments impose obligations on states to adopt penal measures, enforcement varies widely, and the actual prosecution of corporate actors is rare. States often rely on civil penalties or administrative sanctions. However, where domestic laws are aligned with international obligations—such as in the U.S. or the EU—criminal prosecutions have led to substantial deterrent outcomes. Furthermore, corporate criminal liability, although increasingly recognized, remains legally ambiguous in many jurisdictions, and international law does not yet fully incorporate binding norms in this regard.

**Conclusion:** International law recognizes the seriousness of marine oil pollution but lacks a harmonized and enforceable framework for holding individuals and corporations criminally liable. To bridge this gap, a more robust international regime is needed—one that explicitly defines environmental crimes at sea, standardizes evidentiary thresholds, and fosters cooperative enforcement among flag, coastal, and port states. Enhancing international cooperation, supporting capacity building in developing states, and codifying corporate environmental responsibility are essential steps toward achieving greater accountability and marine environmental protection on a global scale.

**Keywords:** Marine Oil Pollution, Individual Criminal Liability, Corporate Criminal Liability, International Environmental Law, MARPOL Convention,

### **Introduction**

First of all, it must be said that «the exercise of government authority over maritime areas has long been a vital and crucial issue» (Salehi, 2020, P.148). Until the collapse of the Soviet Union in 1991, the Caspian Sea was dominated by the two governments of Iran and the Soviet Union.



The intense asymmetry between power and resources between the two countries led to the unofficial and actual control of the region in the hands of the Soviet Union. Therefore, the issues affecting the Caspian basin were often influenced by the Soviet Union's internal policies and joint projects between Iran and the Soviet Union. The sharp rise in the number of Caspian coastal states from two to five countries has caused complicated problems and changed international borders in new conditions (Arshadi, 2007). However, oil and gas reserves have no boundaries on the map. Moreover, contamination is not limited to any designated human boundaries; fish, birds, mammals, and, in general, living organisms are not affected by one's specific nationality. Therefore, this is not only an opportunity, but also a necessary requirement for the Caspian coastal states to work together to solve common problems. Failure to do so will exacerbate environmental damage and security hazards in the region. Although the impact of each of these pollution and other environmental impacts of the Caspian Sea for various geographical reasons on countries and coastal and even non-coastal communities varies, it is obvious that these damage and dangers will not be unique to one of the countries of the region. In other words, the issues of the Caspian Sea have a cross-border nature that has the potential to have an impact on neighboring distant and global climates in addition to the influence on the region and the immediate neighborhood in case of poor attention from the countries of the region and international organizations.

In both domestic and international legal systems, one of the most critical issues under discussion is the protection of the marine environment from the damage caused by high-risk activities of the oil industry on the continental shelf including exploration, drilling, and extraction—as well as the maritime transportation of crude oil and petroleum products. It is worth noting that in recent decades, numerous international conventions have emphasized the need to enhance safety standards within the industrial sectors of the energy industry, achieving some degree of success and influence in this regard.

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On the other hand, oil-related incidents are considered environmental disasters, serving as a severe warning to all stakeholders in this domain, including governments, legislators, related industries, policymakers, and the public (Adiban et al., 2022, p. 114).

More than 3,000 oil tankers navigate global waters daily, transporting approximately 1.7 billion gallons of crude oil and petroleum products annually via maritime routes (Adiban et al., 2022, pp. 15-16). While 99% of these shipments reach their destinations without incident, statistics indicate that the risks associated with maritime oil transportation have been increasing significantly compared to other international threats. As a result, the global community is actively seeking to mitigate these risks and strengthen regulatory and enforcement mechanisms (Darmody, 1993, p. 89).

Delivering oil into the sea is one of the most pressing environmental challenges requiring serious attention. Activities such as tank washing, the discharge of contaminated ballast water, the disposal of oil residues, and even the illegal release of smuggled oil cargoes are primarily driven by economic incentives. Unfortunately, these practices have become an unacceptable and ongoing trend. The concern grows deeper when such behaviors gradually become normalized. Although accurately assessing their long-term consequences remains uncertain, negligence and the lack of thorough oversight on maritime oil transportation risks could lead to severe environmental costs some of which may be irreversible.

The inadequacies of the civil liability system in compensating for environmental damage especially in cases where harm is irreversible, have increasingly highlighted the necessity of introducing and enforcing criminal sanctions. Richard Thornburgh, former Attorney General of the United States, emphasized the importance of criminal penalties in environmental law, considering them an effective tool for establishing a robust framework for environmental protection.



According to him, environmental pollution results from the negligence of individuals and entities that violate environmental rights.

However, implementing criminal liability and enforcing penal sanctions to combat marine oil pollution face significant challenges. The conflict between the jurisdiction of flag states and the sovereignty of coastal and port states, coupled with the inefficiency of individual criminal liability, represents key obstacles in this area. In some cases, applying criminal law as a last resort seems impractical. Under the current approach to criminal liability, individuals are held accountable as natural persons. This practice has often allowed individuals to serve as scapegoats, enabling the primary offenders sizeable multinational oil and shipping corporations to evade liability. Such an approach fails to support the primary victims of these environmental disasters and exacerbates the suffering of the environment and the communities that depend on it.

On the other hand, some scholars and domestic legal systems continue to adhere to the belief that «a corporation has no soul to damn and nobody to kick,» thereby rejecting corporate criminal liability (Van der Wilt, H. 2013, pp. 43-77). According to this view, corporations, as legal entities, cannot commit crimes and, therefore, cannot be judged or punished for violent or criminal acts.

This article examines the international legal dimensions of criminal liability in general and corporate criminal liability in particular, focusing on the challenges associated with marine oil pollution. The central question is whether a combination of criminal and civil liability systems is necessary to combat and prevent marine oil pollution. If so, can corporate criminal liability be effectively enforced in this context?

To address this question, the first section explores the necessity of imposing criminal liability to combat marine oil pollution. It examines the weaknesses of the international civil liability system, the inefficiencies of international criminal regulations and mechanisms, and jurisdictional challenges in maritime zones. The second section

critically analyzes the individual criminal liability system and reviews models, theories, and legal approaches related to «corporate criminal liability, » providing a foundation for defending this concept and justifying its application in addressing marine oil pollution.

The conclusion of this article asserts that imposing criminal liability on multinational corporations operating in the oil and shipping industries is a necessary and effective approach to combating marine oil pollution.

### **1. The Necessity of Addressing Marine Oil Pollution through the Criminal Justice System**

The international legal framework for combating marine oil pollution primarily focuses on civil liability and compensation. However, according to the precautionary principle, implementing preventive and deterrent measures to manage and mitigate the risks associated with destructive activities is essential. A sole emphasis on post-incident compensation cannot be an effective solution (Ghanbari Jahromi & Shafiee Bafti, 2016, 56; Marmati et al., 2017, pp. 55-56).

In other words, a liability system can be truly effective only when it simultaneously prioritizes risk reduction and compensation for damages. However, the primary focus should be establishing preventive regulations and reducing risks. In this regard, incorporating specialized mechanisms within the criminal liability system particularly those emphasizing deterrence and punitive measures can significantly contribute to achieving this goal.

#### **1.2 The International Civil Liability Framework**

Compensating victims is undoubtedly a fundamental and crucial issue. However, the civil liability system has failed to operate efficiently and effectively in addressing marine oil pollution. The weak performance of the international civil liability framework and its adverse effects have drawn significant criticism (Heine, G. 2006, p. 41).



The most prominent weaknesses and inefficiencies of the international civil liability system can be summarized as follows:

1. The prohibition of initiating penalties against the charterer, director, or operator while allowing legal action only against the flag state.
2. The right of the flag state to limit its civil liability through insurance mechanisms or collective compensation funds (financed by oil transport recipients).
3. Weaknesses of the International Civil Liability Mechanisms in Preventing Marine Oil Pollution One of the fundamental challenges in the international civil liability system for addressing marine oil pollution is the absence of a direct and identifiable injured party who can initiate legal proceedings (Wilde, M. 2002, p. 38). This issue is particularly evident in cases where pollution occurs in international waters, such as deliberate oil discharges, tanker tank washings, or oil waste disposal, which do not directly impact the coastal zones of any specific country (Ghanbari Jahromi & Shafiee Bafti, 2016, p. 57). Moreover, despite technological advancements in tracking and identifying pollution sources, establishing causality between the pollution and a suspected oil tanker remains challenging. Another significant issue is that the financial losses caused by marine oil pollution may exceed the responsible party's assets, making bankruptcy and inability to pay compensation inevitable. Another problematic practice is the approach oil tanker owners take in setting up "single-ship legal entities,» which enables them to limit their liability to the vessel's value. In many cases, however, the environmental damage caused by marine oil pollution far exceeds the value of single or multiple vessels. This undermines existing compensation mechanisms and highlights the ineffectiveness of the civil liability system in achieving its deterrence objectives (Faure, M. 2010, pp. 161-192). Restricting shipowners' liability and lowering the compensation ceiling for damages reduces

incentives for them to adopt necessary safety measures and risk mitigation strategies. Additionally, in some cases, this system encourages pre-planned bankruptcies, further demonstrating the failure of the civil liability framework to serve as an effective deterrent. Consequently, the current international civil liability system fails to create strong and adequate incentives for ensuring personal accountability in marine oil pollution cases, highlighting the urgent need for reform. In this regard, the European Union's proposals are particularly significant. They include: Imposing unlimited and entire civil liability on shipowners in cases of gross negligence-induced pollution. Restricting the scope of insurance coverage to prevent liability evasion. Eliminating legal barriers that prevent claims against charterers, employers, and ship operators.

These arguments underscore the inadequacy of the international civil liability framework alone and emphasize the necessity of incorporating criminal liability mechanisms alongside it to effectively prevent and combat marine oil pollution. In reality, supporting legal frameworks that promote proactive accountability and prioritize preventive policies over mere compensation is crucial. As a result, integrating the criminal liability system into this framework appears to be inevitable.

## **1.2 Lack of Enforcement of Existing International Criminal Laws and Procedures**

For years, the International Maritime Organization (IMO) has developed international conventions on marine oil pollution, contributing to the evolution of international law in this domain. Some of these conventions focus on compensating victims, while others aim at preventing oil pollution. The MARPOL Convention (Jones, D. W., McEwen, M. L., Obernesser, J. M., & Wojtanik, D. R., 1989, p. 47), adopted between 1973 and 1978, remains the only international convention specifically designed to combat marine oil pollution and prevent its occurrence. Its objectives include



eliminating deliberate discharges of oil and other hazardous substances into the marine environment and minimizing accidental spills.

However, one of MARPOL's fundamental shortcomings lies in its failure to impose criminal penalties on polluters. As a result, a significant portion of pollution sources, such as offshore platforms and marine structures, remain unaddressed, leading to disastrous consequences similar to deep-sea oil well blowouts (Etkin, D. S., & Manor, C., 2003, p. 95).

A common approach to enforcing international conventions, such as MARPOL, requires member states to incorporate these obligations into their domestic legal systems. MARPOL follows this approach by mandating state parties to enact its provisions into national law, prohibiting violations or weakening of its regulations. Member states establish penalties for violations through domestic legislation. However, the type and severity of these penalties are not explicitly defined within the convention, leaving enforcement discretion to individual governments. Consequently, penalties vary across legal systems.

For instance, in some jurisdictions, criminal penalties, including imprisonment, are imposed to ensure compliance with the convention and deter offenders. In practice, however, enforcement has often resulted in financial penalties imposed on seafarers—particularly ship captains in certain maritime incidents involving violations of the convention's provisions (Gundlach, E. R., 2013, pp. 781-808).

This situation has prompted the IMO to adopt resolutions and guidelines to ensure fair seafarers' treatment in maritime incidents, with notable advancements in 2006, 2008, and 2011.<sup>1</sup> These

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<sup>1</sup> . Joint Resolution of the Assembly of the IMO and of the Governing Body of the ILO, IMO Resolution A.987, (24), adopted 1 December 2005; Resolution of the IMO Legal Committee LEG.3, (91), adopted 27 April 2006; Resolution of the IMO Maritime Safety Committee MSC.255, (84), adopted 16 May 2008, & IMO Assembly resolution regarding the fair treatment of seafarers, November 2011.

guidelines call on coastal states, port authorities, flag states, shipowners, and seafarers to ensure fair legal proceedings for seafarers during judicial processes. However, it is important to note that these guidelines are non-binding and lack mandatory enforcement mechanisms.

### **1.3. Legal Challenges in Exercising Jurisdiction over Maritime Areas**

One of the fundamental challenges in combating marine oil pollution is the legal jurisdiction over different maritime zones. While internal waters and territorial seas fall under national sovereignty to a certain extent, the legal status of areas such as contiguous zones, exclusive economic zones (EEZs), international straits, the continental shelf, and the high seas remains complex and ambiguous (Same Source, 2022, p. 60).

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) has taken a more comprehensive approach than the MARPOL Convention in this regard. On the one hand, it prohibits the discharge of pollutants, including oil, beyond national jurisdiction; on the other hand, it reinforces the responsibilities of flag states and port states. For the first time, MARPOL explicitly classifies the deliberate discharge of oil into the sea as a criminal act under Article 4, granting enforcement authority to flag states and competent parties while also obligating them to prosecute offenders (Carasco, 1995, p. 59). However, in practice, these enforcement mechanisms and flag state obligations are often not effectively implemented.

At the same time, UNCLOS has introduced significant milestones in international efforts to prevent and address marine oil pollution through criminal law provisions. This convention strengthens binding enforcement measures, particularly for port and flag states. One of its most important judicial advancements is the extension of enforcement and adjudicative jurisdiction to ports



and coastal states. According to Article 220(1), port states can detain and prosecute foreign vessels suspected of violating national pollution laws within their territorial sea or EEZ. Some legal scholars argue that this approach highlights the failure of flag states to effectively address oil pollution on the high seas, which has led to the recognition of universal jurisdiction under Article 218 of UNCLOS. This provision allows flag states and coastal states to exercise jurisdiction over pollution-related offenses (Zia-Mansoor, F., 2005, pp. 165-173).

The importance of universal jurisdiction in this context stems from ship-generated pollution being a global crisis that cannot be treated as a purely domestic or regional issue. Relying solely on the jurisdiction of individual states to combat this challenge is neither efficient nor effective. Even if states possess the capacity to monitor and mitigate pollution within their EEZs, they cannot unilaterally enforce comprehensive and practical international standards (Marmati et al., 2017, p. 370).

To combat oil discharges in the EEZ and prevent their spread due to weather conditions or ocean currents, special protective measures must be adopted to safeguard the marine environment (Boczek, B. A., 1978, pp. 782-81).

However, many states fail to exercise these broad jurisdictional powers in practice. For instance, Article 218 of UNCLOS, which grants port states the authority to take legal action against oil pollution violations, has rarely been invoked. Some researchers argue that these provisions are more aspirational than effective in practice (Kwiatkowska, B., 1989, pp. 114).

The primary challenge facing the international jurisdictional framework in maritime zones is balancing competing interests, including sovereign rights, enforcement powers, information sharing, international cooperation, and mutual assistance. In other words, ensuring adequate and standardized protection against oil pollution requires strong domestic criminal laws in flag states and

political will. The enforcement of marine oil pollution laws continues to face significant obstacles.

In cases where violations are committed by vessels flying a particular country's flag, the flag state responsible for taking legal action—often avoids prosecution. This reluctance stems from the belief that "the first country to take legal action will bear the greatest costs." Under such circumstances, the jurisdiction of port and coastal states is also limited, as they can only impose financial penalties, which are typically non-negotiable and non-reducible (Heine, 2004, p. 48).

## **2. Achieving a Deterrent Effect**

### **2.1 Lower Probability of Crime Detection and Offender Identification**

Implementing a criminal liability system is essential for effectively combating oil pollution. One of the significant challenges in this area is identifying and prosecuting polluters. Gary Becker's theory provides valuable insights through a cost-benefit analysis of potential offenders' decision-making processes.

According to Becker, individuals evaluate the consequences of their actions before committing a crime, deciding to proceed only when the benefits of the violation outweigh its costs. In the context of marine oil pollution, potential polluters may discharge oil into the sea illegally when the legal costs for proper waste disposal and preventive measures appear higher than the profits gained from the offense (Faure, M., & Visser, M. 1995, 316).

The costs associated with oil pollution can be summarized in two key factors:

1. The probability of detecting, apprehending, and convicting the polluter.
2. The severity and type of punishment imposed upon conviction (Qanbari Jahromi & Shafiee Bafti, 2016, pp. 63-64).



When the likelihood of detection and punishment is low, polluters are more encouraged to commit violations. This underscores the importance of not only having a civil liability framework but also enforcing significant and compelling criminal penalties to reduce and prevent oil pollution.

In many cases of marine oil pollution, the likelihood of apprehending and penalizing offenders is far from guaranteed—in fact, it is often significantly lower than the desired threshold (Weber, J. M., & Crew Jr, R. E. 2000, pp. 161-168). According to Becker's model, sanctions will only serve as an effective deterrent if the costs of the crime exceed its benefits. Achieving this goal requires a criminal liability system, as under a civil liability framework, a polluter is only obligated to compensate for damages without facing additional punitive measures.

This situation highlights the weaknesses of tort law mechanisms, particularly when the likelihood of detecting the crime and identifying the offender is below an optimal level. Under such circumstances, it becomes necessary to impose stricter criminal sanctions rather than relying solely on civil remedies.

## **2.2 Criminal Sanctions**

Effective criminal sanctions can act as a deterrent and contribute to a more efficient system. According to deterrence theory, the severity and swiftness of punishment can help prevent potential crimes. Experts like Zimring and Hawkins emphasize that, "If you do not stand against norm-breaking behavior and allow lawlessness to spread, people's willingness to participate in lawful activities will decline" (Grogger, J. 1991, pp. 297-309).

Penalties are generally determined based on their severity, the level of damage caused, the amount of oil spilled, its environmental impact, and the economic consequences. Economic and behavioral theories together form the foundation of deterrence theory. The economic theory, also referred to as rational choice theory, posits that environmental pollution follows a rational pattern (Ehrlich, I. 1996,

pp. 43-67). This model is based on economic principles, suggesting that profit-driven companies aim to maximize profits while minimizing costs. Under this framework, the environment is perceived solely in terms of the financial burden it imposes on polluters. Therefore, to deter pollution effectively, the costs to polluters must be increased to a point where the financial benefits of committing the violation are no longer justifiable compared to the associated costs.

The primary weakness of the economic theory is its uncertainty regarding whether corporate managers, in their daily operations (such as loading oil tankers), actually align with the rational environmental polluter model. In response, a behavioral model that employs a reward-and-punishment approach raises the question of whether economic actors incorporate rational environmental factors in their decision-making processes. A combined behavioral model, which integrates both incentives and punitive mechanisms, could prove effective in achieving deterrence goals for environmental protection, particularly in combating marine oil pollution.

According to Cohen's formula (1974), the severity of punishment should be proportional to the cost of cleaning up environmental damage and the likelihood of identifying and prosecuting the offender. In other words, the more robust the oversight measures and the harsher the penalties, the lower the rate of pollution incidents. The criminal liability system's unique advantage in combating offshore oil pollution is its ability to impose substantial financial penalties and deprive offenders of their liberty. Under a civil liability framework, offenders may only be compelled to compensate for damages but face no additional consequences.

In contrast, criminal sanctions should be designed to maximize deterrence for potential polluters. Thus, establishing penalties in proportion to environmental damage depends on various factors, including:



- The probability of arrest,
- The extent of damage caused,
- The assets of the polluter,
- The risk of bankruptcy, and
- The costs associated with enforcing the punishment.

It is explicitly stated that «there is no precise cost for preventing crime». Therefore, evaluating environmental crimes involves various elements that enable judges to determine appropriate punishments, emphasizing judicial discretion in selecting and enforcing sanctions.

Experts argue that imposing substantial financial penalties can compensate for the low detection rate and the limited identification of offenders. From an economic theory perspective, monetary penalties are generally preferred due to their lower enforcement costs and their ability to generate public revenue by increasing government budgets (Posner, R. A. 1979, p. 409).

Additionally, since many potential polluters in the oil and shipping industries are multinational corporations, imposing heavy financial penalties can alter their cost-benefit structure, thereby reducing their incentive to violate regulations. As a result, this measure not only promotes justice but also has a deterrent effect in preventing oil pollution.

Criminological studies indicate that fines are the most common penalty for environmental violations, while non-financial punishments, such as imprisonment, are rarely applied and are generally reserved for cases involving severe and widespread environmental damage. A key reason for opposing imprisonment is its high social costs. However, financial penalties also face criticism, particularly in cases where offenders do not face a significant risk of bankruptcy.

When prosecuting and convicting offenders poses a bankruptcy risk, non-financial penalties, such as imprisonment, become

necessary. Another criticism of financial penalties is the possibility that polluters may insure themselves against such fines, undermining the deterrence effect (Polinsky, A. M., & Shavell, S. 1990, p. 44). Theoretically, if financial penalties are excessively increased, it may lead to a diminishing deterrent effect because higher insurance costs could drive offenders to find ways to evade punishment altogether.

When identifying and prosecuting polluters is challenging, and financial penalties alone are insufficient as deterrents, non-financial penalties may serve as a more effective solution. Such measures include:

- Imprisonment for responsible individuals, and
- Confiscation of violating vessels.

Judicial experience, such as a ruling issued by the Hamburg court demonstrates that these types of penalties can have a greater deterrent effect than fines and play a significant role in reducing environmental violations (Coffee Jr, J. C. 1979, p. 419).

Besides imprisonment, other non-financial sanctions can also contribute significantly to deterrence. These penalties are important for two reasons:

1. They impose additional obligations on offenders, increasing the cost of violations and thereby strengthening the deterrent effect.
2. Some of these sanctions facilitate partial environmental restoration, helping to clean up polluted areas.

Thus, combining non-financial penalties with other legal measures can provide an effective strategy for reducing environmental pollution (Doerr, B. H. 1984, p. 659).

Moreover, imprisonment alone does not guarantee environmental restoration. Therefore, additional enforcement measures should be considered, such as:



- Publicizing judicial rulings,
- Forfeiture of illegally gained assets, and
- Confiscation of offenders' property (Bowles, R., Faure, M., & Garoupa, N. 2000, pp. 537-542).

### **3. Shared Criminal Liability**

It is not only individuals who cause marine oil pollution; often, a group of individuals acting on behalf of a company is involved in committing the offense. This pattern highlights that many severe cases of marine oil pollution result from the actions of multinational oil or shipping companies. Consequently, a key question arises: Which liability system applies in this context? Should criminal liability be personal, corporate, or both?

#### **3.1 Criminal Liability of Individuals**

Individual criminal liability, including company executives and agents, is based on the principle that a company's management is entrusted to specific persons who make its decisions. Therefore, the company's illegal actions stem directly from their choices and behaviors, making them criminally liable. Hence, the entire company should not be penalized for the wrongdoing of one or a few individuals.

One of the most significant arguments favoring individual criminal liability is the challenge of effectively monitoring corporations. Additionally, if company employees face the threat of criminal liability, they are more likely to exercise due diligence in their work. Thus, to achieve deterrence, non-monetary penalties such as imprisonment should be imposed on culpable company employees (Sircar, S., & Karjee, K., 2012, p. 359).

However, the individual criminal liability system also has limitations and criticisms. It is important to note that enforcing criminal sanctions to prevent marine oil pollution sanctions which primarily apply to individuals, is often inadequate and insufficient.

In many marine oil spill incidents, liability is primarily placed on ship captains, while the main actors behind these incidents are large multinational corporations with vast financial and human resources. This has resulted in corporations escaping accountability while individuals are identified as the primary culprits and punished. In numerous cases, those convicted are merely the final link in a complex chain, often more in the position of victims than actual offenders. The critical issue here is that the key players in this chain, multinational corporations, remain hidden from scrutiny. At the same time, criminal responsibility is shifted onto individuals who neither significantly profit from marine oil pollution nor contribute to reducing its associated costs (Adiban et al., 2022, p. 23).

Marine oil pollution typically results from multiple acts and omissions by different individuals, ultimately leading to the crime. Consequently, this domain involves both multiple criminal acts and multiple offenders. As a result, the adjudication process requires an approach that goes beyond individual criminal liability.

Perhaps the most appropriate solution is to integrate individual and corporate criminal liability. This does not mean abandoning individual liability; rather, it underscores the necessity of applying both forms of responsibility simultaneously to ensure criminal justice and enhance deterrence.

### **3.2 Corporate Criminal Liability**

In recent years, the general approach to addressing marine oil pollution has increasingly shifted toward holding corporations criminally liable and imposing appropriate and effective criminal sanctions in this field. However, some legal scholars and judicial systems worldwide have rejected this concept, often citing the famous argument: «Corporations have no soul to be influenced and no physical body to be harmed». Historically, corporations, as legal entities, were considered incapable of committing crimes, and there was no possibility of prosecuting or punishing them for criminal or



wrongful conduct. However, this perspective has evolved in recent years. Today, many domestic legal systems recognize corporate criminal liability, and most international conventions emphasize the necessity of establishing and enforcing criminal sanctions against legal entities.

The costs of pollution are, in essence, economic costs imposed by the polluter without yielding any benefits to society. As a result, society must employ specific mechanisms to prevent such costs. One way to address pollution costs is to compel polluters to «internalize external harms<sup>1</sup>». This concept, rooted in economic theory, means that the costs of pollution should be borne by the polluter, not society at large. According to economists, crime is an externality an action through which offenders pursue their preferences (Dau-Schmidt, K. G. 1990, p. 56).

These costs shape individuals' preferences and their responsibility to take precautionary measures. Accordingly, criminal sanctions influence people's behavior toward a specific course of action. The arguments favoring corporate liability for criminal damages are not just legal, but also deeply rooted in economic theories, particularly the «Coase theorem<sup>2</sup>». This theorem, which states that under certain conditions, private parties can solve externalities without government intervention, is a key driver in the push for corporate responsibility in pollution reduction. It suggests that oil companies, employers, agents,

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<sup>1</sup>. **Internalizing Externalities** refers to the process by which the costs resulting from the negative consequences of an economic activity—costs that are imposed on others are returned to the economic agent responsible for them. This is typically achieved through taxes, regulations, or market mechanisms, ensuring that individuals or companies bear full responsibility for the negative impacts of their actions, such as environmental pollution. The objective of this policy is to create incentives to reduce social and environmental harm and to allocate resources more efficiently.

<sup>2</sup>. The **Halting Problem**, introduced by Alan Turing in 1936, states that there is no universal algorithm capable of determining, for any arbitrary computer program and input, whether the program will eventually halt or run indefinitely. This theorem demonstrates that certain computational problems are inherently unsolvable. Turing proved this by contradiction, showing that if such an algorithm existed, it could lead to a logical paradox, and therefore, is impossible. This result holds significant importance in computer science, as it reveals that some problems cannot be solved automatically.

tanker owners, and other potential polluters must take standard and reasonable preventive measures. Pollution reduction is a more efficient means of achieving the ultimate goal of business—maximizing profit. As a result, the relationships formed among these entities are based on reciprocal, bilateral, or multilateral interactions (De Gennaro, 2004, p. 265).

On the other hand, since some legal systems allow fines to be paid by someone other than the offender, there is no strict need to determine the responsible individual in court precisely. Under this approach, a corporation may pay a fine imposed on behalf of its bankrupt employee and later seek reimbursement. Thus, the specific penalties imposed on the corporation or its representatives become less significant because of a contractual and reciprocal relationship between them (Friedman, L. 1999, p. 833). However, this method is not always applicable. A key issue in environmental crime is that when a corporate representative cannot pay a fine or serve a sentence, the responsibility is transferred to the corporation itself (Cohen, M. A. 2001, p.79).

### **3.2.1 Vicarious Liability**

According to formalist legal philosophy<sup>1</sup>, corporations are considered collective entities composed of individuals. In essence, discussions on corporate actions are framed within a limited scope, primarily addressing the actions of individuals within a corporate structure. This means that a corporation within an organization is not considered an independent entity; its criminal liability is secondary and must be established through the liability of specific individuals. This is where the concept of vicarious liability comes into play. Vicarious liability is

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<sup>1</sup>. **Formal Philosophy** refers to a branch of philosophy concerned with the study of logical structures, language, and systems of reasoning, independent of their specific content. This field emphasizes formal methods such as mathematical logic, symbolic notation, and rules of inference, to examine the validity of arguments based solely on their form. Philosophers like Aristotle, through syllogistic logic, and later Gottlob Frege and Bertrand Russell, through modern logic, played a significant role in the development of formal philosophy. This approach also finds applications in various fields such as mathematics, computer science, and linguistics.



a legal principle that holds a party responsible for the actions of a subordinate or associate because of the relationship between the two parties. In the context of corporate criminal liability, an individual must first commit a crime, and then their material and mental elements are attributed to the corporation. Consequently, corporate criminal liability is also negated if individual liability is not established.

The origins of the indirect corporate criminal liability model can be traced to principles rooted in civil law systems (Nanda, V. P. 2010, pp. 605-630). According to these doctrines, «an employer or corporate manager is held responsible for the actions or violations committed by agents within the scope of their employment duties.. Thus, corporate criminal liability implies that a corporation may be held accountable for offenses committed by any of its representatives, provided these acts were carried out within the scope of their duties and for the company's benefit. Fundamentally, to establish corporate criminal liability, the following elements must be proven:

**A) The Agent Commits a Crime within the Scope of Employment**

Under this model, corporations, as legal entities, are considered incapable of possessing criminal intent. As a result, they cannot be directly held responsible for committing a crime. Instead, courts view corporate agents as intermediaries through whom criminal intent and actions are attributed to the legal entity. This concept of corporate criminal liability, which is a key aspect of corporate law, requires that an agent commits an unlawful act within the scope of their employment and exercises delegated authority from the corporation. This condition applies solely to the corporate representative who is the actual actor behind the conduct (Carrasco, C. E., & Dupee, M. K. 1999, p. 445).

**B) The Agent Acts for the Benefit of the Corporation**

The second criterion requires that the agent's actions be directed toward benefiting the corporation. Some legal scholars argue that achieving this objective does not necessitate the corporation gaining an advantage; instead, the agent's intent to benefit the corporation

suffices (Weissmann, A. 2007,1319). Furthermore, it is unnecessary to establish that the agent initially intended to secure a profit for the corporation when committing the unlawful act. If it is determined that the corporation derived a benefit from the agent's conduct—even if the agent was simultaneously pursuing personal gains through criminal activities—this is sufficient to establish corporate criminal liability.

The criminal liability attribution model is divided into two sub-models:

- **Strict Liability Model:** Under this approach, the actions and intentions of all corporate representatives, regardless of their hierarchical position, can be attributed to the corporation. This model is rooted in a holistic perspective, viewing the corporation as a single entity (Foerschler, A. 1990, p.1287).
- **Identification Model:** This approach attributes liability based on the actions and intent of key corporate representatives who are considered the corporation's "directing mind and will." Generally, senior executives and decision-makers responsible for corporate policies fall within this category (Ghanbari Jahromi & Shafiee Bafti, 2016, p. 68). The identification model originates from an atomistic perspective, conceptualizing the corporation as a collective of individuals.

A fundamental criticism of the vicarious liability model is that, for a corporation to be held criminally liable, a specific individual must first be identified as having committed a criminal act. However, identifying the culpable individual may be difficult or even impossible in complex organizational structures with ambiguous or diffused responsibilities. This challenge underscores the complexity and intricacy of the corporate criminal liability legal framework, adding depth to the discussion.



### 3.2.2) Realistic Approach – Corporate Responsibility Model

Additionally, a corporation may be held criminally liable even when an employee has acted independently, under the mistaken assumption that their conduct fell within the scope of their organizational duties. This possibility of unexpected outcomes further complicates the legal landscape.

The primary function of organizational theory<sup>1</sup> is to provide a framework that allows corporations to be directly regarded as entities with intent and motivation. This theory, based on empirical evidence, suggests that corporate systems themselves, independent of individual actors, can generate criminal behavior. The hypothesis is that corporate structures create incentives for management that treat specific individuals as disposable assets, holding them accountable for corporate actions. Importantly, corporate policies, often implicitly, may encourage unlawful behavior, thereby making it difficult or even impossible to prosecute individuals for crimes committed by corporate representatives in pursuit of the company's interests. Some reports indicate that, in some instances, corporations deliberately use human resources as scapegoats, sending employees to prison on behalf of executives or board members (Schrager, L. S., & Short Jr, J. F. 1978, pp. 407-419).

In today's world, corporations should not be viewed merely as a collection of individuals. Instead, they possess an independent identity distinct from their members. Just as a house is more than a mere

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<sup>1</sup>. **Organizational Theory:** A Conceptual Framework for Understanding Organizations

Organizational theory is a set of concepts and frameworks that examine the structure, functioning, and dynamics of organizations. It seeks to explain how organizations form, grow, evolve, and interact with their environment. Various approaches exist within this field, including:

- Classical Theory, which focuses on hierarchy and efficiency
- Neoclassical Theory, which emphasizes human relations
- Systems Theory, which views organizations as open systems interacting with their surroundings
- Institutional Theory, which explores the influence of norms and culture on organizations

The primary goal of organizational theory is to enhance our understanding of management and leadership strategies to improve organizational efficiency and effectiveness.

assemblage of wood and construction materials, or an army is more than a group of soldiers, a corporation is more than a gathering of individuals. In some situations, the structural complexity of corporations makes it difficult if not impossible to identify the individuals responsible for misconduct. A hybrid approach, combining individual and organizational criminal liability, appears to offer an effective way to establish corporate accountability. By leveraging their workforce, large corporations have created conditions that facilitate misconduct. The simultaneous adoption of individual and corporate criminal liability is not just crucial but urgent in protecting the environment, upholding environmental values, and preventing and combating oil pollution in marine ecosystems.

#### **4. Conclusion**

Marine oil pollution remains one of the most severe environmental threats to oceans and coastal ecosystems, often causing irreversible damage to marine biodiversity, fisheries, and the livelihoods of coastal communities. The international legal framework—primarily shaped by conventions such as MARPOL 73/78, the United Nations Convention on the Law of the Sea (UNCLOS), and the International Convention on Civil Liability for Oil Pollution Damage (CLC)—has progressively evolved to address both preventive and punitive dimensions of this challenge.

From the perspective of international law, criminal liability has emerged as an essential complement to civil and administrative mechanisms. While historically focused on states and shipowners, recent developments underscore the importance of individual and corporate accountability, particularly for negligent or willfully harmful conduct. The trend toward recognizing corporate criminal liability, as seen in regional frameworks such as the European Union directives, reflects a broader understanding that environmental harm often results from systemic corporate behavior rather than isolated individual actions.



Nonetheless, gaps persist in the uniformity and enforceability of such liabilities across jurisdictions. Many countries lack the necessary domestic legislation to criminalize marine pollution effectively, or face challenges in holding transnational corporations accountable due to jurisdictional limitations and evidentiary burdens. Therefore, harmonization of criminal standards, capacity-building for enforcement agencies, and stronger cooperation mechanisms among flag, coastal, and port states are imperative.

In addition Multinational corporations engaged in oil exploration, extraction, and transportation wield substantial financial and human resources, with their primary objective being profit maximization and cost reduction. However, their operations pose significant and often irreversible risks to communities, individuals, and the environment. To date, liability mechanisms have not demonstrated sufficient effectiveness in preventing and controlling this challenge.

In strict liability frameworks, the concepts of risk and compensation are inherently linked. Thus, implementing criminal liability mechanisms emphasizing prevention and deterrence through compensatory measures appears unavoidable. As transnational corporations expand, their growth must be accompanied by advancements in criminal law frameworks. Given the strategic goals of promoting corporate citizenship and the influence of corporate policies and decisions, especially in the transportation and oil industries, criminal law must adopt innovative approaches. Employing collective liability mechanisms and integrating individual and corporate criminal liability could be an effective strategy for controlling and preventing oil pollution in marine environments.

Ultimately, strengthening the criminal liability of individuals and corporations under international law not only enhances deterrence but also reinforces the ethical principle of environmental stewardship. Ensuring that those who pollute the marine environment—whether through negligence or corporate policy—face proportionate criminal sanctions is vital for the credibility and effectiveness of global environmental governance.

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*Mohammadmehdi Barghi, Mohammadreza Ganjkhanlo, Amirhossein Abasi*

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*Mohammadmehdi Barghi, Mohammadreza Ganjkanlo, Amirhossein Abasi*

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