

## ARTICLE

# *Transversal Harm, Regulation, and the Tolerance of Oil Disasters*

Andreas Kotsakis\*  and Avi Boukli\*\* 

---

First published online 23 November 2022

### Abstract

Law – through regulation, criminalization and litigation – provides key mechanisms for mitigating the harmful effects of oil disasters. At the same time, these mechanisms also enable the perpetuation of oil disasters under an extractivist imperative. This disaster tolerance is the point of departure for this article’s examination of the legal response to the 2010 Deepwater Horizon disaster over the last decade. Based on a methodology that combines a social harm approach with the political ecology of Felix Guattari, we firstly present a reconceptualization of harm inflicted by oil corporations across three registers: environment, society, and subjectivity. We subsequently introduce the concept of transversal harm, which allows us to move beyond the criminal and civil damage of corporate crime and negligence and to capture the collective and continuous impact of oil extractivism, as opposed to the exceptional impact of oil disasters. Transversal harm opens new avenues for assigning corporate responsibility and reducing disaster tolerance as the by-product of environmental law.

**Keywords:** Oil regulation, Disaster tolerance, Social and environmental harm, Corporate liability, Deepwater Horizon, Felix Guattari

## 1. INTRODUCTION

Oil spills are human-made disasters. Driven by extractivism and economic reliance on fossil fuel extraction, they cause significant harm to marine life and coastal ecosystems.

---

\* Oxford Brookes University, Oxford (United Kingdom (UK)) and University of Kent, Canterbury (UK).

\*\* The Open University, Milton Keynes (UK) and University of Southampton, Southampton (UK).

Email: [A.Kotsakis-2063@kent.ac.uk](mailto:A.Kotsakis-2063@kent.ac.uk).

Email: [a.p.boukli@soton.ac.uk](mailto:a.p.boukli@soton.ac.uk).

The authors would like to thank the anonymous reviewers and Flora Renz for their insightful comments and suggestions that have greatly improved the manuscript. We would also like to thank our copy-editor Marie Selwood for her assistance in manuscript preparation. Competing interests: The authors declare none.

Dramatic pictures of oil-covered beaches, birds and marine animals are powerful visual representations of the environmental harm inflicted. As chronicled in news media reports to documentaries and a box office film, the 2010 Deepwater Horizon oil disaster was an oil spill of historic scale. Not only has it been characterized as ‘the worst environmental disaster in America’ and ‘the most serious corporate crisis in the oil industry after Exxon (1989) and Shell (1995)’;<sup>1</sup> it was also a media spectacle.<sup>2</sup> The United States (US) President underlined that ‘the millions of gallons of oil that have spilled into the Gulf of Mexico are more like an epidemic, one that we will be fighting for months and even years’.<sup>3</sup> The US government came down on British Petroleum (BP) and its North American subsidiaries, the primary bearers of corporate responsibility for the oil spill. Historic fines, costly compensation schemes, suspensions, probation, and settlements swiftly followed, the details of which are discussed in Section 2 of this article.

Though unique in its visibility and scale, Deepwater Horizon was not an isolated event. In fact, oil spills are perennial disasters, which are strangely tolerated, portrayed almost like unavoidable natural disasters that one simply has to live with. While the US has limited the possible areas by prohibiting drilling offshore, in national parks, in Native American land, and in other protected areas, the centrality and necessity of oil (and oil companies) remains largely unaffected, given the imperative to extract. Hence, disaster mitigation slips into disaster tolerance. Despite its track record, BP currently operates four production hubs and controls 290 lease blocks in the US Gulf of Mexico alone.<sup>4</sup>

It is this fatalism and this practice of disaster tolerance that is the point of departure for our investigation. Extractivism is often applied to the periphery, a governmental rationality of ‘developing countries’, the Middle East or other ‘economies in transition’.<sup>5</sup> Yet, we contend, the response to Deepwater Horizon demonstrates that extractivism is deeply embedded everywhere, in both the metropole and the periphery, in our mentalities and unconsciousness. We are not coming to terms with the full embeddedness of oil nor with the vast political economy surrounding oil corporations – transnational, state-owned and their variations. In fact, their operations, technologies, and finances are obscured by discussions of the resource curse and ‘oil states’.<sup>6</sup> Given the violence, displacement, dependency, and poverty implicated in the latter, this multitude of varied harms is not to be lightly disregarded. This article contends, however, that there is room for understanding the damage inflicted by

<sup>1</sup> J. Kleinnijenhuis et al., ‘The Mediating Role of the News in the BP Oil Spill Crisis 2010: How U.S. News Is Influenced by Public Relations and in turn Influences Public Awareness, Foreign News, and the Share Price’ (2015) 42(3) *Communication Research*, pp. 408–28.

<sup>2</sup> G. Kassinis & A. Panayiotou, ‘Visuality as Greenwashing: The Case of BP and Deepwater Horizon’ (2018) 31(1) *Organization & Environment*, pp. 25–47.

<sup>3</sup> ‘Full Text of President Obama’s BP Oil Spill Speech: Address to the Nation’, *Reuters*, 15 June 2010, available at: <https://www.reuters.com/article/us-oil-spill-obama-text-idUSTRE65F02C20100616>.

<sup>4</sup> BP Plc, ‘Energy with Purpose: Annual Report 2019’, Mar. 2020, p. 303, available at: <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form-20f-2019.pdf>.

<sup>5</sup> J. Ferguson, ‘Seeing Like an Oil Company: Space, Security and Global Capital in Africa’ (2005) 107(3) *American Anthropologist*, pp. 377–82.

<sup>6</sup> M. Watts, ‘A Tale of Two Gulfs’ (2012) 64(2) *American Quarterly*, pp. 437–67; M. Watts, ‘Oil Talk’ (2013) 44(4) *Development and Change*, pp. 1013–26.

these corporations in a more complex way than the behemoth of ‘Big Oil’ consuming poor states plagued by extractivist rationalities.

The agitation of this realization surrounding oil is soothed by legal instruments and compensation schemes. It appears still to this day that finding alternatives to fossil fuels, and hence mass oil disasters, is harder and less attractive than engaging in denial, minimization, and ‘neutralization’<sup>7</sup> of the scale and significance of the harm inflicted. Law, in the form of regulation, criminalization and litigation, provides essential instruments for this neutralization by attempting to mitigate some harmful effects while leaving others intact. In this way, by enhancing our capacity to tolerate disasters by managing their harm, law is able to provide the structural underpinning for the continuation of the extractivism-infused relation between oil and society, a relation that is maintained while oil continues to spill at the societal fringes.

We start with the soothing, but ultimately empty, words offered by the US President regarding the Gulf oil disaster, and we take in earnest his proposed task of responding to oil disasters on the basis that they constitute an ‘epidemic’ rather than isolated events or disasters. Our response, outlined in this article, is that we do indeed need to acknowledge an epidemic of harm that goes beyond the environmental harm of oil-soaked beaches and marine animals, shocking as these visuals and disastrous effects may be. We do need to acknowledge the pervasiveness and multiplicity of harms that exposes the global dependence on oil and the rationality of extractivism.

To support and provide evidence for this claim, this article presents the legal response to the Deepwater Horizon disaster, followed by a reconceptualization of the multiple harms inflicted by oil spills, both criminalized and non-criminalized, as well as those inflicted by the culture of tolerance of oil spill epidemics. We use the contrast between legal and social harm analysis to construct an original and much-needed contribution to the expanding field of corporate responsibility for environmental and climate damage.<sup>8</sup> In terms of methodology, this contribution is based on a combination of a ‘green’ social harm approach, which considers diverse types of harm proliferated by socially injurious institutions, such as oil companies, with the political ecology of Felix Guattari and, in particular, his concepts of the three ecologies and transversality. From these concepts, we develop the concept of transversal harm as a way of understanding the relation between pervasive harm and disaster tolerance.

The article proceeds as follows. Section 2 presents a legal map of the Deepwater Horizon oil disaster, the legal proceedings that emerged from this event, and the

<sup>7</sup> G.M. Sykes & D. Matza, ‘Techniques of Neutralization: A Theory of Delinquency’ (1957) 22(6) *American Sociological Review*, pp. 664–70.

<sup>8</sup> M. Bowman & A.E. Boyle (eds), *Environmental Damage in International and Comparative Law: Problems of Definition and Valuation* (Oxford University Press, 2002); M. Kuntz, *Conceptualising Transnational Corporate Groups for International Criminal Law* (Nomos, 2017); D.M. Ong, ‘Regulating Environmental Responsibility for the Multinational Oil Industry: Continuing Challenges for International Law’ (2015) 11(2) *International Journal for Law in Context*, pp. 153–73; T.J. Schoenbaum, ‘Liability for Damages in Oil Spill Accidents: Evaluating the USA and International Law Regimes in the Light of Deepwater Horizon’ (2012) 24(3) *Journal of Environmental Law*, pp. 395–416; S. Varvastian & F. Kalunga, ‘Transnational Corporate Liability for Environmental Damage and Climate Change: Reassessing Access to Justice after *Vedanta v. Lungowe*’ (2020) 9(2) *Transnational Environmental Law*, pp. 323–45.

liabilities of BP as the primary private economic actor involved in the case. Although a number of private actors were involved in this offshore oil-drilling project, the article focuses on BP as the primary responsible party, following the legal proceedings and enforcement actions stemming from the disaster. Section 3 re-examines the disaster from a social harm perspective, cataloguing the new and multiple harms spawning from the disaster itself, as well as from the legal response, and exposing limitations of legal thought and practice in relation to altering or expanding BP's responsibility, or enabling wider legal or structural policy reforms. In Section 4, building on Felix Guattari's conceptual framework of the three ecologies, we propose the new concept of transversal harm as a way to conceptualize the broader pervasiveness of harm created by oil corporations. Transversal harm transforms the abstract narrative of oil disasters as an epidemic into a material reality. By moving past the criminal and civil damage of corporate crime and negligence already captured by law and regulation, the concept allows for a fuller examination of the overall harm of the operation of these oil corporations, and opens a path towards challenging the cycle of enforcement and disaster tolerance.

## 2. BP'S LEGAL LIABILITIES FROM THE DEEPWATER HORIZON DISASTER

On 20 April 2010, an explosion at the Deepwater Horizon offshore oil-drilling unit, located off the coast of Louisiana in the Gulf of Mexico, resulted in the platform being engulfed in flames and ultimately sinking. Eleven crew members were killed, and oil flowed uncontrollably from the exploratory Macondo well for 87 days. The well was 'effectively sealed' on 19 September 2010,<sup>9</sup> but not before 4.9 million barrels (205.8 million gallons) of crude oil were released into the sea,<sup>10</sup> making the Gulf oil disaster the largest marine oil spill in history.

BP, through a series of US-based subsidiaries, was the primary leaseholder of the Macondo oil well and owner/operator of the facility, although other corporations were also involved in the drilling, construction, and operation of the platform, as either joint venture partners or contractors.<sup>11</sup> From the outset, it became apparent that the company faced mass litigation and significant legal liabilities, which, in turn, became significant financial liabilities in the shape of various fines, penalties, and compensation payments. This is in addition to the total clean-up costs of the disaster itself, which amounted to US\$14 billion.<sup>12</sup>

<sup>9</sup> National Oceanic and Atmospheric Administration, US Coast Guard and National Response Team, 'On Scene Coordinator Report, Deepwater Horizon Oil Spill: Submitted to the National Response Team, September 2011', p. 2, available at: <https://repository.library.noaa.gov/view/noaa/283>.

<sup>10</sup> *Ibid.*, p. 33.

<sup>11</sup> Anadarko Petroleum (US) and MOECO (Japan) were the other two partners in the joint venture. Transocean (Switzerland) was the drilling contractor, with Halliburton (US) also contracted for specialist cement and mud services. The platform itself was leased from Triton Asset Leasing (Switzerland).

<sup>12</sup> J.R. Ramseur, 'Deepwater Horizon Oil Spill: Recent Activities and Ongoing Developments', Congressional Research Service Report R42942, 17 Apr. 2015, available at: <https://crsreports.congress.gov/product/pdf/R/R42942>.

### 2.1. *Criminal Liabilities*

In 2013, BP Plc reached a settlement with the US Department of Justice and accepted criminal responsibility on 14 counts for its conduct leading to and after the 2010 Deepwater Horizon disaster.<sup>13</sup> The guilty plea included 11 felony manslaughter charges, one felony obstruction of Congress charge for intentionally misleading statements from its representative regarding the size of the oil spill,<sup>14</sup> and two environmental crimes of negligent discharge of oil and the unlawful taking of birds<sup>15</sup> under, respectively, the Clean Water Act (CWA)<sup>16</sup> and the Migratory Bird Treaty Act (MBTA).<sup>17</sup>

BP accepted the negligence of the two site supervisors in causing the deaths of 11 people on the platform, as well as their failure to accept the clear test results that indicated that the well was not constructed securely, a defect which eventually caused the blowout.<sup>18</sup> This acceptance also became a factor in the findings of gross negligence and wilful misconduct in the civil trial. The plea agreement required payment of US\$4 billion in criminal fines, penalties, and restitution – the largest criminal resolution in US history at the time.<sup>19</sup> It also imposed the statutory maximum of five years' probation, during which BP was to be monitored and required to enhance its safety and risk procedures.<sup>20</sup>

The plea agreement was perceived to be in line with the gravity of the disaster:

[It] imposes severe corporate punishment, appropriately reflects the criminal history of other companies within the BP group of companies, the serious nature of the instant offenses, and the impact of the Macondo blowout and spill on the Gulf Coast and our nation as a whole.<sup>21</sup>

The Attorney General described the guilty plea as 'a significant step forward in the Justice Department's ongoing efforts to seek justice on behalf of those affected by one of the worst environmental disasters in American history'.<sup>22</sup>

### 2.2. *Civil Liabilities*

There were multiple legal bases for BP's civil liabilities: the 1972 CWA, the 1990 Oil Pollution Act (OPA),<sup>23</sup> general maritime law, as well as tort law provisions from all five US states affected by the disaster. Claimants included private parties, the US federal and state governments, and the US Environmental Protection Agency (EPA). There

<sup>13</sup> *United States v. BP Exploration and Production Inc.*, No. 12-292-SSV-DEK (E.D. La. 2013) (*US v. BP*).

<sup>14</sup> *Ibid.*, p. 5.

<sup>15</sup> *Ibid.*, p. 4.

<sup>16</sup> CWA, 33 U.S.C. § 1251.

<sup>17</sup> MBTA, 16 U.S.C. § 703.

<sup>18</sup> *US v. BP*, n. 13 above.

<sup>19</sup> *Ibid.*, p. 3.

<sup>20</sup> This monitor would be the US EPA, as explained in Section 2.4 below.

<sup>21</sup> *US v. BP*, n. 13 above, pp. 2–3.

<sup>22</sup> US EPA, 'Summary of Criminal Prosecutions', 2013, available at: [https://cfpub.epa.gov/compliance/criminal\\_prosecution/index.cfm?action=3&prosecution\\_summary\\_id=2468](https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2468).

<sup>23</sup> OPA, 33 U.S.C. § 2701.

were claims for clean-up costs, natural resource damage and restoration by the relevant public authorities, and claims by private parties (individuals and businesses) for personal injury, damage to property, and economic loss. These claims were eventually transferred to the US District Court for the Eastern District of Louisiana and consolidated as Multidistrict Litigation (MDL) No. 2179.<sup>24</sup> The judgment of ‘phase one’ of the trial was delivered in 2014; this conclusively established the facts regarding the causes of the explosion and subsequent spill, and presented a detailed timeline of the whole event.<sup>25</sup> Building on the criminal case and its plea agreement, the Court found BP culpable and liable for multiple civil offences, standards violations, and breaches of duty.

Regarding the violations of water pollution standards under the US CWA of 1972, the Court found that BP met the thresholds of both gross negligence and wilful misconduct in relation to its operation of the oil platform.<sup>26</sup> The Court’s pointed statements regarding the ‘recklessness’<sup>27</sup> in the administering and erroneous interpretation of the negative pressure test, as well as in subsequent decisions to proceed as if the test was successful, are quite damning of the lack of safety culture, which was also highlighted in the criminal case.<sup>28</sup> The Court further noted that the challenging geological conditions for drilling the Macondo well, such as the sea depth at the site, as well as generally the conditions of any offshore oil and gas drilling operation, had imposed on BP a higher standard and duty of care in terms of risk and safety protocols, as a result of the potential magnitude of harm resulting from an accident. The corporation was found to have failed to discharge this duty of care.<sup>29</sup> Referring to BP’s actions, the Court defined its gross negligence as ‘an extreme departure from the care required under the circumstances or a failure to exercise even a slight care’.<sup>30</sup> Arguably, the 2014 judgment created a precedent whereby ‘when a decision is made to depart from an “accepted practice” only to save time and money, and cannot be justified on any technical or “operational” ground, the decision may well be found to be unreasonable and a breach of the standard of care required’.<sup>31</sup>

This was also the first case of major oil pollution damage from an offshore facility to be judged under the OPA. The Court found that BP was a ‘responsible party’ for the facility’s oil discharge and thus for any removal costs incurred by federal, state, and

<sup>24</sup> *In re: Oil Spill by the Oil Rig ‘Deepwater Horizon’ in the Gulf of Mexico, on April 20, 2010*, 148 F. Supp. 3d 563 (E.D. La. 2015) (*Deepwater Horizon*).

<sup>25</sup> *Ibid.*, paras 11–111.

<sup>26</sup> *Ibid.*, paras 11–111 and para 499, respectively.

<sup>27</sup> *Ibid.*

<sup>28</sup> D.A. Farber, ‘Paying the Price for Environmental Disaster: An Interim Report on Criminal and Civil Liability’ (2014) 1 *University of Illinois Law Review Slip Opinions*, pp. 9–17; D.M. Uhlmann, ‘After the Spill is Gone: The Gulf of Mexico, Environmental Crime, and the Criminal Law’ (2011) 109(8) *Michigan Law Review*, pp. 1413–61.

<sup>29</sup> K. Van Hende & A. Wawryk, ‘Gross Negligence under the US Clean Water Act and General Maritime Law: In re: Oil Spill by the Oil Rig “Deepwater Horizon” in the Gulf of Mexico, on April 20, 2010, (MDL 2179)’ (2014) 28(2) *Australian and New Zealand Maritime Law Journal*, pp. 122–36.

<sup>30</sup> *Deepwater Horizon*, n. 24 above, para. 483.

<sup>31</sup> Van Hende & Wawryk, n. 29 above.

local government, as well as for subsequent damages resulting from this discharge. The OPA imposes a strict liability with a cap of US\$75 million, which BP had already waived in June 2010 a few months after the disaster and before the start of legal proceedings. However, the Court ruled that violation of federal regulations did constitute ‘the violation of an applicable safety, construction or operating regulation’ by the responsible party, BP, which would have removed the limitation on liability in any event.<sup>32</sup>

A third category of civil liability was based on maritime law, given that the tort of negligence occurred within the navigable waters of the US. BP’s conduct was also found to be reckless under maritime law, and a ‘substantial cause’ of the disaster.<sup>33</sup> BP was found to be jointly at fault for the disaster with other companies, but apportioned the majority (67%) of liability under this area of law.<sup>34</sup> The recklessness was serious enough to warrant exemplary and punitive damages, which were only prevented by the Court confirming existing maritime law precedent that prevented the award of such additional damages, unless the ‘operational recklessness and wilful disregard ... emanate from corporate policy or that a corporate official with policy-making authority participated in, approved of, or subsequently ratified the egregious conduct’.<sup>35</sup> This was the only area where BP escaped financial liabilities.

In all other respects the combined findings of gross negligence, wilful misconduct, and a pattern of violations of federal regulations and breaches of duties of care meant that BP became liable for both the maximum amount of civil penalty under the CWA, as well as uncapped compensatory damages under the OPA. Given this outcome, in 2015, BP reached a settlement with all public parties, including the EPA, local, state, and federal governments for US\$20.8 billion, in order to prevent the continuation into phase two of the trial. This was, at the time, the ‘largest settlement with a single entity’ in the US Justice Department’s history,<sup>36</sup> with the majority being used for restoration efforts around the Gulf region.

Thousands of claims by private parties, mostly residents and businesses in the region, were generated. Under strong pressure from the US government, a private compensation mechanism was instituted by BP a few weeks after the blowout and ran until August 2010. This was followed by the Gulf Coast Claims Facility (GCCF), a compensation fund of US\$20 billion, set up by BP.<sup>37</sup> In addition to this extra-judicial, private compensation mechanism, BP settled the class action of MDL No. 2179 without a financial limit. Consequently, there were two additional court-supervised settlement

<sup>32</sup> *Deepwater Horizon*, n. 24 above, para. 602.

<sup>33</sup> Van Hende & Wawryk, n. 29 above, p. 134.

<sup>34</sup> *Deepwater Horizon*, n. 24 above, para. 543.

<sup>35</sup> *Ibid.*, para. 563; specifically, *In the matter of P&E Boat Rentals*, 872 F 2d 642, 652–53 (5th Cir., 1989).

<sup>36</sup> US Department of Justice, Office of Public Affairs, ‘U.S. and Five Gulf States Reach Historic Settlement with BP to Resolve Civil Lawsuit over Deepwater Horizon Oil Spill’, *Justice News*, 5 Oct. 2015, available at: <https://www.justice.gov/opa/pr/us-and-five-gulf-states-reach-historic-settlement-bp-resolve-civil-lawsuit-over-deepwater>.

<sup>37</sup> C. McDonell, ‘The Gulf Coast Claims Facility and the Deepwater Horizon Litigation: Judicial Regulation of Private Compensation Schemes’ (2012) 64(3) *Stanford Law Review*, pp. 765–95.

programmes for economic losses and medical costs: the Economic and Property Loss Settlement Agreement, and the Medical Benefits Settlement Agreement. These court-supervised settlement programmes processed around 400,000 claims.

### 2.3. *Liabilities to Shareholders and Investors*

BP is also a listed company, and its actions leading to and after the disaster resulted in claims and charges in relation to this status. Thus, a legal basis for further legal liabilities arising from Deepwater Horizon was the violation of the Securities and Exchange Act of 1934.<sup>38</sup> The Securities and Exchange Commission (SEC) levelled charges of security fraud at BP for making fraudulent statements regarding the oil flow from the well in the early days of the disaster, while at the same time having internal knowledge that the flow was higher. These charges extended to standing by such statements and criticizing higher third-party estimates of the oil flow as scaremongering. Another acceptance of charges and a settlement, to the tune of US\$525 million, ensued.<sup>39</sup> This was ‘only’ the third largest penalty in the agency’s history.<sup>40</sup>

Because of these fraudulent statements and their effect on share prices, BP was subject to claims by private investors that were grouped under another MDL (No. 2185).<sup>41</sup> BP settled in 2014 for US\$175 million. In addition, foreign institutional investors filed claims against the company, blaming BP’s poor safety culture and decisions in relation to the construction of the well for a loss of share value that reached 50% at the height of the crisis.<sup>42</sup>

### 2.4. *BP’s Suspension and the EPA Administrative Agreement*

As a result of its various failures, violations, breaches, and convictions enshrined in the series of judgments, orders, and settlements, BP and its various North American subsidiaries were suspended by the EPA from pursuing new federal contracts and leases,<sup>43</sup> although the company’s existing contracts and leases were not affected. In order to resolve these suspensions, BP entered into an administrative agreement with the EPA in 2014.<sup>44</sup> The supervision period under the agreement lasted for five years, until 2019, with the EPA managing the monitoring process.<sup>45</sup>

<sup>38</sup> 15 U.S.C. §78a.

<sup>39</sup> *SEC v. BP Plc*, Case No. 2:12-cv-02774 (E.D. La. 2012).

<sup>40</sup> US SEC, ‘BP to Pay \$525 Million Penalty to Settle SEC Charges of Securities Fraud during Deepwater Horizon Oil Spill’, Litigation Release No. 22531, 15 Nov. 2012, available at: <https://www.sec.gov/litigation/litreleases/2012/lr22531.htm>.

<sup>41</sup> *In re BP Plc Securities Litigation*, 734 F. Supp. 2d 1376 (J.P.M.L. 2010).

<sup>42</sup> J. Williams, ‘European Managers, UK Pension Fund Sue BP over Deepwater’, *IPE Magazine*, 6 Sept. 2021, available at: <https://www.ipe.com/european-managers-uk-pension-fund-sue-bp-over-deepwater/47273.article>.

<sup>43</sup> US EPA, ‘Notice of Suspensions’, 28 Nov. 2012, available at: <https://www.contractorsperspective.com/wp-content/uploads/sites/649/2013/02/bp-suspension-112812.pdf>.

<sup>44</sup> US EPA Archive Document, ‘Before the United States Environmental Protection Agency’, EPA 20460, 13 Mar. 2014, available at: <https://archive.epa.gov/emergency/bpspill/web/pdf/bpadmin-agreement-mar-13-2014.pdf>.

<sup>45</sup> *Ibid.*, pp. 11–4.

Under the terms of this agreement, BP agreed to comply with the terms of the criminal probation imposed under the plea agreement in 2013, as well as the SEC Judgment Order of 2012. Conditions included oversight by ‘a process safety monitor charged with further enhancing BP’s process safety and risk management procedures to prevent future harm to persons, property, and the environment’.<sup>46</sup> Further, ‘BP must also utilize a separate ethics monitor charged with improving BP’s code of conduct to help to prevent future criminal or ethical violations in BP’s dealings with regulatory and enforcement authorities’.<sup>47</sup> Obligations – in terms of developing, certifying, and monitoring an internal code of conduct, and taking steps to improve the defective corporate culture of its US subsidiaries – were imposed by ‘maintaining policies and/or standards and control processes designed to prevent, detect, and remediate unethical or illegal conduct’.<sup>48</sup> The agreement also mandated similar changes to corporate governance and regulatory compliance with process safety standards. The amount of external auditing and monitoring mandated by the agreement indicates the problematic state of BP’s overall corporate culture.

### 2.5. *Summary of Legal Response*

Faced with the full regulatory and enforcement apparatus of the US, BP accepted multiple forms of liability, swiftly settled cases in a shorter time span compared with other oil disasters, and instituted a significant private, extra-judicial compensation scheme for Gulf residents and businesses: the aforementioned GCCF. This is a markedly different response from the gruelling 20-year litigation that followed the Exxon Valdez disaster, which was of a comparable but ultimately a lesser scale.

The total cost of the BP Gulf disaster for BP is roughly estimated to be in the range of US\$65–70 billion, with the claims process not yet completed, despite the various settlements. This includes the US\$20 billion settlement regarding civil liabilities towards US states and the federal government, US\$4 billion in penalties for the criminal liabilities accepted under the plea agreement, US\$20 billion for the initial claims facility for individuals and small businesses affected by the oil spill, with the remaining sum used for the clean-up of the oil spill and the settlement of pending claims by the court-supervised settlement programme.

In 2019, BP’s annual report still had a section on pending legal proceedings and settlements from the Deepwater Horizon oil spill, but its chief executive officer claimed that BP is now a ‘safer, stronger and more disciplined company’.<sup>49</sup> The response to the Deepwater Horizon disaster exemplifies what is considered international best practice within the limitations of the law of responsibility for transnational oil companies.<sup>50</sup> When multinational oil companies have engaged in comparable disastrous and criminal behaviour in jurisdictions with reduced regulatory and judicial capacity, their

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

<sup>48</sup> Ibid.

<sup>49</sup> BP Annual Report, n. 4 above, pp. 319–20.

<sup>50</sup> Ong, n. 8 above.

response has been strikingly different. For example, the Deepwater Horizon practice can be easily contrasted with the decades-old struggle to engage Shell (among other oil companies) in the context of oil spills in the Niger Delta,<sup>51</sup> which has produced far less beneficial outcomes for the local residents and the Nigerian state. We therefore consider the response of both the United States and BP to the Gulf disaster to be a reflection of the relation between corporations and the state in the US, rather than a reflection of the state of environmental responsibility of the oil industry more generally. This model of corporation–state relations, moreover, is unlikely to be replicable around the world and/or in different political contexts. In addition, BP’s response to the Gulf disaster prevented the further development of the law relating to such oil disasters and corporate responsibility, which have become considered best practices and followed or ‘transplanted’ elsewhere.

It should be noted that both the CWA and the OPA, applied in the civil case against BP, were at least partly the results of earlier oil spills and disasters. For the former, it was the 1969 Santa Barbara Oil Spill; for the latter, it was the more well-known Exxon Valdez disaster of 1989.<sup>52</sup> Despite the BP Gulf disaster trumping these events in terms of oil pollution and environmental impact, the statutory effect was not as radical. The Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE) Act was passed in 2012,<sup>53</sup> but this did not constitute any far-reaching reform of environmental laws and standards akin to the previous two Acts. It simply aimed to make the civil penalties that BP paid to the US federal government available to the five affected US states to aid the process of restoration. A national commission was established to investigate the disaster, promptly producing a report with a series of recommendations for increasing corporate responsibility for such catastrophic events,<sup>54</sup> which were not followed.

Hence, the strong enforcement by the US and BP’s acceptance of liability produced a discourse of confidence whereby both the regulatory framework and the oil company’s position within said regulatory framework remained largely unchanged. This, in turn, had the peculiar side effect of both precluding further significant legal reform and enhancing oil disaster tolerance by the US from a broader cultural and social perspective.

### 3. THE SOCIAL HARM PERSPECTIVE: MULTIPLYING THE HARM

The legal response to the Deepwater Horizon disaster represents an impressive feat of enforcement by the regulatory and judicial complex, both in terms of the speed of resolution of the claims and overall litigation, as well as of the translation of multiple legal

<sup>51</sup> *Ibid.*, p. 169.

<sup>52</sup> ‘The primary US law ... was shaped by the tragedy of the oil tanker *Exxon Valdez*’: Schoenbaum, n. 8 above, p. 397.

<sup>53</sup> As part of the broader Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub.L. 112–41, 126 Stat. 405.

<sup>54</sup> National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling – Report to the President* (OSC, 2011).

liabilities to a striking amount of financial liabilities. However, this response arguably is not a manifestation of the legal harm principle, which states that environmental law emerges and develops as a response to environmental harm that can be represented and demonstrated in legal terms, for example, in the language of criminal law, or administrative offences or torts.<sup>55</sup> The creation of new prohibitions, offences and torts as a response to the disaster stalled, unlike the Exxon Valdez disaster of 1989, which resulted in the passing of the OPA in 1990. In effect, the swift legal resolution ensured that oil drilling as an extractivist practice of the energy sector was maintained, and thus enhanced the US disaster tolerance, by confidently consolidating the legal, political and economic structures that would invariably produce further oil disasters.

We argue here that this response and its side effect occurred because the disaster's multiple harms were captured, compartmentalized, and incorporated into a pre-existing legal structure through the use of both public and private law instruments, as opposed to triggering socio-legal and political restructuring. Thus, the conception of harm, environmental or otherwise, is a primary factor not only in the immediate legal response to a disaster, but also in the very conception of oil disasters as environmental and social problems. In this section we seek to locate the multiplicity of social harms, prior to and beyond their incorporation into the regulatory framework, underneath the veneer of 'success' and the formal legal language of judgments, settlements, and administrative agreements.

### 3.1. *Beyond Crime: The Social Harm Approach*

To move beyond the legal 'success', we use the toolkit of the social harm approach. Since the 1990s, studies have combined a critical analysis of the legal framework for environmental protection with an investigation of the enforcement limitations related to the notion of environmental crime, produced by environmental harm and injustice, within a field variously called green, eco, or conservation criminology.<sup>56</sup> The term *green criminology* has been most frequently employed to describe environmental crimes, but also more widely 'the exploration and examination of causes of and responses to "ecological" or "environmental" crimes, harms, and hazards'.<sup>57</sup> In recent

<sup>55</sup> A.C. Lin, 'The Unifying Role of Harm in Environmental Law' (2006) 3 *Wisconsin Law Review*, pp. 897–985.

<sup>56</sup> A. Brisman & N. South, 'Green Criminology, Zemiology, and Comparative and Inter-relational Justice in the Anthropocene Era', in A. Boukli & J. Kotzé (eds), *Zemiology: Reconnecting Crime and Social Harm* (Palgrave Macmillan, 2018), pp. 203–22; V. Canning & S. Tombs, *From Social Harm to Zemiology: A Critical Introduction* (Routledge, 2021); K. Eman et al., 'Environmental Crime and Green Criminology in South Eastern Europe: Practice and Research' (2013) 59(3) *Crime, Law and Social Change*, pp. 341–58; V. Ruggiero & N. South, 'Green Criminology and Dirty Collar Crime' (2010) 18(4) *Critical Criminology*, pp. 251–62; R. Sollund (ed.), *Global Harms: Ecological Crime and Speciesism* (Nova Science, 2008); N. South, 'Corporate and State Crimes against the Environment: Foundations for a Green Perspective in European Criminology', in V. Ruggiero, N. South & I. Taylor (eds), *The New European Criminology* (Routledge, 1998), pp. 443–61; R. Walters, 'Eco-Crime', in J. Muncie, D. Talbot & R. Walters (eds), *Crime: Local and Global* (Routledge, 2010), pp. 172–208; M.L. Gore (ed.), *Conservation Criminology* (Wiley Blackwell, 2017).

<sup>57</sup> A. Brisman, "'Multicolored" Green Criminology and Climate Change's Achromatopsia' (2015) 18(2) *Contemporary Justice Review*, pp. 178–96, at 179.

years, the scope of research in this area has shifted from a narrow focus on crime to a broader focus on environmental ‘harm’ and ‘injustice’.<sup>58</sup> As Reece Walters explains, green criminology is ‘an umbrella term’ under which to theorize and critique developments in relation to ‘environmental and species harm’.<sup>59</sup> These efforts have aligned with research on social harm more broadly, though they often make reference to ‘environmental crime and harm’<sup>60</sup> rather than solely to social harm.

Social harm research has been introduced as an ‘alternative focus’ to that of crime.<sup>61</sup> With the aim of moving away from crime and criminal justice responses and towards social harm and social justice alternatives, a social harm approach focuses on ‘all the different types of harms, which people experience from the cradle to the grave’.<sup>62</sup> While some of these events will be captured by criminal law, the majority of these will not be seen ‘as criminal and categorised in a variety of different ways from “outcomes of the market economy” to “accidents” or “mistakes”’.<sup>63</sup>

Thus far, a social harm perspective has been applied to physical, financial and economic, emotional and psychological harm, and ‘cultural safety’ – with the latter also being operationalized as cultural harm.<sup>64</sup> The addition of ‘social’ in considering these harms aims to reflect a long-established critical inquiry, with criminological antecedents, which since the late 1990s has been described as zemiology. The term ‘zemiology’, derived from the Greek word *zemia* or *zemia/ζημία* (damage or harm), emerged to describe the project of expanding the remit of inquiry from legally defined harm and crimes to looking beyond the mere violations of criminal law into a wider range of socially injurious forms of behaviour.<sup>65</sup>

In the context of environmental pollution, a social harm approach helps to understand the broader social impact of certain acts, omissions, or conditions ‘at the individual and community levels’, as well as the broader social processes that generate certain acts.<sup>66</sup> Hence, zemiological threads of inquiry would extend descriptions of how

<sup>58</sup> D. Westerhuis, R. Walters & T. Wyatt (eds), *Emerging Issues in Green Criminology: Exploring Power, Justice and Harm* (Palgrave Macmillan, 2013); R. White, *Environmental Harm* (Policy Press, 2013).

<sup>59</sup> R. Walters, ‘Crime, Regulation and Radioactive Waste in the United Kingdom’, in P. Beirne & N. South (eds), *Issues in Green Criminology: Confronting Harms against Environments, Humanity and Other Animals* (Willan, 2007), pp. 186–205, at 199.

<sup>60</sup> Brisman & South, n. 56 above; D.R. Goyes & N. South, ‘Green Criminology before “Green Criminology”: Amnesia and Absences’ (2017) 25(2) *Critical Criminology*, pp. 165–81.

<sup>61</sup> P. Hillyard et al., ‘Introduction’, in P. Hillyard et al. (eds), *Beyond Criminology: Taking Harm Seriously* (Pluto, 2004), pp. 1–9, at 1. This volume was the first to introduce the foundations of the social harm perspective.

<sup>62</sup> *Ibid.*

<sup>63</sup> *Ibid.*

<sup>64</sup> A. Boukli & L. Copson, ‘Cultural Harm: “Trans Fraud”, “Gender Deception” and Zero-Sum Games’ (2019) 3(2) *Justice, Power and Resistance*, pp. 26–48; P. Hillyard & S. Tombs, ‘Beyond Criminology?’, in Hillyard et al., n. 61 above, pp. 10–29; S. Tombs, ‘Grenfell: The Unfolding Dimensions of Social Harm’ (2019) 3(1) *Justice, Power and Resistance*, pp. 61–88, at 77–8.

<sup>65</sup> A. Boukli & J. Kotzé, ‘Introduction’, in Boukli & Kotzé, n. 56 above, pp. 1–8; Hillyard et al., n. 61 above, Tombs, n. 64 above.

<sup>66</sup> M.K. Kumwenda et al., ‘Exploring Social Harms during Distribution of HIV Self-Testing Kits Using Mixed-Methods Approaches in Malawi’ (2019) (Suppl. 1) 22 *Journal of the International AIDS Society*, article e25251; R. Room, ‘Concepts and Items in Measuring Social Harm from Drinking’ (2000) 12(1–2) *Journal of Substance Abuse*, pp. 93–111.

structures or networks or cultures perpetuate harm to questions of how avoidable harm against the environment, and human and non-human animals, becomes embedded in ‘existing varieties of capitalism’.<sup>67</sup>

### 3.2. *Social Harm Inquiry into Oil Spills*

In relation to oil spills, recent zemiological work has highlighted the far-reaching consequences and multiplicity of the harms inflicted. In discussing the operations of Shell in the Ogoni delta of Nigeria, Vicky Canning and Steve Tombs suggest that oil-drilling operations and their perennially associated oil spills and disasters have environmental impacts that are ‘devastating to the region ... with some species unlikely to ever recover’.<sup>68</sup> The harm inflicted in the region is ‘inherently environmental’, yet it also generates multiple harms, which have produced a number of effects, such as that:

[i]llness and skin diseases have increased in the region (physical harms); food supplies have diminished for many local communities to eat or trade (economic and physical harms); some communities living locally have been forced to move ... ; The extent of the environmental harms inflicted over decades in the region caused will likely impact on regional ecosystems for generations to come.<sup>69</sup>

Following this approach, we undertake a systematic analysis of the social, including environmental, harm inflicted by the Deepwater Horizon disaster.

### 3.3. *Direct Environmental, Physical, Financial, Psychological, and Cultural Harm*

Firstly, the pollution fallout for the surrounding ecosystems along the US Gulf Coast was widespread and unprecedented.<sup>70</sup> Direct environmental harm included the widespread presence of ‘oil sheen’; the pollution and contamination of the coastline, the sea floor, and the surface water itself; and extensive damage to a significant number of endangered marine species (such as lesions, defects, abnormal lungs, heart defects, and record deaths of dolphins and sea turtles) and to corals.<sup>71</sup> Estimates of wildlife deaths as a direct result of the oil discharge include one million coastal and offshore birds, 5,000 marine mammals and 1,000 sea turtles.<sup>72</sup>

Multiple direct physical harms to human life were also inflicted. In addition to the casualties on the platform (11 deaths and 17 injured), the workers who participated

<sup>67</sup> S. Pemberton, *Harmful Societies* (Policy Press, 2015), p. 141; White, n. 58 above, p. 2.

<sup>68</sup> Canning & Tombs, n. 56 above, p. 97.

<sup>69</sup> *Ibid.*

<sup>70</sup> H.M. Bik et al., ‘Dramatic Shifts in Benthic Microbial Eukaryote Communities following the Deepwater Horizon Oil Spill’ (2012) 7 *PLOS ONE*, article e38550; A. Ragoonwala, C.E. Jones & E. Ramsey, ‘Wetland Shoreline Recession in the Mississippi River Delta from Petroleum Oiling and Cyclonic Storms’ (2016) 43(22) *Geophysical Research Letters*, pp. 11652–60.

<sup>71</sup> C. Campagna et al., ‘Gulf of Mexico Oil Blowout Increases Risks to Globally Threatened Species’ (2011) 61(5) *BioScience*, pp. 393–7.

<sup>72</sup> A. Adams, ‘Summary of Information concerning the Ecological and Economic Impacts of the BP Deepwater Horizon Oil Spill Disaster’, Natural Resources Defense Council, Issue Paper, June 2015, available at: <https://www.nrdc.org/resources/summary-information-concerning-ecological-and-economic-impacts-bp-deepwater-horizon-oil>.

in the clean-up activities along the Gulf Coast developed prolonged and persistent adverse health effects ‘due to the oil spill exposure even 7 years after the disaster’.<sup>73</sup> Particularly in relation to the development of long-term illnesses, ‘most of the oil spill exposed subjects had also developed chronic rhinosinusitis and reactive airway dysfunction syndrome’, with new symptoms gradually appearing. To add to these, abnormalities were observed in both ‘pulmonary and cardiac functions’ of those exposed to the oil spill.<sup>74</sup>

Local communities across the Louisiana coastline also suffered multiple harms. Coastal communities, reliant on commercial fishing and tourism, were financially and culturally harmed by the oil spill. Significant portions of federal and state waters were closed to fishing as a result of ‘oiling’, and the overall impact on the industry was estimated to be US\$8.7 billion.<sup>75</sup> According to the Natural Resource Defense Council, lost tourism revenues and ‘brand damage’ to the Gulf Coast economy were estimated to reach US\$22.7 billion in the first three years after the disaster.<sup>76</sup>

Furthermore, the Gulf oil disaster hit communities that had barely begun to recover from Hurricane Katrina only five years earlier, compounded by the slow state response to that natural disaster and the discriminatory regeneration that followed.<sup>77</sup> The disruption caused to lives, work, family, education, and social engagement and the community more widely has been associated with psychological harm: ‘increased symptoms of anxiety, depression, and posttraumatic stress’.<sup>78</sup> The pre-existing impact of natural disasters such as Hurricane Katrina, compounded by the state and corporate response to these disasters, which fell disproportionately on certain areas and on particular socio-environmental groups, was thus further exacerbated by the harm of the corporate-human disaster of Deepwater Horizon. Significant concerns have been outlined regarding the effects of the legal response, clean-up, and compensation programmes from the perspective of environmental and social justice.<sup>79</sup>

#### 3.4. *Environmental and Social Harm Generated by BP’s Response to the Disaster*

The frantic efforts to mitigate the immediate harmful impacts on the local ecosystems exacerbated existing damage, as more than 1.8 million gallons of toxic chemical

<sup>73</sup> M.A. D’Andrea & G.K. Reddy, ‘The Development of Long-Term Adverse Health Effects in Oil Spill Cleanup Workers of the Deepwater Horizon Offshore Drilling Rig Disaster’ (2018) 6 *Frontiers in Public Health*, article 117, pp. 1–8, at 6.

<sup>74</sup> *Ibid.*

<sup>75</sup> U.R. Sumaila et al., ‘Impact of the Deepwater Horizon Well Blowout on the Economics of US Gulf Fisheries’ (2012) 69(3) *Canadian Journal of Fisheries and Aquatic Sciences*, pp. 499–510.

<sup>76</sup> Adams, n. 72 above.

<sup>77</sup> C. McMichael Reese, M. Sorokin & A. Fontenont (eds), *New Orleans under Reconstruction: The Crisis of Planning* (Verso, 2014).

<sup>78</sup> H.J. Osofsky, J.D. Osofsky & T.C. Hansel, ‘Deepwater Horizon Oil Spill: Mental Health Effects on Residents in Heavily Affected Areas’ (2011) 5(4) *Disaster Medicine Public Health Preparedness*, pp. 280–6, at 280.

<sup>79</sup> H.M. Osofsky et al., ‘Environmental Justice and the BP Deepwater Horizon Oil Spill’ (2012) 20(1) *New York University Environmental Law Journal*, pp. 99–198.

dispersants were used,<sup>80</sup> resulting in significant erosion of deep-water corals caused by the combined toxicity of the oil and the chemical dispersants used in its clean-up.<sup>81</sup> The mixing of oil with deep seabed sediment to produce deep-water ‘dirty blizzards’ composed of oil particles destroyed a wide variety of marine habitats.<sup>82</sup> The progressive entry of an oil and dispersant mix into the food chain at the Gulf of Mexico started from coastal plankton and worked its way up to birds, with both localized and eventually multifaceted consequences for food supplies across regions.<sup>83</sup>

Such effects demonstrate the potential harm of ‘pain relief’ measures.<sup>84</sup> These are enmeshed in a wide network of processes that are set in motion when a criminal offence is reported and corrective action is ordered.<sup>85</sup> In the context of the Deepwater Horizon disaster, the claims process implemented by BP, as part of the guilty plea, was intended to reduce economic concerns both in the form of a claims process and in the Vessels of Opportunity programme to hire fishing crews to assist with clean-up efforts. At the peak of the clean-up effort, BP had deployed approximately 48,000 workers in the area.<sup>86</sup> As the money from both the private GCCF as well as the court-supervised settlement programmes flowed into the region, the compensation process led to ‘corrosive communities’.<sup>87</sup> This is shorthand for the divisions and competition among community members arising from a lack of ‘social connectedness’ and ‘to fears, stress, anxiety, and conflict’, which impaired the ability to recover from the disaster.<sup>88</sup> In practice, some residents were frustrated with the claims as they felt that ‘the amount of compensation people were given was determined at random, even with identical claim statements’.<sup>89</sup> Others stated that the Vessels of Opportunity programme took an arbitrary approach to the recruitment of fishing crews.<sup>90</sup> Finally, many residents complained about ‘spillo-naires’ – members of the community who had unfairly profited from payments.<sup>91</sup> Hence, ‘pain relief’, in the uneven application of ‘relief’ measures relative to the

<sup>80</sup> Adams, n. 72 above.

<sup>81</sup> D.M. DeLeo et al., ‘Response of Deep-Water Corals to Oil and Chemical Dispersant Exposure’ (2016) 129 *Deep Sea Research Part II: Topical Studies in Oceanography*, pp. 137–47; L.H. Schwacke et al., ‘Health of Common Bottlenose Dolphins (*Tursiops Truncatus*) in Barataria Bay, Louisiana, Following the Deepwater Horizon Oil Spill’ (2014) 48(1) *Environmental Science & Technology*, pp. 93–103.

<sup>82</sup> I.C. Romero et al., ‘Hydrocarbons in Deep-Sea Sediments Following the 2010 Deepwater Horizon Blowout in the Northeast Gulf of Mexico’ (2015) 10(5) *PLOS ONE*, article e0128371.

<sup>83</sup> A. Bonisoli-Alquati et al., ‘Incorporation of Deepwater Horizon Oil in a Terrestrial Bird’ (2016) 11(1) *Environmental Research Letters*, article 114023.

<sup>84</sup> P. Hillyard & S. Tombs, ‘Beyond Criminology?’, in D. Dorling et al. (eds), *Criminal Obsessions: Why Harm Matters More than Crime*, 2<sup>nd</sup> edn (Centre for Crime and Justice Studies, 2008), pp. 6–23, at 11.

<sup>85</sup> N. Christie, “‘Suitable Enemies’”, in H. Bianchi & R. Van Swaaningen (eds), *Abolitionism: Towards a Non-Repressive Approach to Crime* (Free University Press, 1986), pp. 42–54; N. Christie, *Crime Control as Industry: Towards Gulags, Western Style* (Routledge, 1993).

<sup>86</sup> *US v. BP*, n. 13 above, p. 33.

<sup>87</sup> L. Graham et al., ‘The Deepwater Horizon Oil Spill’s Impact on People’s Health: Increases in Stress and Anxiety’, *Oil Spill Science online*, 2016, p. 7, available at: [https://eos.ucs.uri.edu/seagrant\\_Linked\\_Documents/gomsg/oil-spill-science-mental-health.pdf](https://eos.ucs.uri.edu/seagrant_Linked_Documents/gomsg/oil-spill-science-mental-health.pdf).

<sup>88</sup> *Ibid.*

<sup>89</sup> *Ibid.*

<sup>90</sup> *Ibid.*

<sup>91</sup> *Ibid.*

‘pain’ suffered, and the corrosive effects of compensation structures perpetuated, and in some cases aggravated, social harm.

To this list of additional harms, we can add the effects of politically and morally questionable public relations strategies employed by BP. Shortly after the disaster, it sought to hamper the examination of the environmental impact of the disaster by offering lucrative research grants and consultancy contracts to marine scientists around the US Gulf Coast, under the umbrella of a US\$500 million Gulf of Mexico Research Initiative. This funding was provided ostensibly for the purpose of understanding the impact of the disaster and producing a cadre of experts who would testify for BP; however, it was subsequently reported that the grants came with strings attached, namely confidentiality and secrecy clauses that prevented scientists from publishing this funded research, and/or from publishing or sharing the data created, or even communicating with others about their research.<sup>92</sup> Some scientists believed that this was simply a legal strategy to render these scientists ineligible to testify on behalf of the government in the forthcoming trials.<sup>93</sup>

The social harm perspective thus demonstrates that the Gulf disaster, similarly to many other toxic tragedies, involved a multitude of harms, beyond the immediate physical harm to humans or nature. The above paragraphs have presented environmental and physical harm to human and non-human animals as well as economic, cultural, emotional and psychological harm, making up a complex tableau of impacts stemming from the Gulf disaster. We now proceed in the following section with our zemiological interpretation by introducing the concept of transversal harm, which captures this multitude of harms and expands upon it.

#### 4. THE THREE REGISTERS:

##### TRANSNATIONAL OIL AND TRANSVERSAL HARM

As our understanding of the harm of oil companies expands with the use of the social harm perspective, it invariably comes face to face with the limitations of legal discourse and its exclusionary milieu.<sup>94</sup> This refers to the exclusion of a wide variety of not (yet) criminalized harms, as well as the compartmentalization of legal thought itself into a variety of sub-fields. This is a central problem for environmental thought, legal or otherwise, which is full of compartments and separate conceptual boxes: climate change, pollution, air quality, administrative law, tort, criminal law, international law, and so on. It does not integrate multiple environmental problems and harms, but instead it seeks to compartmentalize and divide them into manageable ‘tranches’ of regulation. The analysis that we presented in Section 2 of the Deepwater Horizon

<sup>92</sup> B. Raines, ‘BP Buys up Gulf Scientists for Legal Defense, Roiling Academic Community’, *Advance Local*, 14 Jan. 2019, available at: [https://www.al.com/live/2010/07/bp\\_buys\\_up\\_gulf\\_scientists\\_for.html](https://www.al.com/live/2010/07/bp_buys_up_gulf_scientists_for.html).

<sup>93</sup> T. Smith, ‘By Hiring Gulf Scientists, BP May Be Buying Silence’, *NPR*, 31 July 2010, available at: <https://www.npr.org/templates/story/story.php?storyId=128892441&ct=1606841316844>.

<sup>94</sup> A. Philippopoulos-Mihalopoulos, ‘Looking for the Space between Law and Ecology’, in A. Philippopoulos-Mihalopoulos (ed.), *Law and Ecology: New Environmental Foundations* (Routledge, 2011), pp. 1–18.

disaster and the legal response to it is replete with such partitions of legal thought and practice. Civil, criminal, and other liabilities exist within their own rationalities. The social harm perspective in Section 3 elucidated the process of multiplication of types of harm that lack legal incorporation. The next section articulates a conceptual framework for completing this task.

#### 4.1. 'Non-Centred' Thought and the Multiplicity of Harms

On the basis of viewing the multiple harms identified from a zemiological perspective, we propose an alternative conceptualization of the nexus between oil, harm, and responsibility, drawing on the work of Felix Guattari – psychoanalyst, social theorist, and activist – who is perhaps best known for his baroque and post-structural collaborations with philosopher Gilles Deleuze.<sup>95</sup> This conceptualization is anchored in our normative commitment to expand the understanding of harm, beyond both environmental and legal conceptions of the term, in what is called a 'non-centred' way, without being bound to the partitions of legal or environmental thought.<sup>96</sup> This non-centred approach to environmental law and harm goes beyond the conceptualization by criminal law, which associates general ecocentrism and broad criminalization, under the urgent banner of state enforcement, with environmental progress. Therefore, our approach goes further by moving past the very search for any appropriate 'centring', whether that would be bios, nature, the Anthropocene, Earth, the planetary, or the wild.<sup>97</sup>

Guattari's *The Three Ecologies*<sup>98</sup> belongs to this tradition of non-centred ecological thought that seeks to problematize nature and humanity reciprocally, by regarding "nature" as multiform and as inextricably confounded with humanity's projects and self-understandings'.<sup>99</sup> There is no 'centre' to work from. According to this line of thinking, the meanings of what is 'natural' and what is 'human' are irrevocably bound to each other; human identity is bound to a sense of what is considered nature, and humanity's constructions of nature depend on its own self-constructions. Therefore, any ecological argument inherently refers to both human society and nature, so centring on one over the other prevents this self-awareness. Thus, the perennial debate between anthropocentrism and ecocentrism loses its force as the 'leitmotif of ecologism'.<sup>100</sup>

In his essay, Guattari gives a small example of this way of thinking, which remains relevant to this day and to the task of this article. He polemically draws a comparison

<sup>95</sup> G. Deleuze & F. Guattari, *Anti-Oedipus* (Continuum, 1984/2004); G. Deleuze & F. Guattari, *A Thousand Plateaus* (Continuum, 1988/2004); G. Deleuze & F. Guattari, *What is Philosophy?* (Verso, 1994/2009).

<sup>96</sup> K.H. Whiteside, *Divided Natures: French Contributions to Political Ecology* (The MIT Press, 2002), p. 3.

<sup>97</sup> N. Clark & B. Szerszynski, *Planetary Social Thought: The Anthropocene Challenge to the Social Sciences* (Polity, 2020); C. Cullinan, *Wild Law: A Manifesto for Earth Justice* (Green Books, 2011); M. Maloney & P. Burdon (eds), *Wild Law: In Practice* (Routledge, 2014).

<sup>98</sup> F. Guattari, *The Three Ecologies* (Continuum, 1989/2008).

<sup>99</sup> Whiteside, n. 96 above, p. 3.

<sup>100</sup> *Ibid.*

between the phenomenon of toxic algae in the Venice lagoon and that of 1980s gentrification in New York, arguing for their similarities. Gentrification pushes out families and residents, suffocated by the growth of loft apartments; residents who become like the fish affected by toxic algae growth.<sup>101</sup> This phenomenon is an intersection of multiple harms, with gentrification constituting a form of toxic pollution with tangible, measurable, and avoidable environmental, social, and psychological harm.

We can add here another, more recent example. The COVID pandemic exposed the links underlying the generalized deterioration of countries, where the environment, human health, culture, and the economy suffer and deteriorate in horrific, interconnected tandems. Along with diseases of the physical body, diseases of the mind and of the social body also proliferate. Along with endangered species, human solidarity becomes extinct, with women, youth, non-citizens, immigrants, the marginalized, and unemployed at times demonized and left to experience their own nightmares at the fringes. Thus, we have observed how the pandemic produces a type of *transversal* harm, cross-cutting at the intersection of multiple registers of harmful effects. Social harm approaches capture extractivism – which is not located solely in the so-called periphery and fringes of the global system, but infiltrates and saturates the life of human and non-human beings across the world – in similar ways; the non-centred approach of Guattarian thought will develop further in this section.

This type of non-centred approach is important, because a different, non-centred conception of environmental values leads to an alternative conception of harm – environmental, social, or other – which would, in turn, have an effect on law and the regulation of disaster tolerance. Cultural harm can be used to highlight a culture of corporate anthropocentrism, which manifests against ecocentrism and ecocentrist moves. It has been argued, for instance, that the cost of banning BP from participating in oil drilling would translate into a loss of jobs and income for families, as well as loss of competitiveness for the region. Animated by contemporary culture wars, then, evaluations of harm – that is, the harm of corporate anthropocentrism set against the harm of ecocentrism – reduce complex issues to mere antagonism.<sup>102</sup> So, the transition from identifying harm to apportioning responsibility is not assisted by the classical division between anthropocentrism and ecocentrism. Indeed, this leitmotif of the search for the right and appropriate centre is what holds us back, as additional categorizations and hierarchies of harm are concocted in line with a particular and narrow strand of Anglo-American environmental ethics that seeps into our broader understanding of law and society, adding to a cataloguing of harms, complete with implied associated hierarchies.

#### 4.2. *The Three Registers*

In *The Three Ecologies*, Guattari places the environmental crisis within the context of a generalized upheaval, deterioration, and implosion not just of the natural environment

<sup>101</sup> Guattari, n. 98 above, p. 29.

<sup>102</sup> Boukli & Copson, n. 64 above.

but also in human modes of life extending across the ‘three registers’ – namely, human subjectivity, social relations, and the environment. For instance, a general *crisis*, or an *epidemic* (if not pandemic) are terms that underline the US President’s characterization of the harm emanating from the Gulf disaster. With the assistance of Guattarian thought, however, we can take this beyond the scope of soothing narrative leading to an ostensibly successful legal response and intervention. Environmental problems, such as in this case extractivism-fuelled oil disasters, are to be placed in an intersectional continuum, along with poverty, inequality, competitive individualism, consumptive lifestyle, and a whole host of other social issues, as a broad category of problems that relate to the compromised and imploding ‘relationship between subjectivity and its exteriority (whether it is social, animal, vegetable or Cosmic)’.<sup>103</sup>

The general link between environmental subjectivity and environmental law has been examined in the literature,<sup>104</sup> although such examinations often fall prey to the dichotomy of anthropocentrism versus ecocentrism. Guattari discusses the increasing deterioration of human relations with ‘the socius, the psyche and nature’, which is not a simple result of pollution or the lowering of environmental standards, but also of being ‘accustomed to [a dispiriting] vision of a world drained of the significance of human interventions, embodied as they are in concrete politics and micropolitics’.<sup>105</sup> Along with the environment, it is human subjectivity that is, according to Guattari, ‘floundering’, as manifested in chronic unemployment, oppressive marginalization and inequality, loneliness, boredom, and anxiety.<sup>106</sup>

An increase in so-called disaster tolerance, with the aid of outwardly effective regulatory interventions – as in the case of Deepwater Horizon – seems apt in such a decaying society. Within this generalized crisis, what is at stake is not an awareness and concern for the environment or for the inherent risks and dangers of continuing fossil fuel extraction, but a broader questioning of ‘the ways of living on this planet’ and their effects on both nature and humanity.

This questioning that Guattari promotes is, to a certain degree, structural; and the structure towards which this questioning is directed is what he called ‘integrated world capitalism’, of which fossil fuel capitalism and its attendant oil disasters form a part.<sup>107</sup> This term refers to a late stage of post-industrial capitalism, where its rationality moves away from the production of goods and services ‘towards structures producing signs, syntax and ... subjectivity’.<sup>108</sup> Capitalism and the economy in general have, of course, constituted an obvious target of environmental thought and discourse,

<sup>103</sup> Guattari, n. 98 above, p. 19.

<sup>104</sup> A. Kotsakis, ‘Change and Subjectivity in International Environmental Law: The Micro-Politics of the Transformation of Biodiversity into Genetic Gold’ (2014) 3(1) *Transnational Environmental Law*, pp. 127–47; K. Morrow, ‘Perspectives on Environmental Law and the Law relating to Sustainability’, in Philippopoulos-Mihalopoulos, n. 94 above, pp. 126–52.

<sup>105</sup> Guattari, n. 98 above, p. 28.

<sup>106</sup> *Ibid.*, pp. 29–30.

<sup>107</sup> F. Guattari, ‘Plan for the Planet’, in S. Lotringer (ed.), *Soft Subversions: Texts and Interviews 1977–1985* (Semiotext(e), 2009), pp. 229–43.

<sup>108</sup> Guattari, n. 98 above, p. 32.

with the logic of perpetual growth and the absolute reliance on the overexploitation of the natural world singled out for particular criticism. Equally, from a social or political economy perspective, concerns abound regarding surveillance, discrimination, racism, wealth inequalities, and human rights abuses, especially but by no means exclusively at the outsourced and relocated fringes of the system.

Guattari, however, takes this critique further to the third register: that, concerning mentalities and the very formation of human subjectivity, ‘capitalist production not only manufactures commercial goods, but also institutions and infra-individual mechanisms, systems of perception, of behaviour, of imaginary representation, of submission to hierarchies and dominant values’.<sup>109</sup> For Guattari, capitalism ‘seizes individuals from the inside’ and subjugates them by ‘overcoding’ human activities, thoughts, and emotions – the entirety of human life under an exchange system of instrumental values.<sup>110</sup> There are some who, at least in capitalist terms, benefit from this process, even if only in the short term. So, ‘the most vulnerable in society are living increasingly insecure and alienated lives’, while those who benefit from the global marketplace are living increasingly secure and powerful lives. For Guattari, ‘exploitative practices that perpetuate a quiet violence on low-income labour and other vulnerable groups such as the poor, women and children’ are engrained in this dominant socio-economic mode.<sup>111</sup>

According to this conception, capitalism is no longer an economic system or an ideology, but a producer of ‘semiotic regimes’: that is, mentalities, models, and diagrams of conduct.<sup>112</sup> What capitalism ultimately produces is a unifying ‘capitalist subjectivity’, ‘through operators of all shapes and sizes and is manufactured to protect existence from any intrusion of events that might disturb or disrupt’.<sup>113</sup> Capitalist subjectivity subsumes everything from the most personal to the most global, so ‘that there is no outside ... It is intoxicated with and anaesthetised by a collective feeling of pseudo-eternity’.<sup>114</sup> For example, a process of incentivizing appropriate environmental behaviour on the part of individuals, corporations, and governments represents the goal of neoliberal forms of new governance and regulation beyond the state. Guattarian thought, however, is consistent in its commitment to not separate political economy, subjectivity, and the environmental field.

Environmental crises are thus conceived as implosions in the processes of the production of subjectivity as they become dominated by the uniform capitalist subjectivity. The persistence of environmental problems, such as oil disaster tolerance, is ascribed to the fundamental problem of the social reproduction of forms of behaviour that act as constant sources of problems (not just environmental) in industrial/consumer societies under late capitalist conditions. It is no longer the case that the oil spill itself is regarded

<sup>109</sup> F. Guattari, ‘Capital as Integral of Power Formations’, in Lotringer, n. 107 above, pp. 244–64, at 244; F. Guattari, ‘Institutional Intervention’, in Lotringer, *ibid.*, pp. 33–63, at 47.

<sup>110</sup> Guattari, ‘Capital as Integral of Power Formations’, *ibid.*, p. 257.

<sup>111</sup> *Ibid.*

<sup>112</sup> F. Guattari, ‘Microphysics of Power / Micropolitics of Desire’, in Lotringer, n. 107 above, pp. 278–90.

<sup>113</sup> Guattari, n. 98 above, p. 33.

<sup>114</sup> *Ibid.*, p. 34.

as an environmental problem: on the same continuum, the destruction of the local communities along the Florida coastline can be seen as a social problem, while the operational decisions of BP are understood as a corporate problem. That is to say, the concomitant legal separation of these problems into the partitions of environmental law, tort law, and company law is to be avoided. It is also this conceptual separation that in part maintains the illusion of the effective legal response, outlined in Section 2 above.

Consequently, environmental problems coexist with a dangerous homogenization of behaviour and conduct, of the ways by which our modern self is constructed – that is, they ‘can be traced to a more general crisis of the social, political and existential’.<sup>115</sup> Guattari’s ecology is indissolubly linked with his interest in the problematic of the production of subjectivity, which he understands as collective, ‘plural and polyphonic’, rather than a synonym for individuality or identity.<sup>116</sup> Subjectivity becomes the ‘node’ around which this approach is structured,<sup>117</sup> using environmental concern as a point of departure for an analysis of the political and economic structures of late capitalist societies that is based on the collapse of boundaries between the internal and external worlds; between our sense of self and subjective personhood and the most abstract global structures and problems.<sup>118</sup> Using his own critical vocabulary, Guattari explains this wide continuum in the following terms:

[T]he molecular texture of the unconscious is constantly being worked on by global society, that is to say, these days by capitalism, which has cut individuals up into partial machines subjected to its ends, and has excluded or infused guilt into everything that opposed its own functionality.<sup>119</sup>

It is this general crisis, in addition to the particular extractivist practices that fuel it, that, according to Guattari, we must seek to understand and address. Namely, his foundational argument is that action, policy (and, we may add for our benefit here, law and regulation) in response to this crisis should take into account three ‘registers’ and their multiple, indeterminate connections – the environment, social relations, and human subjectivity – giving the essay its title of *The Three Ecologies*. It would be ‘wrong’ to isolate extractivism within the register of environmental harm and generally engage with these three registers in isolation from each other in a technical, problem-solving approach, without engaging in their complexity and multipolarity, ultimately facing up to the deterioration running across them, from the external environment to the inner self. Instead, it could be argued that Guattari somehow instrumentalizes ecology and environmentalism for the purpose of social change, suggesting that they should be turned into a ‘vehicle for reinvention in social, political and personal

<sup>115</sup> F. Guattari, *Chaosmosis: An Ethico-Aesthetic Paradigm* (Power Publications, 1992/1995), p. 119.

<sup>116</sup> *Ibid.*, p. 1.

<sup>117</sup> G. Genosko, *Felix Guattari: A Critical Introduction* (Pluto Press, 2009), p. 85.

<sup>118</sup> *Ibid.*

<sup>119</sup> F. Guattari, ‘I Am an Idea-Thief’, in Lotringer, n. 107 above, pp. 21–32, at 31.

life'.<sup>120</sup> Environmental action is not the end goal, but the medium to achieve a higher quality of subjectivity for both human and non-human subjects.

#### 4.3. *Transversal Harm*

This Guattarian approach can make significant contributions to the task of reconceptualizing environmental harm and responsibility. Following Guattari, 'we must learn to think transversally', in a 'non-centred' fashion, across the three registers, and with openness and capacity to take in complex, heterogeneous elements.<sup>121</sup> As a consequence, firstly, we have to think transversally in terms of the harm produced across the three registers of environment, social relations and human subjectivity; secondly, we have to think transversally in relation to proposals and changes that embrace the multiplicity of social-environmental harm inflicted beyond the anthropocentric and ecocentric divide, as presented in Section 3 above.

If we apply the approach presented above to the Deepwater Horizon oil disaster, we are inevitably drawn to BP, the major oil corporation and transnational private actor in question, and its broader role – across all three registers – given its global standing, resources, and operation. In particular, invoking the third register of Guattari's ecologies, the question to be asked is whether there is additional harm, beyond the immediate damage to the environment and society around the Gulf that become apparent through the social harm perspective, as well as beyond the broader climate-related harm of the oil industry – that is, the continuing global environmental damage of their operation from the perspective of carbon emissions or the climate emergency. The short answer to this question is that the disaster was simply an event within an epidemic; an acute, catastrophic manifestation of a broader system of imbrication between oil and society.<sup>122</sup> This entanglement is, in fact, the harm we are looking for.

We can move past the immediate harm emerging from a single catastrophic event and merge it with long-standing social harms that, along with the rest of the oil industry, shape human society. Of course, some would argue that it is easy to conceptualize such a generalized harm emanating from the fossil fuel industry in general, and it has to do with precipitating the current climate emergency. However, this move simply adds or replaces a conceptualization of environmental harm – which is geographically and temporarily, and thus jurisdictionally bound to a particular place and/or event with the attendant limitations of the legal framework – with essentially the complete opposite, related to a borderless, placeless globality of a climate emergency, with the attendant limitations of the related international legal framework. Environmental harm is produced via proximity to a particular disaster or accident, proximity to the receiving end of a casual chain of corporate or state decisions: for example, in relation to the

<sup>120</sup> Genosko, n. 117 above.

<sup>121</sup> Guattari, n. 98 above, p. 29.

<sup>122</sup> T. Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (Verso, 2011).

placement of the sites of extractivism *or* in the case of transnational harm and liability relating to the acceleration of the global climate emergency.<sup>123</sup>

Transversal harm avoids the local/global dichotomy and enables us to see the consistent and generalized harm that transnational oil corporations inflict upon our modes of life as part of a system of immaterial production that has evolved beyond the production of goods and services, and their carbon ‘externalities’. Transversal harm signifies the multiple damage caused to the three ‘ecological registers’ – namely human subjectivity, social relations, and the environment – and offers a more nuanced understanding of how environmental harm is no longer contained in previously conceptualized linear ways. Pollution and damage have not only environmental, social, economic, and physical effects, but also those of a cultural, intangible, and psychological nature.

This raises the question of the responsibility, and even liability, that may emerge from such transversal harm. Oil corporations become responsible either for egregious localized, wilful negligence and disasters or for a concerted greediness and avarice leading to global climate breakdown. Harm, in such conceptions, is an exceptional effect. Harm is still produced, under such a conception, as a result of non-standard, illegal, or unethical behaviour on the part of the oil corporation. Such a conception of environmental harm is still underpinned by notions of unlawfulness, criminality, or at the very least immoral behaviour. It is a product of defective or rogue agency of a corporate actor, rather than a defective structure. However, the concept of transversal harm demonstrates that it is not so much the exceptional disaster that stands out in the everyday operation of a transnational oil company, but the everyday operation itself that has harmful effects which extend far beyond the global atmosphere, and into the intangible, unconscious assets of every individual member of society. Therefore, this reconceptualization of environmental harm will require a reconceptualization of the building blocks of responsibility and liability, which will form part of a forthcoming study.

## 5. CONCLUSION

The economic cost of the Deepwater Horizon disaster was immense, as were the multiple harms it engendered. Instead of decades of litigation, denial, prevarication and obfuscation, there was a swift resolution and assumption of responsibility. The legal settlements, judgments, and agreements that emerged as a result painted a highly damaging picture of BP and its corporate and safety cultures. Some of the compensation was used for environmental restoration around the Gulf of Mexico coast, further strengthening the impression of correcting the wrongs of past negligence, but the economic cost must also be considered in the context of BP’s existing profits, resources, and dominant social role. Oil remained at the centre of the social and economic structure. BP continues to extract resources from the Gulf of Mexico. The oil industry survived its major crisis because this crisis was understood as an isolated ecological disaster and

<sup>123</sup> M. Mason, ‘The Governance of Transnational Environmental Harm: Addressing New Modes of Accountability/Responsibility’ (2008) 8(3) *Global Environmental Politics*, pp. 8–24.

corporate failure; it was not perceived in the non-centred, transversal way we have outlined. Consequently, the impressive edifice of legal liabilities, meticulously charted and presented in this article, only serves as a monument to futile legalism and formalism. Laws were implemented, compensation schemes established, settlements reached; nothing changed. Along with BP and the other oil companies that survive and manage such disasters, what persists is the epidemic of oil disasters, their tolerance, the rationality of extractivism extending to the core of everyday life, and the attendant cycle of catastrophe, litigation, compensation, and remediation. The certainty of another oil disaster to come looms over their regulation.

To challenge this cycle, we have proposed the concept of transversal harm, combining the social harm approach and Felix Guattari's transversal three ecologies. This concept aims to capture the collective harmful impact of oil extractivism, from the global to the personal level. It turns the partitioned cataloguing of legally distinct and defined harm emerging from an isolated event into a heterogeneous composite, operating across the three registers of environment, society, and subjectivity. Transversal harm fashions a line that cuts across both standard typologies of harm and the partitions and obstacles of environmental and legal thought. Although disasters are flashpoints that render it visible, such harm is not tied to a particular event, but to the overall existence of oil and the operation of oil companies. Responsibility for such a transversal harm will never be amenable to such facile legal definition and compartmentalization, and will continue to represent a significant challenge for further research.