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(The Act of) God's Not Dead: Reforming the Act of God Defense in the Face of Anthropogenic Climate Change

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(THE ACT OF) GOD’S NOT DEAD: REFORMING THE ACT OF GOD DEFENSE IN THE FACE OF ANTHROPOGENIC CLIMATE CHANGE

by: Zachary David Fechter*

ABSTRACT

Natural phenomena like floods, droughts, and blizzards have a long history of causing damage. But these natural phenomena are now more frequent, intense, and therefore, foreseeable because of anthropogenic, or human-caused, climate change. Owing in part to the greater foreseeability of natural phenomena like weather, scholars believe the act of God defense—which excepts actors from liability when an unforeseeable and irresistible natural phenomenon is the proximate cause of damage—may be dead. Other scholars go further and argue the act of God defense should be dead, as corporate defendants can use it to evade liability even when their acts causally contribute to climate change. Despite the strength of these scholars’ arguments, those highlighting and even advocating for the demise of the act of God defense overlook the possibility that eliminating the defense will unfairly expose everyday people to liability. This Comment thus addresses scholars’ valid concerns with the act of God defense in light of climate change, examines arguments for why the defense should be excised from the law, and then argues that keeping but modifying the defense is the best way to address criticisms without unjustly harming everyday people.

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I. INTRODUCTION

Weather might be a trivial topic for small talk, but it is no small thing considering the damage it causes. Droughts, wildfires, blizzards, hurricanes, tornadoes, and floods wreak havoc on millions of people per year and cause billions of dollars in damage.¹ Such weather events can be both the actual and proximate causes of damage, but extreme natural phenomena can also lead humans to cause damage. In other words, surging storms, raging wildfires, and the like cause damage on their own, but weather can also be a proximate cause where humans are an actual cause, like when a driver drives over someone’s property to avoid a sudden flash flood. In such cases, defendants can protect themselves from liability by asserting the act of God defense. Under that defense, a defendant who is the actual cause of another’s damage (i.e., the driver) can point to some natural phenomena (i.e., the sudden flash flood) as the proximate cause of the damage and escape responsibility. Courts accept the act of God defense when a defendant can prove that the proximate cause of damage is natural in origin, irresistible, and not foreseeable.

Even though the act of God defense was absorbed into the American legal system from English common law, and modern federal environmental statutes have adopted the act of God defense, the elements of the defense have become almost impossible to prove. Consider anthropogenic, or human-caused, climate change and the scientific fact that human behavior has made natural phenomena more common and intense.² This revelation means damage-causing weather is proximately

1. Zahra Hirji, *US Climate Disasters Racked Up \$165 Billion in Damage in 2022*, BLOOMBERG (Jan. 10, 2023, 10:41 AM), <https://www.bloomberg.com/news/articles/2023-01-10/us-storms-heat-drought-racked-up-165-billion-of-damage-in-2022#x-j4y7vzkg> [https://perma.cc/JZ9Z-JSUT].

2. *Scientific Consensus: Earth’s Climate Is Warming*, NASA GLOB. CLIMATE CHANGE, <https://climate.nasa.gov/scientific-consensus/> [https://perma.cc/M42D-N3Q9] (Nov. 30, 2023); *Causes of Climate Change*, U.S. ENV’T PROT. AGENCY, <https://www.epa.gov/climatechange-science/causes-climate-change> [perma.cc/MX4T-7RWC] (Apr. 25, 2023); Jeff Turrentine, *What Are the Causes of Climate Change?*, NAT’L RES. DEF. COUNCIL (Sept. 13, 2022), <https://www.nrdc.org/stories/what-are-causes-climate-change> [https://perma.cc/X5VP-TGAY].

caused by humans rather than nature; is resistible insofar as humans could have avoided behaviors that exacerbate climate change; and is foreseeable because of scientific consensus³ and public acknowledgment⁴ of climate change and its dangerous effects. Thus, anthropogenic climate change may have killed the act of God defense.

Scholars, noting the effects of anthropogenic climate change on the act of God defense, have argued the defense should be eliminated. One reason they cite for eliminating the act of God defense is that defendants can and will take advantage of it, especially defendants whose corporate practices have contributed most to climate change.⁵ While there are reasonable arguments regarding the efficacy of the act of God defense and the dangers of retaining it, those arguments overlook that eliminating the defense has the potential to expose everyday people to liability. Specifically, if the act of God defense is eliminated from common law, courts could impose on regular people liability for damages proximately caused by humans writ large and caused especially by corporate actors whose practices have most contributed to climate change.⁶ Acts of God are indeed more foreseeable than ever, and certain actors could hijack the defense to exempt themselves from liability. However, eliminating the act of God defense altogether overlooks why (or because of whom) weather is foreseeable and holds everyday individuals responsible for behaviors committed by generations of humans. That is why the act of God defense should be reformed, not eliminated—that is why the act of God defense is not, and should not be, dead.

This Comment proceeds in four parts. Part II surveys causation generally while paying specific attention to how actors defend themselves from liability by refuting their role as a proximate cause of damage. Part III provides a history of the act of God defense and identifies its three essential elements: unforeseeability, irresistibility, and natural origin. Part IV discusses limitations to the act of God defense, specifically those limitations imposed by anthropogenic climate change and highlighted by scholars. Part V addresses scholars' critiques of the act of God defense and refutes their suggestion to eliminate the defense.

3. *Scientific Consensus: Earth's Climate Is Warming*, *supra* note 2.

4. Jennifer Marlon et al., *Yale Climate Opinion Maps 2021*, YALE PROGRAM ON CLIMATE CHANGE COMMUN (Feb. 23, 2022), <https://climatecommunication.yale.edu/visualizations-data/ycom-us/> [<https://perma.cc/DZR6-KCN4>].

5. See Jill M. Fraley, *Re-Examining Acts of God*, 27 PACE ENV'T L. REV. 669, 685–86 (2010), <https://doi.org/10.58948/0738-6206.1652> (discussing mining company's successful use of act of God defense after mining activities contributed to flooding); Kenneth T. Kristl, *Diminishing the Divine: Climate Change and the Act of God Defense*, 15 WIDENER L. REV. 325, 361 (2010) (discussing incentive for defendants to raise act of God defense because of its typical success).

6. See PAUL GRIFFIN, CDP, THE CARBON MAJORS DATABASE: CDP CARBON MAJORS REPORT 2017, at 7–8 (2017), <https://cdn.cdp.net/cdp-production/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf> [<https://perma.cc/B5BT-CZ9J>] (discussing aggregate effects of human activity on climate change and that over half of global emission can be traced to just 25 companies).

It then advances three possible reformations to the defense that seek to protect everyday people from unfair attributions of liability. Finally, Part VI concludes this Comment.

II. LIABILITY AND CAUSATION

A critical role of the American legal system is to apportion liability for damages done to another. To achieve this goal correctly and fairly, parties debate and courts consider whether an actor was the cause of damage.⁷ The dominant mode of causation analysis is two-fold.⁸ Courts first determine whether an actor was an *actual* cause of damage. Using the “but-for” test, courts consider whether the damage would have occurred in the absence of the actor’s alleged act or omission.⁹ The actual causation analysis is thus a counterfactual whereby the court imagines a hypothetical situation just like the present dispute between parties, but without the actor’s conduct or lack thereof.¹⁰ If, without the actor, the damage would not have occurred, then that actor is the actual cause.¹¹

Having determined the actual cause of damage, courts next proceed to the proximate cause analysis. Proximate cause, the U.S. Supreme Court has explained, “is shorthand for a concept: [i]njuries have countless causes, and not all should give rise to legal liability.”¹² Courts believe not all causes should give rise to liability out of a concern for “convenience, . . . public policy, [and] a rough sense of justice,”¹³ so the law either refuses or seeks “to trace a series of events beyond a certain point.”¹⁴ If, for example, a candle falls and lights a barn on fire, which then ignites a neighboring barn and so forth until an entire city is up in flames, the candle falling is the actual cause of the damage—but-for the candle, nothing would be on fire. However, courts may refuse to trace responsibility back to the candle owing to proximate causes intervening between the falling candle and the burning city.¹⁵ Alternatively,

7. See generally H.L.A. HART & TONY HONORÉ, *CAUSATION IN THE LAW* 88–95 (2d ed. 1985).

8. *Id.*; Joshua Knobe & Scott Shapiro, *Proximate Cause Explained: An Essay in Experimental Jurisprudence*, 88 U. CHI. L. REV. 165, 173 (2021), <http://dx.doi.org/10.2139/ssrn.3544982> (“Traditionally, legal scholars have factored tort law’s causation requirement into two components: factual [or actual] and proximate causation.”).

9. Tory A. Weigand, *Tort Law—The Wrongful Demise of But For Causation*, 41 W. NEW ENG. L. REV. 75, 78 (2019).

10. David W. Robertson, *The Common Sense of Cause in Fact*, 75 TEX. L. REV. 1765, 1770 n.21 (1997).

11. Note, *Rethinking Actual Causation in Tort Law*, 130 HARV. L. REV. 2163, 2164 (2017).

12. *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 692 (2011) (citing W. PAGE KEETON ET AL., *PROSSER AND KEETON ON THE LAW OF TORTS* § 42, at 273 (5th ed. 1984)).

13. *Palsgraf v. Long Island R.R.*, 248 N.Y. 339, 352 (1928).

14. *Id.*

15. *Id.* (“An overturned lantern may burn all Chicago. We may follow the fire from

where Adam runs into Bill only because Carl ran into Adam, Adam is the actual cause of Bill's damage, but Carl is the proximate cause of Bill's damage. Courts thus may seek to trace responsibility back to Carl as a matter of fairness. Asserting liability in a given situation necessarily depends on identifying actual and proximate causes, but it also requires parties to prove that the actual and proximate causes of damage are the same.¹⁶

A. *Defenses to Liability: Refuting Proximate Cause*

Parties identified as the actual cause of damage can defend themselves against assertions of liability by attempting to prove they are not also the proximate cause. The famous case *Palsgraf v. Long Island Railroad Company* offers two general strategies. To Judge Cardozo and the majority of the court, an actor should not be liable for damage when there is “no hazard . . . apparent to the eye of ordinary vigilance.”¹⁷ In other words, when an actor acts, they create an “orbit” of danger, and the actor only has a duty to those within this orbit, or to those for whom a hazard resulting from the actor's conduct is foreseeable.¹⁸ Those who defend themselves from liability can therefore argue that they do not owe a duty to someone, even though the actor actually caused their harm, because it is not reasonably foreseeable that the actor's conduct would harm that person in particular. In this way, an actor can attack proximate cause to refute they had a duty. Alternatively, according to the dissenting Judge Andrews, “[everyone] owes to the world at large a duty of refraining from those acts that may unreasonably threaten the safety of others.”¹⁹ A duty is therefore presumed for all regardless of who could be foreseeably harmed by the conduct. However, an actor can still defend against liability by showing their conduct is too remote for them to be considered both the actual and proximate cause of another's damages.²⁰ Whether actors attack proximate cause to refute their duty or to refute their causal connection to a harm given a duty, actors can defend themselves by attacking proximate cause.²¹

More specifically, parties can attempt to defend themselves by showing some other actor was the proximate cause of damage.²² For example, actors can point to acts of third parties or acts of war as proximate

the shed to the last building. We rightly say the fire started by the lantern caused its destruction. A cause, but not the proximate cause.”).

16. Knobe & Shapiro, *supra* note 8, at 173 (“Being a factual cause is not sufficient for an event to be a legal cause. In addition, the event must be proximate to the harm.”).

17. *Palsgraf*, 248 N.Y. at 342.

18. *Id.* at 343.

19. *Id.* at 350 (Andrews, J., dissenting).

20. *Id.*

21. See generally W. Jonathan Cardi, *The Hidden Legacy of Palsgraf: Modern Duty Law in Microcosm*, 91 B.U. L. REV. 1873, 1890–98 (2011).

22. RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 34 cmt. f (AM. L. INST. 2010).

causes ultimately liable for damage. The Antiterrorism Act of 1990 excludes actors from liability for “any act” occurring during a declared war, an undeclared war between nations, or an “armed conflict between military forces.”²³ And the acts of third parties defense excepts parties from liability when a person over whom the party has no control is the proximate cause of damage.²⁴ In *Box v. Jubb*, the defendant owned a reservoir that overflowed and flooded the plaintiff’s land, but the defendant proved that an unknown third party clogged the drain.²⁵ Thus, the English High Court of Justice found the defendant not liable to the plaintiff for the damages.²⁶

Parties can also use the necessity defense to attack proximate cause. Under the necessity defense, a party who is the actual cause of damage may be excepted from liability if they acted under the “pressure of circumstances.”²⁷ Concepts such as coercion and duress likewise recognize that an actual cause of damage may not be liable where a third party uses force to make another the actual cause.²⁸ Non-human forces, however, can also put pressure on someone to be an actual cause. In *Commonwealth v. Magadini*, the Massachusetts Supreme Judicial Court determined that a person experiencing homelessness who trespassed on private property was not liable for damages from their conduct because they acted to avoid harm from extremely cold temperatures.²⁹ The court’s decision acknowledged that, while the actor was the actual cause of trespass, their behavior was excusable because unbearable temperatures were an irresistible and reasonable proximate cause motivating their decision to trespass.³⁰ Actors can therefore use the necessity defense to escape liability for even intentional damage-causing behavior insofar as the actor may be justified by, or at least excused from liability because of, a proximate cause.

III. THE ACT OF GOD DEFENSE

Weather and other naturally occurring phenomena are also recognized as proximate causes excepting actors from liability under the act of God defense. Historically and cross-culturally, humans have long attributed storms, earthquakes, volcanoes, and natural processes in

23. 18 U.S.C. §§ 2336(a), 2331(4).

24. Fleming James Jr. & Roger F. Perry, *Legal Cause*, 60 YALE L.J. 761, 796 (1951).

25. *Box v. Jubb* [1879] 41 LT 97 (Exch. Div.) 98, 100 (UK).

26. *Id.*

27. *Commonwealth v. Magadini*, 52 N.E.3d 1041, 1047 (Mass. 2016) (internal citation omitted).

28. Stephen S. Schwartz, Comment, *Is There a Common Law Necessity Defense in Federal Criminal Law?*, 75 U. CHI. L. REV. 1259, 1263–65 (2008).

29. *Magadini*, 52 N.E.3d at 1050–51.

30. *Id.* at 1047–48.

general to supernatural beings.³¹ In the Old Testament, God famously uses the weather to send messages in the stories of Noah³² and Passover.³³ And in the New Testament, Jesus is said to have turned water into wine³⁴ and healed the sick.³⁵ Ancient Greeks ascribed weather to certain gods—the most powerful and famous amongst them, Zeus, carried a lightning bolt and used it on the earth below.³⁶ Buddhism features gods like *Indra*, who would crash down from heaven in the form of thunder, *Maruts* the wind god, and *Agni* the fire god.³⁷ And the word “hurricane” in English may come from the Mayan goddess of fury named “Huracán.”³⁸ Granted, many societies have viewed supernaturally occurring weather as proximately caused by humans insofar as God or gods have used weather to punish bad behavior or reward good behavior.³⁹ But after scientific experiments confirmed natural phenomena are formed by natural, rather than supernatural, processes, there nonetheless remained a presupposition that humans do not cause weather.⁴⁰ By extension, legal systems have long refused to hold actors liable when the harm they actually caused was proximately caused by weather events: the following sections therefore discuss the history of the act of God defense.

31. See Carol R. Ember & Ian Skoggard, *Why Are Gods Thought to Cause Weather?*, YALE UNIV.: HUM. RELS. AREA FILES (Mar. 15, 2021), <https://hraf.yale.edu/why-are-gods-thought-to-cause-weather/> [<https://perma.cc/DN2W-E8EN>] (describing why many societies may believe their gods can influence weather).

32. *Genesis* 6:13–17 (New Int'l Version) (“So God said to Noah, ‘I am going to put an end to all people . . . I am going to bring floodwaters on the earth to destroy all life . . .’”).

33. *Exodus* 7–11 (New Int'l Version) (describing the ten plagues God sent onto Egypt).

34. *John* 2:1–12 (New Int'l Version).

35. *Luke* 4:31–41 (New Int'l Version) (describing Jesus curing a “Demon[ia]c,” “Simon’s Mother-in-law,” and others).

36. See Eugene S. McCartney, *Classical Weather Lore of Thunder and Lightning (Concluded)*, 25 CLASSICAL WKLY. 212, 213 (1932).

37. Anuradha Seneviratna, *Folk Beliefs and Rituals Associated with Rain and Drought*, 29 J. ROYAL ASIATIC SOC’Y SRI LANKA BRANCH 33, 33–34 (1985).

38. POPOL VUH: SACRED BOOK OF THE QUICHÉ MAYA PEOPLE 58, n.62 (Allen J. Christenson trans., 2007) (“The god’s name would thus refer to his unique nature as the essential power of the sky. In addition, the homophonous word *huracán* was used along the Gulf Coast of Mexico and the West Indies to refer to powerful swirling winds. The modern English hurricane may be derived from the Taino version of this word.”).

39. See, e.g., *Job* 37:13 (New Int'l Version) (“He brings the clouds to punish people, or to water his earth and show his love.”); Eugene S. McCartney, *Greek and Roman Weather Lore of Two Destructive Agents, Hail and Drought*, 28 CLASSICAL WKLY. 9 (1934).

40. *Weather Forecasting Through the Ages*, NASA EARTH OBSERVATORY (Feb. 25, 2002), <https://earthobservatory.nasa.gov/features/WxForecasting/wx2.php> [<https://perma.cc/4UF4-6G6V>] (“Throughout the centuries, attempts have been made to produce forecasts based on weather lore and personal observations. However, by the end of the Renaissance, it had become increasingly evident that the speculations of the natural philosophers were inadequate and that greater knowledge was necessary to further our understanding of the atmosphere.”).

A. *Origins of the Act of God Defense in Contract Law*

The roots of the act of God defense trace back to contract law.⁴¹ Under Ancient Roman law, a judge could grant an excuse or *essoïn* for a party's failure to perform its obligation, though this excuse was granted more often for acts of third parties or war than for natural phenomena.⁴² Nonetheless, the concept of a judge granting an excuse for an unperformed contract obligation due to a *vis major, force majeure, damnum fatale*, or other unavoidable and natural proximate cause sustained into English law.⁴³ In *Shelley's Case* from the sixteenth century, the court ruled that the death of a party to a contract was an "act of God" excusing the living party from performance.⁴⁴ Even later, in *Taylor v. Caldwell* from the nineteenth century, a British court canceled a contract for musical performances scheduled at a concert hall when an unexpected fire burned down the venue.⁴⁵ And in *Nugent v. Smith*, an English case from 1876, the House of Lords explained:

[I]f [a party] can shew that . . . the act of nature . . . formed the sole direct and irresistible cause of the loss, he is discharged [of liability]. In order to shew that the cause of the loss was irresistible it is not necessary to prove that it was absolutely impossible for the carrier to prevent it, but it is sufficient to prove that by no reasonable precaution under the circumstances could it have been prevented.⁴⁶

Other contract principles like impossibility and impracticability mirror the logic of the act of God defense, permitting parties to escape contractual responsibilities when unforeseeable and "irresistible" conditions make performance impossible.⁴⁷ And act of God clauses are commonplace in residential and commercial property insurance contracts.⁴⁸

Act of God clauses have featured prominently in recent years owing to the COVID-19 pandemic. In *JN Contemporary Art LLC v. Phillips*

41. See Hermann Loimer et al., *Accidents and Acts of God: A History of the Terms*, 86 AM. J. PUB. HEALTH 101, 104 (1996); see also Corjo Jansen, *Accidental Harm Under (Roman) Civil Law*, in THE CHALLENGE OF CHANCE 233, 234–35, 239–40 (Klaas Landsman & Ellen van Wolde eds., 2016).

42. Loimer et al., *supra* note 41, at 104.

43. *Id.*

44. Bill B. Bozeman, Note, *Act of God*, 4 S.C. L. REV. 421, 421 (1952); David A. Smith, *Was There a Rule in Shelley's Case?*, 30 J. LEGAL HIST. 53, 58–59 (2009), <https://doi.org/10.1080/01440360902765449>.

45. *Taylor v. Caldwell* (1863) 122 Eng. Rep. 309; 3 B. & S. 825, 832.

46. *Nugent v. Smith* (1876) 1 CPD 423 (HL) (UK), <https://swarb.co.uk/nugent-v-smith-ca-29-may-1876/> [<https://perma.cc/Y7GY-AD75>].

47. Myanna Dellinger, *An "Act of God"? Rethinking Contractual Impracticability in an Era of Anthropogenic Climate Change*, 67 HASTINGS L.J. 1551, 1561 (2016).

48. Daniel Silliman, *This is the Reason Your Insurance Company Calls Blizzards an "Act of God,"* WASH. POST (Jan. 22, 2016, 7:00 AM), <https://www.washingtonpost.com/news/acts-of-faith/wp/2016/01/22/this-is-the-reason-your-insurance-company-calls-blizzards-an-act-of-god/> [<https://perma.cc/99BT-SK39>]; *Act of God*, CORNELL L. SCH.: LEGAL INFO. INST., https://www.law.cornell.edu/wex/act_of_god [<https://perma.cc/F2ZC-DAFP>] (June 2022) ("[T]hough less common than it used to be, many insurance contracts claim not to provide coverage/indemnification for acts of God.").

Auctioneers LLC, the parties contracted for the defendant to auction a painting held by the plaintiff.⁴⁹ After COVID-19 began infecting New York City residents, causing business closures and lockdown protocols, the defendant terminated the contract.⁵⁰ The contract permitted the parties to terminate the agreement “[i]n the event that the auction [was] postponed for circumstances beyond [the parties’] reasonable control,” and the contract featured “natural disaster[s]” as an example of such a circumstance.⁵¹ Interpreting this language, the district court concluded that COVID-19 was a natural disaster beyond the parties’ reasonable control, excused non-performance, and dismissed the case.⁵²

B. *Act of God Defense in Common Law of Torts*

Beyond private dealings between parties, who are free to bargain about the exact parameters of the defense, the act of God defense is a long-standing common law doctrine applicable in torts law. In the 1785 case *Forward v. Pittard*, Lord Mansfield described an act of God as an “act as could not have happened by the intervention of man, as storms, lightning, and tempest.”⁵³ In the Scottish case *Tennent v. Earl of Glasgow*, Lord Chancellor Westbury explained acts of God as “occurrences and circumstances which no human foresight can provide against and of which human prudence is not bound to recognize the possibility,” and which do not obligate individual liability for their consequences.⁵⁴ As for its application, in *Nichols v. Marsland*, where heavy rain caused artificial waterways created by the defendant to flood and damage adjoining land, the court wrote:

[T]he flood was so great that it could not reasonably have been anticipated . . . [W]e think [the defendant] ought not to be held liable because she did not prevent the effect of an extraordinary act of nature, which she could not anticipate . . . the extraordinary quantity of water brought in by the flood is in point of law the sole proximate cause of the escape of the water. It is the last drop which makes the cup overflow.⁵⁵

Early American courts likewise recognized the act of God defense in tort liability. In the 1873 case *Sumner v. Philadelphia*, a vessel carrying goods docked into a harbor in Philadelphia, and upon its arrival

49. *JN Contemp. Art LLC v. Phillips Auctioneers LLC*, 29 F.4th 118, 121 (2d Cir. 2022).

50. *Id.* at 122.

51. *Id.* at 121.

52. *Id.* at 125.

53. *Forward v. Pittard* (1785) 99 Eng. Rep. 953, 957 (citing Bozeman, *supra* note 44).

54. *Tennent v. Earl of Glasgow* (1864) SC (HL) 1229 (Scot.), [https://www.bailii.org/cgi-bin/format.cgi?doc=/uk/cases/UKHL/1864/2_Paterson_1229.html&query=\(Hugh\)+AND+\(Tennent\)+AND+\(v.\)+AND+\(Earl\)+AND+\(of\)+AND+\(Glasgow\)](https://www.bailii.org/cgi-bin/format.cgi?doc=/uk/cases/UKHL/1864/2_Paterson_1229.html&query=(Hugh)+AND+(Tennent)+AND+(v.)+AND+(Earl)+AND+(of)+AND+(Glasgow)) [<https://perma.cc/VH2Y-WJ5S>].

55. *Nichols v. Marsland* (1876) 2 Exch. Div. 1 (UK), <https://swarb.co.uk/nichols-v-marsland-ca-1-dec-1876/> [<https://perma.cc/2NP5-JU8B>].

city officials discovered that many crew members were sick with yellow fever.⁵⁶ City officials then quarantined the vessel for three months, and in the meantime took sick crew members to the hospital, disinfected the ship, and chartered city-owned boats to transport the goods carried aboard.⁵⁷ Philadelphia then required the crew members to compensate the city for its efforts, but the crew members resisted, leading to litigation.⁵⁸ The court ultimately concluded that yellow fever was an act of God, barring the crew members from having to pay the city for its expenses.⁵⁹ And some years earlier, in 1864, the court of appeals in New York held that, while a flood causing damage to goods carried by ship could be an act of God, the defense does not apply when the damages are caused by the confluence of a natural phenomenon and a defendant's negligence.⁶⁰ The court thus refused to recognize the defense in the case, but it nonetheless recognized the possibility that acts of God could be exceptions to liability.⁶¹ The Supreme Court similarly denied the act of God defense in the particular matter before it but recognized its possible application in an 1891 case.⁶²

C. *Federal Statutory Act of God Defense*

Beyond common law and contracts, the act of God defense is also included in several federal statutes. Three federal acts generally hold parties liable for clean-up costs if they spill hazardous chemicals. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) imposes liability on those who cause the "release or threat of release . . . of a hazardous substance."⁶³ The Clean Water Act (CWA) likewise imposes liability on those who discharge pollutants into navigable waters without a permit.⁶⁴ And the Oil Pollution Act (OPA), an amendment to CWA passed in 1990, more narrowly imposes liability on those who cause a "discharge, or . . . substantial threat of discharge of oil, into . . . navigable waters."⁶⁵ All three statutes except from liability those who can prove the statutorily defined act of God defense. CERCLA and OPA share the same definition of the defense: "an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight."⁶⁶ CWA uses a less-detailed definition of the act

56. *Sumner v. Philadelphia*, 23 F. Cas. 392, 393 (C.C.E.D. Pa. 1873) (No. 13,611).

57. *Id.*

58. *Id.* at 395.

59. *Id.* at 397.

60. *Michaels v. N.Y. Cent. R.R.*, 30 N.Y. 564, 576-77 (1864).

61. *Id.*

62. *Gleeson v. Va. Midland Ry.*, 140 U.S. 435, 439 (1891).

63. 42 U.S.C. § 9607(a)(4).

64. 33 U.S.C. § 1311(a).

65. *Id.* § 2702(a).

66. 42 U.S.C. § 9601(1); 33 U.S.C. § 2701(1).

of God defense: “an act occasioned by an unanticipated grave natural disaster.”⁶⁷

Though the federal statutory definitions of the act of God defense contain additional qualifiers not formally present in the common law defense, the statutory and common law defenses operate similarly. In *Sabine Towing and Transportation Co. v. United States*, for example, a cargo tanker carrying petroleum products struck either a rock or a log in a river, causing the tanker to rupture and spill oil.⁶⁸ The rock or log that the tanker struck likely fell into the river when snow melted in the spring and carried debris with it—a process known as “freshet.”⁶⁹ The vessel operator argued the freshet was an act of God excepting the company from paying the federal government back for clean-up costs, and the trial court agreed.⁷⁰ On appeal, however, the court determined that neither the freshet nor the debris carried into the river were “grave natural disaster[s]” or even “disaster[s]” as required by the statutory act of God definition.⁷¹ The court further reasoned that freshets were not “unanticipated” because they and the dangerous conditions they cause were “well known” and “expected” in the area.⁷² The court of claims therefore reversed the trial court’s decision and held the act of God defense did not apply.⁷³

Based on the foregoing history, the act of God defense can be distilled into three general elements. First, a party must demonstrate that some phenomenon like a storm or earthquake was objectively unforeseeable—that no reasonable actor could have anticipated the occurrence of the event.⁷⁴ Second, a party must show that the unforeseeable phenomenon was “irresistible,” or that there were no means by which an actor could have prevented the damage proximately caused by the phenomenon.⁷⁵ When a defendant is negligent, courts reason they could have resisted the damage by *not* being negligent, so the defense is denied; the

67. 33 U.S.C. § 1321(a)(12).

68. *Sabine Towing & Transp. Co. v. United States*, 666 F.2d 561, 563 (Ct. Cl. 1981).

69. *Id.*

70. *Id.* at 564.

71. *Id.*

72. *Id.* at 565.

73. *Id.* at 566. The common law has long recognized that human activities near bodies of water often give rise to predictable natural harms. See *Nichols v. Marsland* (1876) 2 Exch. Div. 1 (UK), <https://swarb.co.uk/nichols-v-marsland-ca-1-dec-1876/> [<https://perma.cc/2NP5-JU8B>].

74. See *Forward v. Pittard* (1785) 99 Eng. Rep. 953, 955–57; 1 T. R. 27, 33; *Tennent v. Earl of Glasgow* (1864) SC (HL) 1229 (Scot.), [https://www.bailii.org/cgibin/format.cgi?doc=/uk/cases/UKHL/1864/2_Paterson_1229.html&query=\(Hugh\)+AND+\(Tennent\)+AND+\(v.\)+AND+\(EARL\)+AND+\(of\)+AND+\(Glasgow\)](https://www.bailii.org/cgibin/format.cgi?doc=/uk/cases/UKHL/1864/2_Paterson_1229.html&query=(Hugh)+AND+(Tennent)+AND+(v.)+AND+(EARL)+AND+(of)+AND+(Glasgow)) [<https://perma.cc/VH2y-WJ5S>]; *Taylor v. Caldwell* (1863) 122 Eng. Rep. 309; *Rupert v. Dagggett*, 695 F.3d 417, 426 (6th Cir. 2012); *Michigan v. Schaefer*, 473 Mich. 418, 437–38 (2005); *Saden v. Kirby*, 660 So.2d 423, 428 (La. 1995).

75. See *JN Contemp. Art LLC v. Phillips Auctioneers LLC*, 29 F.4th 118, 123 (2d Cir. 2022); 42 U.S.C. § 9601(1); 33 U.S.C. § 2701(1).

act of God must therefore be the sole proximate cause.⁷⁶ Thirdly, the phenomenon must not have been caused by human activity—the disease, storm, or any other phenomenon that proximately causes damage must be naturally occurring.⁷⁷ The act of God defense therefore excepts actors from liability when a natural phenomenon is unforeseeable, irresistible, and from natural rather than human origin.

IV. LIMITATIONS TO THE ACT OF GOD DEFENSE

Though parties are free to assert the act of God defense, courts appear unwilling to recognize it, at least with regard to federal environmental statutes.⁷⁸ Since *Sabine Towing*, federal courts have hardly decided on the act of God defense past the summary judgment stage.⁷⁹ Different federal courts have consistently ruled against defendants asserting the defense at the pleading stage, and some have even denied the defense in a footnote.⁸⁰ In some cases, the court found that the supposed “grave natural disaster” was not grave enough.⁸¹ In others, courts determined that the natural phenomenon was not the sole cause of damage, and that a party’s negligent acts or omissions concurrently caused the damage.⁸² Additionally, courts have found that the damage-causing natural phenomenon was foreseeable.⁸³ While some courts have looked to the typical weather conditions in an area—like with the freshet in *Sabine Towing*⁸⁴—to determine foreseeability, other courts have noted that a

76. *Nugent v. Smith* (1876) 1 CPD 423 (HL) (UK), <https://swarb.co.uk/nugent-v-smith-ca-29-may-1876/> [<https://perma.cc/V2F3-D2LF>]; *Michaels v. New York Cent. R.R.*, 30 N.Y. 564, 577–78 (1864); Marsha Ternus Rundall, Note, “Act of God” as a Defense in Negligence Cases, 25 DRAKE L. REV. 754, 758–61 (1976).

77. *Gleeson v. Va. Midland Ry. Co.*, 140 U.S. 435, 439 (1891) (“Extraordinary floods, storms of unusual violence, sudden tempests, severe frosts, great droughts, lightning, earthquakes, sudden deaths and illnesses, have been held to be ‘acts of God’ . . .”).

78. Clifford J. Villa, *Is the ‘Act of God’ Dead?*, 7 WASH. J. ENV’T. L. & POL’Y. 320, 322 (2017). Clifford Villa was an attorney with the Environmental Protection Agency (EPA) for over twenty years, and he remarks that he “never saw a case where the act of God defense prevailed against environmental liability.” *Id.*

79. See, e.g., *United States v. Stringfellow*, 661 F. Supp. 1053 (C.D. Cal. 1987); *Kyoei Kaiun Kaisha, Ltd. v. M/V Bering Trader*, 795 F. Supp. 1054 (W.D. Wash. 1991); *Liberian Poplar Transps., Inc. v. United States*, 26 Cl. Ct. 223 (Cl. Ct. 1992); *United States v. Alcan Aluminum Corp.*, 892 F. Supp. 648 (M.D. Pa. 1995); *United States v. Barrier Indus., Inc.*, 991 F. Supp. 678 (S.D.N.Y. 1998); *United States v. J.R. Nelson Vessel, Ltd.*, 1 F. Supp. 2d 172 (E.D.N.Y. 1998); *Apex Oil Co. v. United States*, 208 F. Supp. 2d 642 (E.D. La. 2002).

80. See, e.g., *Kyoei*, 795 F. Supp. at 1056 n.2; *J.R. Nelson*, 1 F. Supp. 2d at 176 n.2.

81. *J.R. Nelson*, 1 F. Supp. 2d at 176 n.2.

82. *Barrier Indus.*, 991 F. Supp. at 679–80.

83. *Liberian Poplar*, 26 Cl. Ct. at 226; *Stringfellow*, 661 F. Supp. at 1061.

84. *Sabine Towing & Transp. Co. v. United States* 666 F.2d 561, 565 (Ct. Cl. 1981); see also *Apex Oil*, 208 F. Supp. 2d at 657 (explaining that “[t]he conditions of the river which occasioned the discharge of slurry oil at issue in [the] case were both anticipated and predicted”).

natural phenomenon was known or could have been known to a party by virtue of access to weather reports and technology.⁸⁵

Notwithstanding the fact-based reasons why federal courts largely resolve the statutory act of God defense for plaintiffs at the summary judgment stage, one overarching reason for courts' decisions is the policy underlying the federal environmental statutes. The *Apex Oil* court explained “[c]ongressional intent is clearly that the ‘exceptional natural phenomenon’ (*i.e.*, the ‘act of God’) defense be construed as much more limited in scope than the traditional common law ‘act of God’ defense.”⁸⁶ Congress intended liability under the federal environmental statutes to be strict, such that “the absence of fault, or the exercise of due care is not a defense.”⁸⁷ Thus, “[o]nly in situations where the accident was completely beyond the control of the polluting [actor]” can that actor be excepted from liability.⁸⁸ If actors could routinely defer to natural phenomena as the proximate cause of serious damages like oil spills, there might be little incentive for those actors to take every precaution possible, and even develop safer technology, to avoid the damage in the first place. Furthermore, an overly generous act of God defense would force the federal government to cover more costs to clean spills, creating a free rider problem of sorts where taxpayers absorb negative externalities caused by actors engaging in inherently risky behavior. That federal courts so rarely except actors from liability under the *statutory* act of God defense is then perhaps a good thing.

A. *Anthropogenic Climate Change Negates All Three Elements of the Common Law Act of God Defense*

But while succeeding on the statutory act of God defense may be unlikely owing to congressional intent, succeeding on the common law defense may be impossible owing to anthropogenic climate change. Human behavior, primarily the burning of fossil fuels for industrial and consumer purposes, has trapped large amounts of greenhouse gases (GHGs) like carbon dioxide, methane, and nitrous oxide in the Earth's atmosphere.⁸⁹ These GHGs permeate the atmosphere, exposing the Earth's surface to a greater degree of radiation from the sun, which in

85. See *Liberian Poplar*, 26 Cl. Ct. at 226 (explaining that “[i]f the crew had monitored the radio for weather conditions, they clearly *could* have anticipated and taken precautions against the storm”) (emphasis in original); *United States v. M/V Santa Clara I*, 887 F. Supp. 825, 843 (D.S.C. 1995) (“[I]nclement weather offshore was predicted by the National Weather Service and known by the captain and crew prior to departure . . .”).

86. *Apex Oil*, 208 F. Supp. 2d at 652–53; *United States v. W. Eng. Ship Owner's Mut. Prot. & Indem. Ass'n*, 872 F.2d 1192, 1198 n.12 (5th Cir. 1989) (discussing the foreseeability standard in the OPA).

87. *Id.* at 652.

88. *Kyoei Kaiun Kaisha, Ltd. v. M/V Bering Trader*, 795 F. Supp. 1054, 1056 (W.D. Wash. 1991).

89. See generally *Scientific Consensus: Earth's Climate Is Warming*, *supra* note 2.

turn has caused the Earth to abnormally heat and cool.⁹⁰ As a result, the National Climate Assessment has found that “the number of heat waves, heavy downpours, and major hurricanes has increased in the United States, and the strength of these events has increased, too.”⁹¹ More frequent and intense natural phenomena affect living beings across the globe, and while “[s]ocietal adaptation has the potential to decrease global climate risk substantially . . . , [it] cannot fully prevent residual risks from increasing”⁹² Moreover, the consequences of anthropogenic climate change are only worsening, as 2022 was a record high for ocean temperature,⁹³ which causes downstream consequences for polar ice and ocean life.⁹⁴ As well, many of the destructive natural phenomena like droughts,⁹⁵ wildfires,⁹⁶ and floods⁹⁷ that occurred over the past two years were made more likely to occur by human behavior and its effect on the climate.

Anthropogenic climate change thus may moot the three elements of the act of God defense. First, while natural phenomena are indeed natural, climate science has revealed that human activity is the proximate cause of the phenomena. Insofar as the defense only recognizes events stemming from natural *origin*, the source of more intense and frequent weather is human behavior,⁹⁸ and courts could refuse to recognize the defense owing to the human origin of weather because of anthropogenic climate change. Second, natural phenomena are now theoretically resistible insofar as humans could *not* have behaved in ways that contribute to climate change. While perhaps courts may not entertain this kind of theoretical argument, courts likely would view damage as resistible because humans generally recognize that intense weather conditions are more likely because of human behavior, which

90. See *Climate Change Indicators: Greenhouse Gases*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/climate-indicators/greenhouse-gases> [perma.cc/23BH-8T2L] (Aug. 1, 2022).

91. *Extreme Weather and Climate Change*, CTR. FOR CLIMATE & ENERGY SOLS., <https://www.c2es.org/content/extreme-weather-and-climate-change/> [perma.cc/TUU3-Q5BK].

92. Alexandre K. Magnan et al., *Estimating the Global Risk of Anthropogenic Climate Change*, 11 NATURE CLIMATE CHANGE 879, 879 (2021), <https://doi.org/10.1038/s41558-021-01156-w>.

93. Lijing Cheng et al., *Another Year of Record Heat for the Oceans*, 40 ADVANCES ATMOSPHERIC SCIS. 963, 963–64 (2023), <https://doi.org/10.1007/s00376-023-2385-2>.

94. *Ocean Warming*, NASA: GLOB. CLIMATE CHANGE, <https://climate.nasa.gov/vital-signs/ocean-warming/#:~:text=The%20effects%20of%20ocean%20warming,in%20ocean%20health%20and%20biochemistry> [perma.cc/J725-NEXB] (Feb. 23, 2023).

95. Jonghun Kam et al., *Human Contribution to 2020/21-Like Persistent Iran Meteorological Droughts*, 103 BULL. AM. METEOROLOGICAL SOC'Y E2930, E2930 (2022), <https://doi.org/10.1175/BAMS-D-22-0149.1>.

96. Zhongwei Liu et al., *The April 2021 Cape Town Wildfire*, 104 BULL. AM. METEOROLOGICAL SOC'Y E298, E298 (2023), <https://doi.org/10.1175/BAMS-D-22-0204.1>.

97. See Nikolaos Christidis & Peter A. Stott, *The Extremely Wet May of 2021 in the United Kingdom*, 103 BULL. AM. METEOROLOGICAL SOC'Y E2912, E2912, E2916 (2022), <https://doi.org/10.1175/BAMS-D-22-0108.1>.

98. See generally *Scientific Consensus: Earth's Climate Is Warming*, *supra* note 2.

means actors could resist the damage by avoiding taking any actions during even possibly inclement weather.

In that regard, the element most profoundly affected by anthropogenic climate change is foreseeability. It is a matter of scientific consensus that climate change increases the intensity of weather events,⁹⁹ meaning now it is hard to argue that any event could be “so great that it could not reasonably have been anticipated,” as the court concluded in *Nichols v. Marsland*.¹⁰⁰ There is also consensus on the increased frequency of weather events caused by climate change, so even typical events like the freshet from *Sabine Towing*¹⁰¹ are likely to occur earlier and more often. And there is, among the public, increased recognition that climate change affects weather, as a poll conducted in 2021 found 72% of respondents believe “[g]lobal warming is happening,” and 64% of respondents believe “[g]lobal warming is affecting the weather.”¹⁰² To the extent the act of God defense is only available where an actor can prove a natural phenomenon was *not* foreseeable, the effects of anthropogenic climate change and their growing recognition among the public make proving this element impossible, casting doubt on whether the defense can and should survive today.

B. *Scholarship on Limitations to the Act of God Defense*

Scholars have already recognized that “[g]lobal climate change will present courts with the kinds of difficult factual situations that make it impossible to pretend the old act of God [defense]” should remain.¹⁰³ Jill Fraley, a legal historian and environmental law scholar, contends that the problem with the act of God defense is that it asks parties to prove an impossibility: “that nature can be absolutely separated from the human.”¹⁰⁴ Fraley relies largely on Foucauldian and Heideggerian theories to argue nature and humans are coterminous and co-constitutive rather than separate and distinct.¹⁰⁵ Fraley claims this divide is a legal fiction that exemplifies a central fallacy in the act of God defense and frustrates environmental protection schemes.¹⁰⁶ As such, anthropogenic climate change merely amplifies the impossibility of separating nature and human activity.¹⁰⁷ Fraley’s argument therefore centers on the “natural origin” element of the defense, as she contends the defense

99. *Id.*

100. *Nichols v. Marsland* (1876) 2 Exch. Div. 1 (UK), <https://swarb.co.uk/nichols-v-marsland-ca-1-dec-1876/> [<https://perma.cc/2NP5-JU8B>].

101. *Sabine Towing & Transp. Co. v. United States*, 666 F.2d 561, 563, 565 (Ct. Cl. 1981).

102. Marlon et al., *supra* note 4.

103. Fraley, *supra* note 5, at 687.

104. *Id.*

105. *Id.* at 677.

106. *Id.* at 681–83.

107. *Id.* at 684.

is “analytically flawed” because humans and nature are philosophically inseparable.¹⁰⁸

Other scholars have focused more intently on foreseeability in the face of anthropogenic climate change. For example, environmental lawyer and scholar Ken Kristl argues that the act of God defense “stands on shaky grounds”¹⁰⁹ and “needs to be limited or done away with entirely”¹¹⁰ because the foreseeability element lacks utility today.¹¹¹ Kristl dissociates foreseeability in the act of God defense to event foreseeability—according to which a party must prove a natural phenomenon is not foreseeable¹¹²—and response foreseeability—according to which an actor must demonstrate that the injuries caused were not foreseeable in light of the actor’s attempt to avoid the natural phenomenon.¹¹³ Pertaining to event foreseeability, Kristl identifies the confluence of two factors: technology capable of tracking natural phenomena and predicting their damage, as well as anthropogenic climate change.¹¹⁴ Together, these factors render natural phenomena foreseeable, invalidating the defense.¹¹⁵

Kristl goes further, though, and argues greater event foreseeability translates to weakened response foreseeability, which pushes actors to take economically wasteful measures to avoid harm.¹¹⁶ Relying on the Learned Hand formula for negligence,¹¹⁷ Kristl explains anthropogenic climate change increases both P (probability of damage) and L (severity of damage), thereby raising B (the burden of taking precautions to prevent damage) such that an actor will have to take greater and greater actions to mitigate foreseeable natural phenomena and damage.¹¹⁸ This increased onus to prevent damage, according to Kristl, puts pressure on actors to “act in . . . economically inefficient way[s]” because “the level of B necessary to avoid liability [given a foreseeable natural phenomenon] is difficult if not impossible to predict.”¹¹⁹ Thus, while greater event foreseeability itself frustrates the defense, unpredictable response

108. *Id.* at 687.

109. Kristl, *supra* note 5, at 351.

110. *Id.* at 361.

111. *Id.* at 354.

112. *Id.* at 352.

113. *Id.* at 352–53.

114. *Id.* at 354.

115. *Id.* at 351–54.

116. *Id.* at 357–58.

117. Allan M. Feldman & Jeonghyun Kim, *The Hand Rule and United States v. Carroll Towing Co. Reconsidered*, 7 AM. L. & ECON. REV. 523, 533 (2005), <https://doi.org/10.1093/aler/ahi017>. Under the formula, liability for negligence depends on whether B (the burden of taking adequate precautions to avoid an injury) is less than L (the injury caused) multiplied by P (the probability of the injury occurring). If $B < PL$, then a party may be liable for negligence. But if B is greater than P times L—perhaps because the burden is so great, the probability of the injury is so low, or the injury caused is so minimal—a party will not be liable for negligence. See *id.* at 524, 527–33.

118. Kristl, *supra* note 5, at 358–59.

119. *Id.*

foreseeability promotes economically inefficient behavior, meaning the act of God defense is both invalid and wasteful.

Finally, and perhaps most potently, some scholars worry that those corporate actors who have contributed most to anthropogenic climate change can abuse the act of God defense.¹²⁰ Kristl contends the act of God defense “exists and continues to be relevant because” it permits defendants to “avoid liability” by giving them “special rules” for “short-circuit[ing] the negligence process.”¹²¹ According to Kristl, “[a]s long as defendants believe there is something to gain from raising the defense, they will continue to do so.”¹²² Echoing Kristl’s concerns, Fraley also believes defendants have something to gain, particularly those whose conduct contributes to climate change.¹²³ Fraley observes that mountaintop removal mining in Appalachia has exacerbated the occurrence of “hundred year floods” by removing vegetation and topsoil that once absorbed rainfall.¹²⁴ In the absence of this absorbent vegetation, more rainwater reaches cities and properties at the bottom of the mountain, causing more intense flooding and severe damage than normal.¹²⁵ “Yet, courts have been unwilling to hold mining companies responsible” because, in Fraley’s estimation, courts have accepted the mining companies’ arguments that the floods are acts of God.¹²⁶ There is a risk, then, that anthropogenic climate change not only moots the act of God defense, but that—if courts continue to consider the defense—liable actors will escape responsibility thanks to the defense.

C. *Scholars’ Recommendations for the Act of God Defense*

Kristl, Fraley, and other scholars have some suggestions for the future of the act of God defense in the era of anthropogenic climate change. Fraley suggests the U.S. legal system should embrace the fact that humans and nature are co-constitutive rather than separate, and advocates for importing non-Western perspectives to “free[] us from the restrictive Western dichotomies that have supported environmental destruction.”¹²⁷ Relatedly, Fraley believes importing other frameworks for seeing humans and nature as part of each other can complicate, but render more accurate, causation analyses in the act of God defense specifically and in environmental causes of action generally.¹²⁸ Short of this cultural importation, Fraley suggests that the act of God defense

120. *Id.* at 361; Fraley, *supra* note 5, at 685–86.

121. Kristl, *supra* note 5, at 361.

122. *Id.*

123. *See* Fraley, *supra* note 5, at 686–87.

124. *Id.* at 685–86.

125. *Id.* at 686.

126. *Id.*

127. *Id.* at 688.

128. *Id.* at 688–89.

“might be eliminated in favor of a renewed emphasis on the causation analysis.”¹²⁹

Others seem to agree that the act of God defense should be eliminated. For example, some suggest that the act of God defense is “anachronistic” and should be subsumed under the typical negligence analysis.¹³⁰ Their argument is based on the belief that the elements of negligence already provide for an analysis of foreseeability and proximate causation, and that there should not be special rules for naturally occurring forces like weather beyond the proximate cause analysis.¹³¹ The possibility of eliminating the act of God defense is even recognized by the Restatement of Torts (Third):

[C]ases involving . . . “acts of God” . . . call for application of the factors that enter into an ordinary analysis of negligence. Accordingly, so long as the jury is instructed on the basic elements of negligence and causation, a separate instruction on [the] act of God [defense] may not be necessary.¹³²

The permissive “may” leaves open the possible application of the act of God defense, and the Restatement goes on to say juror instructions on the defense “may therefore be of assistance” to juries.¹³³ But those scholars who believe it is “entirely possible to drop terms like ‘act of God’ altogether” because the defense already “comport[s] with the general rules of negligence and proximate cause” want the defense to be gone for good.¹³⁴ Thus, to some, the act of God defense serves no purpose other than to add redundant work to litigants, juries, and courts, thereby suggesting that the act of God defense should not be saved and should never have existed in the first place. Such reasoning, in part, explains why Kristl encourages plaintiffs to make arguments that “change judicial mindsets” regarding the act of God defense in an ultimate effort to eliminate the defense from the common law.¹³⁵

V. REFORMING THE ACT OF GOD DEFENSE FOR THE SAKE OF EVERYDAY PEOPLE

Should the act of God defense be eliminated from common law? Even though foreseeability and the rest of the elements of the act of God defense are to some extent mooted by climate change, and notwithstanding scholars’ arguments that the death of the defense may be

129. *Id.* at 689.

130. Denis Binder, *Act of God? Or Act of Man?: A Reappraisal of the Act of God Defense in Tort Law*, 15 REV. LITIG. 1, 4 (1996).

131. DAN B. DOBBS ET AL., HORNBOOK ON TORTS § 15.15, at 364–65 (2d ed., 2016).

132. RESTATEMENT (THIRD) OF TORTS: PHYSICAL AND EMOTIONAL HARM § 3 cmt. 1 (AM. L. INST. 2023).

133. *Id.*

134. See DOBBS ET AL., *supra* note 131, at 365; see also Binder, *supra* note 130, at 4.

135. Kristl, *supra* note 5, at 360.

due, can the elements of the defense be reformed in light of anthropogenic climate change? What are possible arguments for keeping the act of God defense? The remainder of this Comment addresses scholars' arguments for eliminating the act of God defense and argues that doing so risks exposing actors to unjust impositions of liability. As such, the defense should be reformed.

Fraley's claim that courts ought to recognize humans and nature as co-constitutive is principally valid but fraught with practical problems when applied to the act of God defense. With regard to environmental law generally, recognizing the myriad effects humans have on nature can yield more comprehensive legal analysis and statutory solutions. For example, the United States Food and Drug Administration (FDA) has a policy defining products as "natural" when they do not include anything artificial, synthetic, or "that would not normally be expected to be in that food."¹³⁶ "Natural" food, then, is not food produced without human intervention but is rather food produced without the use of non-natural products like fertilizers or pesticides. The term "natural," at least as used by the FDA, therefore accepts that humans affect natural processes to some extent, which is a step in the direction that Fraley advocates. And in the context of climate change, recognizing that humans impact natural processes like weather could result in more comprehensive adaptation and mitigation initiatives. However, climate change is exacerbated by human behavior in general—behavior that dates back to the Industrial Revolution,¹³⁷ ranges from individuals driving cars to industries emitting metric tons of toxic pollutants, and causes harm to the entire world no matter its country of origin. In other words, while humans writ large may affect nature generally and climate change specifically, overemphasis on that fact can lead courts to hold singular actors responsible for actions taken by humans throughout time. While it can be difficult to apportion liability for climate change with specificity,¹³⁸ it would nonetheless be unfair to take the act of God defense away from everyday people when the problem with the defense—the foreseeability of climate harms—is a product of collective human action.

Kristl's concern for response foreseeability and the possible economic waste that would attend a greater burden to avoid harm under the act of God defense perpetuates the very mindset that exacerbates climate change. As Kristl expects, an increased burden to avoid foreseeable weather would likely translate to greater capital investments for

136. *Use of the Term Natural on Food Labeling*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/food/food-labeling-nutrition/use-term-natural-food-labeling> [https://perma.cc/HFG6-Q458] (Oct. 22, 2018).

137. *Causes of Climate Change*, ADAPTNSW, <https://www.climatechange.environment.nsw.gov.au/causes-climate-change#> [https://perma.cc/TTN4-LL2J].

138. See Renee Cho, *Attribution Science: Linking Climate Change to Extreme Weather*, COLUM. CLIMATE SCH.: STATE OF THE PLANET (Oct. 4, 2021), <https://news.climate.columbia.edu/2021/10/04/attribution-science-linking-climate-change-to-extreme-weather/> [https://perma.cc/6MCZ-GKPZ].

shippers, builders, and industries, as well as greater personal expense by individuals.¹³⁹ However, to what extent should costs outweigh behaviors that can reduce an existential threat like climate change? Prioritizing money over safety is arguably one underlying reason why anthropogenic climate change has continued for so long without serious abatement despite scientific recognition that human behavior impacts the climate—a truth first unveiled as early as the 1860s.¹⁴⁰ As stated previously, societal adaptation to abate climate change will not “fully prevent residual risks” of harm from increasing,¹⁴¹ but does that mean the status quo should be maintained? Although placing greater burdens on individuals to avoid the effects of climate change is potentially onerous, eliminating the act of God defense would punish individuals for acts done by humans in general, especially corporate actors, which is arguably a worse fate. As well, any and every precaution taken to mitigate harms resulting from extreme weather is at least economically efficient¹⁴² and at most a net positive for society, as a higher burden can motivate actors to do everything they can to avoid liability.¹⁴³ In short, eliminating the act of God defense so as not to increase the burden to mitigate harm is a short-term economic gain outweighed by the need to incentivize mitigation and outweighed by the harm of holding everyday individuals responsible for collective action problems.

Finally, concern that corporate actors could take advantage of the act of God defense does not justify its elimination. Fraley does not cite any case to support their observation that courts have been “unwilling” to make mountaintop removal companies liable for flooding under the act of God defense.¹⁴⁴ In fact, Fraley cites two cases in which the court commented that physical alterations to landscapes change natural patterns of water runoff during storms, suggesting that courts are more (not less) willing to recognize when corporate actors have contributed to damage-causing natural phenomena.¹⁴⁵ Thus, while corporate

139. Kristl, *supra* note 5, at 356–59.

140. *How Do We Know Climate Change Is Real?*, NASA GLOB. CLIMATE CHANGE, n.2, <https://climate.nasa.gov/evidence/#> [perma.cc/QX7P-B2XR].

141. Magnan et al., *supra* note 92, at 879.

142. Rose Celestin, *Climate Change Will Cost Companies \$1.3 Trillion by 2026*, FORBES (Mar. 5, 2021, 5:00 AM), <https://www.forbes.com/sites/rosecelestine/2021/03/05/climate-change-will-cost-companies-13-trillion-by-2026/?sh=31bcaa16cdc2> [perma.cc/9MC9-C8JK] (noting that a 2021 CDP Global Supply Chain Report found that climate change may cost global suppliers of goods \$1.26 trillion dollars in lost revenue and global buyers \$120 billion in lost revenue over the next five years); *see also* CDP, *TRANSPARENCY TO TRANSFORMATION: A CHAIN REACTION 5* (2021), <https://www.cdp.net/en/research/global-reports/transparency-to-transformation> [perma.cc/DJ28-SWYX].

143. Villa, *supra* note 78, at 331.

144. Fraley, *supra* note 5, at 686.

145. *Id.* (first citing *Frank v. Cnty. of Mercer*, 186 N.W.2d 439, 443 (N.D. 1971) (noting that “the presence or absence of [vegetation] would tend to increase or prevent the rapid running off of” water); and then citing *Butts v. City of S. Fulton*, 565 S.W.2d 879, 882 (Tenn. Ct. App. 1977) (“[H]uman activities—construction work—has changed the

defendants could theoretically abuse the defense, Fraley offers no proof that they have.¹⁴⁶ Similarly, Kristl provides no citations to support their comments that defendants will continue to “short-circuit” the act of God defense to gain “something” and avoid liability.¹⁴⁷ Whether or not corporate defendants “short-circuit” and exploit the act of God defense, looking only at corporate actors to assess the consequences of maintaining the defense provides an incomplete, and even inaccurate, picture.

It is worth considering the risks posed to everyday people from eliminating the act of God defense. For example, the onset of more extreme weather has forced people throughout the world to migrate to safer places.¹⁴⁸ If someone is forced to leave their home or land because of inhospitable weather conditions brought on by climate change, and that person subsequently fails to make utility, mortgage, or rent payments, or decides to trespass on another’s land to seek safety, that person would then be denied the chance to assert the act of God defense. This could be a reality for those who face “dangerous and exceptional rainfall levels,”¹⁴⁹ “rare” snowfalls that cause “surprise” floods,¹⁵⁰ or “unusual” thunderstorms.¹⁵¹ Likewise, if a farmer is obligated to fulfill a certain crop yield and extreme drought makes their land infertile, causing low or even no growth, that farmer would be liable, as intense and frequent weather is foreseeable. If the act of God defense is unavailable at common law, and insurance companies opt to exclude the clause from their contracts, then residential or commercial property insureds who cannot afford more costly weather-specific coverage will be entirely without recourse. These hypotheticals, like Fraley’s and Kristl’s, are just that: hypotheticals. But scholars should not jump so quickly to contend the act of God defense only serves to protect the most powerful, as those

shape of the landscape in ways that prevented the previous natural pattern of run-off during a heavy storm.”)).

146. Fraley, *supra* note 5, at 685–86.

147. Kristl, *supra* note 5, at 361.

148. Fiona Harvey, *Governments Urged to Confront Effects of Climate Change on Migrants*, *GUARDIAN* (Jan. 10, 2023, 6:00 AM), <https://www.theguardian.com/environment/2023/jan/10/climate-crisis-migrants-displaced-people-extreme-weather> [https://perma.cc/3P8M-JGTL].

149. *Early Action Saves Lives, as Tropical Cyclone Freddy Hits Mozambique*, *UNITED NATIONS NEWS* (Feb. 24, 2023), <https://news.un.org/en/story/2023/02/1133887> [https://perma.cc/2LQ5-2CEE].

150. Zach Levitt & Judson Jones, *Tracking the California Blizzard*, *N.Y. TIMES* (Feb. 25, 2023), <https://www.nytimes.com/2023/02/24/us/california-snow-tracker-map.html?smid=tw-nytimes&smtyp=cur> [https://perma.cc/57C4-QKA7]; Diana Leonard, *Blizzards Push California Snowpack to Nearly Twice Normal Levels*, *WASH. POST* (Feb. 28, 2023, 3:51 PM), <https://www.washingtonpost.com/weather/2023/02/28/california-sierra-nevada-blizzard-snow-record/> [https://perma.cc/CSZ6-C7ZF].

151. Kathryn Procriv & Steve Strouss, *13 Million People Are at Risk of Severe Storms and Tornadoes from the Gulf Coast to the Ohio Valley*, *NBC NEWS* (Feb. 16, 2023), https://www.nbcnews.com/news/weather/26-million-people-are-risk-severe-storms-tornadoes-gulf-coast-great-la-rcna70980?cid=sm_npd_nn_tw_ma [https://perma.cc/96WSYX 7Q].

most vulnerable to risks of climate change are at risk of unfair attributions of liability without the defense.

A. *Recommendations for Reforming the Act of God Defense*

Ultimately, getting rid of the defense at common law does not actually address the impossibility of proving a weather event is a natural, irresistible, and unforeseeable proximate cause, and getting rid of the defense would harm more people than it might help. This Comment proposes three possible revisions to the common law act of God defense that would respond to anthropogenic climate change while also protecting everyday actors from unfair liability attribution.

1. Revise the “Natural Origin” Element

Courts should alter the “natural origin” element of the act of God defense to account for humans as the proximate cause of more extreme and frequent weather. As described above, any actor who asserts the act of God defense will struggle to prove that the proximate cause of damage is naturally occurring weather. But courts can perhaps examine what a particular defendant has done to proximately cause the weather event and assess the natural origin element from there. Using mountaintop removal mining as an example, the reason the flooding in Appalachia is so extreme is because corporations have removed absorbent vegetation to achieve their commercial goals.¹⁵² If a mountaintop-removal corporation claimed the act of God defense owing to damage caused by the floods, then a court could note that the corporation’s conduct was a contributing cause and thereby deny them the natural origin element and the act of God defense. Conversely, imagine a regular person in the area who claims the defense because the flooding prevented them from fulfilling a contract, or a person who diverts the flood water from their land and causes damage to another: a court could grant that person the natural origin element because that person did not substantially contribute as a proximate cause to the flooding like the mountaintop-removal corporations do. By changing the natural origin element to consider who was a more potent proximate cause of weather, courts can deny corporate actors this liability shield while still permitting its use by regular people. Determining a sufficient or “substantial” contribution to climate change and extreme weather is by no means an easy task, but doing so is imperative so as not to harm everyday people.

152. Fraley, *supra* note 5, at 685–86.

2. Make Foreseeability a Subjective, Rather Than Objective, Test

If foreseeability in the act of God defense is now essentially a given because of climate change, perhaps it would be reasonable to alter this element of the defense. Currently, whether a weather event is foreseeable or not is analyzed objectively; that is, would a reasonable person in the circumstance foresee the weather event?¹⁵³ As previously shown, at least in the federal statutory context, courts consider whether actors themselves subjectively knew of weather conditions from reports and radar, but that fact only supports the court's analysis of whether a reasonable actor would know if the weather was foreseeable.¹⁵⁴ As applied to the common law, it is perhaps unfair that a wide social recognition of climate change and its effects on weather would therefore preclude all people from asserting the defense. If, instead, courts inquired about whether a particular actor had reason to believe typical or even forecasted weather conditions could be made more intense in a given context, then courts could apply a less stringent version of the foreseeability element, which would be fairer without making the defense too deferential to defendants.

For example, there were severe and atypical thunderstorms in February 2023 in the Ohio Valley.¹⁵⁵ Unless, all things being equal, a particular defendant knew or had reason to know (outside of a general recognition of climate change) that intense weather atypical for the area was going to occur, perhaps that defendant should be granted the foreseeability element. Just because anthropogenic climate change is a given, and news outlets report on extreme weather events, should not mean all defendants are precluded from defending themselves against liability for harm they caused only because of weather. Permitting this kind of subjective foreseeability will require a more fact-intensive analysis for courts and juries. But the foreseeability element of the defense was put in jeopardy more so by corporate actors who have industrially burned fossil fuels than by everyday individuals whose individual contributions to climate change—though large when aggregated—are ultimately small.¹⁵⁶ Thus, it would be unfair to eschew more laborious analysis for everyone when some actors have contributed more than others to climate change, so courts should adopt a subjective approach to analyzing foreseeability.

3. Apply the Defense Differently Depending on the Defendant

One final recommendation is for courts to apply all the elements of the act of God defense differently, or with different levels of rigor, depending on who the defendant is. While there are equal justice

153. *See supra* note 72 and accompanying text.

154. *See supra* note 83 and accompanying text.

155. Pro Civ & Strouss, *supra* note 151.

156. *See generally* GRIFFIN, *supra* note 6, at 7–8.

concerns insofar as all people should be treated equally under the law, corporate actors have more resources to foresee and resist weather-related damage compared to everyday individuals. Corporate actors have also contributed the most to climate change.¹⁵⁷ Courts could examine a corporate actor's industrial practices to gauge their contribution to climate change—i.e., does the corporate actor transport goods by road or water, pollute as a byproduct of their processes, or alter physical landscapes as in logging or mountaintop removal—and apply a certain level of rigor based on the corporate actor's contribution to climate change. Just as the federal environmental statutes impose a strict act of God defense on those engaged in environmentally risky behavior,¹⁵⁸ perhaps courts should recognize that all commercial behavior is environmentally risky and so strictly apply the defense to any corporate actor. While, related to Kristl's concerns, imposing a stricter act of God defense on businesses could lead to economic inefficiencies,¹⁵⁹ perhaps doing so is just, as negative externalities caused by anthropogenic climate change are currently absorbed by all members of society to the benefit of corporations. At the least, there ought to be a more exacting analysis conducted when corporate actors claim the defense, as compared to those climate migrants, for example, who cannot maintain their business, land, or lives precisely because of weather exacerbated by climate change.

VI. CONCLUSION

To be sure, the act of God defense is in jeopardy. Anthropogenic climate change imperils the three core elements of the act of God defense: natural origin, unforeseeability, and irresistibility. And by all accounts, the effects of climate change are only worsening.¹⁶⁰ That means more frequent and harsher storms hitting places and people who have never experienced them before. Climate change also means more damage and thus more litigants looking to assert or defend themselves from liability. But while our legal system must adapt to a world forever changed by anthropogenic climate change, some scholars are content with letting the act of God defense die off. Those scholars offer valid reasons for ridding common law of the act of God defense, but those valid reasons still fail to recognize the immense downsides of its elimination.

157. *Id.*

158. See discussion *supra* Section III.C.

159. Kristl, *supra* note 5, at 356–59.

160. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, UNITED NATIONS, CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY 127–28 (Hans-Otto Pörtner et al. eds., 2022); Denise Chow, *Snow in Los Angeles and Record Heat in Atlanta: A Wild Winter Comes to an End*, NBC NEWS (Mar. 2, 2023, 5:30 AM), <https://www.nbcnews.com/science/science-news/winter-weather-rollercoaster-rcna72671> [<https://perma.cc/H285-JKTU>].

Near the time of writing this Comment, blizzards and floods pounded southeast California in what was “one of the strongest storms to ever hit” the area.¹⁶¹ As those conditions inevitably caused humans to cause damage, should regular, everyday people be liable despite their small role in exacerbating climate change and making such weather both intense and foreseeable? The answer should be no. The recommendations offered here to reform the act of God defense are thus attempts to recenter scholarship toward the everyday people hurt most by, and least equipped to deal with, anthropogenic climate change. As a matter of fairness, everyday people deserve a doctrine with which they can defend themselves from liability proximately caused by extreme weather conditions. Everyday people deserve a workable liability defense in the face of anthropogenic climate change, so scholars should go forward considering how best to revive the act of God defense.

161. *Snow Blankets Los Angeles Area in Rare Heavy Storm*, NPR (Feb. 25, 2023, 8:32 PM), <https://www.npr.org/2023/02/25/1159560284/a-major-winter-storm-has-prompted-blizzard-and-flood-warnings-across-california> [<https://perma.cc/XS48-MJ38>]; Rebecca Falconer & Andrew Freedman, *California on Track for Record Snow Year as Storms Cause Chaos Across State*, AXIOS (Feb. 28, 2023), <https://www.axios.com/2023/02/28/california-storms-slam-state-snow-year-records> [<https://perma.cc/79UD-H42U>].

