

Protecting Future Generations from Climate Change in the United States

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Protecting future generations from the effects of climate change is an important issue, especially considering how much the United States has struggled to implement climate policy. Two recent European judicial decisions, Notre Affaire à Tous v. France and Neubauer v. Germany, may provide helpful guidance to the United States because they demonstrate a commitment to protecting future generations from climate change and reducing greenhouse gas emissions. In these decisions, both courts relied on their respective civil codes and constitutions to determine that their countries had either exceeded their carbon emissions reduction goals, as was the case in Notre Affaire à Tous, or that their commitments were not aggressive enough, as in Neubauer.¹ However, these cases will likely prove difficult for the United States to emulate because it is not a civil law country, does not rely on international environmental agreements, and contains no federal constitutional environmental provisions. Therefore, the United States may have to rely on other methods of protecting future generations. First, this Note will explain these judicial decisions, including background on the French and German civil legal systems. Then, it will explore the various ways that the United States can similarly protect future generations from emissions, including through federal constitutional amendments, due process arguments, state constitutional provisions and amendments, and executive orders. Ultimately, this Note concludes that, besides a federal amendment to the Constitution, each of these can ensure the United States addresses the climate crisis to protect future generations.

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1. See *Notre Affaire à Tous and Others v. France*, CLIMATE CASE CHART, SABIN CTR. FOR CLIMATE CHANGE L., <http://climatecasechart.com/climate-change-litigation/non-us-case/notre-affaire-a-tous-and-others-v-france/> (last visited Dec. 16, 2021); *Neubauer, et al. v. Germany*, CLIMATE CASE CHART, SABIN CTR. FOR CLIMATE CHANGE L., <http://climatecasechart.com/climate-change-litigation/non-us-case/neubauer-et-al-v-germany/> (last visited Dec. 16, 2021).

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INTRODUCTION

A peculiar cognitive bias of the human brain is its inability to imagine the future.² Studies show that people think about their future selves the way they think about strangers.³ Similarly, individuals tend to downplay the likelihood of negative events happening to them compared to other people.⁴ And people are even worse at considering future generations.⁵

Evolutionarily, this makes sense.⁶ Humans evolved to address immediate, easily understood threats—such as predators or natural disasters.⁷ We are not as

2. Jane McGonigal, *Our Puny Human Brains are Terrible at Thinking About the Future*, SLATE (Apr. 13, 2017, 10:01 AM), <https://slate.com/technology/2017/04/why-people-are-so-bad-at-thinking-about-the-future.html>.

3. *Id.* (explaining studies showing that when people think about their future selves, the portion of their brains that responds to thinking about themselves lights up less under fMRI scans than it would when thinking about their current selves).

4. Caroline Beaton, *Humans are Bad at Predicting Events that Don't Benefit Them*, THE ATLANTIC (Nov. 2, 2017), <https://www.theatlantic.com/science/archive/2017/11/humans-are-bad-at-predicting-futures-that-dont-benefit-them/544709/>.

5. Jamil Zaki, *Caring About Tomorrow*, WASH. POST (Aug. 22, 2019), <https://www.washingtonpost.com/outlook/2019/08/22/caring-about-tomorrow/>.

6. Matthew Wilburn King, *How Brain Biases Prevent Climate Action*, BBC (Mar. 7, 2019), <https://www.bbc.com/future/article/20190304-human-evolution-means-we-can-tackle-climate-change>.

7. *See id.*

good at evaluating complex future threats, especially if they will not affect us—or will only affect us a long time from now.⁸

Unfortunately, climate change is a long-term and complex threat, and humans have undervalued its dangers.⁹ A child born in 2014 is likely to experience “twice as many wildfires and tropical cyclones, three times more river floods, four times more crop failures, five times more droughts, and [thirty-six] times more heat waves” in their lifetime than one born before 1965.¹⁰ Furthermore, the negative effects of climate change are expected to be even worse for people of color. For example, Black and Latinx Americans currently live in areas that are at high risk for climate change impacts. Under a projected two degrees Celsius of warming, Black Americans currently live in areas that are 34 percent more likely to have the highest projected increases in childhood asthma diagnoses and 40 percent more likely to have the highest projected increases in extreme temperature-related deaths.¹¹ And Hispanic and Latinx Americans are 43 percent more likely to currently live in areas with the highest projected reduction in labor hours due to extreme temperatures, and are 50 percent more likely to live in areas with the largest increases in traffic delays due to coastal flooding.¹² The most recent Intergovernmental Panel on Climate Change report from 2021 also notes that we can expect to reach a 1.5-degree Celsius rise in global temperature in approximately ten years—or by the early 2030s.¹³

Despite our cognitive biases, humanity has made efforts to mitigate climate change, as exemplified by two recent decisions from France and Germany, *Notre Affaire à Tous v. France* and *Neubauer v. Germany*.¹⁴ These cases demonstrate European courts holding their governments accountable for excess greenhouse gas emissions. Unfortunately, U.S. courts have failed to achieve similar successes in holding the government accountable to future generations.¹⁵ This is likely because of a difference in legal systems, with a common law system in the United States versus a civil law system in France and Germany. Another contributing factor is that both France and Germany have adopted constitutional

8. *Id.*

9. *Id.*

10. Wim Thiery et al., *Intergenerational Inequities in Exposure to Climate Extremes*, 374 SCIENCE 158 (2021).

11. Press Release, EPA, EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States (Sep. 2, 2021), <https://www.epa.gov/newsreleases/epa-report-shows-disproportionate-impacts-climate-change-socially-vulnerable>.

12. *Id.*

13. See Intergovernmental Panel on Climate Change, *Summary for Policymakers*, in CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS 52 (2021).

14. See *Notre Affaire à Tous and Others v. France*, *supra* note 2; *Neubauer, et al. v. Germany*, *supra* note 2.

15. See *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020) (holding that the judicial system could not rule for plaintiffs, a group of young people, to hold the government accountable for failing to act on climate change because it would interfere with the separation of powers).

amendments to address climate change.¹⁶ As will be explained later, the United States will likely not adopt a similar federal amendment. However, the United States can still help protect future generations from excess emissions through other methods and has already attempted to do so, to varying degrees of success.¹⁷ This Note will analyze those European judicial decisions and which methods the United States has—and should—use to protect future generations from climate change, even if these decisions cannot be perfectly emulated.

In Part I of this note, I will explain the relevant legal background for the *Notre Affaire à Tous* case. I will then examine the *Notre Affaire à Tous* decision. Part II discusses the *Neubauer* case, beginning with the legal background and then an evaluation of the case itself. In Part III, I will compare the two cases and describe how they are relevant to the United States. Finally, in Part IV, I will consider the viability of various options that the United States could use to protect future generations, including federal constitutional amendments, due process cases, state constitutional amendments, and executive orders.

I. *NOTRE AFFAIRE À TOUS V. FRANCE*

A. *Legal Background*

Because France is a civil law system, most of its legal decisions are based on statutes originating from codes, in contrast to common law systems, which base much of the law on case law.¹⁸ The Civil Code, originally called the “Napoleonic Code,” was enacted in 1804 and survives today with substantial revisions.¹⁹ The first drafts of the Napoleonic Code began after the French Revolution to form a new system of government based on principles of rationality and reason.²⁰ The Napoleonic Code classified all male citizens as equal, separated the church and the state, provided for the freedom of person and contract, and established the inviolability of private property.²¹ Many European and Latin American countries adopted the Civil Code, and some of these countries use a version of it today, including Belgium, Luxembourg, Haiti, and the Dominican Republic.²²

France’s Civil Code affords several environmental protections, some of which were used in *Notre Affaire à Tous*. Article 1246 of the Civil Code requires

16. 1958 CONST. art. 34 (Fr.); Grundgesetz [GG] [Basic Law], art. 20a (Ger.)

17. This paper will analyze federal and state constitutional amendments, executive orders, and the Due Process Clauses of the Fifth and Fourteenth Amendments.

18. *The Layout of the French Legal System*, FRENCH LEGAL RSCH. GUIDE, GEO. L. LIBR. (last updated Sep. 6, 2022), <https://guides.ll.georgetown.edu/c.php?g=362135&p=2446075>.

19. *Napoleonic Code*, ENCYC. BRITANNICA, <https://www.britannica.com/topic/Napoleonic-Code> (last visited Dec. 16, 2021).

20. *Id.*

21. *Id.*

22. *Id.*

that “[a]ny person responsible for ecological damage is obliged to remedy it.”²³ The code defines ecological damage as “a non-negligible harm to . . . ecosystems or to the . . . benefits derived by man from the environment.”²⁴ Under Article 1248, compensation for ecological damage “is open to any person with standing and interest,” including “public institutions and associations . . . whose purpose is the protection of nature and the defence of the environment.”²⁵ Compensation for ecological damage must primarily be “done in kind,” which means that monetary damages are only appropriate if other methods of reparations are insufficient.²⁶

The decision in *Notre Affaire à Tous* also relied on France’s Charter for the Environment, a 2005 amendment to the French Constitution.²⁷ Under Article 3 of the Charter, “every person must . . . prevent damage to the environment, or . . . limit the consequences thereof.”²⁸ Additionally, Article 1 of the Charter provides the “right of everyone to live in a balanced and healthy environment.”²⁹

French law also has a provision that allows for compensation for moral responsibility towards another person,³⁰ including for ecological damage,³¹ which proved integral for standing in *Notre Affaire à Tous*.³² Compensation for moral damages originated as early as 1833³³ and was intended to compensate for wrongs done to emotions, honor, or reputation.³⁴ Today, moral damages are often broadly defined as non-pecuniary damages,³⁵ which can include compensation for undermining a non-governmental organization’s mission or for causing harm to the environment.³⁶ Comparatively, in the United States, non-

23. See *Notre Affaire à Tous v. France*, Tribunal Administratif [TA] [Administrative Tribunal] Paris, Feb. 3, 2021, No. 1904967,1904968, 1904972, 1904976/4-1, 24, Unofficial English Translation Provided by Plaintiffs at 24, available at http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20210203_NA_decision-1.pdf.

24. *Id.*

25. *Id.*

26. *Id.* at 31.

27. David Marrani & Stephen J. Turner, *The French Charter for the Environment and Standards of Environmental Protection*, in ENVIRONMENTAL RIGHTS: THE DEVELOPMENT OF STANDARDS 309–22 (David Marrani & Stephen J. Turner eds., 2019).

28. *Notre Affaire à Tous*, TA Paris, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 27.

29. *Id.* at 2.

30. CODE CIVIL [C. CIVIL] [CIVIL CODE], art. 1100 (Fr.).

31. 1958 CONST. art. 34 (Fr.).

32. See *id.*; *Notre Affaire à Tous*, TA Paris, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 32.

33. Stephen Jagusch & Thomas Sebastian, *Moral Damages in Investment Arbitration Punitive Damages in Compensatory Clothing*, 29 ARB. INT’L 45, 46 (2013).

34. Reza Mohtashami QC et al., *Non-Compensatory Damages in Civil and Common Law Jurisdictions Requirements and Underlying Principles*, GUIDE TO DAMAGES IN INT’L ARB.—FOURTH EDITION, GLOB. ARB. REV. (Feb. 1, 2021), <https://globalarbitrationreview.com/guide/the-guide-damages-in-international-arbitration/4th-edition/article/non-compensatory-damages-in-civil-and-common-law-jurisdictions-requirements-and-underlying-principles>.

35. See *id.* at 90.

36. See *Notre Affaire à Tous*, TA Paris, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs.

pecuniary damages are common in tort law to compensate the loss of consortium, violations of the right to privacy, and intentional or negligent infliction of emotional distress.³⁷

The French court also based its *Notre Affaire à Tous* decision on adopted international agreements, including the United Nations Framework Convention on Climate Change (UNFCCC).³⁸ The UNFCCC, established in 1992, is the parent treaty of the Paris Agreement and the Kyoto Protocol.³⁹ The formal agreement from the 1992 UNFCCC included an affirmation of the international responsibility to preserve the climate system “for the benefit of present and future generations . . . on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”⁴⁰ These “common but differentiated responsibilities” indicate that developed countries should take responsibility for responding to climate change, as these countries are more capable of doing so.⁴¹ This principle later found roots in the Kyoto Protocol⁴² and the Paris Agreement.⁴³

The Kyoto Protocol was adopted in 1997, included 192 parties, and set binding emissions targets for industrialized nations.⁴⁴ The Paris Agreement, the successor to the Kyoto Protocol,⁴⁵ was an international agreement in which developed and developing countries agreed to reduce greenhouse gas emissions, with developed countries taking on greater responsibility.⁴⁶ This agreement also included a promise to limit global warming to below 2 or optimally 1.5 degrees Celsius to “significantly reduce the risks and impacts of climate change.”⁴⁷ As a condition of the Paris Agreement, countries must submit their nationally determined contributions (NDCs) to reduce greenhouse gas emissions.⁴⁸ The UNFCCC maintains the registry of all NDCs.⁴⁹ The European Union’s minimum

37. Robert L. Rabin, *Non-Pecuniary Damages in American Tort Law*, 3 CHINESE J. COMPAR. L. 226, 226 (2015).

38. *Notre Affaire à Tous*, TA Paris, Feb. 3, 2021, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs.

39. *About the Secretariat*, UNFCCC, <https://unfccc.int/about-us/about-the-secretariat> (last visited Dec. 16, 2021).

40. United Nations Framework Convention on Climate Change, arts. 3(1), 4(1), May 9, 1992, 1771 U.N.T.S. 107.

41. *See id.*

42. *What is the Kyoto Protocol?*, UNFCCC, https://unfccc.int/kyoto_protocol (last visited Dec. 16, 2021).

43. *The Paris Agreement*, UNFCCC, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> (last visited Dec. 16, 2021).

44. *Id.*

45. *Paris Agreement*, ENCYC. BRITANNICA, <https://www.britannica.com/topic/Paris-Agreement-2015> (last visited Mar. 15, 2022).

46. *Id.*

47. *The Paris Agreement*, UNFCCC, https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf (last visited Feb. 27, 2023).

48. *The Paris Agreement*, *supra* note 44.

49. *About the Secretariat*, *supra* note 40.

NDCs, which France has adopted,⁵⁰ obligate countries to reduce emissions by 40 percent of 1990 levels by 2030,⁵¹ although the standard is currently at 55 percent.⁵² At the time of the *Notre Affaire à Tous* decision, France had further codified their NDCs in their Energy Code, requiring the 40 percent reduction in carbon emissions and carbon neutrality by 2050.⁵³

B. Case History

Notre Affaire à Tous began in December 2018 when several environmental nonprofit organizations sent a letter of formal notice to the Prime Minister and other members of the French government, claiming that they were not acting aggressively enough on climate change.⁵⁴ When government officials rejected this legal proceeding, the nonprofits initiated a lawsuit against the government before the Administrative Court of Paris, citing the legal principles, French Code sections, and international agreements described above.⁵⁵ The plaintiffs requested that they be paid a symbolic one euro for moral prejudice and ecological damage and sought an injunction to require the French government to reduce greenhouse gas emissions.⁵⁶

The Administrative Court ruled for the plaintiffs on most issues. First, the court decided that the French government must pay the plaintiffs the symbolic euro for moral prejudice because the government undermined environmental organizations' missions to combat climate change.⁵⁷ Under Article 3 of France's Charter for the Environment, the government must limit and prevent damage to the environment.⁵⁸ However, it declined to award a symbolic payment for ecological damage because, as Article 1249 of the Civil Code states, payment for ecological damages is only due when there is a "legal or de facto impossibility or inadequacy of [other] remedial measures."⁵⁹ In this case, the government could remediate its harm to the environment in ways besides monetary compensation, and therefore it was not required.⁶⁰ Furthermore, while the euro

50. *Notre Affaire à Tous v. France*, Tribunal Administratif [TA] [Administrative Tribunal] Paris, Feb. 3, 2021, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 27, available at http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20210203_NA_decision-1.pdf.

51. See UPDATE OF THE NATIONALLY DETERMINED CONTRIBUTION OF THE EUROPEAN UNION AND ITS MEMBER STATES 5, 8, 11 (2020), available at https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/EU_NDC_Submission_December%202020.pdf.

52. See *id.* at 6–8, 17.

53. *Notre Affaire à Tous*, TA Paris, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 27.

54. See *Notre Affaire à Tous and Others v. France*, *supra* note 2.

55. *Id.*

56. *Notre Affaire à Tous*, TA Paris, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 11.

57. *Id.* at 32.

58. *Id.* at 27.

59. *Id.* at 31.

60. *Id.*

was appropriately symbolic, it would not compensate for these damages effectively and failed to satisfy the remediation required under the statute.⁶¹

The court concluded its decision by ordering the French government to indicate its plans on climate change.⁶² However, ten months later, the court issued an injunction against the French government forcing it to reduce carbon emissions and mitigate the effects of the carbon already emitted by December 31, 2022.⁶³ In this new decision, the court concluded that France had exceeded its commitment under the Paris Agreement to reduce carbon emissions during 2015–2018 by 15 million tons.⁶⁴

In conclusion, this case reflects the willingness of French courts to apply existing law to hold their government accountable for reducing greenhouse gas emissions, thus protecting future generations. Similarly, *Neubauer* focuses on reestablishing Germany’s climate commitments because the German Federal Constitutional Court concluded that Germany’s carbon reduction commitments were not aggressive enough.

II. *NEUBAUER V. GERMANY*

A. *Legal Background*

Like France, Germany has a civil law system.⁶⁵ The German Constitution is known as the “Basic Law”⁶⁶ and contains 146 articles.⁶⁷ The German Federal Constitutional Court (Federal Constitutional Court) decided *Neubauer* and is the only court in Germany that can declare statutes unconstitutional.⁶⁸ Although the Federal Constitutional Court is modeled in part after the U.S. Supreme Court, it is not an appeals court.⁶⁹ Instead, it has original jurisdiction over cases related to basic rights and constitutionality.⁷⁰

Two provisions of the Basic Law were integral to the decision in *Neubauer*. Article 2: Personal Freedoms declares that “[e]very person shall have the right to life and physical integrity.”⁷¹ Article 20a: Protection of the natural foundations of life and animals⁷² requires that Germany be “mindful . . . of its responsibility towards future generations” and “protect the natural foundations

61. *Id.*

62. *See Notre Affaire à Tous and Others v. France*, *supra* note 2.

63. *Id.*

64. *Id.*

65. *German Legal Research Guide*, GEO. L. LIBR., <https://guides.ll.georgetown.edu/germanlegalresearch> (last visited Dec. 16, 2021).

66. *Id.*

67. *German Basic Law*, HANDBOOK GERMANY, <https://handbookgermany.de/en/rights-laws/basic-law.html> (last visited Dec. 16, 2021).

68. *Federal Constitutional Court*, ENCYC. BRITANNICA (Dec. 22, 2021), <https://www.britannica.com/topic/Federal-Constitutional-Court>.

69. *Id.*

70. *Id.*

71. Grundgesetz [GG] [Basic Law], art. 2(2) (Ger.).

72. Grundgesetz [GG] [Basic Law], 20a (Ger.).

of life and animals by legislation . . . in accordance with law and justice.”⁷³ The precautionary principle was particularly important in this case. It advises that “[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”⁷⁴

Under the Federal Climate Change Act (Act or FCCA), Germany is required to reduce greenhouse gas emissions by 55 percent of 1990 levels by 2030 and reach net-zero greenhouse gas emissions by 2050.⁷⁵ The Act’s express purpose is to fulfill Germany’s obligation under the Paris Agreement to attempt to limit global warming to “well below 2 degrees Celsius.”⁷⁶

B. Case History

In February 2020, a group of German youth sued their government because the FCCA was not aggressive enough.⁷⁷ The complaint argued that to limit global temperature rise below two degrees Celsius, Germany would have to reduce its emissions to 70 percent of 1990 levels by 2030, rather than 55 percent.⁷⁸

The Federal Constitutional Court concluded that the personal freedoms articulated in Article 2⁷⁹ obliged the state to “protect life and health against the risks posed by climate change.”⁸⁰ The court acknowledged that under the current reduction standard, future generations living in Germany after 2030 would have a much greater responsibility to reduce their emissions to mitigate climate change effects. This would lead to serious losses of freedom that could violate fundamental rights protected by the Basic Law.⁸¹ The court also interpreted Article 20a to apply “a special duty of care . . . for the benefit of future generations” when there “is scientific uncertainty” and that this “entails an obligation to take account of sufficiently reliable indications pointing to the possibility of serious or irreversible impairments.”⁸² This interpretation evokes the precautionary principle. However, Article 20a “must be balanced against

73. *Id.*

74. U.N. General Assembly, *Report of the United Nations Conference On Environment and Development*, ¶ 15, U/N Doc. A/CONF.151/26 (Aug. 12, 1992).

75. Alice Boldis & Christian Lütkehaus, *How a Court Ruling Changed Germany’s Climate Protection Act*, PINSENT MASONS (July 20, 2021), <https://www.pinsentmasons.com/out-law/analysis/court-ruling-germany-climate-protection-act>.

76. *Neubauer, et al. v. Germany*, *supra* note 2.

77. *Id.*

78. *Id.*

79. Grundgesetz [GG] [Basic Law], art. 2(2) (Ger.).

80. *Neubauer v. Germany*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court] Mar. 24, 2021, 1 BvR 2656/18, Official English Translation at 1, *available at* http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2021/20210324_11817_order-1.pdf (Ger.).

81. *Id.* at 56.

82. *Id.* at 1.

other constitutional interests and principles” and will become more important “as climate change intensifies.”⁸³

The Federal Constitutional Court agreed that the FCCA was not aggressive enough in its targets for greenhouse gas emissions standards to be reached by 2030 to limit carbon emissions below either 2 or 1.5 degrees Celsius.⁸⁴ And it ruled that these standards would leave “subsequent generations with a drastic reduction burden and expose their lives to serious losses of freedom.”⁸⁵ As a result, the German government amended the FCCA to require a reduction of 65 percent in greenhouse gas emissions by 2030 (as compared to 1990 levels) and achieve greenhouse gas emission neutrality by 2045.⁸⁶

III. COMPARING THE EUROPEAN CASES: CHALLENGES IN APPLYING THEIR SUCCESSES TO THE UNITED STATES

In this section, I will compare *Notre Affaire à Tous* and *Neubauer* by highlighting their similarities and explain why the United States will likely fail to emulate their outcomes. I will discuss how both cases are based on federal environmental amendments and international climate agreements. They also involve citizens and nonprofit organizations suing their governments to take action to reduce carbon emissions. Finally, I will conclude with possible methods that United States citizens could use to have similar success in holding the government accountable for carbon emissions.

Both *Notre Affaire à Tous* and *Neubauer* based their decisions upon environmental amendments to their federal constitutions.⁸⁷ In the French case, the National Charter for the environment emphasized the French government’s obligation to limit the effects of climate change.⁸⁸ In the German Case, Article 20a was important because it reinforced the German government’s duty to limit carbon emissions for future generations.⁸⁹ These federal constitutional amendments were important for the successful outcomes of the plaintiffs.

Furthermore, international climate agreements also played central roles in each case. After the Paris Agreement, the EU created a minimum NDC that all

83. *Id.*

84. *Id.* at 53.

85. *Id.* at 56.

86. *Germany Amendment of Climate Change Act Codifies Climate Neutrality Goal by 2045*, LIBR. CONG. (May 5, 2021), <https://www.loc.gov/item/global-legal-monitor/2021-09-28/germany-amendment-of-climate-change-act-codifies-climate-neutrality-goal-by-2045/>.

87. *See Notre Affaire à Tous and Others v. France*, *supra* note 2; *Neubauer, et al. v. Germany*, *supra* note 2.

88. *See Notre Affaire à Tous v. France*, Tribunal Administratif [TA] [Administrative Tribunal] Paris, Feb. 3, 2021, No. 1904967,1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by Plaintiffs at 27, available at http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20210203_NA_decision-1.pdf.

89. *See Neubauer*, BVerfG, 1 BvR 2656/18, Official English Translation at 56.

EU nations would have to follow.⁹⁰ France created the Energy Code⁹¹ and Germany created the FCCA⁹² to enforce the minimum NDC. However, while the French court in *Notre Affaire à Tous* merely reinforces France's existing climate agreement,⁹³ Germany's Federal Constitutional Court in *Neubauer* goes even further by requiring that Germany's NDC be stricter than the EU's.⁹⁴ As a result, if Germany follows through with its commitments, it will be even more effective at reducing carbon emissions and protecting future generations.

Additionally, both cases involve citizens and nonprofit organizations attempting to hold their governments accountable for carbon emissions, which will help protect future generations. The *Notre Affaire à Tous* case was especially significant in this regard because the French government was initially reticent to hold itself accountable for its emissions.⁹⁵ When French nonprofits first sent a letter to members of the French government requesting relief, the French government denied its requests.⁹⁶ However, even though the French government denied that action to reduce carbon emissions was needed, the French court was still able to issue an injunction requiring the government to reduce carbon emissions.⁹⁷ Similarly, *Neubauer* involved a group of youth suing the German government to set stricter climate goals.⁹⁸

However, it is unlikely that the United States will be able to emulate the successes of these European courts in protecting future generations. The most closely analogous American case to the European cases discussed is probably *Juliana v. United States*.⁹⁹ American nonprofit organizations and U.S. citizens attempted to hold the U.S. government responsible for excess carbon emissions. However, they were ultimately unsuccessful due to a lack of standing.¹⁰⁰ Similar cases will likely come out the same way, unless they are able to satisfy the standing requirement.

Therefore, U.S. residents will have to look for alternative ways to hold their government accountable for harmful carbon emissions. First, the United States is unlikely to be able to pass a federal constitutional amendment, as I will explain

90. See UPDATE OF THE NATIONALLY DETERMINED CONTRIBUTION OF THE EUROPEAN UNION AND ITS MEMBER STATES, *supra* note 51.

91. See *Loi du 8 Novembre 2019 Relative à L'énergie et au Climat* [Law of 8 November 2019 Relating to Energy and Climate], RÉPUBLIQUE FRANÇAISE [FRENCH REPUBLIC] (Nov. 12, 2019), <https://www.vie-publique.fr/loi/23814-loi-energie-et-climat-du-8-novembre-2019>.

92. *Generationenvertrag für das Klima* [Intergenerational Contract for the Climate], BUNDESREGIERUNG [FEDERAL GOVERNMENT] (Ger.), <https://www.bundesregierung.de/breg-de/themen/klimaschutz/climate-change-act-2021-1936846> (last visited Aug. 20, 2022).

93. See *Notre Affaire à Tous and Others v. France*, *supra* note 2.

94. *Neubauer, et al. v. Germany*, *supra* note 2.

95. See State's Reply, *Notre Affaire à Tous v. France*, TA Paris, Jun. 23, 2020, available at <http://climatecasechart.com/non-us-case/notre-affaire-a-tous-and-others-v-france/>.

96. See *id.*

97. See *Notre Affaire à Tous and Others v. France*, *supra* note 2.

98. *Neubauer, et al. v. Germany*, *supra* note 2.

99. 947 F.3d 1159 (9th Cir. 2020).

100. *Id.* at 1175.

below. Instead, Americans can rely on existing constitutional elements, specifically the Due Process Clause of the Fifth and Fourteenth Amendments, to justify setting a standard for emission reductions. Furthermore, individuals may be more successful at holding their state governments accountable for carbon emissions by adding environmental amendments to state constitutions. Secondly, although the United States recently agreed to an NDC of 50 to 52 percent below 2005 levels by 2030,¹⁰¹ there is no current indication that this will form the basis for a lawsuit against the government for failing to meet this standard. However, presidents may be able to hold the United States accountable for its carbon emissions through executive orders, as I will explain in more detail below. For example, President Joe Biden has already issued an executive order setting new goals of moving towards offshore wind, land conservation, and net-zero carbon emissions.¹⁰²

In conclusion, there were many reasons why the French and German courts held their governments liable for excess carbon emissions and therefore protected future generations. While the United States is unlikely to achieve these successes using the same methods, the country could be more successful with other tactics.

IV. WAYS IN WHICH THE UNITED STATES CAN INCORPORATE FUTURE-ORIENTED LAWS

There are several possible ways that the United States could become more future-oriented regarding climate change. These include a federal constitutional amendment, state constitutional amendments, executive orders, and substantive and procedural due process claims in climate change-related judicial decisions. Each path, except for a federal constitutional amendment, may be feasible and effective at protecting future generations.

A. *Constitutional Amendment*

While European nations, like France and Germany, have successfully passed federal constitutional environmental amendments,¹⁰³ the United States will likely not pass an environmental amendment to the Constitution, as it would be incredibly difficult to do so. All proposals to amend the Constitution must take one of two arduous paths: an amendment can be proposed by a two-thirds vote of the House and Senate, or alternatively, two-thirds of the states can vote

101. UNITED STATES OF AMERICA NATIONALLY DETERMINED CONTRIBUTION (2021), <https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%202021%202021%20Final.pdf>.

102. See Executive Order on Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7619 (Jan. 27, 2021).

103. FRENCH CONST., Charter for the Environment (Feb. 28, 2005); Grundgesetz [GG] [Basic Law], art. 2(2); *id.*, art. 20a.

to call a constitutional convention.¹⁰⁴ At least three-quarters of the states must then ratify the proposed amendment, which requires approval by thirty-eight state legislatures.¹⁰⁵ As of 2019, approximately 11,848 amendments to the Constitution have been proposed, of which only 27 have been ratified.¹⁰⁶ The most recent Constitutional amendment was a non-partisan issue¹⁰⁷ passed in 1992 related to the salaries of Congress members;¹⁰⁸ to pass today, an amendment would almost certainly have to be similarly non-partisan.¹⁰⁹ While Americans agree on some aspects of climate change—for instance, conservatives and liberals support planting “a trillion trees to absorb carbon emissions”—political lines fiercely divide beliefs about whether human activity contributes to climate change and whether fuel efficiency standards for cars should be tougher.¹¹⁰ Further complicating matters, this mistrust of climate science and environmental regulation traces some of its origins to doubt manufactured by the fossil fuel industry.¹¹¹

Notwithstanding these hurdles, two notable proposals warrant particular attention. The first proposed federal environmental amendments arose in the late 1960s because of the green movement.¹¹² But when the first environmental legislation passed and proved successful, support for the federal amendment dwindled.¹¹³ Then, in 1996, another federal environmental amendment gained greater traction—concerned members of thirty-seven state legislatures supported

104. *Constitutional Amendment Process*, NAT'L ARCHIVES, <https://www.archives.gov/federal-register/constitution> (last visited Dec. 16, 2021).

105. *Id.*

106. *Measures Proposed to Amend the Constitution*, U.S. SENATE, <https://www.senate.gov/legislative/MeasuresProposedToAmendTheConstitution.htm> (last visited Dec. 16, 2021).

107. Jesse Wegman, *Thomas Jefferson Gave the Constitution 19 Years. Look Where We Are Now.*, N.Y. TIMES (Aug. 4, 2021), <https://www.nytimes.com/2021/08/04/opinion/amend-constitution.html>.

108. U.S. CONST. amend. XIV, § 2 (stating that “[n]o law varying the compensation for the services of the Senators and Representatives shall take effect, until an election of Representatives shall have intervened”).

109. *See* Wegman, *supra* note 107.

110. Alec Tyson & Brian Kennedy, *Two-Thirds of Americans Think Government Should Do More on Climate*, PEW RSCH. CTR. (Jun. 23, 2020), <https://www.pewresearch.org/science/2020/06/23/two-thirds-of-americans-think-government-should-do-more-on-climate/>.

111. Jeffrey Pierre & Scott Neuman, *How Decades of Disinformation About Fossil Fuels Halted U.S. Climate Policy*, NPR (Oct. 27, 2021) <https://www.npr.org/2021/10/27/1047583610/once-again-the-u-s-has-failed-to-take-sweeping-climate-action-heres-why> (noting how the fossil fuel industry focused on uncertainties within climate science to create doubt about the existence of climate change); Geoffrey Supran, *Tracing Big Oil's PR War to Delay Action on Climate Change*, HARV. GAZETTE, (Sep. 28, 2021) <https://news.harvard.edu/gazette/story/2021/09/oil-companies-discourage-climate-action-study-says/> (discussing the fossil fuel industry's disinformation campaign to mislead the public about climate science). For an analysis of how climate science mistrust originates from scientific denialism manufactured by the tobacco industry, *see generally* NAOMI ORESKES & ERIK M. CONWAY, *MERCHANTS OF DOUBT* 169–215 (2010) (noting that some of the same people advocating for the tobacco industry manufactured doubt in climate science).

112. J.B. Ruhl, *An Environmental Rights Amendment Good Message, Bad Idea*, 11 NAT. RES. ENV'T 46, 46 (1997).

113. *Id.*

it.¹¹⁴ The proposed amendment stated that “[t]he natural resources of the nation are the heritage of present and future generations. The right of each person to clean and healthful air and water, and to the protection of other natural resources of the nation, shall not be infringed by any person.”¹¹⁵ Despite its concise language and support from some environmental groups, this amendment was unsuccessful.¹¹⁶ Some criticized the amendment for lacking a social consensus, being unnecessary, and being inequitably enforceable.¹¹⁷ Other criticisms included that the terms of the amendment were vague and undefined, making it difficult to interpret environmental issues, given the environmental statutes already in place.¹¹⁸ These reasons, among others, are perhaps why the amendment did not pass.¹¹⁹

Because of the challenges of building a broad enough consensus to amend the U.S. Constitution, the United States is unlikely to pass an amendment that would protect the environment for future generations. Therefore, if Americans want the federal government to reduce carbon emissions, they must look to other solutions.

B. Due Process Clause

The Due Process Clauses of the Fifth and Fourteenth Amendments may be an effective way to protect future generations from the harms of climate change, with several caveats. Although procedural due process cases¹²⁰ will likely prove unsuccessful because of the recent case *Juliana*,¹²¹ other cases relying on substantive due process¹²² or originating in states with environmental constitutional amendments may still be successful.¹²³

Although *Juliana* has been extensively discussed elsewhere, it remains relevant here. *Juliana* involved a group of young people who sued the federal government for disregarding the effects of climate change, despite long-standing knowledge of the risks.¹²⁴ The plaintiffs asserted their right under the Due Process Clause of the Fifth Amendment to “a climate system capable of sustaining human life.”¹²⁵ As relief, they requested an order requiring the

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.*

118. Carole Gallagher, *The Movement to Create an Environmental Bill of Rights From Earth Day, 1970 to the Present*, 9 FORDHAM ENV'T L. J. 107, 127 (1997).

119. *Id.*

120. U.S. Const. amend. XIV protects the right not to be deprived of, “life, liberty, and property without due process of law[.]”

121. 947 F.3d at 1171.

122. For a quick explanation about substantive due process, see *Substantive Due Process*, LEGAL INFO. INST., CORNELL L. SCH., https://www.law.cornell.edu/wex/substantive_due_process (last visited Apr. 4, 2022).

123. *Juliana*, 947 F.3d at 1171.

124. *Id.* at 1165.

125. *Id.* at 1164.

government to implement a plan to phase out fossil fuel emissions and reduce excess atmospheric carbon dioxide.¹²⁶ Their case was ultimately unsuccessful in the Ninth Circuit because the court ruled that the plaintiffs could not satisfy the requirement of redressability, a precondition of standing in an Article III court.¹²⁷ The court held that redressability would require the ability to “order, design, supervise, or implement” a “comprehensive scheme to decrease fossil fuel emissions and combat climate change.”¹²⁸ An injunction such as this would interfere with the balance of political power between the three branches of government and could involve the judiciary assuming “an extraordinary and unprecedented role.”¹²⁹

The Ninth Circuit distinguished *Juliana* from a previous U.S. Supreme Court case, *Massachusetts v. EPA*, because *Juliana* considered substantive due process, while *Massachusetts* considered procedural due process.¹³⁰ *Massachusetts* was a U.S. Supreme Court decision that required the EPA to regulate greenhouse gas tailpipe emissions.¹³¹ Under the procedural due process evaluation of *Massachusetts*, redressability can be satisfied if there “is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant.”¹³² In *Massachusetts*, the procedural due process claim was the right of the state of Massachusetts “to challenge agency action[,]” and the Supreme Court held that there was a “substantial likelihood that the judicial relief requested” would lead the EPA to reduce the risks of carbon emissions from vehicles.¹³³ In contrast, because *Juliana* was a substantive due process challenge, the Ninth Circuit would only grant standing if it was “substantially likely to redress their injuries . . . and within the district court’s power to award.”¹³⁴ At the current stage, the Ninth Circuit felt it had to “order, design, supervise, [and] implement” the entire country’s climate change plan, which it did not consider feasible.¹³⁵

The *Juliana* decision is a marked contrast from the *Notre Affaire à Tous* and *Neubauer* decisions. In both European cases, the plaintiffs had standing to sue, but the *Juliana* plaintiffs did not. In *Notre Affaire à Tous*, the plaintiffs had standing because Article 1248 of the Civil Code allows suits for compensation for ecological damage to be brought by “any association whose object is the protection of nature and the environment.”¹³⁶ In *Neubauer*, the court ruled that

126. *Id.* at 1170–71.

127. *Id.* at 1171.

128. *Id.* at 1171, 1175.

129. *Id.* at 1173.

130. 549 U.S. 497, 517 (2007) [*hereinafter Massachusetts*].

131. *Id.*

132. *Id.* at 518.

133. *Id.* at 498–99.

134. *Juliana*, 947 F.3d at 1171.

135. *Id.*

136. *Notre Affaire à Tous v. France*, Tribunal Administratif [TA] [Administrative Tribunal] Paris, Feb. 3, 2021, No. 1904967, 1904968, 1904972, 1904976/4-1, Unofficial English Translation Provided by

plaintiffs had standing because the FCCA's restrictions on carbon emission were too lax and therefore violated fundamental rights guaranteed under the Basic Law.¹³⁷

In sum, the *Juliana* case reduces the feasibility of future due process challenges, especially in the Ninth Circuit. Although *Juliana* is binding in the Ninth Circuit, it fortunately does not provide the last word on due process standing. The case is not binding on other circuits, which could decide differently in similar cases. Similarly, if states amend their constitutions to include environmental provisions, plaintiffs could have standing in future cases. For example, Hawaii has an environmental constitutional provision that could provide standing for Hawaiian due process cases.¹³⁸ Furthermore, if plaintiffs bring more procedural due process claims before the judiciary, courts could follow the precedent from *Massachusetts*.¹³⁹ If the United States makes progress on addressing climate change through the political branches, then the courts would not have to create a national climate change strategy. They would merely have to order the stricter enforcement of an existing climate plan, as was done in the *Notre Affaire à Tous* and *Neubauer* cases.

C. State Constitutional Amendments and Provisions

Presently, seven states have an environmental constitutional provision or amendment.¹⁴⁰ New York, Montana, Pennsylvania, and Rhode Island have environmental amendments to their state constitutions, while Illinois, Massachusetts, and Hawaii merely have environmental provisions.¹⁴¹ I define these first four as amendments because they are included in the Bill of Rights of their state Constitution, while the latter three were included in other articles.¹⁴² "Provisions" will be used as a general term for both amendments and non-amendments.

There were varying motivations for passing state environmental constitutional provisions. Illinois was the first to pass its provision in 1970, and the most recent before New York was Rhode Island in 1987 (see Figure 1).¹⁴³

Plaintiffs at 24, http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20210203_NA_decision-1.pdf.

137. *Neubauer v. Germany*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court] Mar. 24, 2021, 1 BvR 2656/18, Official English Translation at 31, http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2021/20210324_11817_order-1.pdf (Ger.).

138. *See In re Application of Maui Elec. Co.*, 408 P.3d 1, 16 (Haw. 2021).

139. *See id.*

140. N.Y. CONST. art. I, § 19; MONT. CONST. art. II, § 3; *id.* art. IX, § 1; PA. CONST. art. I, § 27; R.I. CONST. art. I, § 17; ILL. CONST. art. XI; MASS. CONST. art. XCVII, § 27; HAW. CONST. art. XI, § 9.

141. *See* N.Y. CONST. art. I, § 19; MONT. CONST. art. II, § 3; *id.* art. IX, § 1; PA. CONST. art. I, § 27; R.I. CONST. art. I, § 17; ILL. CONST. art. XI; MASS. CONST. art. XCVII, § 27; HAW. CONST. art. XI, § 9.

142. *See* N.Y. CONST. art. I, § 19; MONT. CONST. art. II, § 3; *id.* art. IX, § 1; PA. CONST. art. I, § 27; R.I. CONST. art. I, § 17; ILL. CONST. art. XI; MASS. CONST. art. XCVII, § 27; HAW. CONST. art. XI, § 9.

143. Art English & John J. Carroll, *State Constitutions and Environmental Bills of Rights*, in STATE CONSTITUTIONS 18 (2015).

Some have argued that first five provisions were likely motivated by the environmental movements of the 1970s.¹⁴⁴ More recently, the New York amendment was proposed and passed on November 2, 2021, in response to climate change and contemporary water contamination problems in the state.¹⁴⁵

Implementing state constitutional provisions is arguably more feasible than ratifying a federal constitutional amendment—given that state provisions have already passed, and the politics of a single state should be easier to navigate than national politics. State constitutional amendments do not have to go through the intense ratification process that the proposed amendments to the federal constitution must. Instead, forty-four states require a simple majority among the popular vote for those voting on the amendment, while three other states require a majority among all voters voting in the general election.¹⁴⁶ Three other states have slightly more complicated processes for ratifying amendments to their constitutions, that only apply in specific cases.¹⁴⁷

I will discuss these state-enacted environmental provisions in greater detail in the following sections, to explore how these provisions can help and hinder protecting future generations. However, I will avoid discussing the New York amendment, because it passed so recently that there is not yet significant case law attached to it. In addition, all except Massachusetts and New York mention future generations, which can be a first step toward protecting them.¹⁴⁸ I will begin with the Pennsylvania provision and will analyze it in the most detail because, in my opinion, its application transformed the most dramatically since its adoption. Shortly after the amendment's enactment, a judicial interpretation rendered it ineffective,¹⁴⁹ and it was not until forty-four years later that a subsequent interpretation reinvigorated it.¹⁵⁰ I will then briefly analyze Montana's provision because its interpretation followed a similar process. Next, I will examine the Illinois, Rhode Island, and Massachusetts provisions together because they currently have limited environmental applications. Finally, I will analyze Hawaii's constitutional provision, which has unique applications to granting standing under the Due Process Clause. These environmental provisions, while an important step forward, have at times been hampered by

144. *Id.*

145. *New York Becomes the Third State to Adopt a Constitutional Green Amendment*, NAT'L L. REV. (Dec. 10, 2021), <https://www.natlawreview.com/article/new-york-becomes-third-state-to-adopt-constitutional-green-amendment>.

146. Albert L. Strum, *The Procedure of State Constitutional Change—With Special Emphasis on the South and Florida*, 5 FLA. ST. U. L. REV. 569, 574 (1977).

147. In Louisiana, if five or fewer political subdivisions of the state are affected by the amendment, there must be a majority in the state and the affected subdivisions. LA. CONST. art. XIII, § 1(c). In Nebraska, the majority vote must be at least 35% of the total vote cast in the election. NEB. CONST. Art. XVI, § 1. In New Mexico, amendments related to elective franchise and education require approval by three-fourths of electors voting in the state and two-thirds in each county. N.M. CONST. art. XIX, § 1.

148. See N.Y. CONST. art. I, § 19; MASS. CONST. art. XCVII, § 27.

149. See generally *Payne v. Kassab*, 312 A.2d 86 (Pa. Commw. Ct. 1973), *aff'd*, 323 A.2d 407 (Pa. Super. Ct. 1974), *aff'd*, 361 A.2d 263 (Pa. 1976).

150. See *Pennsylvania Env't Def. Found. v. Commonwealth*, 161 A.3d 911 (Pa. 2017).

ineffective applications or limitations built into the structures of the amendments themselves. However, they still provide effective models for how other states can protect future generations.

**Figure 1: Table of Environmental Rights Provisions
(Exempting New York):¹⁵¹**

<i>State</i>	<i>Date</i>	<i>Section</i>	<i>Total Words in Provision</i>	<i>Mentions State Public Trust</i>	<i>Mentions Future Generations</i>	<i>Enforcement Mechanism Noted</i>
Illinois	1970	Article XI	83	Yes	Yes	Self-Executing
Pennsylvania	1971	Article I Section 27 (in bill of rights)	61	Yes	Yes	Legislative
Montana	1972	Article II, Section 3 (in bill of rights)	60	Yes	Yes	Unclear—subject to judicial interpretation
Massachusetts	1972	Article 97	191	Yes	Yes	Legislative
Hawaii	1978	Article XI, Section 9	57	Yes	Yes	Self-Executing
Rhode Island	1987	Article I, Section 17 (in bill of rights)	185	Yes	Yes	Legislative

1. The Pennsylvania State Constitutional Amendment

Former State Senator and Representative Franklin Kury, who helped sponsor the passage of Pennsylvania's environmental constitutional amendment, noted that the passage of the Pennsylvania amendment began when:

People of Pennsylvania woke up, and realized that the steel companies, the coal companies, [and] the railroad companies had badly exploited this state for their natural resources. The Susquehanna River—we've got coal sludge coming down the river. And people realized, hey, this is it. So, that's how we got this crescendo of public support for cleaning up the environment.¹⁵²

The Pennsylvania environmental amendment is especially significant because it is an important cautionary tale. The history of this amendment shows

151. English & Carroll, *supra* note 143.

152. *Straight Talk the Ralph Abele Story*, PBS, (Nov. 12, 2015), <https://www.pbs.org/video/witf-straight-talk-ralph-abele-story/> (edited by the author for clarity).

how even if states adopt constitutional amendments, they can be hamstrung by judicial interpretation. If these amendments are ineffective, they cannot help preserve the environment and are therefore useless to future generations.

Pennsylvania added an environmental rights amendment to its constitution in May 1971.¹⁵³ Section 27 provides that:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.¹⁵⁴

The Pennsylvania state constitutional amendment soon became difficult to enforce because of the Pennsylvania Supreme Court's narrow interpretation of the 1973 case *Payne v. Kassab*.¹⁵⁵ The court devised a three-part test making it extremely easy for those potentially harming the environment to succeed.¹⁵⁶ This test merely requires "compliance with all applicable statutes and regulations," a "reasonable effort to reduce the environmental incursion," and a balancing test that favors those causing the harm—given that the harm must "clearly outweigh the benefits" of the environmentally destructive project.¹⁵⁷ In terms of the actual results of using the *Payne* test, only one out of twenty-four reported court cases succeeded in challenging the government's action.¹⁵⁸

Fortunately for environmentalists, the *Payne* test was overturned in the 2017 case *Environmental Defense Foundation v. Commonwealth*.¹⁵⁹ The Supreme Court of Pennsylvania overruled *Payne* because the interpretation of Pennsylvania's environmental amendment requires a plain textual interpretation of the language of the amendment, "as well as the underlying principles of Pennsylvania . . . law in effect at the time of its enactment."¹⁶⁰ The new test should make it significantly easier to prevent harmful environmental projects from moving forward, which would help preserve the environment for future generations.¹⁶¹

2. *Montana Constitutional Amendment*

Like Pennsylvania, the efficacy of Montana's constitutional amendment was limited early on by judicial decisions but has more recently become more

153. John C. Dernbach et al., *Pennsylvania Environmental Defense Foundation v. Commonwealth of Pennsylvania: Recognition of Environmental Rights for Pennsylvania Citizens*, 70 RUTGERS U. L. REV. 803, 807 (2018).

154. *Id.*

155. 361 A.2d 263 (Pa. 1976).

156. *Id.* at 273 n.23.

157. *Id.*

158. *See* Dernbach et al., *supra* note 153, at 813.

159. 161 A.3d 911 (Pa. 2017).

160. *Id.* at 930.

161. *See id.*

effective. Montana's constitution contains two provisions that were incorporated in 1972.¹⁶² Article II, Section 3 provides a right to a "clean and healthful environment." Article IX, Section 1 provides that, "[t]he state . . . shall maintain . . . a clean and healthful environment . . . for present and future generations."¹⁶³

Despite this seemingly clear and explicit language, the amendments laid dormant after a 1979 case, *Kadillak v. Anaconda Company*.¹⁶⁴ In this case, the Montana Supreme Court decided that the environmental amendments could not require an Environmental Impact Statement under the Montana Environmental Policy Act (MEPA)¹⁶⁵ because the amendments were enacted after MEPA.¹⁶⁶ It was not until 1999, in a case called *Montana Environmental Information Center v. Department of Environmental Quality*, that the amendments became useful again.¹⁶⁷ In this case, the court noted that the Montana Constitution did not require "that dead fish float on the surface of our state's rivers and streams before its farsighted environmental protection can be invoked."¹⁶⁸ By doing so, it reestablished that the legislature must "prevent unreasonable degradation of natural resources."¹⁶⁹

Furthermore, in the 2020 case *Park County Environmental Council v. Montana Department of Environmental Quality*, the court interpreted the amendments to strengthen MEPA by allowing courts to stop environmentally detrimental projects with an injunction.¹⁷⁰ Montana also has a pending lawsuit brought by sixteen young people premised upon its fossil fuel emissions and the state's violation of its environmental constitutional amendment.¹⁷¹ This lawsuit may be more successful than other climate lawsuits brought by youth, like in *Juliana*, because Montana's constitutional environmental amendment could help satisfy the standing requirement.¹⁷²

162. Amanda Eggert, *How the Montana Constitution Shapes the State's Environmental Landscape*, MTFP, (Mar. 24, 2022), <https://montanafreepress.org/2022/03/24/montana-constitution-environment-stream-access/>.

163. MONT. CONST. art II, § 3; *id.* art. IX, § 1.

164. 602 P.2d 147 (Mont. 1979).

165. See generally Montana Environmental Policy Act, MONT. ADMIN. R. 17.4.601-17.4.636 (1971). MEPA is modelled after the National Environmental Policy Act (1969). Part 1 established Montana's environmental policy, Part 2 required state agencies to carry out the policies of Part 1, and Part 3 created the Environmental Quality Council. See also MONT. ENV'T QUALITY COUNCIL, A GUIDE TO THE MONTANA ENVIRONMENTAL POLICY ACT (2013), available at <https://leg.mt.gov/content/Publications/Environmental/2013-mepa-handbook.pdf>.

166. *Kadillak*, 602 P.2d at 154.

167. 988 P.2d 1236 (1999).

168. *Id.* at 1249.

169. *Id.*

170. See *Park County Env't Council v. Montana Dep't of Env't Quality*, 477 P.3d 288, 309 (2020).

171. See *Held v. State*, SABIN CTR. FOR CLIMATE CHANGE L., <http://climatecasechart.com/climate-change-litigation/case/11091/> (last visited Apr. 6, 2022).

172. See Dante Filpula Ankney, *Youth Suing Montana Over Climate Change Will Have Their Day in Court*, MONT. PUB. RADIO (Feb. 10, 2022), <https://www.mtpr.org/montana-news/2022-02-10/youths-suing-montana-over-climate-change-will-have-their-day-in-court>.

In conclusion, like Pennsylvania, Montana's environmental provision was weakened shortly after enactment by an unfavorable case but is now much stronger after recent decisions.

3. *Illinois, Rhode Island, and Massachusetts*

This section examines the environmental provisions in Illinois, Rhode Island, and Massachusetts together because of their limited applications. These provisions are currently only relevant regarding obtaining standing in environmental nuisance cases in Illinois, protecting fisheries in Rhode Island, and conserving land in Massachusetts. Unless courts interpret them more broadly, they are of limited utility for protecting future generations.

Currently, Illinois's constitutional provision is interpreted only to grant standing in environmental nuisance cases by eliminating the requirement of showing a special injury.¹⁷³ However, the text of Illinois's constitutional provision indicates that courts could interpret it more broadly to protect future generations. For example, the amendment explicitly states that Illinois must "provide and maintain a healthful environment for the benefit of this and future generations."¹⁷⁴ Ideally, courts could interpret this language to protect future generations from harm in future cases.

In contrast, Rhode Island's environmental amendment only addresses fisheries and shorelines.¹⁷⁵ This provision will provide a legal basis to ensure that future Rhode Islanders continue to enjoy the fisheries of their state. However, unless courts interpret this enjoyment as requiring solving the climate crisis, it will likely prove unhelpful in protecting future generations from climate change.

While Massachusetts's environmental provision only applies to land conservation, a court case, *Smith v. City of Westfield*, substantially broadened its scope.¹⁷⁶ Before this case, the provision only applied to land explicitly dedicated to conservation purposes in its title.¹⁷⁷ Afterward, land could be conserved if it was dedicated for public use, and the public accepted that the land would be for that purpose.¹⁷⁸ While *Smith* was undoubtedly an advancement for conserving land, it too will likely fail to achieve the reductions in carbon emissions needed to protect future generations from climate change.

173. Sheila Birnbaum et al., *New York's Green Amendment How Guidance from Other States Can Shape the Development of New York's Newest Constitutional Right*, JD SUPRA (Nov. 15, 2021), <https://www.jdsupra.com/legalnews/new-york-s-green-amendment-how-guidance-2462721/>.

174. ILL. CONST. art. XI.

175. R.I. CONST. art. I, § 17.

176. See generally *Smith v. City of Westfield*, 478 Mass 49 (2017); see also Murtha Cullina, *Recent Case Law on Article 97 Limits State and Municipal Authority to Develop Property*, JD SUPRA (May 11, 2018), <https://www.jdsupra.com/legalnews/recent-case-law-on-article-97-limits-91869/>.

177. *Id.*

178. *Id.*

4. Hawaii State Constitutional Provision

Hawaii has also seen the use of its environmental provision. For example, *In re Application of Maui Electric Company* recently concerned a power plant with numerous Clean Air Act violations.¹⁷⁹ Sierra Club sued because its members were forbidden from attending a hearing related to a power purchase agreement for a power plant releasing noxious fumes into the nearby community.¹⁸⁰ The Hawaii Supreme Court ruled that the Hawaii environmental provision granted the Sierra Club a due process a right to attend the hearing because the amendment established a protectable property interest.¹⁸¹ In this case, the environmental constitutional provision provided standing for a due process claim of the right to a healthy environment.¹⁸² The Sierra Club members won their case against the powerplant.¹⁸³ This type of constitutional provision can serve as a model for other states by creating a substantive due process right to a healthy environment, which under *Massachusetts*¹⁸⁴ proved to be more successful than the procedural due process arguments of *Juliana*.¹⁸⁵

In conclusion, states have had varying degrees of success with their environmental constitutional provisions. Some like those of Pennsylvania, Montana, and Massachusetts have recently been interpreted to grant a broader right to environmental protection than previously applied. Others, like those of Illinois and Rhode Island, are interpreted so narrowly that they are not particularly useful. Under the Hawaii amendment, there is a due process protectable property interest to a healthy environment.¹⁸⁶ However, none of these constitutional provisions comes close to the effectiveness of France's and Germany's constitutional provisions at reducing carbon emissions and protecting future generations because none obligate the state to reduce emissions. Instead, these amendments and constitutional provisions serve as guidelines and grant standing for environmental lawsuits. Other states are currently considering or have recently considered adopting green amendments, including New Mexico, Maryland, and New Jersey, among others.¹⁸⁷

179. 408 P.3d 1, 16 (Haw. 2021).

180. *Id.*

181. *Id.* at 5.

182. *See id.*

183. *See id.* at 23.

184. 549 U.S. at 517.

185. 947 F.3d at 1171.

186. *See Maui Elec. Co.*, 408 P.3d at 15.

187. *States Look to Carry Green Amendment Momentum into 2022*, NAT. CAUCUS OF ENV'T LEGISLATORS (Feb. 9, 2022), <https://www.nceleenviro.org/articles/states-look-to-carry-green-amendment-momentum-into-2022/>.

D. *Executive Orders to Protect Future Generations from Climate Change*

Executive orders are decrees the president makes to ensure that an action is taken and are of significant historical and political importance.¹⁸⁸ For example, the executive order authorizing the internment of Japanese Americans during World War II remains one of the most catastrophic failures of the American government,¹⁸⁹ while the integration of the armed forces is an example of an executive order being used to advance much-needed social progress.¹⁹⁰ However, their effectiveness as a whole, including concerning climate change, has been hotly debated. Some scholars view executive orders as exemplary of the limits of presidential power, while others view executive orders as a highly successful tool for the president to establish policy.¹⁹¹ In relation to addressing climate change, executive orders have several drawbacks. For example, President Biden's recent executive orders did not address public perceptions of climate change, which could limit their effectiveness.¹⁹² Additionally, orders often change or overturn between presidential administrations, depending on a particular president's political agenda. During his presidency, President Donald Trump overturned many of President Barack Obama's policies, partially through executive order.¹⁹³ For example, in 2018, President Trump revoked an Obama executive order which promised to cut the "federal government's greenhouse gas emissions by forty percent over ten years."¹⁹⁴ Other Trump executive orders that overturned previous executive orders included repealing Deferred Action for Childhood Arrivals, banning transgender troops from the military, expanding offshore oil and gas drilling, and removing designations for part or all of some national monuments.¹⁹⁵ Furthermore, executive orders are not judicially enforceable unless they originate from the president's constitutional or statutory authority.¹⁹⁶

Despite these drawbacks, executive orders have great potential to protect future generations from climate change and have already protected the environment. One of the first presidents to issue executive orders related to the environment was President Theodore Roosevelt.¹⁹⁷ Roosevelt used executive

188. Kenneth R. Mayer, *Executive Orders and Presidential Power*, 61 J. POL. 445, 445 (1999).

189. *Id.* at 446.

190. *Id.*

191. *Id.*

192. See Amber Polk, *President Biden's Executive Orders on the Environment Praiseworthy Policy, Political Red Herring, or . . . Both?*, 2021 U. ILL. L. REV. 152, 154, 157 (2021).

193. KXTV, *20 Times Trump Overturned Obama Policies*, ABC10 (Sept. 5, 2017), <https://www.abc10.com/article/news/local/20-times-trump-overturned-obama-policies/103-471323077>.

194. *Executive Orders*, SABIN CTR. FOR CLIMATE CHANGE L., <https://climate.law.columbia.edu/content/executive-orders> (last visited Dec. 16, 2021).

195. KXTV, *supra* note 194.

196. See Mayer, *supra* note 188, at 448 (referencing President Truman's seizure of steel mills in *Youngstown Sheet and Tube v. Sawyer*, 343 U.S. 579 (1951), as one of the more famous examples of an executive order being overturned).

197. Lorraine Boissoneault, *The Debate Over Executive Orders Began with Teddy Roosevelt's Mad Passion for Conservation*, SMITHSONIAN MAG. (Apr. 17, 2017), <https://www.smithsonianmag.com/>

orders to help create 150 new national forests, 18 national monuments, 5 national parks, and 51 wildlife refuges.¹⁹⁸ Furthermore, executive orders relating to the environmental security of future generations are not a recent development in the United States. An early example is Executive Order 12780, which President George H.W. Bush signed into law in 1991, and which is about encouraging federal agencies to recycle.¹⁹⁹ It begins with the statement, “this Administration is determined to secure for future generations of Americans their rightful share of our Nation’s natural resources.”²⁰⁰

Several hours after President Biden took office, he signed an executive order to rejoin the Paris Climate Agreement, which President Trump abandoned.²⁰¹ Within the first ten months of his presidency, President Biden issued five other executive orders related to climate change, including Executive Order 14008, which he signed on January 27, 2021.²⁰² Because climate change will affect society far into the future, each of the five executive orders inherently concerns future generations.²⁰³ However, because Executive Order 14008: *Tackling the Climate Crisis at Home and Abroad* is both the most detailed and forward-looking of these executive orders, this Note will look at it in greater detail.

This order directly addresses climate change and future generations—it is a substantive example of the United States providing protections for future generations.²⁰⁴ For instance, section 219, which falls under the segment entitled Securing Environmental Justice and Spurring Economic Opportunity, states that “[t]o secure an equitable economic future, the United States must ensure that environmental and economic justice are key considerations in how we govern.”²⁰⁵ To do so involves “investing and building a clean energy economy” to turn “historically marginalized” communities into “healthy, thriving

history/how-theodore-roosevelts-executive-orders-reshaped-countryand-presidency-180962908/.

198. *Id.*

199. *Executive Order 12780—Federal Agency Recycling and the Council on Federal Recycling and Procurement Policy*, AMERICAN PRESIDENCY PROJECT, <https://www.presidency.ucsb.edu/documents/executive-order-12780-federal-agency-recycling-and-the-council-federal-recycling-and> (last visited Dec. 16, 2021).

200. *Id.*

201. Veronica Stracqualursi & Drew Kann, *U.S. Officially Rejoins the Paris Climate Accord*, CNN, (Feb. 19, 2021), <https://www.cnn.com/2021/02/19/politics/us-rejoins-paris-agreement-biden-administration/index.html>.

202. These include the following executive orders: Exec. Order No.13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, 86 Fed. Reg. 7037 (Jan. 25, 2021); Exec. Order No.14008, Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7619 (Feb. 1, 2021); Exec. Order No.14013, Rebuilding and Enhancing Programs to Resettle Refugees and Planning for the Impact of Climate Change on Migration, 86 Fed. Reg. 8839 (Feb. 9, 2021); Exec. Order No.14027, Establishment of the Climate Change Support Office, 86 Fed. Reg. 25,947 (May 12, 2021); and Exec. Order No.14030, Climate-Related Financial Risk, 86 Fed. Reg. 27,967 (May 25, 2021).

203. *Taking the Long View The Forever Legacy of Climate Change*, YALE SCH. ENV’T (Sept. 12, 2017), <https://e360.yale.edu/features/taking-the-long-view-the-forever-legacy-of-climate-change>.

204. *Id.*

205. *Id.* at 7629.

communities.”²⁰⁶ Additionally, agencies must include environmental justice as “part of their missions.”²⁰⁷ Section 219 also prioritizes environmental justice to achieve an “equitable economic future.”²⁰⁸ In essence, this section prioritizes ensuring that current or looming environmental problems do not endanger future generations’ prospects for an improved economic future.²⁰⁹ Achieving these goals requires investment and prioritizing clean energy and environmental justice.²¹⁰

Furthermore, Executive Order 14008 contains numerous provisions that set future-oriented goals for reducing carbon emissions. For example, by 2030, the United States will have “doubl[ed] offshore wind” and “conserv[ed] 30 percent of our lands and waters.”²¹¹ By 2035, we will have “a carbon pollution-free electricity sector,” and we should be “on a path to achieve net-zero emissions . . . by no later than 2050.”²¹² This type of future-oriented emissions reduction goal setting was an important element of *Notre Affaire à Tous* and *Neubauer*. In *Notre Affaire à Tous*, the Administrative Court held that France had exceeded its set emissions. In contrast, in *Neubauer*, the Federal Constitutional Court found that the European Union’s emission goals were not ambitious enough to meet the temperature targets set under the Paris Agreement. This type of goal setting in Executive Order 14008 is an important step forward for a more sustainable future, as it demonstrates a commitment to reducing emissions.

CONCLUSION

In conclusion, there are various possible methods for the United States to become more forward-looking, which is essential if we are going to reduce greenhouse gas emissions and protect future generations from climate change. The United States is unlikely to follow precisely in the footsteps of France and Germany because *Notre Affaire à Tous* and *Neubauer* involved federal constitutional environmental amendments and the Paris Agreement, which the United States withdrew from²¹³ and later rejoined.²¹⁴ However, while the United States is unlikely to pass a federal constitutional amendment to protect the environment, other methods of protection can and have been more successful in protecting future generations from environmental harm. These methods may be helpful in conjunction with each other. A case based on the Due Process Clause

206. *Id.*

207. *Id.*

208. *Id.*

209. *See id.*

210. *See id.*

211. *Id.* at 7627.

212. *Id.* at 7622, 7624.

213. Matt McGrath, *Climate Change U.S. Formally Withdraws from Paris Agreement*, BBC (Nov. 4, 2020), <https://www.bbc.com/news/science-environment-54797743>.

214. Associated Press, *Biden Apologizes for Trump’s Exit from Paris Climate Accord*, PBS NEWS HOUR (Nov. 1, 2021), <https://www.pbs.org/newshour/politics/biden-apologizes-for-trumps-exit-from-paris-climate-accord>.

of the federal Constitution could succeed in the future, especially if based on procedural due process rights. Some states, including Pennsylvania, Hawaii, Montana, and Massachusetts, have had recent cases enforcing their state's constitutional environmental provisions, despite experiencing limitations to enforcement early on. In addition, several recent executive orders by President Biden, including Executive Order 14008, have included provisions to protect future generations. Nevertheless, it is worth noting that although all the strategies mentioned for encouraging action on climate change and protecting future generations are essential—they are just commitments to reducing greenhouse gas emissions. Countries and states must follow through on these commitments for any change to occur.