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Legal Doctrines for the U.S. Federal Courts and the International Investment Arbitral Tribunals in Adjudicating the Climate Change Disputes*

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Climate change is a man-made disaster that has become a major global concern today. With increasingly visible symptoms of climate change in recent years, it has become evident that climate action can no longer be dismissed as a mere matter of choice, but as a matter of survival for the human being. To address the impending climate change crisis in a collaborative and sustainable manner, the international community has been taking various measures including Kyoto protocol and the Paris Agreement.

With respect to the private investor's project investment in line with international agreements on climate change, recently we have seen multiple legal judgments which clearly indicate the subject of judicial responsibility for investment in climate change related projects. However, in order to hold judicial responsibility occurring during the implementation of climate change related projects, a causal relationship between the responsible entities and clear responsibility must be demonstrated, and applicable institutional arrangements need to be arranged. It may be the right time for global community to consider shifting not only to human ethical obligations but also legal obligations. In this regard, concerned governments should consider legislating arbitration laws, regulations, and institutional arrangements in more specific and applicable manner.

Key Words : Climate Change, No Harm Rule, Public Trust Doctrine, Public Nuisance Doctrine, Addiction, Fair and Equitable Treatment, Expropriation, Investment Arbitration

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Ⅰ. Introduction

Climate change is a man-made disaster that has developed over the past few centuries to become a major global concern today. With increasingly visible symptoms of climate change in recent years, it has become evident that climate action can no longer be dismissed as a mere matter of choice, but be recognized for what it truly is - a matter of survival for international society. The international community has been taking various measures to address the impending climate change crisis in a collaborative and sustainable manner.

Currently, the preeminent international framework for global climate action is the Paris Agreement, in which participating countries have committed themselves to holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.[1] To meet these highly ambitious temperature goals, participating countries— both developing and developed - are preparing to assume considerable economic burdens.

The fundamental legal instruments that guard against global climate disruption – the UN Framework Convention on Climate Change and its corollary documents of the Kyoto Protocol and the Paris Accord – do not provide any enforcement mechanism except for authorizing the resolution of the disputes between states party to the convention through litigation before the International Court of Justice or the international arbitration proceedings.[2] Thus, any relevant countries being affected by the climate change agreement and related laws may submit to the jurisdiction of an international court or tribunal by special agreement, or in a separate bilateral or multilateral treaty.

1) Para 1(a) of Article 2 of the Paris Agreement. See PA. (2015). *Paris Agreement.* https://unfccc.int/sites/default/files/english_paris_agreement.pdf. Accessed on August 20, 2020.
2) UN Framework Convention on Climate Change, art 14.

Ⅱ. The Role of International Treaties Regarding Climate Change Disputes

The "relatively small body" of international law on climate change is comprised of three treaties, the United Nations Framework Convention on Climate Change ("UNFCCC"), the Kyoto Protocol and the 2015 Paris Agreement, as well as customary international law and general principles of law as they apply to climate-related issues.[3] The UNFCCC's chief objective, per Article 2, is mitigation or the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system," while enabling "economic development to proceed in a sustainable manner."The provisions under the UNFCCC increasingly extend far beyond mitigation to different forms of assistance and remedy. With long-standing frameworks on adaptation and finance and a growing emphasis on loss and damage by the Conference of the Parties ("COP") to the Convention, the UNFCCC could provide effective avenues to assist vulnerable, economically-constrained communities and countries by expanding its global burden-sharing architecture to climate migration.

On the other hand, the Paris Agreement is the replacement of the UNFCCC. If the UNFCCC, adopted in 1992, provided a foundational ground for a shared understanding on the issue of climate change and principled behavioral direction to tackle climate change, the Kyoto Protocol, adopted later in 1997, is an agreement with stringent and specific regulatory measures to govern the global climate action. The gist of the Kyoto Protocol is that national and quantitative greenhouse gas emission reduction target of an average of five percent within a specific time span of year 2008-2012 was determined and imposed on 37 developed countries and the European Community in a top-down manner.[4] The Kyoto Protocol enumerated six types of greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF6).[5]

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3) International Bar Association, Achieving Justice and Human Rights in an Era of Climate Disruption 134, 186 (2014), http://www.ibanet.org/PresidentialTaskForceClimateChangeJustic

4) See Bodansky, D. (2011). A tale of two architectures: The once and future UN climate change regime. *Arizona State Law Journal*, 43(3), 697-712. See also Sands, 1992. Also, see Sands, P. (1992). The United Nations Framework Convention on Climate Change. *Review of European Community and International Environmental Law*, 1(3), 270-277.

During the Paris Agreement in 2015, which went into effect in 2020 and established a new climate regime, participating countries voluntarily set nationally-determined contributions (NDCs) to implement respective efforts. The Paris Agreement was ratified by 195 countries participating in the UNFCCC COP21 in December 2015, which was the prelude to the Paris Agreement. The participating parties at COP21 agreed to collectively reduce their greenhouse gases emissions in order to limit global warming to two degrees Celsius above pre-industrial levels[6].

Although the Paris Agreement was adopted to replace the Kyoto Protocol, there are similarities between the sustainable development mechanism and clean development mechanism, which are market mechanisms of the Paris Agreement and Kyoto Protocol respectively. In particular, the sustainable development mechanism (SDM) of the Paris Agreement is similar to the Clean Development Mechanism (CDM) of the Kyoto Protocol. Certified Emission Reductions (CERs) is a kind of carbon emission credit issued by the clean development mechanism Executive Board to reward emission reductions achieved by clean development mechanism projects. To ensure legitimacy, these emission reductions are verified by a Designated Operational Entity (DOE) under the rules of the Kyoto Protocol. In pursuit of sustainable development and of greenhouse gas emissions, in accordance with the mandates and guidelines of the Conference of the Parties to the Paris Agreement, both of the sustainable development mechanism and the clean development mechanism are being supervised by UNFCCC agencies and supervised by agencies designated by the Conference of the Parties[7].

There are also notable differences between the Paris Agreement and the Kyoto Protocol - particularly between the sustainable development mechanism and clean development mechanism. For instance, the clean development mechanism is only an “offset” mechanism. A carbon offset is a reduction in emissions of carbon dioxide and other greenhouse gases made for the purpose of compensation for emissions incurred elsewhere.[8] In other words, it does not directly contribute to reducing greenhouse gases emissions at the global level. Conversely, the stated goal of the sustainable

5) Annex A of the Kyoto Protocol. See KP. (1997). Kyoto Protocol. https://unfccc.int/resource/docs/convkp/kpeng.pdf. Accessed on August 20, 2020.
6) IPCC Report
7) Paris Agreement Article 6.
8) Collins English Dictionary.

development mechanism is much more ambitious and aims to go beyond a mere offsetting role: "promote mitigation of greenhouse gas emissions" and "achieve overall mitigation of global emissions".

Under the Paris Agreement, regardless of development level, each country is obligated to an equal amount of participation in greenhouse gases reduction efforts. However, given the economic and technological disparities between the global south and north region in the world, it seems only sensible that developed countries provide free technology transfer and project financing to their more needful counterparts. State party participating in the Paris Agreement are required to submit implementation plans to voluntarily reduce carbon emission. These plans are related to two stages of the greenhouse gases reduction obligation of developing countries such as obligations with or without the support of international community.[9)]

In line with Article 10 (technology development and transfer) of the Paris Agreement, all parties are obliged to strengthen their collaborative actions on technology development and transfer. These collaborative actions are supported by the Technology Mechanism of the UNFCCC, which consists of the Technical Executive Committee (TEC) as the policy arm and the Climate Technology Centre and Network (CTCN) as the implementation arm. The UNFCCC also established a financial mechanism, namely the Green Climate Fund (GCF), which has received pledges amounting to more than US$10 billion[10)]

International law instruments identify climate change challenges as common concerns to all of mankind. The UNFCCC acknowledges that "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response. Indeed, the issue of climate change, which is inherently global in nature, requires international collaborative efforts to overcome[11)].

9) Decision 1/CP.21, *supra* note 30, § II

10) *Resources Mobilized*, Green Climate Fund, http://www.greenclimate.fund/partners/contributors/resource-mobilization.

11) UNFCCC, preamble.

Ⅲ. Legal Doctrines of International Court of Justice and U.S. Courts in Adjudicating Climate Change Disputes

The climate change obligations of participating countries under the Paris Agreement may also become relevant in international disputes between countries and involving actors in the private and public sectors. The relevant legal ground will include international climate change law such as international investment law, and international human rights law[12]. In line with these, any countries being affected by the climate change agreement and related laws may submit to the jurisdiction of an international court or tribunal by special agreement, or in a separate bilateral or multilateral treaty. In this article, the legal doctrines adopted by the International Court of Justice, and the U.S. Federal Courts in adjudicating the climate change disputes will be reviewed.

1. No Harm Rule of the International Court of Justice

According to the international law principle of *sic utere tuo ut alienum non laedus*, which directs nations to avoid causing significant injuries to the environment of other nations, states in the international community have a duty to address transboundary environmental harms, including those that arise from use of state-owned property and activities authorized by state action.[13] This principle was recently upheld by the International Court of Justice in the Pulp Mills case, where the court noted that it is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."[14] To facilitate compliance with this "no harm" rule there is a "principle of prevention" that requires a state to "use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State."[15]

12) *See, e.g.*, Burlington Resources Inc. v. Ecuador, ICSID Case No. ARB/08/5, Decision on Ecuador's Counterclaims (Feb. 7, 2017)

13) *See* RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 601 (AM. LAW INST. 1987).

14) Pulp Mills on the River Uruguay (Arg. v. Uru.), Judgment, 2010 I.C.J. 14, ¶ 101 (Apr. 20) (quoting Corfu Channel (U.K. v. Alb.), Judgment, 1949 I.C.J. 4, 22 (Apr. 9)).

15) Trail Smelter (U.S. v. Can.), 3 R.I.A.A. 1938, 1965 (Trail Smelter Arb. Trib. 1941).

Climate change falls within the scope of the "no harm" rule and its corollary obligations. As a technical matter, there is no question that greenhouse gases emitted in the United States contribute to the planetary problem of climate change, injuring property and people in foreign countries. The science shows that CO2 and the other greenhouse gases become mixed in the atmosphere and affect global climate.[16] As the U.S. Environmental Protection Agency ("EPA") has explained, "U.S. emissions have climatic effects not only in the United States but in all parts of the world."

The UNFCCC's establishment of climate change mitigation and adaptation obligations for nations party to the Convention specifies nations' duties under international law. As its overarching purpose, the Convention recognizes that all states share a duty to "prevent dangerous anthropogenic interference with the atmosphere."[17] In the 2010 Cancun Agreements, the Conference of the Parties to the UNFCCC agreed that, to achieve this goal, they must "hold the increase in global average temperature below 2°C above pre-industrial levels," and that they should consider strengthening this long-term goal in order to hold the global average temperature increase to 1.5 °C.[18] The more recent Paris Agreement strengthened Parties' commitment to "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels."[19] Among its core principles, the Convention calls on the Parties to "take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects." In line with these goals and principles, the Convention requires all Parties, keeping in mind their common but differentiated responsibilities and capabilities, to design and implement programs containing both mitigation and adaptation measures. Mitigation measures may "cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors."[20]

16) Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,536-40 (Dec. 15, 2009).

17) U.N. Framework Convention on Climate Change art. 2, May 9, 1992, 1771 U.N.T.S. 107.

18) U.N. Framework Convention on Climate Change, *The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention*, U.N. Doc. FCCC/CP/2010/7/Add.1, Dec. 1/CP.16, par. 4 (Mar. 15, 2011).

19) Paris Agreement to U.N. Framework Convention on Climate Change, *opened for signature* Apr. 22, 2016, U.N. Doc. FCCC/CP/2015/L.9/Rev.1, art. 2 (entered into force Nov. 4, 2016), art. 2(1)(a).

20) UNFCCC, art. 3(3) and art. 4(1)-(2).

Courts around the world have begun to recognize that international law assigns governments an affirmative duty to mitigate greenhouse gases emissions and climate change impacts. In June 2015 the Hague District Court in the Netherlands issued a decision holding that the domestic law of that country requires the government to accelerate its emission reduction efforts in order to fulfill a duty of care to its citizens.[21] In reaching its decision, the court cited various components of international law, including the "no harm" rule, the doctrine of hazardous negligence, the principle of fairness, the precautionary principle, and the sustainability principle embodied in the UNFCCC. In September 2015 an appellate court in Pakistan found that both international and domestic law required the government to implement its national climate change policy - which included mitigation and adaptation objectives - in order to protect the fundamental rights of its citizens.[22] Cases alleging a violation of fundamental rights as a result of governmental inaction on climate change have been also decided or filed in European countries including Belgium and Norway. In addition, cases specifically challenging domestic coal policies and their impacts on certain fundamental rights have been filed in the United States.[23]

2. Public Trust Doctrine of the U.S. Federal Courts

The following U.S. cases are regarding challenging domestic coal policies and their impacts on certain fundamental rights. In the age of climate change, the Juliana case[24] responds to an open question over whether there is a federal public trust doctrine in the United States, and if so what obligations arise pursuant to that doctrine in regards to the management and administration of U.S. public lands and the federal coal leasing program.

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21) RB-Den Haag [Hague Dist. Ct.] 24 juni 2015, ECLI:NL:RBDHA:2015:7196 (Stichting Urgenda/Nederlanden).

22) Leghari v. Fed'n of Pak., W.P. No. 25501/2015 (Lahore High Ct., Green Bench).

23) KLIMAATZAAK http://klimaatzaak.eu/nl [https://perma.cc/M43HK6SX] (last visited Sept. 10, 2016) (providing an overview of litigation brought by a nonprofit organization, Klimaatzaak, against the government of Belgium); *See also* Greenpeace Nordic Ass'n v. Norway Ministry of Petroleum & Energy (Oslo Dist. Ct. petition filed Oct. 18, 2016) and Complaint, Juliana v. United States, No. 15-cv-01517 (D. Or. Aug. 12, 2015).

24) Juliana, No. 15-cv-01517, 2016 WL 6661146 (D. Or. Nov. 10, 2016).

(1) Background

Environmental activists who were too young to vote, and purported guardian for future generations, brought action for declaratory and injunctive relief against the United States, the President, and numerous executive agencies, alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system, and asserting violations of substantive due process and defendants' obligation to hold natural resources in public trust. The District Court Judge allowed industry associations to intervene as defendants. Defendants and intervenors filed motions to dismiss for lack of subject matter jurisdiction and for failure to state a claim.

Plaintiffs in this civil rights action are a group of young people between the ages of eight and nineteen ("youth plaintiffs"); Earth Guardians, an association of young environmental activists; and Dr. James Hansen, acting as guardian for future generations. Plaintiffs filed this action against defendants the United States, President Barack Obama, and numerous executive agencies. Plaintiffs allege defendants have known for more than fifty years that the carbon dioxide ("CO2") produced by burning fossil fuels was destabilizing the climate system in a way that would "significantly endanger plaintiffs, with the damage persisting for millennia." Despite that knowledge, plaintiffs assert that defendants, "by their exercise of sovereign authority over our country's atmosphere and fossil fuel resources, … permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels, … deliberately allowing atmospheric CO2 concentrations to escalate to levels unprecedented in human history."[25] Although many different entities contribute to greenhouse gas emissions, plaintiffs aver that defendants bear "a higher degree of responsibility than any other individual, entity, or country" for exposing plaintiffs to the dangers of climate change.[26] Plaintiffs argue that defendants' actions violate their substantive due process rights to life, liberty, and property, and that defendants have violated their obligation to hold certain natural resources in trust for the people and for future generations.

25) Complaint page 5.
26) Complaint page 7.

(2) Standing to Sue

A threshold question in every federal case is … whether at least one plaintiff has standing.[27] Standing requires a plaintiff to allege "such a personal stake in the outcome of the controversy as to warrant [the] invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers."[28]To demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision[29].

1) Injury in Fact

In an environmental case, a plaintiff cannot demonstrate injury in fact merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming (or imminently will harm) the plaintiff.[30] The Judge noted that plaintiffs adequately allege injury in fact. Lead plaintiff Kelsey Juliana alleges algae blooms harm the water she drinks, and low water levels caused by drought kill the wild salmon she eats.[31] Plaintiff Xiuhtezcatl Roske-Martinez alleges increased wildfires and extreme flooding jeopardize his personal safety. Plaintiff Alexander Loznak alleges record-setting temperatures harm the health of the hazelnut orchard on his family farm, an important source of both revenue and food for him and his family.

In summary, the complaint alleges that "the present level of CO2 and its warming, both realized and latent, are already in the zone of danger.[32] It also alleges that "our country is now in a period of carbon overshoot, with early consequences that are already threatening and that will, in the short term, rise to unbearable unless Defendants take immediate action." Youth plaintiffs each allege harm that is ongoing and likely to continue in the future.[33] The Court held that this is sufficient to satisfy

27) *Thomas v. Mundell*, 572 F.3d 756, 760 (9th Cir. 2009).
28) *Warth v. Seldin*, 422 U.S. 490, 498, 95 S.Ct. 2197, 45 L.Ed.2d 343 (1975).
29) *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992).
30) *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (TOC), Inc.*, 528 U.S. 167, 181, 120 S.Ct. 693, 145 L.Ed.2d 610 (2000).
31) Complaint 17-18.
32) Complaint 21.
33) Complaint 17 (alleging current harm and harm "[i]n the coming decades" from ocean acidification and rising sea levels); Complaint 45 (alleging damage to freshwater resources now and in the

the imminence requirement. Thus, the Court concluded that by alleging injuries that are concrete, particularized, and actual or imminent, plaintiffs have satisfied the first prong of the standing test.

2) Causation

The second requirement of standing is causation. A plaintiff must show the injury alleged is "fairly traceable" to the challenged action of the defendant and not the result of "the independent action of some third party not before the court.[34] Plaintiffs allege that fossil fuel combustion accounts for approximately ninety-four percent of United States CO2 emissions.[35] Defendants lease public lands for oil, gas, and coal production; undercharge royalties in connection with those leases; provide tax breaks to companies to encourage fossil fuel development; permit the import and export of fossil fuels; and incentivize the purchase of sport utility vehicles.[36] Here, the chain of causation is: fossil fuel combustion accounts for the lion's share of greenhouse gas emissions produced in the United States; defendants have the power to increase or decrease those emissions; and defendants use that power to engage in a variety of activities that actively cause and promote higher levels of fossil fuel combustion. At the pleading stage, plaintiffs have adequately alleged a causal link between defendants' conduct and the asserted injuries.

3) Redressability

The final prong of the standing inquiry is redressability. The causation and redressability prongs of the standing inquiry "overlap and are two facets of a single causation requirement."[37] They are distinct in that causation "examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief." A plaintiff need not show a favorable decision is certain to redress his injury, but must show a substantial likelihood it will do so.[38] It is sufficient for the redressability inquiry to

future "if immediate action is not taken" to reduce CO2 emissions).

34) *Lujan*, 504 U.S. at 560, 112 S.Ct. 2130.

35) Complaint 158.

36) Complaint 164, 166, 171, 173, 181, 190

37) *Bellon*, 732 F.3d at 1146.

show that the requested remedy would "slow or reduce" the harm.[39]

Plaintiffs ask this Court to "order Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO2 emissions, as well as take such other action necessary to ensure that atmospheric CO2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system."[40] Construing the complaint in plaintiffs' favor, they allege that this relief would at least partially redress their asserted injuries. Youth plaintiffs have adequately alleged they have standing to sue.

(3) Public Trust Doctrine

Plaintiffs' public trust claims arise from the particular application of the public trust doctrine to essential natural resources. With respect to these core resources, the sovereign's public trust obligations prevent it from "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens."[41]

The natural resources trust operates according to basic trust principles, which impose upon the trustee a fiduciary duty to "protect the trust property against damage or destruction."[42] The trustee owes this duty equally to both current and future beneficiaries of the trust.[43] In natural resources cases, the trust property consists of a set of resources important enough to the people to warrant public trust protection.[44] The government, as trustee, has a fiduciary duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust.[45]

This lawsuit is part of a wave of recent environmental cases asserting state and national governments have abdicated their responsibilities under the public trust

38) Id.
39) *Massachusetts*, 549 U.S. at 525, 127 S.Ct. 1438 (citing *Larson v. Valente*, 456 U.S. 228, 243 n.15, 102 S.Ct. 1673, 72 L.Ed.2d 33 (1982)).
40) Complaint 12.
41) Br. of Amici Curiae Global Catholic Climate Movement and Leadership Council of Women Religious at 3 (doc. 51-1).
42) George G. Bogert et al., Bogert's Trusts and Trustees, § 582 (2016).
43) Restatement (Second) of Trusts § 183 (1959).
44) *See* Mary C. Wood, A Nature's Trust; Environmental Law for a New Ecological Age 167-75 (2014).
45) Id.

doctrine.[46] These lawsuits depart from the "traditional" public trust litigation model, which generally centers on the second restriction, the prohibition against alienation of a public trust asset. Instead, plaintiffs assert defendants have violated their duties as trustees by nominally retaining control over trust assets while actually allowing their depletion and destruction, effectively violating the first and third restrictions by excluding the public from use and enjoyment of public resources. Because a number of plaintiffs' injuries relate to the effects of ocean acidification and rising ocean temperatures, they have adequately alleged harm to public trust assets.

Even if a federal public trust doctrine existed, the scope would be narrow and thus not that effective in creating meaningful action on climate change. As Judge Aiken noted in her opinion, a trust under color of federal law would arguably apply only to trust assets held by the federal government.[47] Absent concrete judicial confirmation of an expansive definition of the assets traditionally governed by the public trust doctrin e[48], the doctrine would cover navigable waters and submerged lands owned by the federal government. The federal government would therefore have a fiduciary responsibility to waters and submerged lands three to twelve miles off the coasts of the United States and not much else.[49]

Choosing to incorporate the atmosphere into the public trust requires an extension of the current doctrine. In this context, the "reasonably prudent man" standard becomes a severe limitation with an atmospheric trust.[50] A trust relationship does not create a strict liability regimen[51], but instead only requires a trustee to act

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46) *See, e.g., Alec L. v. Jackson*, 863 F.Supp.2d 11 (D.D.C. 2012); *Sanders-Reed ex rel. Sanders-Reed v. Martinez*, 350 P.3d 1221 (N.M. Ct. App. 2015); *Kanuk ex rel. Kanuk v. State, Dep't of Natural Res.*, 335 P.3d 1088 (Alaska 2014); *Chernaik v. Kitzhaber*, 263 Or.App. 463, 328 P.3d 799 (2014).

47) See Juliana v. United States, 217 F. Supp. 3d 1224, 1257 (2016) ("PPL Montana said nothing at all about the viability of federal public trust claims with respect to federally-owned trust assets.").

48) There is no precedent for its existence much less a broad interpretation of the assets covered by a federal fiduciary obligation. See Matthew Schneider, "Where Juliana Went Wrong: Applying the Public Trust Doctrine To Climate Change Adaptation At the State Level" Environs Environmental Law and Policy Journal (2017).

49) Proclamation No. 5928, Presidential Proclamation 5928, 54 Fed. Reg. 777 (January 9, 1989) (the breadth of the U.S. territorial sea was declared to be 12 nautical miles from the baseline, but only for international law purposes).

50) 12 George G. Bogert & Amy Morris Hess, Bogert Trusts and Trustees § 583 (2d ed. 1980).

51) *See* Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources Law: Questioning the Public Trust Doctrine*, 71 Iowa L. Rev. 631, 710 (1986) at 654 (noting the fiduciary standard imposed by the public trust doctrine "stops short of declaring an absolute

"reasonably."[52] Because of the atmosphere's transboundary nature, it is uncertain what a prudent man might do to protect the trust. The inaction of other countries or states, over whom the trustee has no control, can cause pollution of the atmosphere and negate measures taken by the sovereign to mitigate damage to the trust. Accordingly, the U.S. judiciary may avoid such difficult policy questions by invoking the political question doctrine.[53] Thus, by including the atmosphere as a trust asset, plaintiffs may in fact be providing the court with a reason to avoid enforcing a duty at all.

3. Public Nuisance Doctrine of the U.S. Federal Courts

The Restatement (Second) of Torts defines a public nuisance as "an unreasonable interference with a right common to the general public."[54] Where a public nuisance is found, a plaintiff may be able to obtain either injunctive relief or an award of damages.

(1) Background

In the case of AEP v. Connecticut, eight states, New York City, and three land trusts separately sued the same electric power corporations that owned and operated fossil-fuel-fired power plants in twenty states, seeking abatement of defendants' ongoing contributions to public nuisance of global warming. The United States District Court for the Southern District of New York[55] dismissed plaintiffs' federal common law nuisance claims as non-justiciable under the political question doctrine, and plaintiffs appealed. The United States Court of Appeals for the Second Circuit[56], vacated and remanded. Certiorari was granted.

(2) Public Nuisance Doctrine and Displacement Doctrine

The Supreme Court held that the Clean Air Act and the EPA actions it authorizes

environmental quality standard.").

52) Id.

53) This type of issue arguably invokes the political question doctrine pronounced in Baker v. Carr, 369 U.S. 186, 217 (1962).

54) RESTATEMENT (SECOND) OF TORTS § 821B (AM. LAW INST. 1979).

55) 406 F.Supp.2d 265.

56) 582 F.3d 309.

displace any federal common-law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants. The Court noted that the Act "speaks directly" to emissions of carbon dioxide from the defendants' plants. Section 111 of the Act directs the EPA Administrator to list "categories of stationary sources" that "in the judgment … cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[57] Once EPA lists a category, the Agency must establish standards of performance for emission of pollutants from new or modified sources within that category[58]. In addition, the Court emphasized that the Act provides multiple avenues for enforcement. EPA may delegate implementation and enforcement authority to the States,[59] but the Agency retains the power to inspect and monitor regulated sources, to impose administrative penalties for noncompliance, and to commence civil actions against polluters in federal court.[60]

If EPA does not set emissions limits for a particular pollutant or source of pollution, States and private parties may petition for a rulemaking on the matter, and EPA's response will be reviewable in federal court.[61] The Court noted that the Act itself thus provides a means to seek limits on emissions of carbon dioxide from domestic power plants—the same relief the plaintiffs seek by invoking federal common law. The Court reasoned that EPA may not decline to regulate carbon-dioxide emissions from power plants if refusal to act would be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[62] If the plaintiffs in this case are dissatisfied with the outcome of EPA's forthcoming rulemaking, their recourse under federal law is to seek Court of Appeals review, and, ultimately, to petition for certiorari in this Court.

Further, the Supreme Court emphasized that Congress designated an expert agency, here, EPA, as best suited to serve as primary regulator of greenhouse gas emissions. The expert agency is surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions. Federal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order.[63] The Second Circuit erred, the Supreme Court held, in ruling that federal

57) Clean Air Act § 7411(b)(1)(A).
58) § 7411(b)(1)(B)
59) §§ 7411(c)(1), (d)(1).
60) §§ 7411(c)(2), (d)(2), 7413, 7414.
61) § 7607(b)(1).
62) § 7607(d)(9)(A).

judges may set limits on greenhouse gas emissions in face of a law empowering EPA to set the same limits, subject to judicial review only to ensure against action "arbitrary, capricious, … or otherwise not in accordance with law."[64]

(3) Federal Common Law and Implication of AEP Case

To succeed on a public nuisance claim at common law, the plaintiffs must first demonstrate unreasonable interference with a public right.[65] Proving this element is often challenging, either because a court may find that the conduct complained of violates a private as opposed to public right, or because of insufficiently unreasonable interference.[66] However, the Second Restatement eschews traditional common law conceptions of interference with a public right where a state statute explicitly provides that public nuisance includes "interference with any considerable number of persons."[67]

The U.S. Supreme Court's rejection of the federal common-law claim in AEP significantly affects global warming litigation in particular and public nuisance litigation generally. The language and reasoning used in support of the CAA will serve as useful tool for the corporations and the policymakers supportive of the existing regulatory process in the public nuisance cases in the future.

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63) See generally Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 865-866, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984).

64) Clean Air Act § 7607(d)(9).

65) Restatement (Second) of Torts § 821(AM. L. INST. 1979).

66) According to the Restatement, "a public right is one common to all members of the general public. It is collective in nature and not like the individual right that everyone has not to be assaulted or defamed or defrauded or negligently injured." Id. § 821B cmt. g; Golden v. Diocese of Buffalo, 125 N.Y.S.3d 813 (App. Div. 2020) (holding that public nuisance claim for failing to inform Catholic parishioners of multiple reports of child sexual abuse committed by new priest only affected a particular subset of the community and did not constitute substantial interference with a public right).

67) Restatement (Second) of Torts § 821B cmt. G (AM. L. INST. 1979) (indicating that "under these statues no public right as such need be involved").

Ⅳ. Legal Doctrines of International Investment Arbitration

1. International Investment Law and Treaties

Since the international economic system has become more intertwined with the climate change problems,[68] the international investment regime has become more important in its role in global climate governance. Corporations can play a dual role with regard to climate change. Corporations are the main greenhouse gas producers[69] and greenhouse gases emissions spur climate change. On the other hand, multinational corporations can play an important role in greening the economy.[70] For example, investments in renewable energy projects, deriving energy from resources that are naturally replenished such as sunlight, tides, winds, waves, and geothermal heat, can encourage climate change mitigation and sustainable development.[71]

The UN Framework Convention on Climate Change (UNFCCC) and its corollary documents of the Kyoto Protocol and the Paris Accord do not provide any enforcement mechanism, nor establish a dedicated dispute settlement mechanism for climate change-related disputes. Rather, they reiterate the necessity for parties to resolve their dispute "through negotiation or any other peaceful means of their own choice."[72] Thus, there is no comprehensive multilateral framework governing foreign direct investments. Rather, many bilateral investment treaties (BITs) regulate this vital area of international law, and many BITs share common and/or similar provisions, and

68) On the linkage between international trade law and international climate law, Cinnamon Carlarne, *The Kyoto Protocol and the WTO: Reconciling Tensions Between Free Trade and Environmental Objectives*, 17 COLO. J. INT'L ENVTL. L. & POL'Y 45, 46 (2006).

69) Valentina Vadi, *Beyond Known Worlds: Climate Change Governance by Arbitral Tribunals?* 48 Vanderbilt Journal of Transnational Law 1285 (2015) at 1286.

70) Peter Newell & Matthew Paterson, "Climate Capitalism – Global Warning and the Transformation of the Global Economy (2010).

71) Edna Sussman, *The Energy Charter Treaty's Investor Protection Provisions: Potential to Foster Solutions to Global Warming and Promote Sustainable Development*, 14 ILSA J. INT'L & COMP. L. 391 (2008).

72) The United Nations Framework Convention on Climate Change (UNFCCC) was adopted on May 9, 1992 in Rio de Janeiro, opened for signature on June 20, 1992, and came into force on March 21, 1994. 1771 U.N.T.S. 107, S. Treaty Doc. No. 102-38 (1992), U.N. Doc. A/AC.237/18 (Part II)/Add.1, 31 I.L.M. 849, Preamble (1992), http://unfccc.int/resource/docs/a/18p2a01.pdf.

arbitral tribunals do refer to earlier awards, despite the absence of stare decisis in international investment law.[73] Further, the Energy Charter Treaty (ECT)[74] is a multilateral treaty governing energy investment and trade. Both bilateral investment treaties and the ECT provide a number of substantive standards of protection, including fair and equitable treatment, the prohibition of unlawful expropriation, full protection and security, and non-discrimination.

In addition, both bilateral investment treaties and the ECT allow investors to file arbitration claims directly against host states for violations of their protections under the relevant provisions. Investor-state arbitrations can be ad hoc or institutionalized. In the latter case, the arbitrator can refer the dispute to a variety of fora, including the International Center for the Settlement of Investment Disputes (ICSID), the Permanent Court of Arbitration (PCA), and the Arbitration Institute of the Stockholm Chamber of Commerce.

2. Substantive Standards for International Investment Treaties

The investors need to be aware of the standards that are foundational to international investment, and evaluate investor claims on a case by case basis. Even if standards like most favored nation and national treatment are important in investment, the standards that are most relevant to investment in relation to environmental conservation and policy-making are fair and equitable treatment (FET) and expropriation. These two standards will be discussed as follows.

(1) Fair and Equitable Treatment

Foreign investors may contend that changes in the regulatory framework of the host state amounts to a violation of the fair and equitable treatment standard. The FET standard in international investment law is an obligation for States to treat investors fairly; it is intended to protect investors from discriminatory or arbitrary conduct.[75]

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73) Andrea K. Bjorklund, *Investment Treaty Arbitral Decisions as Jurisprudence Constante, in* INTERNATIONAL ECONOMIC LAW: THE STATE AND FUTURE OF THE DISCIPLINE 265, 265-80 (Colin Picker et al. eds., 2008).

74) The Energy Charter Treaty, Dec. 17, 1994.

75) Azernoosh Bazrafkan & Alexia Herwig, Reinterpreting the Fair and Equitable Treatment Povision in

FET is an absolute minimum standard by which the host state promises to treat investors in accordance with international law.[76] FET includes the obligations of providing a stable and predictable environment, the protection of legitimate expectations, substantive and administrative due process, transparency, reasonableness, and proportionality in relation to host states' governmental actions. Arbitral tribunals have awarded damages in a variety of circumstances, such as cases where a State has refused to modify its gas tariff rates and transferred the rights to another public utility service during a financial crisis,[77] or where a State failed to issue municipal landfill permits.[78] Further, in an ECT arbitration, a company won a case against the host state for a change of government policy, which altered an incentive system for green investment.[79] A party breaches the obligation of fair and equitable treatment where a measure or series of measures constitutes: (a) Denial of justice in criminal, civil or administrative proceedings; (b) Fundamental breach of due process, including a fundamental breach of transparency, in judicial and administrative proceedings; (c) Manifest arbitrariness; (d) Targeted discrimination on manifestly wrongful grounds, such as gender, race or religious belief; (e) Abusive treatment of investors, such as coercion, duress and harassment; or (f) A beach of any further elements of the fair and equitable treatment obligation adopted by the Parties[80].

Consider that a former officer of an investing company (Claimant) was indicted by the government of a host state because of drug addiction. Then, the Claimant alleged the host state's misconduct in the context of a criminal investigation. Similar dispute arose in the case of Rompetrol v. Romania where the Rompetrol Group (TRG) claimant alleged that government-ordered investigations of Rompetrol Rafinare S.A. (RRC) and its management, as well as arbitrary treatment of the company violated the

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International Investment Ageements a a New and More Legtimate Way to Manage Risks, 7 Eur. J. Risk Reg. 439, 441 (2016).

76) Azernoosh Bazrafkan & Alexia Herwig, Reinterpreting the Fair and Equitable Treatment Provision in International Investment Agreements as a New and More Legitimate Way to Manage Risks, 7 Eur. J. Risk Reg. 439, 441 (2016).

77) *Suez et al. v. Argentina* (ICSID Case No. ARB/03/19, Decision on Liability, 30 July 2010), para. 226.

78) *Metalclad v. Mexico* (ICSID Case No. ARB(AF)/97/1, Award, Aug. 30, 2000), paras. 103-107

79) See Nykomb Synergistics Tech. Holding AB v. Latvia, Arb. SCC, Award, (Dec. 16, 2003), http://www.italaw.com/sites/default/files/case-documents/ita0570.pdf.

80) Comprehensive Economic and Trade Agreement (CETA), EUR. COMM'N, http://ec.europa.eu/trade/policy/in-focus/ceta/

Netherlands-Romania BIT[81]. The Tribunal noted the nature of the dispute originated on measures taken by authorities of the Respondent state is the area of investigation and potential prosecution of criminal offences.

These measures were not directly aimed at the TRG investor, but aimed against two former TRG officers. The Tribunal set out three categories of state actions that could fall within the scope of protection under the BIT. These categories included the actions that target the investor itself, the investor's executives for their activities on behalf of the investor, or the investor's executives personally, but with the purpose of harming the investor.[82]

The Claimant alleged that persistent irregularities in the course of the criminal investigation constituted a pattern of intentionally oppressive conduct. After considering the attachment of RRC shares, the arrest and attempted imprisonment of two former officers, the two officers' intercepted telephone conversations, the Tribunal concluded that procedural irregularities during the criminal investigation, in the absence of any evidence that the Respondent attempted to minimize the possibilities of harming the foreign investor, amounted to a breach of the host state's fair and equitable treatment obligations.

Further, in the case of *Suez et al. v. Argentina*[83], the Argentine government privatized the country's public services because of the deterioration of the water and sewage quality and the inability of the service to reach all inhabitants of the city of Buenos Aires. At the same time, Argentina was beginning to suffer from financial troubles. During the financial crisis in 2000, the government de-linked the Argentine peso from the U.S. dollar, majorly devaluing the currency. This caused the Claimants' costs for providing the services to rise, but the government refused to modify the tariff rates they were allowed to collect to cushion the setbacks in profits. Consequently, investors were not able to earn a reasonable rate of return and the company was not able to continue investment in service improvements, leading to suspect levels of nitrate in the water. Concerned with water quality, the government transferred the water management company to another entity (one owned by the Argentine government) without allowing the Claimants time to remedy the situation. Although the

81) The Rompetrol Group N.V. v. Romania, ICSID Case No. ARB/06/3, Award, ¶ 47 (May 6, 2013).
82) Id.
83) *Suez et al. v. Argentina* (ICSID Case No. ARB/03/19, Decision on Liability, 30 July 2010).

Tribunal did not find that the government expropriated the Claimant's company in this case, it did find that the investor's legitimate expectations were frustrated, and thus ruled that Argentina violated the fair and equitable treatment standard.

(2) Prohibition of Unlawful Expropriation

Foreign investors may also bring claims in arbitral tribunals based on expropriation, which can be generally defined as the confiscation of property by a state.[84] Protection from expropriation can be found in BITs, multilateral agreements, and international investment agreements: in most cases, these provisions are similarly drafted. For the purposes of this paper, the North American Free Trade Agreement (NAFTA) will be used as an example of a multilateral agreement containing such a provision.

Protection from expropriation can be found in Article 1110 of NAFTA.[85] This provision specifies that governments cannot nationalize or expropriate any investment except for a public purpose, on a non-discriminatory basis, in accordance with due process of law and international law, and on payment of fair compensation. Veiled interference with the use of property that deprives the owner, at least in significant part, of the reasonably expected economic benefit is also expropriation, which can be called as indirect expropriation.[86] Cases have shown that in assessing expropriation claims, tribunals will often consider three main factors: (1) the extent of the interference; (2) the reasonableness of the investors' legitimate expectations; and (3) the character and purpose of the measure.[87] The greater the interference with the investment, the more likely it is that a tribunal will find that the state is in violation of its obligations.[88]

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84) *See J. Martin Wagner, International Investment, Expropriation and Environmental Protection*, 29 Golden Gate U.L. Rev. 465, 465 (1999)

85) North American Free Trade Agreement, Can.-Mex.-U.S., Dec. 17, 1992, chapter 11, 32 I.L.M. 638.

86) *Metalclad v. Mexico* (ICSID Case No. ARB(AF)/97/1, Award, Aug. 30, 2000), para. 103.

87) Rahim Moloo & Justin Jacinto, Environmental and Health Regulation: Assessing Liability under Investment Treaties, 29 Berkeley J. Int'l L. 1, 4 (2011).

88) Id.

Ⅴ. Conclusion

With respect to the private investor's project investment in line with international agreements on climate change, recently we have seen multiple legal judgments which clearly indicate the subject of judicial responsibility for investment in climate change related projects. However, in order to hold judicial responsibility occurring during the implementation of climate change related projects, not only a causal relationship between the responsible entities and clear responsibility must be demonstrated, but also respective substantive standards for international investment arbitrations or other international judicial institutions such as international court of justice be satisfied.

The future direction of legal judgements will explore more about the detailed scope of responsibilities in these projects among concerned parties, for instance the responsibilities between private investors and concerned host country government. This trend has been well shown in law precedents in the Unites States, International Court of Justice, and ICC. In order to cope with the climate change challenge from the perspective of the global warming, investment in climate change related projects should be well encouraged and investment itself should be protected. It may be the right time for global community to consider shifting not only to human ethical obligations but also legal obligations. In this regard, concerned governments should consider legislating arbitration laws, regulations, and institutional arrangements in more specific and applicable manner.

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