Using Litigation to Enforce Climate Obligations under Domestic and International Laws

*Saheed A Alabi**

Climate change continues to affect global areas of importance such as human rights, the marine environment, and international trade. This article explores the use of litigation as an alternative way to combat climate change. Whilst there are a number of enforcement strategies under the climate change regime, litigation is not adopted as a means of enforcing obligations and commitments. However, there has been little development in strengthening the enforcement of climate obligations during Copenhagen 2009, Cancun 2010, and Durban 2011 climate talks. Few studies on climate change have proposed litigation as a method of enforcement under the climate change regime; they do not perform advanced analysis of the effectiveness of climate litigation specifically at the international level. This is imperative because of the ambition to litigate climate issues domestically and internationally.. The article proposes two main questions. First, how effective is climate litigation in reshaping global responses to climate change? Second, how strong is litigation in enforcing climate obligations (mitigation and adaptation)? In answering these questions, this article analyzes domestic and international climate cases to determine whether there has been or will be progress using climate litigation.

I. Introduction

Few climate change studies have proposed the use of litigation as a method of enforcement of climate obligations under the climate change regime. Additionally, few of these studies have analysed the effectiveness of climate litigation at the international level. However, it is imperative that studies begin to focus on the use of litigation, because of the desire or necessity to litigate climate issues domestically and internationally. This is important as climate change continues to affect global areas of importance such as human rights, the marine environment, and international trade.[1] While there are

* Tutor, Doctoral Candidate and Campbell Burns Scholar at the University of Strathclyde Law School, Glasgow. Email: <saheed.alabi@strath.ac.uk> or <saheed.alabi@yahoo.com>.
I would like to thank Professor Mark Poustie, Ms Therese O'Donnell and Dr Hakeem Yusuf for their insightful comments on earlier draft of this piece. The usual caveat applies.

1 On the threats of climate change on human rights, see generally, The Human Rights Council, "Human rights and climate change, UNGA Res 7/23", 28 March 2008, available on the Internet at <http://www2.ohchr.org/english/issues/climatechange/docs/Resolution_7_23.pdf> (last accessed on 19 November 2012); see also International Council on Human Rights Policy, *Climate Change and Human Rights: A Rough Guide* (Versoix: ICHR, 2008). For effects of climate change on the marine environment, see generally the Intergovernmental Panel on Climate Change Report which described in clear details the effects of climate change on the marine environments, available on the Internet at <www.ipcc.ch> (last accessed 19 November 2012); see also Christopher D. G. Harley et al., "The Impacts Of Climate Change In Coastal Marine System", 9(2) *Ecology Letters* (2006), 228; see further The Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) maintain that the potential effects of climate change to the marine environment are within the contemplation of the UNCLOS negotiators. See Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), *Interchange of Pollutants Between the Atmosphere and the Oceans*, No 13 Reports and Studies (Geneva: World Metrological Organization, 1980); For relationship and effects of climate change and international trade see generally United Nations Environment Programme and the World Trade Organization, *Trade and Climate Change* (Geneva: WTO-UNEP, 2009).

enforcement strategies under the international climate change regime,[2] litigation has not been adopted as way to strengthen emission reduction commitments or enforce climate obligations (mitigation and adaptations).

However, there has been little development in strengthening the enforcement of climate obligations during Copenhagen 2009, Cancun 2010, and Durban 2011 climate talks.[3] The Kyoto Protocol, which imposes legally binding emission reduction targets on the developed countries, expires in 2012. Presently, there is no indication that a new climate protocol will be adopted to impose emission reduction targets on large emitters of Greenhouse gases. This article explores this issue and discusses the use of litigation as an alternative way to combat climate change.

This article is divided into three parts. Part one discusses the enforcement of international climate laws by litigation. It analyses different obligations as envisioned under the climate change regime. It points out that the non-compliance procedures as enforced by the Enforcement Branch, established under the Kyoto Protocol compliance mechanism are not adequately effective to enforce obligations. For example, the Enforcement Branch lacks the power to punish a party who withdraws from being a party to the Kyoto Protocol in a situation where the party has not fulfilled punitive measures imposed on it for failing to comply with its legal obligations under the Kyoto Protocol.[4] Part one examines the role of litigation in development of climate science which has sustained the global drive to combat climate change.

Part two discusses using climate litigation for securing damages or compensation and identifies potential categories of climate claims for damages. It explores domestic responses to climate change from the perspective of climate litigation whether it may contribute to strengthening of global climate governance. This part analyses the effectiveness of climate litigation in the United States

Part three argues that it is imperative to litigate climate issues because of their effects or consequences on other areas of global importance such as human rights, the marine environment, and international trade. It is essential to enforce climate obligations through these other areas because of linkages with climate change and the regimes' strong judicial jurisdictions over their parties and the power to enforce other compatible legal instruments. However, it is suggested (due to the length of this article) that using these regimes (human rights, marine and international trade regimes) to strengthen global climate governance requires further research in legal scholarship.

In conclusion, the article suggests that litigation has a good potential to facilitate effective climate change enforcement regime despite the fact that is not sure if legally binding protocol to replace the Kyoto Protocol will be adopted.

1. The general concept of enforcement by litigation

Litigation is an unpopular method of settling international disputes or enforcing obligations under environmental regimes.[5] Litigation is also unpopular for enforcing international environmental treaties,[6] because international law is built on the concepts and principles aimed to foster peaceful

2 See the Kyoto Protocol, United Nations Framework Convention on Climate Change, "Compliance under the Kyoto Protocol", 2012, available on the Internet at <http://unfccc.int/kyoto_protocol/compliance/items/2875.php> (last accessed on 19 November 2012).

3 See generally, Conferences and Meetings of the Parties at official website of the United Nations Framework Convention on Climate Change, available on the Internet at <http://unfccc.int/2860.php> (last accessed on 19 November 2012).

4 See Article 18 of the Kyoto Protocol, for detailed discussions see the followings: Scott Barrett, *Environment and Statecraft: The Strategy of Environmental Treaty-Making* (Oxford: Oxford University Press, 2003); Jacob Werksman, *Responding to Non-Compliance under the Climate Change Regime*, OECD Information Paper, ENV/EPOC (99)21/Final (1999), at 21; and Cathrine Hagem and Hege Westskog, "Effective Enforcement and Double-Edged Deterrents", in Olav S. Stokke, Jon Hovi and Geir Ulfstein (eds.), *Implementing the Climate regime: International Compliance* (London: Earthscan, 2005), 107, at 112–115.

5 Many Multilateral Environmental Agreements (MEAs) seek enforcement through Conference Of The Parties (COP), institutional arrangements such as the Secretariats, Enforcement Branch e.g. Kyoto Protocol Enforcement Branch, other examples include 'Standing Committees, Compliance Committees, Implementation Committees, Non-Compliance Committees, and so on. For instance, the Standing Committee of the Ramsar Convention on Wetlands; the Compliance Committee under the Aarhus Convention, or the Montreal Protocol's Implementation Committee'. See generally UNEP, *Negotiating And Implementing Multilateral Environmental Agreements (MEAs): A Manual For NGOs* (Nairobi: UNEP, 2007).

6 Apart from UNCLOS, most environmental treaties do not adopt litigation as a method of settling disputes. Generally, see the text of UNFCCC, Kyoto Protocol, and Convention on Biodiversity; and where litigation is adopted, it is used as a procedure for dispute settlement of last resort.

international relationships between countries.[7] Most international treaties adopt methods to peacefully resolve disputes that are related to violations of their provisions or enforcement of treaties' obligations.[8] Peaceful methods of resolving disputes in some treaties invariably involve diplomatic means or any method chosen by disputing states. Under such treaties, parties are encouraged or obliged to use negotiation, conciliation, or mediation at the first instance before having recourse to litigation.[9] However, because of their non-binding nature, these methods are not always capable of resolving disputes arising from international treaties.[10] For this reason, as well as the fact that such methods have the propensity to break down entirely, litigation offers a more stable, reliable solution.[11] Yet, international, climate-change litigation is still unpopular,[12] despite a marked increase in climate-change litigation at the domestic level.[13]

2. Climate change litigation: A necessity for the international climate regime

Why is it imperative to enforce climate obligations through litigation? According to Professors Birnie, Boyle and Redgwell, in their book *"International Law and the Environment"*, using judicial institutions to enforce environmental obligations and Multilateral Environmental Agreements ("MEAs") is not desirable. This is because litigation is "largely concerned with affording reparation as a response to violations of international law rather than preventing environmental harm before it happens."[14] The case of *United State of America v Canada* (*"Trail Smelter Case"*) supports the argument against using judicial institutions for this purpose according to Professors Birnie, Boyle and Redgwell's argument. However, the compensatory awards prescribed against Canada in favour of the United States by the Special Tribunal in *"Trail Smelter Case"* served as a reparation response because the damage had already been done. Although, the environmental damage was not caused by the government but by a private entity within its territory, the ruling of the Special tribunal justified the law of state responsibility. Nevertheless, the Special Tribunal did not totally restrict refining of zinc and lead using smelters but mandated the mining company to use equipment to measure sulphur oxide at a level that would not be considered dangerous to the surrounding environment. The rule of the Special Tribunal in this context may be used to argue that litigation can preventing imminent environmental harm or reshape governmental responses to emission reductions.[15]

3. The application of international rules and laws

Under international law and as prescribed in *Trail Smelter Case*, the law of state responsibility may be invoked by a state victim which has suffered environmental harm, if it is found that a treaty or customary obligation has been breached by another

7 See Charter of the United Nations, Article 2(3), available on the Internet at <http://www.un.org/en/documents/charter/chapter1.shtml> (last accessed on 19 November 2012).

8 See Article XXV of the Convention on the Protection of the Black Sea Against Pollution Signed 21 Apr 1992, in force 1994, available on the Internet at <http://www.unep.ch/regionalseas/main/blacksea/bsconv.html> (last accessed on 19 November 2012).

9 See generally Article 27 of the Convention on Biological Diversity; see also Article 279 of the UNCLOS.

10 For detailed discussions on non-binding international dispute settlement See generally John G Merrills, International *Dispute Settlement* (Cambridge: Cambridge University Press, 2011) 21, 37, 79.

11 Under the United Nations Convention on the Law of the Sea for instance, before parties can resort to litigation they must have exhausted all the peaceful mechanisms provided under the Convention and of their own choice. See generally Part XV of UNCLOS on "Settlement Of Disputes", available on the Internet at <http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm> (last accessed on 19 November 2012); See also the application of Provisional Measures in Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), available on the Internet at <http://www.itlos.org/start2_en.html> (last accessed on 19 November 2012).

12 Very few international climate change cases have been instituted at the international level and most of them are regional cases. For example the case of the Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria, African Commission on Human and Peoples' Rights, Comm. No. 155/96 (2001) and the petition by Inuit people of the US and Canada to the inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by Acts and omissions of the United States.

13 William C. G. Burns and Hari M. Osofsky, *Overview: The Exigencies That Drive Potential Causes Of Action For Climate Change in Adjudicating Climate Change: State, National, and International Approaches* (Cambridge: Cambridge University Press, 2009).

14 Patricia Birnie, Alan Boyle and Catherine Redgwell, International Law & the Environment (3rd ed, Oxford 2009).

15 *Trail Smelter Case* (United States/Canada) [1941], 16 April 1938 and 11 March 1941 Vol III Reports of International Arbitral Awards (1905–1982) (UN: 2006).

state or its entity.[16] However, to assert such a claim, the harm must be trans-boundary.[17] In situations where environmental harm has not been trans-boundary, but occurred within the territory of a state, such cases can be brought before domestic courts for redress or international court or tribunals. In these types of cases, non-governmental organizations and other groups have actively pressured state governments to respond to the environmental harm; reparation and compensatory damages may be sought.[18] In most situations, these claimants may sue the government at the state or international level, after proving *locus standi.*[19] At the international level, states are sometimes reluctant to bring cases against each other, perhaps because of political and economic benefits.[20]

4. The desirability of climate litigation

Due to the complexity, time-involvement, and expense of international litigation, as well as the highly technical nature of most environmental problems, such litigation is not widely practiced.[21] It is a principle of international law for states to take recourse to making claims against each other through litigation because it "may exercise an influence on the negotiation of environmental agreements and the settlements of dispute".[22] If states can start to make environmental claims against each other, negotiations of stringent environmental agreements may be attainable and judicial settlement of disputes may be adopted, specifically in climate change treaties. In aligning with preceding position, Birnie, Boyle, and Redgwell admitted that such an avenue should not be completely discounted.[23] While it is significant that international litigation of environmental claims, governance and enforcement should not be discounted, it follows that such an area should be well researched for domestic and international climate governance.

5. Litigation and development of climate science

In assessing the effectiveness of climate litigation, it is imperative to explore how cases are presented in court. Foremost, sufficient supporting evidence must be presented.[24] Evidence available to claimants and defendants in climate change cases includes but is not limited to reports of the Intergovernmental Panel on Climate Change ("IPCC"), Environmental Impact Assessments ("EIA"), and independent findings from experts.[25]

In domestic (national, Intra state or local) climate cases, experts present their opinions and are cross-examined by the opposing party.[26] The most common argument made by claimants, is that the activities of the defendant have caused harm or are likely to cause harm and therefore the defendants should pay compensation or be restrained from engaging in activities that contribute to large emissions or the authorities should act as a matter of urgency against

16 Ibid.

17 See generally *Draft Articles on the Responsibility of States for Internationally Wrongful* Acts, Report of the ILC *on the Work of its Fifty-third Session*, UN GAOR, 56th Session, Supp No 10, p. 43, UN Doc A/56/10 (2001), available on the Internet at <http://www.un.org/ga/search/view_doc.asp?symbol=A/56/10%28SUPP%29> (last accessed on 19 November 2012); see also the texts of the Draft at <http://www.ilsa.org/jessup/jessup06/basicmats2/DASR.pdf> (last accessed on 19 November 2012).

18 Friends of the Earth vs. Canada, 2008 FC 1183, [2009] 3 F.C.R. 201, available online at <http://reports.fja.gc.ca/eng/2009/2008fc1183.pdf> (last accessed on 19 November 2012).

19 The right or capacity to bring an action or to appear in a court.

20 Political and economic benefits may include exchange of intelligence information and bilateral trade agreements in respect of a traded commodity such as crude oil which may be vital to the economy of that state. For example, economic relationship between the US and Saudi Arabia, regarding crude oil or political ties between Venezuela and Cuba against influences from capitalist countries.

21 Furthermore, Professors Birnie, Boyle and Redgwell also argue that "the complexity, length, and expense of international litigation; the technical character of environmental problems and the difficulties of proof which legal proceedings may entail, and unsettled character of some of the law" make litigation less widely practised." See *Draft Articles on the Responsibility of States, supra*, note 17.

22 *See* Birnie et al., *International Law & the Environment, supra,* note 14.

23 Ibid.

24 Philippe Sands, "Water And International Law: Science and Evidence in International Litigation", 22 *Environmental Law & Management* (2010), 151.

25 Under the EU context for instance, Environmental Impact Assessment in either mandatory or discretional depending on type of project it is. See further, The European Commission "Environmental Impact Assessment – EIA", available on the Internet at <http://ec.europa.eu/environment/eia/eia-legalcontext.htm> (last accessed 19 November 2012).

26 Philippe Sands, *Water and International Law, supra*, note 24, at 45.

activities which might affect the environment and public health of the community.[27] In international environmental litigation, experts give evidence as advocates.[28] The experts who give evidence are not cross examined by the opposing party or by the court, despite the fact that under the rules of the International Court of Justice ("ICJ"), the court has the power to name its own body of scientific experts as assessors or third party with no voting right, but the court determines the use of this authority depending on individual cases.[29] These judicial exercises serve to test scientific evidence, which may include IPCC reports and independent findings of experts.[30]

In most climate litigation, there is a significant volume of scientific and technical evidence necessary to convince the court that the defendant has caused or is likely to cause environmental damage.[31] The positive effect of this large volume of evidence in climate litigation is that it has helped to reshape governmental responses to climate change.[32] In *Massachusetts v. EPA*, the court relied on substantial scientific findings presented by the state of Massachusetts, ultimately arriving at the conclusion that "greenhouse gases fit well within the Clean Air Act's capacious definition of air pollutant."[33] The court relied on these scientific findings and held that it was inappropriate for the US Environmental Protection Agency ("EPA") not to regulate GHG based on the sole opinion of the EPA commissioner. The Court maintained that it would only be right for the EPA not to regulate GHG under the provision of the Clean Air Act if sufficient scientific evidence could show otherwise.[34]

Scientific evidence adduced in climate litigation has given credence to IPCC reports and has helped undermine the stance of climate-change skeptics. IPPC reports have also become the driving political force in generating climate agreements, which are internationally accepted.[35] Similarly, the petition by Inuit people of the US and Canada to the inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by Acts and omissions of the United States (Inuit petition) was grounded in scientific findings, found in the Climate Impact Assessment published by the Arctic Council and International Arctic Science Committee.[36] This report analyzed the impact of climate change on the Arctic region, its culture, environment, and people.[37] Although it remains a regional scientific report on climate change, it has nevertheless developed climate science through its use as evidence before the Inter-American Commission on Human Rights.[38]

Recent climate litigation in the US, the UK, Australia, Germany, Nigeria, and other nations,[39] has drastically developed climate science, which has confirmed the real impacts of climate change across the world.[40] Climate science, whether physical,[41] biological,[42] or economic,[43] plays significant roles

27 Massachusetts v. Environmental Protection Agency (2007), 549 U.S. 497.

28 See the court proceedings in Gabiscovo-Nagymaros Case, see also UK v Albania in Corfu Channel Case (1949) ICJ Reports 18.

29 See Art 48 and 49 of ICJ Statutes. See also Article 62 of the Rules of the Court.

30 See Gabiscovo-Nagymaros Case, see also UK v Albania in Corfu Channel Case (1949) ICJ Reports 18.

31 Professor Sands illustrated that in the case of Gabcikovo-Nagymaros case which he was an advocate that more than 10,000 pages of written arguments were submitted to the ICJ and 75 per cent were scientific in nature. Phillippe Sands, *Water and International Law,* supra, note 24, at 45.

32 See generally the scientific findings, found in the Climate Impact Assessment published by the Arctic Council and International Arctic Science Committee, and how it linked human rights aspect to climate change, available on the Internet at <http://www.eoearth.org/article/Arctic_Climate_Impact_Assessment_(ACIA)> (last accessed on 19 November 2012).

33 Massachusetts v. Environmental Protection Agency, (2007) 549 U.S. 497.

34 Ibid.

35 See the nature of the global consensus of IPCC Third Assessment Report, available online at <http://www.ipcc.ch/ipccreports/tar/index.htm> (last accessed on 19 November 2012).

36 Robert W. Corell (Lead Author) and Cutler Cleveland (Topic Editor), "Arctic Climate Impact Assessment (ACIA)", in: *Encyclopedia of Earth*, eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the Encyclopedia of Earth February 6, 2010; Last revised Date February 6, 2010; Retrieved September 10, 2011].

37 Ibid.

38 Ibid.

39 See generally climate cases of each country at Climate Justice: Enforcing Climate Change Law, available on the Internet at <http://www.climatelaw.org/cases/country/> (last accessed on 19 November 2012).

40 Ibid.

41 See WG1 Reports of the IPCC, available on the Internet at <IPCC, www.ipcc.ch> (last accessed on 19 November 2012).

42 See the Convention on Biological Diversity, available on the Internet at <http://www.cbd.int> (last access on 19 November 2012).

43 See generally "Stern Review on the Economics of Climate Change" (Commissioned by the then UK Chancellor of the Exchequer, Gordon Brown: 2007), available online at <http://www.hm-treasury.gov.uk/sternreview_index.htm> (last accessed on 19 November 2012).

in the current climate governance; most importantly it reinvigorates moral, political and legal obligations to combat climate change. Climate litigants engage is scientific research which is used as pieces of evidence during processes of litigation. Therefore, it may be argued that climate litigation contributes to the development of climate science both for domestic and international enforcements of climate obligations because it influences global responses to climate change.[44]

II. Climate litigation, damages, and the compensation regime

Compensation remains the dominant perception of climate litigation because of its reparation outcomes.[45] The primary motivation for plaintiffs (victims of climate change or any interested party in combating climate change) in common law, domestic tort litigation, is to seek compensation redress a harm or injury caused by defendant's action or inaction. In such cases, compensation may be awarded on the basis of negligence or strict and absolute liability.[46] However, there is no equivalent method for claims at the international level and it is unlikely to receive a compensatory award at an international tribunal.[47]

The most applicable doctrines include invocation of state responsibility, no-harm principle, human rights and partially precautionary principle in matters seeking compensation or damages.[48] Like domestic awards of damages in civil and common law jurisdictions, climate damages may be compensatory; this may be awarded for economic loss of livelihood for a group of people or countries where attainable.[49] For instance, economic losses as a result of rises in the level of the sea which resulted in loss of properties and occupation, forestry, agricultural produce, etc.[50] Climate damages may be awarded as general damages where it is sufficient to show that there has been loss of right to enjoyment of life, physical and emotional pains, public health or damage to the environment itself, etc. Climate damages may also be prospective. For instance, the IPCC has reported that some developing countries lack the capacity to adapt and are vulnerable to the adverse effects of climate change. Accordingly, these countries may be stricken with unavoidable, calamitous damage in the near future, and therefore, in awarding prospective damages, lack of capacity and vulnerability may be considered. Lastly climate damages maybe punitive, the intent of awarding this damage would be to deter and impose sanctions on the defendants. For instance, where countries with binding emission targets under the climate regime have failed to fully comply or have been found liable for breach of international obligations under other environmental regimes to combat climate change.[51] It may be awarded not to compensate people or country(s) instituting the action but against the countries whom actions have been brought against. This may be the best option where it can be proven that climate change has caused damage to the environment but not directly to human beings. However, those who may be entitled to receiving damages are usually the victims which may be human beings and the environment. In a situation of a successful claim leading to an award of damages, such an award may be used to execute adaptation projects and/or programme protecting the environment

44 The IPCC reports show that there is convincing evidence that human activities are responsible for current climate change; as a result global drive to combat climate change is being sustained.

45 Jolene Lin, "Climate change and the courts", 32 *Legal Studies* (2012), 35.

46 See Roda Verheyen and Peter Roderick, *Beyond Adaptation, The Legal Duty To Pay Compensation For Climate Change Damage*, WWF-UK Climate Change Programme Discussion Paper (United Kingdom: 2008).

47 Ibid.

48 See Phoebe Okowa, "The Legacy of Trail Smelter in the field of Transboundary Air Pollution", in Rebecca Bratspies and Russell Miller (eds.), *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* (Cambridge: Cambridge University Press, 2006), 224.

49 See generally the ruling of the African Commission on Human and Peoples' in the Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria, African Commission on Human and Peoples' Rights, Comm. No. 155/96 (2001). Also available on the Internet at <http://www1.umn.edu/humanrts/africa/comcases/155-96.html> (last accessed on 19 November 2012).

50 See the content of the Petition to the Inter American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States (submitted Dec. 7, 2005), at 13–20.

51 See Meinhard Doelle, "Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention", 37 *Journal of Ocean Development and International Law* (2006), 319 – 337; see also, William C. G. Burns, "Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention", 2 *International Journal of Sustainable Development Law & Policy* (2006), 51.

which will benefit the people directly or indirectly. Similarly in a situation where victims

Currently, there are no compensation mechanisms under the climate regime for the victims (individual or state) of climate change, because the intent of the climate regime is to stabilize emissions to avoid the imminent dangers of climate change.[52] There is climate data to show that some countries, specifically in Africa and Asia, have suffered real adverse impacts of climate change.[53] Alternatively, it could be argued that there is an equivalent to a compensation mechanism under the climate regime specifically for developing countries in the form of the adaptation funds, which include the Least Developed Countries Fund ("LDCF"),[54] the Special Climate Change Fund ("SCCF"),[55] the Adaptation Fund ("AF"),[56] bilateral, regional and other multilateral financial resources,[57] and funds from "Global Environment Facility."[58] Contributions to these adaptation funds are largely voluntary. Although, financial resources for the Adaptation Fund under the Kyoto Protocol are generated through deduction of 3% from any adaptation project executed by a developed country (Annex I party) in developing countries under the Clean Development Mechanism ("CDM").[59] It is not an obligation for any Annex I party under the climate regime to make financial contributions that may be used in funding adaptation projects in developing countries, after impacts of climate change have occurred.[60] Even where adaptation projects are executed in a developing country by an Annex 1 party, they do not qualify as a means of compensation, because such projects attract *Certified Emission Reductions* to assist Annex 1 parties in meeting their Kyoto targets.[61]

1. Climate change litigation and domestic responses

Incorporating international agreements into the domestic (state) constitution or statute gives them added weight as legal instruments.[62] Even if international agreements are not incorporated in domestic constitutions or statutes, they may become enforceable in law through the act of a nation becoming a signatory.[63]

The domestic response to climate change emanates from the international community's collective efforts, specifically in the European Union where an emission reduction scheme has been initiated in order to meet Kyoto targets.[64] Yet, the US has failed to ratify the Kyoto Protocol, which could have imposed legally binding targets.[65] The failure of the Bush administration to ratify the Protocol necessitated alternative ways of pressuring the US government to address climate change.[66] Seeking injunctive power, climate compensation, and enforcement of obligations are some of the remedies that have been achieved under the various domestic climate regimes.[67] Even the courts have

52 See generally the texts of the UNFCCC, Kyoto Protocol and Mitigation and Adaptation Mechanisms at <www.unfccc.int> (last accessed on 19 November 2012).

53 Roda Verheyen and Peter Roderick, *Beyond Adaptation,* supra, note 46

54 See generally the UNFCCC, *"Financial Mechanism"*, available on the Internet at <http://unfccc.int/cooperation_and_support/financial_mechanism/items/2807.php> (last accessed 19 November 2012).

55 Ibid.

56 Ibid.

57 Kyoto Protocol, Article 12(8).

58 It is named in 21(3) of the UNFCCC 'as an operating entity of the Convention's financial mechanism. This includes funding for reporting on adaptation needs through national communications, and the GEF Strategic Priority on Adaptation (SPA), a special adaptation component funded from the general climate change budget of the GEF. Contributions to the GEF are voluntary.' See: Operational Guidance for the SPA, GEF/C.27/Inf.10, available on the Internet at <http://www.thegef.org> (last accessed on 19 November 2012).

59 UNFCCC "Clean Development Mechanism", available on the Internet at <http://cdm.unfccc.int/> (last accessed on 19 November 2012).

60 Ibid.

61 See Article 12 of the Kyoto Protocol.

62 Alan Brudner, "The Domestic Enforcement of International Covenants on Human Rights: A Theoretical Framework", 35(3) *The University of Toronto Law Journal* (1985), 219.

63 Ibid.

64 See the European Commissions, *Combating Climate Change the EU Leads the Way* (Brussels: European Communities, 2007).

65 Peter Saundry (Topic Editor), "Kyoto Protocol and the United States", in: Cutler J. Cleveland (ed.), *Encyclopedia of Earth* (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [First published in the Encyclopedia of Earth December 25, 2006; Last revised Date June 6, 2011; Retrieved March 2, 2012].

66 Harry Osofsky, "The Geography of Climate Change Litigation Part II: Narratives of Massachusetts v. EPA", 8 *Chicago Journal of International Law* (2008), 573.

67 See the Court's decision in the case of Gbemre v Shell Petroleum Development Company Nigeria Limited and Others (2005) AHRLR 151 Juan Antonio Oposa and Others V. The Honourable Fulgencio s. Factoran and Another G.R.NO: 101083 Supreme Court, available on the Internet at <http://www.unescap.org/drpad/vc/document/compendium/ph1.htm> (last accessed on 19 November 2012).

made decisions that analysts have regarded as creation of judicial climate policies.[68] The position of the courts in many of these climate cases is inevitable because of clear scientific evidence. To be objective, what is significant in the courts' decisions on climate lawsuits may be based on the premise whether substantial emission reduction has been carried out or where possible compensation ensues for victims of climate change. Judicial decisions in domestic climate cases in the US for instance have invigorated climate change litigants in other countries where governments have done less to address climate change.

2. Climate litigation and the US experience

The failure of the US government to develop policies and laws to address climate change has led to intensified litigation of climate issues.[69] Although some states in the US have taken the bold step of regulating the emission of GHGs,[70] such steps do not qualify as international climate obligations for the US. Despite this lack of international involvement, climate litigation in the US does involve individuals, interest groups, as well as state and local government authorities, in the fight against climate change.[71] This involvement is a result of the federal political system of the US, in which states have sovereign status, a concept that was restated by the US Supreme Court in *Massachusetts v. EPA*.[72]

What is significant is that the cotemporary climate battle in US courts has turned the local and states governments against other authorities and privates entities.[73] While such climate litigation traces back to asbestos, firearms and tobacco litigation,[74] it has perhaps achieved what could be regarded as a *judicial climate regime*. Such a judicial climate regime involves courts interpreting and enforcing procedural and substantive obligations. This interpretation and enforcement may result in statutory claims, forcing the government to act to cease a given activity, granting compensation, or otherwise regulating private and public actions.

3. The US courts and legal implication of climate cases

The US Supreme Court's decision in *Massachusetts v. EPA* compelled the EPA to act according to section 202(a) Clean Air Act, which requires the EPA to set standards for "any air pollutant."[75] In 2009, the EPA conducted "Endangerment and Cause or Contribute Findings for Greenhouse Gases," and the findings confirmed that GHGs pose a danger to human health and welfare and should be regulated.[76] As a result, President Obama directed the EPA to respond to the requests of the state of California

68 See Donald G. Gifford, "Climate Change and the Public Law Model of Torts: Reinvigorating Judicial Restraint Doctrines", 62 *South Carolina Law Review* (2011), 201. See also David B Hunter, *The Implications of Climate Change Litigation for International Environmental Law-Making*, WCL Research Paper No. 2008-14 (Washington, D.C.: American University, 2007).

69 Kevin Haroff and Jacqueline Hartis, "Climate Change and the Courts: Litigating the Causes and Consequences of Global Warming", 22(3) *Natural Resources & Environment* (2008), 50.

70 See the state of California's Emission Reduction Implementation at California Climate Change Portal, available on the Internet at <http://www.climatechange.ca.gov/state/emission.html> (last accessed on 19 November 2012).

71 For detailed discussion on the roles of the Federal and State government in responding to climate change, particularly as it relates to institution relationship between state and federal in climate regulation, see Alice Kaswan, "The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives?", 42 *University of San Francisco Law Review* (2007); University of San Francisco Law Research Paper No. 2010-10, available on the Internet at < http://ssrn.com/abstract=1129828> (last accessed on 19 November 2012).

72 Massachusetts v. Environmental Protection Agency, (2007) 549 U.S. 497.

73 John Schwartz, "Courts as Battlefields in Climate Fights", The New York Times, 26 January 2010.

74 For debates on Firearms, Asbestos and Tobacco Litigation, see generally Government Sponsored Regulation- What' Next? In Regulation by Litigation: The Wane of the Government Sponsered Litigation, 1 Manhattan INST.COMF.SERIES 51, 64 (1999); See also Gifford G Donald, "Climate Change and the Public Law Model of Torts: Reinvigorating Judicial Restraint Doctrines", 62 *South Carolina Law Review* (2011); University of Maryland Legal Studies Research Paper No. 2010-44. Available at SSRN: <http://ssrn.com/abstract=1674443> (last accessed on 19 November 2012).

75 Air pollutants are particle pollution which can harm human health and the environment, and cause property damage and they are found all over the US, The six common air pollutants are ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide lead. See generally the US Environmental Protection Agency, "What Are the Six Common Air Pollutants?", available on the Internet at <http://www.epa.gov/air/urbanair/> (last accessed on 19 November 2012).

76 EPA, "Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act", EPA, 7 December 2009.

and thirteen other states for waivers, prohibiting states from regulating car emission. If the waivers are granted, states are therefore allowed to enact emission standards for new vehicles. The requests for waivers are imperative because of the pre-emptive clause in Section 209 of the Clean Air Act.[77] Thereafter, the EPA granted California a waiver, allowing it to regulate emissions of motor vehicles manufactured after 2009.[78] The significance of this development was that it was as a result of climate litigation. The legal implication therein could be regarded as a statutory claim by the plaintiffs and the judicial pronouncement forced the government to act.

There is a series of climate cases that are both statutory and non-statutory based.[79] The non-statutory climate change cases involve common law issues linking torts, negligence, nuisance, and other basis that could have common law elements.[80] The legal implications of non-statutory climate cases could be regarded as stopping government actions, granting compensation or reaching settlement, regulating private and public actions. For example in the *State of Connecticut v American Electric Power Co* ("AEP"),[81] the plaintiffs averred that the Clean Air Act did not displace their federal common law claims against five major companies for public nuisance for emission of GHGs.[82] On Appeal from the Second Circuit Court to the High Court, the Court held in favor of the Appellants (States and Land Trusts), that the Clean Air Act did not displace their federal common law, public nuisance claims.[83] However, on appeal to the Supreme Court in June 2011, the Court "found that the Clean Air Act and US Environmental Protection Agency's authority over regulation of greenhouse gas emissions displaced federal law claims over greenhouse gas emissions."[84] The legal implication of the decision is that it may not be possible to bring a climate claim under public nuisance, although there are still pending cases before other courts such as the Native Village of Kivalina, et al. v. Exxonmobil corp. et al. (*Kivalina case*) filed by the village of Kivalina in Alaska.[85] The village is claiming that emissions from utility and energy companies have eroded sea ice which protects the village against fall and winter storms.[86] In this case, the plaintiffs are arguing that Clean Air Act cannot "displace a federal common law action for damages," unlike *AEP*, in which the relief sought was an injunction instead of damages.[87] Therefore, the plaintiffs are arguing that the *Kivalina Case* should be decided differently.[88] As of February 2012, a final decision has not been made by the Court of Appeals for the Ninth Circuit. As climate litigation has increased in every form in the US,[89] it has pressured the EPA and the federal government to regulate climate change by statutes or through rulemaking.[90] Accordingly, climate litigation may have encouraged the participation of the United States at various climate meetings under the platforms of Conference of the Parties ("COP").[91] Nevertheless, the outcomes of climate cases like *AEP* and the *Kivalina Case*, whether successful or not, have been reshaping the US federal government's response to climate change.

77 The White House, "Presidential Memorandum – EPA Waiver", January 26, 2009; see generally EPA, "California Waivers and Authorizations", available on the Internet at <http://www.epa.gov/otaq/cafr.htm> (last accessed on 19 November 2012).

78 Ibid.

79 David L Markell and J. B. Ruhl, "An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?", FSU College of Law, Public Law Research Paper No. 483 (2011).

80 Ibid.

81 Connecticut v. AEP, 406 F. Supp. 2d 265, at 271.

82 Ibid.

83 Ibid.

84 See Climate Justice: Enforcing Climate Change Law, available on the Internet at <http://www.climatelaw.org/cases/country/us/nuisance/ussc> (last accessed on 19 November 2012).

85 Native Village of Kivalina v. ExxonMobil Corp., 663 F. Supp.2d 863, 876 (N.D. Cal. 2009) (198 DEN A-5, 10/16/09), for discussion on Kivalina case see James May, "Recent Developments in Climate Change Litigation: Oral Arguments in AEP v. Connecticut and Related Cases", 2011(111) *Daily Environment Report* (2011), 1.

86 Ibid.

87 Ibid.

88 For commentary on whether the Supreme Court Decision in Connecticut v. AEP has any legal implication for the Kivalina Case see Martin Bricketto, "High Court Limits GHG Nuisance Claims In AEP Ruling", LAW360, 20 June 2011.

89 See climate change cases in the US at Climate Justice: Enforcing Climate Change Law, available on the Internet at <http://www.climatelaw.org/cases/country/us> (last accessed on 28 September 2012).

90 See EPA findings on Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act.

91 See participation at Meetings of the Conference of the Parties, available on the Internet at <www.unfccc.int> (last accessed on 19 November 2012).

III. Climate change litigation and global issues of importance

The damage caused by climate change cannot be estimated globally as it continues to affect so many areas of importance, such as human rights, the marine environment, and international trade to mention but a view. However, as climate litigation has begun to evolve at the international level, it is important to establish the framework under which climate obligations can be enforced. For instance if it can be established that climate change denies or affects enjoyments of human rights, such as the right to life and health, and there are substantive and procedural provisions under international human rights law, then it might not be inconsistent to litigate climate change under a human rights regime.[92] Currently, there are no international climate cases before the International Criminal Court (ICC) linking violation of human rights as crimes against humanity.[93] Whilst it has been extremely difficult to actually link climate change to violations of human rights, it has been argued that climate change denies or affects enjoyment of human rights to life and health.[94]

If it is possible to substantiate climate crimes, (partial or total environmental degradation through air pollution or emissions which affect or deny people's enjoyment of human rights) then it might be possible to litigate climate change through human rights laws before the ICC.[95] It is evident that climate change affects enjoyment of human rights, be it social, cultural, economic, life or health. At the domestic level, there is room for potential use of human rights laws to institute climate cases because of entrenchment of human rights in the constitutions in many countries. However, it at the international level, there is no substantive provision of legal instruments of human rights that express support violation of human rights by climate change.[96] Whilst it may be argued that climate change affects enjoyment of human rights using international human rights agreements to support such an argument may be undermined by restrictive application due to the status accorded to human rights laws in some countries.[97] For example, a number of countries have submitted reservations and interpretative declarations to the International Covenant on Economic, Social and Cultural Rights.[98] For instance, Egypt follows the Covenant to the extent that it does not conflict with Sharia Law.[99] Egypt's application of Sharia Laws does not form part of the discussion in this article.

The marine environment is another area of global importance affected by possible climate litigation.[100] It is evident that emissions contribute to atmospheric pollution, which affects the marine environment.[101] The consequences of climate change include but are not limited to rising sea levels, the melting of the icebergs and glaciers, accelerated flooding, bleaching of marine animals, and the loss of potable water.[102] The definition of pollution provided in the United Nations Convention on the Law of the Sea ("UNCLOS") encompasses the atmospheric pollution by emission of GHGs, and as a result, it is very likely that climate obligations may be enforced under the marine regime.[103] The primary institution for enforcing marine obligations,

92 For detailed discussions climate change and human rights, see generally John H Knox., "Linking Human Rights and Climate Change at the United Nations", 33 *Harvard Environmental Law Review* (2009), 477; see also Lavanya Rajamani, "The Increasing Currency and Relevance of Rights-Based Perspectives in the International Negotiations on Climate Change", 22 Journal of Environmental Law (2010), 391; see further Daniel Bodansky, "Climate Change and Human Rights: Unpacking the Issues", 38 *Georgia Journal of International and Comparative Law* (2010), 511; UGA Legal Studies Research Paper No. 10-05, available on the Internet at <http://ssrn.com/abstract=1581555> (last accessed on 19 November 2012); see also the arguments on legal implications by linking climate change to human rights, David B Hunter, "The Implications of Climate Change Litigation for International Environmental Law-Making", American WCL Research Paper No. 2008-14 (Washington, D.C.: American University, 2007).

93 Ibid.

94 Ibid.

95 Ibid.

96 Ibid.

97 See Declarations and Reservations of the International Covenant on Economic, Social and Cultural Rights, available on the Internet at <http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&lang=en#EndDec> (last accessed on 19 November 2012); for detailed discussion, see generally Eva Brems, *Human Rights Universality And Diversity* (The Hague: Kluwer Law International, 2001).

98 Ibid.

99 Ibid.

100 Meinhard Doelle, "Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention", 37 *Journal of Ocean Development and International Law* (2006), 319; see also, William C. G. Burns, "Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention", 2 *International Journal of Sustainable Development Law & Policy* (2006), 27.

101 See IPCC 4th Assessment Report

102 Ibid.

103 UNCLOS, Article 1(4)

related to the protection and preservation of the marine environment, is the International Tribunal for the Laws of the Sea ("ITLOS").[104] This court has compulsory jurisdiction and can make binding decisions while interpreting the provisions of the UNCLOS and other compatible international laws.[105] The UNCLOS remains ambitious for international climate litigants because of the obligations it places on the parties for the preservation and protection of the marine environment in Part XII of the UNCLOS. Only few cases have been submitted to ITLOS and these cases are not related to enforcement of climate obligations such as emission reductions, mitigation and adaptation of climate change.[106]

There are compulsory procedures to litigate climate change using international principles, rules, customs and obligations UNCLOS.[107] Potential climate litigants such as the small island states and some developing countries (on behalf of themselves or through international organisation) may sue developed countries or international organisations such as the European Union ("EU") or notable developing countries with large emissions such as China before ITLOS for failing to protect and preserve the marine environment. However, the United States remains the ultimate target, but the United States is not a party to UNCLOS, although it accepts some of the provisions of the UNCLOS as existing customary international law. Generally, it is accepted that customary international laws are binding; therefore the United States may be held liable for failure to commit itself to international obligation to reduce emissions. But Part XV of the UNCLOS, which entails settlement of disputes, does not form part of customary international law, as a result the ITLOS may not exercise jurisdiction over the United States. In Part XV of UNCLOS, methods of settling disputes include peaceful means and compulsory procedures.[108] The choice of compulsory procedures depends on which court or tribunal will settle the disputes. At the time of ratification or accession, a prospective party may choose from ITLOS, ICJ or arbitral tribunals to settle its disputes. In a situation where parties chose different compulsory procedures or did not choose any of the procedures, disputes may only be submitted to the arbitral tribunal unless the parties agree to submit the disputes to court or tribunals of their choice. The decisions of the court or tribunal are binding and disputing parties must comply with them. Since the US is not a party to UNCLOS it may not consent to any of these fora to settle environmental disputes. However, several other countries may be targeted by invoking the laws of state responsibility. For instance, Kiribati is on the verge of being submerged by the sea level rises this century according to various reports.[109] Since there are many countries which are involved in global emissions, emissions inventory and historical responsibility of each of the defendants may be taken into consideration in order to impose compensatory damages and restriction on level of emissions. Another principle which may avail the defending countries of their defence is *precautionary principle,*[110] where the claimant states may argue that the large emitting countries have failed in their obligations to adequately combat climate change which has contributed to sea level rises. The defence that there is no clear scientific evidence to prove that emissions are responsible may not suffice since precautionary principle negates such a position. It may also be argued that the definition of marine pollution as provided in Section 1(4) of UNCLOS encompasses emissions of GHGs since they constitute substances introduced into the marine environment directly or indirectly through atmospheric pollution.

Thus, international trade, which connects with other global regimes, is the last area of global importance that is affected by climate change. However, if some trade measures could be adopted by states

104 See part XV of UNCLOS

105 Ibid.

106 See the official of ITLOS at www.itlos.org for Southern Bluefin Tuna Cases, New Zealand v. Japan (Case No. 3) and Australia v. Japan (Case No. 4). See also the two cases elating to The M/V Saiga, St Vincent and the Grenadines v. Guinea (Cases Nos. 1 and 2), The Camouco Case, Panama v. France (Case No. 5), The Monte Confurco Case, Seychelles v. France (Case No. 6), The Grand Prince Case, Belize v. France (Case No. 8) and The Chaisiri Reefer 2 Case, Panama v. Yemen (Case No. 9).

107 See the definition of marine environment in section 1(4) of the UNCLOS. See also Part XII, XV of the UNCLOS

108 *Supra* note 107

109 See Union of Concerned Citizens, "Global Warming Effects Around the World", available on the Internet at <http://www.climatehotmap.org/global-warming-locations/republic-of-kiribati.html> (last accessed on 19 November 2012).

110 See Article 3(3) of the UNFCCC, sea also Principle 15 of Rio Declaration on Environment and Development

even where they adversely affect industrial growth, it may result in reduction of emissions. [111] Doing that might also create tension for states that are struggling to achieve economic growth. Linking provisions of WTO/GATT to climate obligations might make climate litigation possible under the dispute settlement procedures of the WTO.[112] Just like the ITLOS, the WTO has compulsory jurisdiction to enforce its laws on the parties which must be complied with.[113]

Linking climate change to these three global areas of importance is ambitious because they are intertwined, directly or indirectly. It might not be difficult to link these regimes to climate change because enforcing climate obligations through them would go a long way towards addressing global climate change. Besides, if climate obligations may be enforced through them, another obstacle might be the execution of the international judicial decisions.

IV. Conclusion

Climate litigation has numerous merits and is an emerging tool for climate governance, despite the dominant perception that it is impossible to litigate climate change. Some studies have established the growing importance of climate litigation under the enforcement regime, though many of those studies approach the issue from an intra-state perspective. Despite the limited nature of international focus, climate change litigation offers many benefits, and shows signs of growth in research.

This article has argued that litigation has a good potential to facilitate effective climate change enforcement regime. It has primarily developed at the domestic level, while there are few climate cases at the international level. However, findings show that climate litigation remains valuable in addressing domestic and international climate governance in the absence of strong international enforcement mechanisms, climate laws and policies. The Kyoto Protocol expires at the end of 2012, without any progress on successive protocols that would entail legally binding emission reduction targets; as a result, climate litigation remains ambitious. In expanding the scope of climate governance, climate obligations should be enforced beyond the climate change regime. Regimes such as human rights, marine and international trade remain ambitious because of compatibility and strong judicial institutions. Nevertheless, litigation remains one of the methods of enforcing climate obligations. Although, it is not the only means of combating climate change, but it would go a long way to improve global climate governance.

111 See Meinhard Doelle, "The WTO and Climate Change; Opportunities to Motivate State Action on Climate Change through the World Trade Organization", 13 *Review of European Community and International Environmental Law* (2004), 85.

112 Ibid.

113 Steve Charnovitz, "Trade and the Environment in the WTO", 10 *Journal of International Economic Law* (2007); GWU Legal Studies Research Paper No. 338; GWU Law School Public Law Research Paper No. 338, available on the Internet at <http://ssrn.com/abstract=1007028> (last accessed on 19 November 2012).