

# Achieving Climate Justice Through Tort Law: Issues and Challenges

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## I. INTRODUCTION

To paraphrase Karl Marx, there is a specter that haunts not just Europe, but the whole world<sup>1</sup> — and that is climate change.

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Indeed, climate change is the most serious environmental and development threat the world faces.<sup>2</sup> This threat is clearly upon us, and it can only accelerate and get worse.<sup>3</sup> Climate change is not just a physical challenge, which requires scientific and technical solutions, but it presents immense socio-economic, cultural, and ethical dilemmas<sup>4</sup> that societies must resolve in order to address the threat effectively. One such issue is the reality of climate injustice and how it can possibly be addressed.

This Article explores how tort law, at the international and national levels, can be employed to achieve climate justice. The Authors will begin by looking at how climate justice emerged as a central agenda of the global climate discourse, and proceed to how the Paris Agreement, in particular its loss and damage article, opens up the possibility for achieving climate justice. The Article then looks at tort law in several national jurisdictions, and

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58 ATENEO L.J. 612 (2013) with Cecilia Therese T. Guiao; & *Reducing Uncertainty, Advancing Equity: Precaution, Trade, and Sustainable Development*, 53 ATENEO L.J. 957 (2009).

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1. KARL MARX & FRIEDRICH ENGELS, *THE COMMUNIST MANIFESTO* 1 (2018 ed.) (citing KARL MARX, *THE COMMUNIST MANIFESTO* (Friedrich Engels ed., 1888)).
2. NAROTTAM GAAN, *CLIMATE CHANGE AND INTERNATIONAL POLITICS* 187 (2008).
3. DAVID WALLACE-WELLS, *THE UNINHABITABLE EARTH: LIFE AFTER WARMING* 7-8 (2019) (citing SECRETARIAT OF THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION, *DESERTIFICATION: THE INVISIBLE FRONTLINE* 7 (2d ed. 2015)).
4. GAAN, *supra* note 2, at 187 (citing SWEDISH ENVIRONMENTAL PROTECTION AGENCY, *KYOTO AND BEYOND: ISSUES AND OPTIONS IN THE GLOBAL RESPONSE TO CLIMATE CHANGE* 5 (2002)).

analyze how climate change liability can be pursued within those systems. The Article concludes with some recommendations on what would be needed to maximize current opportunities and to take this approach forward so that tort law becomes an effective source of redress and compensation while also successfully helping change the behavior of economic actors like the big carbon emitters, so that they will take stronger measures to reduce emissions.

## II. THE EMERGENCE OF CLIMATE JUSTICE

In the 1990s, “the first decade of climate action, the emphasis was on the mitigation of greenhouse gas [(GHG)] emissions from developed countries in the hope that their leadership would be enough to address the challenge.”<sup>5</sup> From the negotiations conducted under the auspices of the Intergovernmental Negotiating Committee, to the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in May 1992, just in time for it being opened for signature during the historic Earth Summit in Rio de Janeiro in June 1992,<sup>6</sup> to the first meeting of the UNFCCC Conference of the Parties (COP) in April 1995,<sup>7</sup> the focus was to get the so-called Annex 1 countries (industrialized developed countries, which included the economies in transition in Eastern Europe and the former Soviet Union) to take steps to significantly curb their GHGs as a matter of historical responsibility.<sup>8</sup>

Unfortunately, “the rich countries failed us.”<sup>9</sup> Instead of reducing emissions, and in spite of their moral (non-legally binding promise) commitment under the UNFCCC to stabilize their 2000 GHGs at 1992 levels,<sup>10</sup> those countries further increased their emissions.<sup>11</sup> Even with the

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5. Antonio G.M. La Viña, *Climate justice in Katowice*, MANILA STAND., Nov. 17, 2018, available at <http://manilastandard.net/opinion/columns/eagle-eyes-by-tony-la-vina/280700/climate-justice-in-katowice.html> (last accessed May 5, 2019) [hereinafter La Viña, *Climate justice*].
  6. See United Nations Framework Convention on Climate Change, *adopted* May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].
  7. See U.N. Framework Convention on Climate Change, *Report of the Conference of the Parties, on its First Session, Held at Berlin from 28 March to 7 April 1995*, U.N. Doc. FCCC/CP/1995/7/Add.1 (June 6, 1995).
  8. UNFCCC, *supra* note 6, art. 4, ¶ 6 & annex I.
  9. La Viña, *Climate justice*, *supra* note 5.
  10. See UNFCCC, *supra* note 6.
  11. La Viña, *Climate justice*, *supra* note 5.

adoption of the Kyoto Protocol on Climate Change, adopted in December 1997 in Kyoto, Japan,<sup>12</sup> this trajectory of developed country emissions did not change as business as usual continued.

The failure of the United States (U.S.) under the administration of President George W. Bush to ratify the Kyoto Protocol<sup>13</sup> torpedoed its chances of succeeding to achieve its modest goal of a five percent reduction of GHS emission of developed countries based on 1990 levels. A repeat of that is now likely with the rejection of the Paris Agreement by the administration of President Donald Trump.<sup>14</sup>

Meanwhile, by the late 1990s, “emissions from the bigger developing countries [like China and India] started to increase rapidly and exponentially.”<sup>15</sup> Understandably, these countries invoked national sovereignty and the right to development to push back pressure on them to reduce their emissions.<sup>16</sup> They also did not fail to emphasize the hypocrisy of

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12. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *opened for signature* Mar. 16, 1998, 2303 U.N.T.S. 162 (entered into force Feb. 16, 2005).

13. Greg Kahn, *The Fate of the Kyoto Protocol under the Bush Administration*, 21 BERKELEY J. INTL. L., 548, 551 (2003) (citing The Associated Press, *U.S. Won't Follow Climate Treaty Provisions, Whitman Says*, N.Y. TIMES, Mar. 28, 2001, at A19).

14. Chris Mooney, *Trump withdrew from the Paris climate deal a year ago. Here's what has changed.*, WASH. POST, June 1, 2018, available at [https://www.washingtonpost.com/news/energy-environment/wp/2018/06/01/trump-withdrew-from-the-paris-climate-plan-a-year-ago-heres-what-has-changed/?utm\\_term=.8d22d77aa4c9](https://www.washingtonpost.com/news/energy-environment/wp/2018/06/01/trump-withdrew-from-the-paris-climate-plan-a-year-ago-heres-what-has-changed/?utm_term=.8d22d77aa4c9) (last accessed May 5, 2019). See generally Paris Agreement under the United Nations Framework Convention on Climate Change, *opened for signature* Apr. 22, 2016 [hereinafter Paris Agreement] & United Nations Framework Convention on Climate Change Twenty-first Conference of the Parties, Paris, Fr., Nov. 30-Dec. 11, 2015, *Adoption of the Paris Agreement*, U.N. Doc. FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015).

15. La Viña, *Climate justice*, *supra* note 5. See also ENERGY ECONOMICS: CO<sub>2</sub> EMISSIONS IN CHINA 40 (Yiming Wei, et al. eds., 2011) & Chris Buckley, *China's Role in Climate Change, and Possibly in Fighting It*, N.Y. TIMES, June 2, 2017, available at <https://www.nytimes.com/2017/06/02/world/asia/chinas-role-in-climate-change-and-possibly-in-fighting-it.html> (last accessed May 5, 2019).

16. Royal C. Gardner, *Respecting Sovereignty*, 1 FORDHAM ENVTL L. REV. 133, 135 (2011); Fuzuo Wu, *China's Pragmatic Tactics in International Climate Change Negotiations: Reserving Principles with Compromise*, 53 ASIAN SURVEY 778, 781-82 (2013); & Jorge G. Castañeda, *Not Ready for Prime Time: Why Including Emerging*

developed countries given the latter's failure of leadership as discussed in the preceding paragraphs.<sup>17</sup>

At the same time, many countries, especially the most vulnerable, began experiencing more intense impacts of anthropogenic climate change.<sup>18</sup> "Understandably, the second decade of climate action (2001–2010) saw the emergence of adaptation as a priority equal or even more important for developing countries. Obtaining support for adaptation efforts became imperative for these nations."<sup>19</sup> Led by the Alliance of Small Island States (AOSIS), Least Developed Countries (LDCs), and middle income but threatened countries like the Philippines, by around 2005, the COP of the UNFCCC began prioritizing adaptation and support for it in its deliberations.<sup>20</sup>

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*Powers at the Helm Would Hurt Global Governance*, 89 FOREIGN AFFAIRS 109, 119–20 (2010).

17. See Muhammad Usman, *China And India: Victims Of First-World Hypocrisy*, available at <https://www.thegazelle.org/issue/37/opinion/usman-7> (last accessed May 5, 2019); Chen Weihua, *Lots of hypocrisy at play over carbon emissions*, Aug. 7, 2015, CHINA DAILY, available at [www.chinadaily.com.cn/a/201508/07/WS5a6ae91aa3106e7dcc136fff.html](http://www.chinadaily.com.cn/a/201508/07/WS5a6ae91aa3106e7dcc136fff.html) (last accessed May 5, 2019); & Annie Gowen & Simon Denyer, *As U.S. backs away from climate pledges, India and China step up*, WASH. POST, June 1, 2017, available at [https://www.washingtonpost.com/world/asia\\_pacific/as-us-backs-away-from-climate-pledges-india-and-china-step-up/2017/06/01/59ccb494-16e4-4d47-a881-c5bd0922c3db\\_story.html?utm\\_term=.a8c88f42946b](https://www.washingtonpost.com/world/asia_pacific/as-us-backs-away-from-climate-pledges-india-and-china-step-up/2017/06/01/59ccb494-16e4-4d47-a881-c5bd0922c3db_story.html?utm_term=.a8c88f42946b) (last accessed May 5, 2019).
18. Fulco Ludwig, et al., *Climate change impacts on Developing Countries - EU Accountability (A Study Requested by the European Parliament on the Environment, Public Health and Food Safety)* at 2, available at [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2007/393511/IPOL-ENVI\\_ET\(2007\)393511\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2007/393511/IPOL-ENVI_ET(2007)393511_EN.pdf) (last accessed May 5, 2019).
19. La Viña, *Climate justice*, *supra* note 5. See also ÅSA PERSSON, ET AL., ADAPTATION FINANCE UNDER A COPENHAGEN AGREED OUTCOME 6 (2009) & Robert Falkner, *The Paris Agreement and the new logic of international climate politics*, 92 INT'L AFF. 1107, 1116 (citing Paris Agreement, *supra* note 14, art. 7, ¶ 6).
20. See UNFCCC, CLIMATE CHANGE: SMALL ISLAND DEVELOPING STATES 2 (2005) & Cecelia Bolon, *1.5 to Stay Alive: The Influence of AOSIS in International Climate Negotiations*, available at <https://www.e-ir.info/2018/11/17/1-5-to-stay-alive-the-influence-of-aosis-in-international-climate-negotiations> (last accessed May 5, 2019).

“Today, mitigation and adaptation remain at the top of the climate agenda, but increasingly[,] climate justice is being asserted by countries and stakeholders.”<sup>21</sup> In fact, “[t]raditional, more familiar concepts such as ‘common but differentiated responsibility’ and ‘equity’ are being reframed as a matter of justice, where countries and corporations from both North and South are held accountable for causing climate-related loss and damage.”<sup>22</sup> Clearly though, in the years to come and in fact, in the not so distant future,

this need for accountability, which includes both assistance and reparations to vulnerable countries and peoples, will supplant mitigation and adaptation as the major issue for negotiation by governments wrestling with increasing climate change.<sup>23</sup>

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21. La Viña, *Climate justice*, *supra* note 5. See also Sixteenth Conference of Parties (COP16) to the United Nations Framework Convention on Climate Change, Cancun, Mexico, Nov. 29-Dec. 10, 2010, *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Addendum. Part two: Action taken by the Conference of the Parties at its sixteenth session*, Decision 1/CP.16, ¶¶ 71-72, U.N. Doc. FCCC/CP/2010/7/Add.1 (Mar. 15, 2011) [hereinafter *Cancun Agreements Addendum*]; David Cipler, et al., *The Politics of International Climate Adaptation Funding: Justice and Divisions in the Greenhouse*, 13 GLOBAL ENV'TL POLITICS 50, 52 (2013); & Bayes Ahmed, *Who takes responsibility for the climate refugees?*, 10 INT'L J. CLIMATE CHANGE STRATEGIES & MGMT. 5, 9 (2009).
22. La Viña, *Climate justice*, *supra* note 5. See also Carmen G. Gonzales, *Environmental justice and international environmental law*, in ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 83 & 91 (Shawcat Alam, et al. eds., 2013) (citing UNFCCC, *supra* note 6, pmb., para. 3 & art. 3 (1)); JAMES GUSTAVE SPETH, *THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY* 166-73 (2008); U.N. Conference on Environment and Development, Rio de Janeiro, Brazil, June 3-14, 1992, *Rio Declaration on Environment and Development*, princ. 7, U.N. Doc. A/CONF.151/26 (vol. I) (Aug. 12, 1992) (also known as UNCED, Forest Principles); Carmen G. Gonzales, *Genetically Modified Organisms and Justice: The International Environmental Justice Implications of Biotechnology*, 19 GEO. J. INT'L L. 583, 632 (2007); & Obijiofor Aginam, *Climate Change Diplomacy and Small Island Developing States* (An Article Based on a Research Project Funded by the U.N. University Institute for Sustainability and Peace), available at <https://unu.edu/publications/articles/climate-change-diplomacy-and-small-island-developing-states.html> (last accessed May 5, 2019).
23. La Viña, *Climate justice*, *supra* note 5. See also U.N. Framework Convention on Climate Change, *What is transparency and reporting?*, available at <https://unfccc.int/process-and-meetings/transparency-and-reporting/the-big->

International, transnational, and domestic climate liability litigation is also expected to accelerate as part of that trend.<sup>24</sup>

“[C]limate justice is not just a North [versus] South issue[,]”<sup>25</sup> and neither is it simply a conflict between rich and poor countries. The reality is that climate impacts are distributed unjustly, with the countries and sectors of society that have contributed the least to the problem suffering first, and bearing the greater burden.<sup>26</sup> Notably, countries and economic groups which are historically responsible for climate change also face serious loss and damage, but they have better resources to face the threat and address effectively the impacts, while the poorest countries, contributing the least GHGs to the atmosphere, have no or little resources for either adaptation or mitigation.<sup>27</sup>

Indeed, there is climate injustice between and within countries, but such injustice also divides the poor and rich of all countries. There is climate injustice in what transnational and domestic corporations do to nature and society with their economic activities.<sup>28</sup> Their impacts on planet and people cannot be underestimated.

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picture/what-is-transparency-and-reporting (last accessed May 5, 2019) & E3G Research Team, Climate change: New frontiers in transparency and accountability at 7-9 & 20, *available at* [https://www.transparency-initiative.org/wp-content/uploads/2017/03/climate\\_change\\_final1.pdf](https://www.transparency-initiative.org/wp-content/uploads/2017/03/climate_change_final1.pdf) (last accessed May 5, 2019).

24. See Dana Drugmand, 2018 in *Climate Liability: When a Trend Became a Wave*, *available at* <https://www.climateliabilitynews.org/2018/12/30/2018-climate-liability> (last accessed May 5, 2019).

25. La Viña, *Climate justice*, *supra* note 5.

26. GAAN, *supra* note 2, at 90 & BARBARA ADAMS & GRETCHEN LUCHSINGER, *CLIMATE JUSTICE FOR A CHANGING PLANET: A PRIMER FOR POLICY MAKERS AND NGOS* ix & 5 (2009).

27. See ADAMS & LUCHSINGER, *supra* note 26, at 17 (citing UNITED NATIONS DEVELOPMENT PROGRAMME, *A HUMAN DEVELOPMENT REPORT 2007/2008 FIGHTING CLIMATE CHANGE: HUMAN SOLIDARITY IN A DIVIDED WORLD* 166 (2007)).

28. Ahmed, *supra* note 21, at 9 (citing International Climate Justice Network, *Bali Principles of Climate Justice*, *available at* <https://corpwatch.org/article/bali-principles-climate-justice> (last accessed May 5, 2019) & National Geographic, *Before the Flood*, *available at* [www.beforetheflood.com](http://www.beforetheflood.com) (last accessed May 5, 2019)). See, e.g., Emma Howard, *Philippines investigates Shell and Exxon over climate change*, *available at* <https://www.theguardian.com/sustainable->

Climate justice “is also about racial, ethnic, gender, and other forms of discrimination that make some communities and sectors more vulnerable than others.”<sup>29</sup> Thus, indigenous peoples,<sup>30</sup> women,<sup>31</sup> ordinary workers,<sup>32</sup> subsistence farmers and fisherfolk,<sup>33</sup> and people with disabilities,<sup>34</sup> among others, are the most challenged by climate change.

Ultimately, “climate justice is an intergenerational justice challenge.”<sup>35</sup> There is a clear injustice committed to future generations when their

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business/2016/may/07/climate-change-shell-exxon-philippines-fossil-fuel-companies-liability-extreme-weather (last accessed May 5, 2019).

29. La Viña, *Climate justice*, *supra* note 5.
30. See Carmen Gonzalez, *Human rights, environmental justice, and the North-South divide*, in RESEARCH HANDBOOK ON HUMAN RIGHTS AND THE ENVIRONMENT 450-51 (Anna Grear & Louis L. Kotzé eds., 2015) (citing GORDON WALKER, ENVIRONMENTAL JUSTICE: CONCEPTS, EVIDENCE AND POLITICS 24-25 (2012); Rebecca Tsosie, *Indigenous People and Environmental Justice: The Impact of Climate Change*, 78 U. COL. L. REV. 1625, 1633-46 (2007); Tunde Agbola and Moruf Alabi, *Political Economy of Petroleum Development, Environmental Injustice and Selective Victimization: A Case Study of the Niger Delta Region of Nigeria*, in JUST SUSTAINABILITIES: DEVELOPMENT IN AN UNEQUAL WORLD 269-88 (Julian Agyeman, et al. eds., 2003); & Philip McMichael, *Peasants Make Their Own History, But Not Just as They Please...*, in TRANSNATIONAL AGRARIAN MOVEMENTS CONFRONTING GLOBALIZATION 42-47 (Saturnino M. Borras, Jr., et al. 2008)).
31. See Sara L. Seck, *Revisiting Transnational Corporations and Extractive Industries: Climate Justice, Feminism, and State Sovereignty*, 26 TRANSNAT'L L. & CONTEMP. PROBS. 383 (2017) (citing SUMUDU ATAPATTU, HUMAN RIGHTS APPROACHES TO CLIMATE CHANGE: CHALLENGES AND OPPORTUNITIES 199-200 (2016)).
32. See Janet L. Gamble, et al., *Populations of Concern*, in THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT 258 (A. Crimmins, et al. eds., 2016).
33. See John F. Morton, *The impact of climate change on smallholder and subsistence agriculture*, 104 PROC. NATL. ACAD. U.S.A. 19680, 19685 (2007) & FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, THE FUTURE OF FOOD AND AGRICULTURE TRENDS AND CHALLENGES SUMMARY 43 n. 3 (2017).
34. See Gamble, et al., *supra* note 32, at 260.
35. La Viña, *Climate justice*, *supra* note 5 & GAAN, *supra* note 2, at 187. See also U.N. Secretary-General, *Intergenerational solidarity and the needs of future generations*, ¶ 10, 68th Session of the General Assembly, U.N. Doc. A/68/322 (Aug. 15, 2013)



ascendants leave them with a world with much higher temperatures, where the recurrence of extreme weather events is a rule, and where all ecosystems that underpin life and development are confronted with severe degradation.

*A. Overview of the Paris Agreement*

“The Paris Agreement illustrates the emergence of climate justice as the principal issue governments and stakeholders must address in the future.”<sup>36</sup> It was mentioned in its preamble that “the concept of climate justice is acknowledged for the first time in an international agreement.”<sup>37</sup> In the same preamble, “the related concept of human rights is [also] enshrined as a guiding principle in the implementation of obligations.”<sup>38</sup> Meanwhile, “[i]n the operative provisions, climate justice is the spirit behind the provisions on adaptation, support (finance, technology transfer, and capacity[-]building), and[,] in particular[,] on the establishment of an international loss and damage mechanism.”<sup>39</sup> As one of the Authors had stated previously, “one hopes the Agreement would have been stronger on compliance measures, including having punitive provisions, but this was just too radical an idea at this point.”<sup>40</sup>

The Preamble of the Paris Agreement contains strong preambular language on human rights — an acknowledgement of the incontrovertible link between climate change and human rights.<sup>41</sup> This was unprecedented and considered to be a big win for the Philippines, as it was one of those countries that championed its inclusion.<sup>42</sup> Indeed, the Philippine delegation had tirelessly worked for the integration of human rights into the global

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(citing U.N. DEPARTMENT FOR ECONOMIC AND SOCIAL INFORMATION AND POLICY ANALYSIS, GLOSSARY OF ENVIRONMENT STATISTICS 43 (1997)).

36. La Viña, *Climate justice*, *supra* note 5.

37. *Id.* See Paris Agreement, *supra* note 14, pmbl., para. 13.

38. La Viña, *Climate justice*, *supra* note 5. See Paris Agreement, *supra* note 14, pmbl., para. 11.

39. La Viña, *Climate justice*, *supra* note 5. See Paris Agreement, *supra* note 14, art. 8, ¶¶ 1-5; art. 6, ¶ 8; art. 7, ¶¶ 1-7; & art. 11, ¶ 1.

40. La Viña, *Climate justice*, *supra* note 5.

41. Antonio G.M. La Viña, The Paris Agreement, through Philippine eyes, *available at* <http://www.nivela.org/articles/the-paris-agreement-through-philippine-eyes/en> (last accessed May 5, 2019) [hereinafter La Viña, Through Philippine eyes].

42. *Id.*

climate regime since 2009 during the REDD-plus<sup>43</sup> negotiations on how to provide policy incentives for developing countries so that they will conserve and enhance their forests for climate protection.<sup>44</sup>

*Climate justice* also found a place in the Preamble of the Paris Agreement, which is “not only a pleasant surprise but also quite revolutionary.”<sup>45</sup> As pointed out by one of the Authors —

The first time that the term has been included in a legally binding, multilateral document. Such a mention, even if it is qualified, strengthens the ultimate objective of the agreement and the Convention. By recognizing the inextricable link between moral obligation and historical responsibility, the Paris Agreement is given more credibility. The explicit inclusion of climate justice is certainly a good start for the next era of climate action.<sup>46</sup>

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43. REDD-plus refers to the agenda item of the UNFCCC on Reducing Emissions from Deforestation and Forest Degradation. U.N. Climate Change, Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD-plus), *available at* <https://unfccc.int/topics/land-use/workstreams/reddplus> (last accessed May 5, 2019) (citing Conference of the Parties on its eleventh session, Montreal, Canada, Nov. 28-Dec. 9, 2005, *Provisional agenda and annotations*, part I, ¶ 6, U.N. Doc. FCCC/CP/2005/1 (Sep. 5, 2006)).

The negotiations of REDD-plus were led by one of the co-authors, Antonio G.M. La Viña. *See* Antonio G.M. La Viña & Alaya M. de Leon, *From Bali to Paris: The Global Regime on Climate and Tropical Forests and its Implications on the Philippines*, 62 *ATENEO L.J.* 703 (2018). *See generally* Antonio G.M. La Viña & Lawrence G. Ang, *Implementing the REDD-Plus Safeguards: The Role of Social Accountability* (A Paper Written by Advisers to the Philippine Delegation in the UNFCCC negotiations), *available at* [http://www.ansa-eap.net/assets/644/Implementing\\_the\\_REDD\\_Safeguards\\_The\\_role\\_of\\_Social\\_Accountability.pdf](http://www.ansa-eap.net/assets/644/Implementing_the_REDD_Safeguards_The_role_of_Social_Accountability.pdf) (last accessed May 5, 2019).

44. *See* REDD+ Philippines, *What is REDD+?*, *available at* <https://forestry.dentr.gov.ph/redd-plus-philippines/what-is-redd-plus.php> (last accessed May 5, 2019) & Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development, *PH supports REDD-Plus strategy*, *available at* <http://www.pcaarrd.dost.gov.ph/home/portal/index.php/quick-information-dispatch/1882-ph-supports-redd-plus-strategy/> (last accessed May 5, 2019).

45. La Viña, *Through Philippine eyes*, *supra* note 41.

46. *Id.*

“The incorporation of a separate article on loss and damage (Article 8) is something that developing countries have fought for since the creation of the Warsaw International Mechanism on Loss and Damage associated with Climate Change Impacts (WIM) in COP19 in Poland.”<sup>47</sup> It recognizes

‘the importance of averting[, minimizing,] and addressing loss and damage associated with the adverse effects of climate change’ and aims to ‘enhance understanding, action[, and support ... on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change.’<sup>48</sup>

Finally, the most significant inclusion in the Paris Agreement — the 1.5 degrees target — is what could be the most important for climate vulnerable countries such as the Philippines.<sup>49</sup> “The reference to a temperature goal of below 1.5°C in the objective of the agreement (Article 2) is essential for the survival of many peoples and [S]tates.”<sup>50</sup> As the chair of the Climate Vulnerable Forum (CVF), the Philippines was “instrumental in ensuring that below 1.5°C would have a place in the agreement.”<sup>51</sup> “For the Philippines and the rest of the countries in the [CVF], the difference between 1.5°C and 2°C is existential<sup>52</sup> — it means the disappearance of islands, of entire countries, and the loss of millions of lives.”<sup>53</sup> In other words, “1.5°C is a

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47. *Id.*

48. *Id.* (citing Paris Agreement, *supra* note 14, art. 8, ¶¶ 1 & 3).

49. La Viña, Through Philippine eyes, *supra* note 41.

50. *Id.* See also Brad Plumer & Nadja Popovich, *Why Half a Degree of Global Warming is a Big Deal*, N.Y. TIMES, Oct. 7, 2018, available at <https://www.nytimes.com/interactive/2018/10/07/climate/ipcc-report-half-degree.html> (last accessed May 5, 2019) & INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5°C 9–13 (2018).

51. La Viña, Through Philippine eyes, *supra* note 41. See also John Ted Cordero, PHL praised for leading vulnerable nations in fight vs. climate change, available at [https://www.gmanetwork.com/news/news/nation/577514/phl-praised-for-leading-vulnerable-nations-in-fight-vs-climate-change/story/?utm\\_content=buffer7d84&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer](https://www.gmanetwork.com/news/news/nation/577514/phl-praised-for-leading-vulnerable-nations-in-fight-vs-climate-change/story/?utm_content=buffer7d84&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer) (last accessed May 5, 2019).

52. *Id.*

53. *Id.* See also DAVID SPRATT, CLIMATE REALITY CHECK: AFTER PARIS, COUNTING THE COSTS 12 (3d ed. 2016) (citing Eric Rignot, Global warming: it’s a point of no return in West Antarctica. What happens next?, available at <https://www.theguardian.com/commentisfree/2014/may/17/climate-change-antarctica-glaciers-melting-global-warming-nasa> (last accessed May 5, 2019)).

matter of survival, and its inclusion in the new climate agreement is the fine line between life and death for the most climate vulnerable countries.”<sup>54</sup>

Furthermore, “[t]hese elements, among the many that make up the Paris Agreement, is what makes this legally binding document historic and revolutionary.”<sup>55</sup>

While no one is under the illusion that what [S]tates achieved in [Paris in 2015] will solve the climate crisis, its outcome is certainly a strong and unified signal to the world that [ ] all countries are ready to move forward with their climate commitments [ ] and[,] in the future[,] increase ambition to achieve the goals and the objectives of both the Paris Agreement and the Convention.<sup>56</sup>

The Paris Agreement also positions climate justice and future liability and compensation for further development in the next few decades of developing the global climate regime.

#### *B. Climate Justice and the Paris Agreement*

“From a climate justice perspective, the Paris Agreement is not perfect. It is not the panacea to solve all the issues intertwined with climate change.”<sup>57</sup> Global cooperation on climate change did not begin in Paris nor did it end there. But it must be said that the 21st Conference of the Parties of the UNFCCC was a watershed moment for the international community. For sure, “the Paris Agreement is not the least common denominator.”<sup>58</sup> But, “[c]ertainly, it is progressive in its inclusion of human rights and climate justice among its principles.”<sup>59</sup>

While some would argue that legally binding emission reduction targets akin to the Kyoto Protocol are still preferred,<sup>60</sup> a “bottom-up, country-level differentiated approach” has potential if accompanied by strong transparency

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54. La Viña, Through Philippine eyes, *supra* note 41. See also Plumer & Popovich, *supra* note 50 & Intergovernmental Panel on Climate Change, Climate Change 2014 Synthesis Report Summary for Policymakers at 9-13, available at [https://www.ipcc.ch/site/assets/uploads/2018/02/AR5\\_SYR\\_FINAL\\_SPM.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf) (last accessed May 5, 2019).

55. La Viña, Through Philippine eyes, *supra* note 41.

56. *Id.*

57. La Viña, *Climate justice*, *supra* note 5.

58. *Id.*

59. *Id.*

60. See La Viña, *Climate justice*, *supra* note 5.

and accountability mechanisms.<sup>61</sup> Certainly, “the monitoring and reporting obligations under the Paris Agreement provide openings for reviewing compliance.”<sup>62</sup> It would all depend on the rules recently agreed to in Katowice, Poland, by the State Parties to the Paris Agreement.

“The Philippines and other vulnerable countries belonging to the ... [CVF] would have preferred the adoption of the [1.5°C] limit in temperature increase from pre-industrial levels.”<sup>63</sup> Moreover, “[t]he CVF countries have even been willing to take huge steps in reducing their own [GHG] emissions, which are much lower than developed countries and the biggest developing countries, so that they can also contribute to the effort.”<sup>64</sup> Despite the limited language, “the inclusion of 1.5 as an aspirational goal in the Paris Agreement is remarkable” and certainly welcome.<sup>65</sup>

“The Paris Agreement [a]rticles on the support mechanisms — finance, technology transfer, and capacity[-]building — are positive provisions.”<sup>66</sup> However, “being products of the usual compromises on these issues, they are incomplete. Their modalities and the institutions that will make these provisions come alive must be negotiated in the next two years. Those negotiations will be tough.”<sup>67</sup> Despite this, “negotiating groups like the CVF, the ... [LDCs], and the Like Minded Group of countries, by themselves or working with the Group of 77 and China, have continued to insist on greater ambition regarding climate finance, using as an argument the imperatives of climate justice.”<sup>68</sup>

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61. *Id.* See Kevin A. Baumert and Nancy Kete, *Introduction: An Architecture for Climate Protection*, in BUILDING ON THE KYOTO PROTOCOL: OPTIONS FOR PROTECTING CLIMATE 18 & 23 (Kevin A. Baumert, et al. eds., 2002).

62. La Viña, *Climate justice*, *supra* note 5. See also Paris Agreement, *supra* note 14, art. 13, ¶¶ 1-15.

63. Antonio G.M. La Viña, *Climate Justice, with or without the United States*, available at <https://items.ssrc.org/climate-justice-with-or-without-the-united-states> (last accessed May 5, 2019).

64. *Id.*

65. *Id.*

66. La Viña, *Climate justice*, *supra* note 5.

67. *Id.*

68. *Id.*

*C. Adaptation and Loss and Damage*

An article in the Paris Agreement “that emphasizes climate justice with regard to developing countries is that on loss and damage.”<sup>69</sup> Since the COP in Warsaw, Poland in 2013, “the Philippines has been one of the nations pushing hard for putting into place this mechanism to compensate loss of lives and damage to property and infrastructure resulting from climate change.”<sup>70</sup> In fact, “[t]he Warsaw meeting was traumatic for the Philippine delegation because the COP opened right after Typhoon Haiyan devastated the country.”<sup>71</sup> Nevertheless, “this disaster provided an opening to successfully push for the creation of the [WIM].”<sup>72</sup> This mechanism, however, “is not yet the liability regime some have been advocating [for,] but its institutionalization through its inclusion as an [a]rticle separate from adaptation in the Paris Agreement is important [as it] opens the way for developing methodologies to assess and put value on loss and damage arising from climate change as well as developing the mechanisms to make the system work.”<sup>73</sup> Consequently, “[t]he remaining task is to put flesh on the loss[ ]and[ ]damage mechanism so it becomes a foundational pillar of a compensation and liability regime.”<sup>74</sup>

As anthropogenic activity continues to rapidly increase, carbon dioxide is released into the atmosphere at an unprecedented rate as well.<sup>75</sup> The world is now faced with a climate change problem surpassing the concerns of mitigating GHGs. As climate change and its effects continue to intensify, the world is faced with the immediate challenge of addressing how countries can

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69. La Viña, *Climate justice*, *supra* note 5. See also Paris Agreement, *supra* note 14, art. 8, ¶¶ 1-4.

70. La Viña, *Climate justice*, *supra* note 5.

71. *Id.* See also Matt McGrath, Typhoon prompts ‘fast’ by Philippines climate delegate, available at <https://www.bbc.com/news/science-environment-24899647> (last accessed May 5, 2019).

72. La Viña, *Climate justice*, *supra* note 5. See also Mariette Le Roux & Agence France-Presse, Haiyan revives compensation row at UN climate talks, available at <https://www.rappler.com/science-nature/44156-haiyan-compensation-global-warming-un> (last accessed May 5, 2019).

73. La Viña, *Climate justice*, *supra* note 5.

74. *Id.*

75. Intergovernmental Panel on Climate Change, *supra* note 54, at 4-5.

adapt to the effects of extreme weather and slow onset events, as well as the subsequent loss and damage caused by the failure to adapt.<sup>76</sup>

It has always been the belief of some Parties to the UNFCCC that adequate adaptation support is essential to build the capacity of countries, especially those of developing countries, to cope with the recurring effects of climate change to allow them to eventually commit to reviewable mitigation efforts.<sup>77</sup> At present, even with the current commitment by Parties, and even if all carbon emissions are halted, historical emissions will continue to cause warming, slow onset changes, state shifts in climate, and even tipping points that would lead to abrupt and non-linear climate change for particular elements of the climate system.<sup>78</sup> Thus, it is important for vulnerable countries to be able to cope with the inevitable effects of climate change in order for them to continue to develop while transitioning to a low-carbon pathway.

However, not all effects of climate change can be adapted to. With every exposure to climate risk comes the possibility, even inevitability, of irreversible effects leading to loss and damage from extreme weather or slow onset events.<sup>79</sup> The challenge in addressing loss and damage comes in quantifying the effects particularly of slow onset events. Slow onset events are those effects of climate change that accrue and intensify over time, such as sea level rise, ocean acidification, glacial retreat and related impacts, loss of biodiversity, land and forest degradation, desertification, and salinization of

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76. See Kees van der Geest, et al., *The Impacts of Climate Change on Ecosystem Services and Resulting Losses and Damages to People and Society*, in *LOSS AND DAMAGE FROM CLIMATE CHANGE, CLIMATE RISK MANAGEMENT, POLICY AND GOVERNANCE* 222 (R. Mechler, et al. eds., 2019) (citing KOKO WARNER, ET AL., *PUSHED TO THE LIMIT: EVIDENCE OF CLIMATE CHANGE-RELATED LOSS AND DAMAGE WHEN PEOPLE FACE CONSTRAINTS AND LIMITS TO ADAPTATION* 23 & 25 (2013)).

77. UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, U.N. CLIMATE CHANGE ANNUAL REPORT 2017 13 & 24 (2018).

78. Doreen Stabinsky & Juan P. Hoffmaister, *Loss and Damage: Defining Slow Onset Events (A Briefing Paper on Loss and Damage)* at 1, available at [https://unfccc.int/files/adaptation/cancun\\_adaptation\\_framework/loss\\_and\\_damage/application/pdf/loss\\_and\\_damage\\_bp3\\_asia\\_and\\_eastern\\_europe\\_regional\\_expert\\_meeting\\_slow\\_onset\\_events.pdf](https://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/loss_and_damage_bp3_asia_and_eastern_europe_regional_expert_meeting_slow_onset_events.pdf) (last accessed May 5, 2019). See also Intergovernmental Panel on Climate Change, *supra* note 54, at 16.

79. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2014 SYNTHESIS REPORT* 73 & 79 (Core Writing Team, et al. eds., 2015).

groundwater.<sup>80</sup> An additional challenge is posed by measuring the qualitative effects of such slow onset events, such as the social impact of displacement of the population due to the unsuitability of land for habitat and food production.<sup>81</sup>

To provide an example, climate change has continually battered the agricultural sector in the Philippines, with the International Food Policy Research Institute projecting a cost of about ₱26 billion per year in losses through 2050 due to direct climate risks like extreme weather events.<sup>82</sup> This number becomes increasingly intimidating when indirect climate risks are taken into account, such as unquantified social costs from displacement caused by sea level rise and salinization of ground water.<sup>83</sup> Considering that 60% of municipalities in the Philippines are coastal, making them highly susceptible to both extreme weather events (e.g., storm surges) and slow onset events (e.g., sea level rise and salinization) of climate change,<sup>84</sup> and

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80. *Cancun Agreements Addendum*, *supra* note 21, part II, ¶ 25, n. 3 & Synopses Series: Slow Onset Events (A Technical Paper Mandated by COP17) at 1, available at [https://unfccc.int/files/adaptation/application/pdf/soe\\_synopsis.pdf](https://unfccc.int/files/adaptation/application/pdf/soe_synopsis.pdf) (last accessed May 5, 2019).

81. See Swenja Surminski, et al., Current knowledge on relevant methodologies and data requirements as well as lessons learned and gaps identified at different levels, in assessing the risk of loss and damage associated with the adverse effects of climate change at 9, ¶ 41 available at [www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/05/background\\_paper\\_full.pdf](http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/05/background_paper_full.pdf) (last accessed May 5, 2019) (citing *Cancun Agreements Addendum*, *supra* note 21, part II, ¶ 25).

82. Mark W. Rosegrant, et al., THE ECONOMYWIDE IMPACTS OF CLIMATE CHANGE ON PHILIPPINE AGRICULTURE (A Policy Note for “Addressing the Impacts of Climate Change in the Philippine Agriculture Sector” Project) at 7, available at <https://www.ctc-n.org/sites/www.ctc-n.org/files/129755.pdf> (last accessed May 5, 2019).

83. See Kevin J. Noone, *Sea-Level Rise*, in MANAGING OCEAN ENVIRONMENTS IN A CHANGING CLIMATE 119 259 (2013) & B. Lalljee, et al., *Chapter 14 - Climate Resilient and Livelihood Security – Perspectives for Mauritius Island*, in BIODIVERSITY AND CLIMATE CHANGE ADAPTATION IN TROPICAL ISLANDS 417 (2018).

84. ASIAN DEVELOPMENT BANK, REPUBLIC OF THE PHILIPPINES: NATIONAL URBAN ASSESSMENT 3 (2014) (citing Climate Change Service – Department of Environment and Natural Resources (DENR), Climate Change in the Philippine Context, available at <http://climatechange.www.denr.gov.ph> (last accessed May 5, 2019)).



considering that these communities are the most impoverished sectors of the population, they are the most vulnerable to climate change and its effects.<sup>85</sup>

In the Paris Agreement, the recognition that there is a need to support developing countries in their adaptation efforts is captured.<sup>86</sup> There is also a recognition that the conversation on loss and damage must exist outside the conversation on adaptation, thus resulting in two separate sections for the two topics.<sup>87</sup> This is an important development as this will lead to the identification of two separate approaches to adaptation and loss and damage, as well as additional means of support for the latter.

Furthermore, in the Paris Agreement, the right to be protected against climate change and its effects is considered a human right as captured in the Preamble.<sup>88</sup> It is recognized that, on the basis of human rights, governments have the responsibility to address the effects of climate change and protect its people. In particular, the issues of climate change adaptation and the resulting loss and damage directly affect the right of the people to the enjoyment of life, especially those who are already part of the marginalized and vulnerable sectors of society by reason of poverty, age, minority status, gender, and disability.

The adaptation goal as stated in Article 7, Paragraph 1 of the Paris Agreement is specifically tied to the mitigation goal, such that Parties agreed to provide adequate adaptation response in the context of the temperature goal specified in Article 2.<sup>89</sup> The rest of Article 7 of the Paris Agreement, which discusses how to achieve the adaptation goal, recognizes that adaptation is a global challenge and that it is essential to the global response to climate change, so much so that increased mitigation ambitions would result in the reduction of required adaptation efforts, effectively reducing adaptation costs.<sup>90</sup> The Paris Agreement builds on the idea that there is a need for coherence among the different institutional arrangements for adaptation under the Convention, and that this coherence would produce evidence-based adaptation of priority needs assessments for vulnerable

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85. See DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, ET AL., PHILIPPINE COASTAL MANAGEMENT GUIDEBOOK SERIES NO. 1: COASTAL MANAGEMENT ORIENTATION AND OVERVIEW 4-5.

86. Paris Agreement, *supra* note 14, arts. 3 & 9, ¶ 1.

87. See Paris Agreement, *supra* note 14, arts. 7-8.

88. *Id.* pmb., para. 11.

89. Compare Paris Agreement, *supra* note 14, art. 7, ¶ 1, with *Id.* art. 2, ¶ 1 (a).

90. *Id.* art. 7, ¶¶ 1-2 & 4.

countries,<sup>91</sup> recognizing needs that are immediate, medium-term and long-term, to finally enable the Parties to come up with an appropriate global adaptation response. There is also a mandate for the Conference of the Parties to develop modalities to recognize adaptation efforts of developing countries in order to support these efforts, and that these adaptation efforts should be country-driven, gender-responsive, and cater to the vulnerable sectors of society, furthering the mandate that climate action should be rooted in human rights.<sup>92</sup>

Loss and damage in the Paris Agreement is addressed in the subsequent article, Article 8, with a reference to the WIM.<sup>93</sup> The WIM was established in 2013 through the 19th Conference of the Parties to the UNFCCC (COP19),<sup>94</sup> and an initial work plan was adopted in 2014.<sup>95</sup> This body established under the UNFCCC seeks to comprehensively address the issues associated with loss and damage, including the issue of an appropriate financial mechanism for risk transfer, with a specific mandate in the Paris Agreement to collaborate with other existing bodies, expert groups and relevant organizations existing under the UNFCCC.<sup>96</sup> This need to address loss and damage is demandable on the basis of human rights as well, as communities affected by climate change hazards lose access to adequate food and water, health and shelter, and the efficient and timely restoration of this access must be addressed for their full enjoyment of life.<sup>97</sup>

The discussion of loss and damage in the Paris Agreement has been limited mainly to the responsibility of States. However, the elephant in the room has always been the role of transnational corporations, the so-called

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91. See Paris Agreement, *supra* note 14, art. 7, ¶ 9 (c).

92. *Id.* art. 7, ¶¶ 3 & 5.

93. Paris Agreement, *supra* note 14, art. 8, ¶ 2.

94. Conference of the Parties on its nineteenth session, Warsaw, Poland, Nov. 11-23, 2013, *Decisions adopted by the Conference of the Parties*, Decision 2/CP.19, at 6, ¶ 1, U.N. Doc. FCCC/CP/2013/10/Add.1 (Jan. 31, 2014).

95. Lima Climate Change Conference, Lima, Peru, Dec. 1-6, 2014, *Report of the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts*, ¶ 15 & annex II, U.N. Doc. FCCC/SB/2014/4 (Oct. 24, 2014).

96. *Id.* ¶ 5 (a), (b) (ii), & (c) (iii).

97. See U.N. Office of the High Commissioner for Human Rights, Human Rights and Climate Change, *available at* <https://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/HRClimateChangeIndex.aspx> (last accessed May 5, 2019).

top carbon emitters that are responsible for a majority of the GHG emissions that are causing climate change — as examined in the following Section.

### III. CORPORATE RESPONSIBILITY FOR CLIMATE CHANGE

In this Section of the Article, the industries and companies significantly contributing to climate change worldwide shall be discussed. Thereafter, in order to provide a background on how to hold corporations liable through tort-based climate change litigation, a brief overview of the tort liability frameworks of various jurisdictions follows.

Based on a 2014 report by a working group of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, the following key economic sectors contribute the most to climate change for being significantly responsible for global, anthropogenic GHG emissions:<sup>98</sup>

- (1) Energy Supply Sector which, basing on robust evidence with high agreement within the scientific community, “is the largest contributor to global GHG emissions[,]”<sup>99</sup> responsible for about 35% of human-caused GHG emissions in 2010.<sup>100</sup> This sector “comprises all energy extraction, conversion, storage, transmission, and distribution processes with the exception of

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98. See generally David G. Victor, et al., *Introductory Chapter*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE 122-23 (2014); Thomas Bruckner, et al., *Energy Systems*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 511-69; Ralph Sims, et al., *Transport*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 583-649; Oswaldo Lucon, et al., *Buildings*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 675-722; Manfred Fishedick, et al., *Industry*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 743-92; & Pete Smith, et al., *Agriculture Forestry and Other Land Use (AFOLU)*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 817-44. See also KEVIN A. BAUMERT, ET AL., NAVIGATING THE NUMBERS GREENHOUSE GAS DATA AND INTERNATIONAL CLIMATE POLICY 4-6 & 102-04 (2005). Anthropogenic GHG emissions are “[e]missions of greenhouse gases (GHGs), aerosols, and precursors of a GHG or aerosol caused by human activities. These activities include the burning of fossil fuels, deforestation, land use changes (LUC), livestock production, fertilization, waste management, and industrial processes.” Julian M. Allwood, et al., *Annex 1: Glossary, Acronyms and Chemical Symbols*, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE, *supra* note 98, at 1260 (emphases omitted).

99. Bruckner, et al., *supra* note 98, at 518.

100. *Id.*

those that use final energy to provide energy services in the end-use sectors (industry, transport, and building, as well as agriculture and forestry).”<sup>101</sup>

- (2) Transport Sector was responsible for about 14% of direct GHG emissions in 2010,<sup>102</sup> following “the ever-increasing demand for mobility and movement of goods.”<sup>103</sup> With its subsectors, namely “road, aviation, waterborne, and rail transport subsectors,”<sup>104</sup> GHG emissions under this sector are primarily driven by the demand for human and cargo transportation worldwide.<sup>105</sup>
- (3) Building Sector contributes approximately 6.4% of global GHG emissions in 2010.<sup>106</sup> This sector relates to the access of people, especially in developing countries, “to adequate housing, electricity, and improved cooking facilities[,]”<sup>107</sup> to the building energy use,<sup>108</sup> as well as to construction works.<sup>109</sup>
- (4) Industry Sector accounted for about 21% of 2010 global GHG emissions.<sup>110</sup> The emissions under this sector include those originating from “industrial activities over the whole supply chain[ ] [—] from extraction of primary materials (e.g., ores) or recycling (of waste materials), through product manufacturing, to the demand for the products and their services.”<sup>111</sup>
- (5) Agriculture, Forestry and Other Land Use (AFOLU) contributed about 24% of the annual anthropogenic GHG

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101. *Id.*

102. Ottmar Edenhofer, et al., *Summary for Policymakers, in CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE 7-9* (2014) & Sims, et al., *supra* note 98, at 603.

103. Sims, et al., *supra* note 98, at 647.

104. *Id.* at 647-48.

105. *Id.* at 647.

106. *Id.* at 647-48.

107. Lucon, et al., *supra* note 98, at 675.

108. *Id.*

109. *Id.*

110. Fischedick, et al., *supra* note 98, at 749.

111. *Id.* at 745.

emissions in 2010.<sup>112</sup> The GHG emissions from this sector are — based on robust evidence and with high agreement among experts — “mainly from deforestation[,] agricultural emissions from soil and nutrient management and livestock”<sup>113</sup> as well as “[a]nthropogenic forest degradation and biomass burning (forest fires and agricultural burning)[.]”<sup>114</sup>

In recent years, there has been a recent shift from focusing on GHG emissions per country to focusing instead on major companies. For instance, in a 2013 study by Richard Heede, Director of the Climate Accountability Institute (CAI),<sup>115</sup> he found that between years 1854 and 2010, there were “83 industrial producers of oil, natural gas, [and] coal, and 7 cement manufacturers with annual production exceeding 8 [million metric tons of carbon per] year in 2006. Of these 90 major carbon producers, 50 are investor-owned, 31 majority [S]tate-owned, and nine are current or former centrally planned [S]tate industries.”<sup>116</sup> In 2014, CAI worked with CDP, a United Kingdom-based organization supporting disclosure of environmental impacts of big corporations, to keep the Carbon Majors Database stored and updated for all stakeholders.<sup>117</sup> This collaboration resulted to the periodic release of groundbreaking and comprehensive reports on Carbon Majors which analyzed GHG cumulative emissions data on the largest company-related sources of all time.<sup>118</sup> These reports show that these emissions, on a

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112. Edenhofer, et al., *supra* note 102.

113. *Id.* at 24 (emphasis omitted).

114. Smith, et al., *supra* note 98, at 816.

115. Paul Griffin, The Carbon Majors Database: CDP Carbon Majors Report 2017 at 5, available at <https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1499691240> (last accessed May 5, 2019).

116. B. Ekwurzel, et al., *The rise in global atmospheric CO<sub>2</sub>, surface temperature, and sea level from emissions traced to major carbon producers*, 144 CLIMATIC CHANGE 579, 581 (citing Richard Heede, *Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010*, 122 CLIMATIC CHANGE 229, 229 (2014)).

117. Griffin, *supra* note 115.

118. Richard Heede, Carbon Majors: Accounting for carbon and methane emissions 1854–2010 Methods & Results Report (A Report Commissioned by Climate Justice Programme & Greenpeace International) at 5, available at <http://climateaccountability.org/pdf/MRR%209.1%20Apr14R.pdf> (last accessed May 5, 2019) & CDP, New report shows just 100 companies are source of over 70% of emissions, available at

global scale, have been produced by only a few companies.<sup>119</sup> In the recent 2017 Carbon Majors Report, it was concluded that 51% of the global industrial GHG emissions “since human-induced climate change was officially recognized [in 1988 by the Intergovernmental Panel on Climate Change (IPCC), it] can be traced to just 25 corporate and [S]tate producing entities.”<sup>120</sup> On the other hand, all 100 companies, either investor-owned or State-owned, “account[ed] for 71% of global industrial GHG emissions[.]”<sup>121</sup> with the report further stating that —

[t]he highest emitting companies since 1988 that are investor-owned include: ExxonMobil, Shell, BP, Chevron, Peabody, Total, and BHP Billiton. Key [S]tate-owned companies include Saudi Aramco, Gazprom, National Iranian Oil, Coal India, Pemex, and CNPC (PetroChina). Coal emissions from China are represented by the [S]tate, in which key [S]tate-owned producers include Shenhua Group, Datong Coal Mine Group, and China National Coal Group.<sup>122</sup>

With these Carbon Majors being thrust into the spotlight in recent years, this subsequent Section shall discuss the legal regimes on torts of various jurisdictions — legal frameworks which may possibly pin corporate liability on companies contributing to climate change, including possibly these Carbon Majors. Holding corporations liable under the torts legal framework of various jurisdictions has proven to be a direct and practical strategy, as one scholar puts it succinctly —

By targeting deep-pocketed private entities that actually emit [GHGs] ... , a civil litigation strategy, if successful, skips over the potentially cumbersome, time-consuming[,] and politically perilous route of pursuing legislation and regulation. The civil litigation strategy is potentially a means of regulation itself, as a finding of liability could have an enormous ripple effect, and send [GHG] emitters scrambling to avoid the unwelcome spotlight. Already, some industries that are only now emerging as major emitters ... are starting to think proactively about climate change.<sup>123</sup>

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<https://www.cdp.net/en/articles/media/new-report-shows-just-100-companies-are-source-of-over-70-of-emissions> (last accessed May 5, 2019).

119. See, e.g., Griffin, *supra* note 115.

120. Griffin, *supra* note 115, at 8.

121. *Id.*

122. *Id.* (emphasis omitted).

123. Shi-Ling Hsu, *A Realistic Evaluation of Climate Change Litigation Through the Lens of a Hypothetical Lawsuit*, 79 U. COLO. L. REV. 701, 717 (2008).

In the coming years, another scholar predicts, “climate change torts will be recognized in individual cases that apply traditional tort causes of actions and evolving new tort causes of action. In such cases, tort plaintiffs will likely recover monetary damages and equitable relief for their harms.”<sup>124</sup>

#### IV. COMPARATIVE TORT LAW AND CLIMATE CHANGE

This Section discusses tort law in several jurisdictions — the Philippines, Indonesia, India, China, European Union (E.U.), Australia, Brazil, and the U.S. — and seeks to answer whether the existing legal regimes are friendly to climate justice litigation.

##### A. *Philippines*

The term “tort” is technically referred to as “quasi-delict” under Philippine laws<sup>125</sup> though the legal community as well as courts have the tendency to use both terms interchangeably. Article 2176 of the Civil Code defines quasi-delict, to wit — “Whoever by act or omission causes damage to another, there being fault or negligence, is obliged to pay for the damage done. Such fault or negligence, if there is no pre-existing contractual relation between the parties, is called a quasi-delict.”<sup>126</sup>

With regard to corporate liability for torts, the Supreme Court in *Philippine National Bank v. Court of Appeals*<sup>127</sup> has ruled that corporations can be liable for torts similar to natural persons —

A corporation is civilly liable in the same manner as natural persons for torts, because ‘generally speaking, the rules governing the liability of a principal or master for a tort committed by an agent or servant are the same[,] whether the principal or master be a natural person or a corporation, and whether the servant or agent be a natural or artificial person. All of the authorities agree that a principal or master is liable for every tort which he [or she] expressly directs or authorizes, and this is just as true of a corporation as of a natural person. A corporation is liable, therefore, whenever a tortious act is committed by an officer or agent under express direction or authority from the stockholders or members

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124. Robert F. Blomquist, *Comparative Climate Change Torts*, 46 VAL. U. L. REV. 1053, 1055 (2012).

125. See NAPOLEON R. MALOLOS & TEODORO C. MARTIN, REPORT OF CODE COMMISSION ON PROPOSED CIVIL CODE OF THE PHILIPPINES 161-62 (1951).

126. An Act to Ordain and Institute the Civil Code of the Philippines [CIVIL CODE], Republic Act No. 386, art. 2176 (1950).

127. *Philippine National Bank v. Court of Appeals*, 83 SCRA 237 (1978).

acting as a body, or, generally, from the directors as the governing body.’<sup>128</sup>

That ruling notwithstanding, eminent legal scholars have explained that not every tortuous act committed by an officer can be ascribed to the corporation as its liability, for it is reasonable to presume that in the granting of authority by the corporation to its agent, such a grant did not include a direction to commit tortuous acts against third parties. Only when the corporation has expressly directed the commission of such tortuous act, would the damages resulting therefrom be ascribable to the corporation. And such a direction by the corporation, is manifested either by its board adopting a resolution to such effect, as in the [*Philippine National Bank*] case, or having taken advantage of such a tortuous act the corporation, through its board, expressly or impliedly ratifies such an act or is estopped from impugning such an act.<sup>129</sup>

Indeed, while the possibility of suing corporations for torts in the Philippines has been duly considered,<sup>130</sup> what remains to be seen is whether a case based on the negligent acts of corporations for contributing to climate change can truly prosper in courts. While there remains no landmark Supreme Court ruling squarely addressing such an issue, the Commission on Human Rights (CHR) in 2018, upon the petition of Greenpeace and other civil society organizations and individuals,<sup>131</sup> held the first public hearing on the so-called Carbon Majors, “probing the alleged responsibility of major fossil-fuel companies ... [for] climate change and how this impacts the

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128. *Id.* at 247 (1978) (citing 10 FLETCHER CYCLOPEDIA CORPORATIONS, at 266-267 (1970 ed.)).

129. CESAR L. VILLANUEVA & TERESA S. TIAN SAY-VILLANUEVA, PHILIPPINE CORPORATE LAW 39-40 (2018).

130. See VILLANUEVA & TIAN SAY-VILLANUEVA, *supra* note 129, at 39-40 (citing *Philippine National Bank*, 83 SCRA & *Naguiat v. National Labor Relations Commission*, 269 SCRA 564 (1997)).

131. Greenpeace Southeast Asia, et al., Petition Requesting for Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, (A Copy of the Petition Filed before Commission on Human Rights), available at [https://www.greenpeace.org/seasia/ph/PageFiles/735291/CC%20HR%20Petition\\_public%20version.pdf](https://www.greenpeace.org/seasia/ph/PageFiles/735291/CC%20HR%20Petition_public%20version.pdf) (last accessed May 5, 2019) & LexisPSL, Climate change litigation—Philippines investigates carbon majors’ responsibility for human rights breaches at 1, available at <https://www.greenpeace.org/seasia/ph/PageFiles/695346/Climate%20change%20litigation%E2%80%994Philippines%20investigates%20carbon%20majors%E2%80%99%20responsibility%20for%20human%20rights%20breaches.pdf> (last accessed May 5, 2019).



human rights of Filipinos.”<sup>132</sup> This landmark inquiry — the first of its kind in the world<sup>133</sup> — even led scientists and legal experts worldwide to submit *amicus curiae* briefs to show their support for the CHR’s inquiry.<sup>134</sup> The findings and recommendations are expected to be released in June 2019.<sup>135</sup>

### B. Indonesia

In Indonesia, the tort regime is primarily governed by the Indonesian Civil Code; Article 1365 of the said code states that “[e]very unlawful action which causes loss to another person, obliges the person by whose fault the loss has resulted, to compensate that loss.”<sup>136</sup> Interestingly, there remains no statutory definition of what an “unlawful action” is.<sup>137</sup> While the civil law system was inherited by Indonesia from the Dutch, customs, case laws, treaties, and doctrines are likewise considered part and parcel of Indonesian law.<sup>138</sup> Given this, Indonesian courts have, in practice, interpreted an unlawful action to broadly include “violations of both statutory law and unwritten norms of law, such as propriety, customs, and reasonableness.”<sup>139</sup> Furthermore, “[i]t can be said that the notion of an unlawful act is open-

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132. Press Release by the Commission on Human Rights, *PHL at the forefront of seeking climate justice with CHR’s landmark inquiry on the effects of climate change to human rights* (March 28, 2019) (on file with Author). See also Center for International Environmental Law, Experts: Human Rights Body Should Investigate Carbon Majors’ Role in Climate Crisis, available at <https://www.ciel.org/news/philippines-human-rights-commission-investigate-carbon-majors> (last accessed May 5, 2019).

133. Commission on Human Rights, *supra* note 132.

134. Center for International Environmental Law, *supra* note 132 & Business & Human Rights Resource Centre, Amicus Briefs submitted to the Philippines Commission on Human Rights, available at <https://www.business-humanrights.org/en/amicus-briefs> (last accessed May 5, 2019).

135. Commission on Human Rights, *supra* note 132.

136. Mas Achmad Santosa, et al., *Indonesia, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE* 193 (Richard Lord QC, et al. eds., 2012) (citing Indonesian Civil Code [INDON. CIVIL CODE], art. 1365 (1847) (Indon.)).

137. Turangga Harlin, Indonesia: Arbitrability of Tort Claims, available at <http://arbitrationblog.kluwerarbitration.com/2016/10/18/indonesia-arbitrability-of-tort-claims> (last accessed May 5, 2019).

138. Santosa, et al., *supra* note 136, at 181.

139. Harlin, *supra* note 137.

ended where the courts can give a wide interpretation as to what amounts to an unlawful act.”<sup>140</sup>

Aside from Article 1365 of the Indonesian Civil Code, Article 87 of the Environmental Management and Protection Act (EMPA) of 32/2009 provides for liability arising specifically from environmental pollution or damage,<sup>141</sup> to wit — “Every party responsible for the enterprise and/or activity committing unlawful action in the form of pollution and/or environmental damage causing loss to another person or the environment shall be obliged to pay compensation and/or carry out certain actions.”<sup>142</sup> In addition, the EMPA provides for strict liability (i.e., liability without the need to prove fault) for a violation which is an extremely “serious threat to humans and the environment[.]”<sup>143</sup> In view of the tort framework of Indonesia as a whole, the country’s tort law generally “awaits more refined development[.]”<sup>144</sup> and, as evident by the passage of the EMPA in 2009, “the more pragmatic approach may be to pass specific legislation to deal with different areas of tort rather than to rely on the broad foundation set out in the Indonesian Civil Code.”<sup>145</sup>

### C. India

In India, most modern environmental tort cases, particularly involving pollution, may be classified into four main categories: nuisance, negligence, strict liability, and trespass — all of which originate from common law principles which have been brought by British colonial rulers in the 18th century and which have shaped India’s legal landscape since then.<sup>146</sup> Notably, Indian courts have, in various landmark cases, borrowed and

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140. *Id.*

141. Santosa, et al., *supra* note 136, at 193-94.

142. *Id.* (citing Environmental Management and Protection Act, Law No. 32/2009, art. 87 (2009) (Indon.)).

143. Law No. 32/2009, art. 80 (2) (a) & Santosa, et al., *supra* note 136, at 195.

144. SINGAPORE UNIVERSITY OF SOCIAL SCIENCES, BUS205: COMPANY AND TORT LAW SU6-25 (2018).

145. *Id.*

146. Dr. Madhuri Parikh, *Tortious Liability for Environmental Harm: A Tale of Judicial Craftsmanship*, 2 NIRMA U. L.J. 76-77 (2013).

discussed tort principles and doctrines prevalent in common law jurisdictions such as foreseeability and negligence.<sup>147</sup>

For a variety of reasons — including expensive court fees and legal fees, delays in case dispositions, poor enforcement of judgments — it has been said that India has a “tort law deficit.”<sup>148</sup> Thus, compared to other common law jurisdictions, the legal machinery of India as regards torts remains underdeveloped, to say the least.<sup>149</sup> As one scholar aptly explains —

The underdevelopment of torts in India may seem at first glance to be in conflict with the very essence of a common law system. In an important sense there can never be lacunae in any area of law in a common law jurisdiction because, to varying degrees, the common law of England and its former dominions and colonies is available for adoption. India’s [C]onstitution adopted all existing English law with the proviso of adaptation where necessary. If new rules or statutes from England are more consonant with the requirements of justice, the Indian courts are allowed to discard older common law rules in their favor. Moreover, a common law judge is entitled (within limits) to generate new law as dictated by equity.<sup>150</sup>

As common law forms part of the law in force before the adoption of the Indian Constitution and continues to be in effect by virtue of Article 372 (1) of the Indian Constitution, the Supreme Court of India has assimilated English common law torts principles to the Indian context.<sup>151</sup> For instance in

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147. Ram Singh, *Economics of Judicial Decision-Making in Indian Tort Law: Motor Accident Cases*, 39 ECONOMIC & POLITICAL WEEKLY 2913, 2613 (2004).

148. Deepa Badrinarayana, *The Jewel in the Crown: Can India’s Strict Liability Doctrine Deepen Our Understanding of Tort Law Theory*, 55 U. LOUISVILLE L. REV. 25, 26 (2017) (citing Marc Galanter, *India’s Tort Deficit*, in FAULT LINES: TORT AS CULTURAL PRACTICE 53–55 (David M. Engel & Michael McCann eds., 2009); Mauro Bussani & Marta Infantino, *Tort Law and Legal Cultures*, 63 AM. J. COMP. L. 77, 81 (2015); Marc Galanter, *Legal Torpor: Why So Little Has Happened in India After the Bhopal Tragedy*, 20 TEX. INT’L L.J. 273, 274 (1985); & Timothy J. O’Neill, *Through a Glass Darkly: Western Tort Law from a South and East Asian Perspective*, 11 RUTGERS RACE & L. REV. 1, 11–13 (2009)). The mentioned sources are “collecting scholarship on tort law in India and challenging some of the explanations for India’s tort law deficit.” Badrinarayana, *supra* note 148, at 26.

149. See generally Badrinarayana, *supra* note 148, at 26.

150. Ananyo Basu, *Torts in India: Dharmic Resignation, Colonial Subjugation, or “Underdevelopment”?*, 100 S. ATLANTIC Q., 1053, 1054 (2001).

151. Charu Sharma, *Remedies for environmental harm: Dharmic duty and tort liability in India - is there a common ground?* Macquarie, 8 J. INT’L & COMP. ENV’T L. 48,

the leading case of *M.C. Mehta v. Union of India & Ors.*,<sup>152</sup> the Supreme Court of India formulated the doctrine of “absolute liability,” which does away with the exceptions under the strict liability rule from England.<sup>153</sup> Being a more stringent standard of tort liability, this case described absolute liability occurring

where an enterprise is engaged in a hazardous or inherently dangerous activity[,] and harm results to anyone on account of an accident in the operation of such hazardous or inherently dangerous activity resulting, for example, in escape of toxic gas[,] the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operate vis-à-vis the tortious principle of strict liability under the rule in [*Rylands v. Fletcher*] [ ].”<sup>154</sup>

These notwithstanding, it has been argued that “[t]here have been no significant private law claims in India based on allegations of actual or anticipated damage from climate change. However, should claimants be inclined to bring such claims, the two torts that offer promise are nuisance and negligence.”<sup>155</sup>

#### D. China

In 2016, there were about 3,116 initiated cases involving environmental torts.<sup>156</sup> The legal regime governing environmental tort cases in China is found in Article 124 of the General Principles of the Civil Law, Article 31 of

51 (citing M. C. SETALVAD, *THE COMMON LAW OF INDIA* 53 (1960) & RAMASWAMY IYER, *THE LAW OF TORTS* 20-21 (S. Desai & K. Desai eds., 1987)).

152. *M.C. Mehta v. Union of India & Ors.*, 1 SCR 819 (1987) (India).

153. Badrinarayana, *supra* note 148, at 55 (citing *M.C. Mehta*, 1 SCR at 822-25).

154. *M.C. Mehta*, 1 SCR, para. 27. This doctrine of “absolute liability” was reiterated in the case of *Indian Council for Enviro-legal action v. Union of India*. See Harsh Mahaseth, *Analysis of the Effectiveness of the Polluter Pays Principle in India* at 2, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2930921](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2930921) (last accessed May 5, 2019).

155. Lavanya Rajamani & Shibani Ghosh, *India*, in *CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE*, *supra* note 136, at 164.

156. Richard Zhang Qing & Benoit Mayer, *Public Interest Environmental Litigation in China*, 1 CHINESE J. ENV'TL L. 202, 212 (2017) (citing Zheng Xuelin, *中國環境資源審判的新發展* [*The New Development of the Trial Involving Environment and Resources in China*], PEOPLE'S COURT DAILY, June 7, 2017, at 8).

the 1989 Environmental Protection Law, and Articles 65 & 66 of the 2009 Tort Law.<sup>157</sup> Ever since, the strict liability rule in torts has been applied.<sup>158</sup>

In these tort cases, the redress commonly sought and awarded is the payment of damages and/or fines.<sup>159</sup> Article 68 of the 2009 Tort Law provides for the possibility of the victim seeking compensation from either the polluter or the third party, to wit — “Where any harm is caused by environmental pollution for the fault of a third party, the victim may require a compensation from either the polluter or the third party. After making compensation, the polluter shall be entitled to be reimbursed by the third party.”<sup>160</sup> China’s tort law does not permit polluters to claim the actions of third parties “as a defense to victims’ compensation claims.”<sup>161</sup> However, there is an exception in relation to ocean polluters as carved out by Article 90 of the Marine Environment Protection Law, *viz* — “[I]n case the pollution damage to the marine environment is entirely caused by an intentional act or a fault of a third party, that third party shall relieve the damage and be liable for the compensation.”<sup>162</sup> Notably, owing to difficulties in exacting faithful compliance with the law, Chinese courts rarely require “environmental remediation or behavior change from a polluter.”<sup>163</sup>

As regards the required burden of proof in these cases, in a 2001 interpretative issuance of the Supreme People’s Court of China, the Chinese high court had stated that the alleged polluter has the burden of proof of

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157. Adam Moser & Tseming Yang, *Environmental Tort Litigation in China*, ENV'TL L. REPORTER, Volume No. 41, Nov. 1, 2011, at 10895-96 & Aili Zong, *Liability Regime Concerning The Oil Pollution Rising From Offshore Facilities*, at 78-79 (Jan. 11, 2013) (LL.M. Thesis, University of Oslo Faculty of Law).

158. Wei Zhang, *Understanding the Law of Torts in China: A Political Economy Perspective*, 11 U. PA. ASIAN L. REV. 171, 233 (2016).

159. Moser & Yang, *supra* note 157, at 10897.

160. Tort Law of the People’s Republic of China, Presidential Decree No. 21, art. 68 (2009) (China).

161. Zhang, *supra* note 158, at 233 (citing Presidential Decree No. 21, ch. VIII).

162. Zhang, *supra* note 158, at 233 (citing Marine Environment Protection Law of the People’s Republic of China, Presidential Order No. 26, art. 90 (1999) (China)). This “extraordinary favoritism toward ocean polluters in Chinese tort law[ ]” may perhaps be due to major oil companies, which are usually State-Owned Enterprises possessing “strong political influence, coupled with weak populist pressure[.]” Zhang, *supra* note 158, at 233.

163. Moser & Yang, *supra* note 157, at 10897.

establishing that there exists a lack of a causal link between the actions of the polluter and the environmentally-harmful result.<sup>164</sup> This interpretative rule by the Supreme People's Court of China has now been legislated in the 2009 Tort Law which squarely places the burden on the polluter in tort cases involving environmental pollution in order "to prove that it should not be liable or its liability could be mitigated under certain circumstances as provided for by law[,] or to prove that there is no causation between its conduct and the harm."<sup>165</sup> This 2009 Tort Law provides a clear formulation of tort liability for environmental pollution.<sup>166</sup> One of the recent major developments in this area of Chinese law includes the issuance of the Supreme People's Court of China of the "Interpretation on Several Questions Concerning Applicable Law in the Adjudication of Environmental Tort Liability Dispute Cases" in 2015 further clarifying liability standards, evidentiary issues, and defenses, among others.<sup>167</sup>

#### *E. European Union*

The E.U. is a "regional integration [organization]"<sup>168</sup> comprised of 28 Member States, at present,<sup>169</sup> which have "transferred part of their sovereignty to the [E.U.]."<sup>170</sup> The E.U. derives its existence and power primarily from two fundamental instruments — the Treaty on European Union and the Treaty on the Functioning of the European Union.<sup>171</sup>

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164. *Id.*

165. *Id.* (citing Presidential Decree No. 21, § 66). Sec. 66 reads — “第六十六条 因污染环境发生纠纷，污染者应当就法律规定的不承担责任或者减轻责任的情形及其行为与损害之间不存在因果关系承担举证责任” Presidential Decree No. 21, § 66.

166. Li Luo, *Reflection and Reconstruction on the Civil Liability System of Environmental Tort in China*, in CLIMATE CHANGE LIABILITY AND BEYOND 209 (Jiunn-rong Yeh ed. 2017).

167. Beveridge & Diamond PC, China's Top Court Clarifies Environmental Tort Liability Standards, available at <https://www.jdsupra.com/legalnews/china-s-top-court-clarifies-26768> (last accessed May 5, 2019).

168. European Union, Countries, available at [https://europa.eu/european-union/about-eu/countries\\_en#28members](https://europa.eu/european-union/about-eu/countries_en#28members) (last accessed May 5, 2019).

169. *Id.*

170. Ludwig Krämer, *European Union law*, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE, *supra* note 136, at 351.

171. *Id.* & Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union, May 9, 2008, 2008 O.J. (C 115) 1.

Notably, insofar as far as the E.U. as an entity is concerned, no common law is applicable; thus, E.U. is said to be akin to a civil law jurisdiction in this regard.<sup>172</sup> One scholar has described the European tort framework, in this wise —

Up until the mid-twentieth century, tort law in Europe consisted of a multitude of national variations and a common European tort law was without form and substance. By the beginning of the twenty-first century, however, common features were cautiously and unsteadily developing in both substance and shape.

...

The word ‘European’ in ‘European tort law’ also needs further clarification although it is not intended to be a very clearly defined concept. Rather, it points at various ‘Europes’: the European continent, the Contracting Parties of the European Convention on Human Rights, and the [E.U.]. In fact, three tiers of European tort law can be distinguished.

The upper tier is binding European tort law. This tier consists, first, of the legislation of the [E.U.] in the area of tort law, particularly Treaty provisions, certain Regulations and Directives, and the case law of the [European Court of Justice (ECJ)] in Luxembourg. A prominent example of [E.U.] tort law is the so-called *Francovich* case law of the ECJ concerning liability for breach of [E.U.] law, which is linked with Article 340 [of the] TFEU regarding the extra-contractual liability of [E.U.] institutions ... . The upper tier also consists of the case law of the European Court of Human Rights in Strasbourg based on the European Convention on Human Rights. This case law addresses the Contracting Parties and is applied in the interest of individuals [—] such as regarding their safety, health, privacy, and family life [—] and has an impact on various areas of national tort law ... .

The lower tier of European tort law consists of the various national tort laws, the array of which show the diversity of the nations of Europe. ... [D]ue to increasingly permeable borders and transborder information exchange, domestic laws have become increasingly influenced by other national and supranational systems.

...

The three tiers can be distinguished but they cannot be separated. Comparative law influences the legislation of the [E.U.] and the case law of the ... [ECJ] ...; the case law of the ... [ECJ] is influenced by the case law of the European Court of Human Rights ... ; and national legislation and case law are influenced by the law of the [E.U.], the European Convention

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172. Krämer, *supra* note 170, at 351.

on Human Rights, and sometimes by comparative law ... . These developments are illustrative of the end of the so-called ‘billiard ball State’ and the emergence of a multilayered international order.

The three tiers also demonstrate that ‘European tort law’ does not necessarily imply unification, harmonization, or even convergence. Although a convergent tendency is apparent at some points, it is also clear that differences between the Member States remain substantial.<sup>173</sup>

On the level of the E.U., a bulk of cases involving climate change involves the relationship of the E.U. vis-à-vis its Member States.<sup>174</sup> Thus, “[p]rivate persons and undertakings are mostly barred from access to the E.U. courts by virtue of the provision of Article 263 (4) TFEU which gives them standing only when they are directly and individually affected by a legislative act or a specific decision.”<sup>175</sup> Therefore, practically speaking, individuals can only assail the validity of climate change legislation of the E.U. “by bringing an action to a national court and asking that court to make a reference to the ... [ECJ] for a preliminary ruling. As almost all specific decisions by the E.U. Commission are addressed to Member States, judicial action against such a decision is also barred.”<sup>176</sup> In other words, private law litigants in E.U. Member States should file cases in the domestic courts of a particular Member State,<sup>177</sup> mindful of the fact that “[e]ach European [S]tate tends to tackle domestic issues, including those related to the environment, with a unique and cultural-specific approach, not only from a legal perspective, but also from political and cultural points of view.”<sup>178</sup>

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173. CEES VAN DAM, EUROPEAN TORT LAW 4-6 (2d ed. 2013).

174. Krämer, *supra* note 170, at 368-69.

175. *Id.* at 369-70.

176. *Id.*

177. Blomquist, *supra* note 124, at 1071 (citing Krämer, *supra* note 170, at 374-75).

178. Blomquist, *supra* note 124, at 1063 (citing Luciano Butti, *The Tortuous Road to Liability: A Critical Survey on Climate Change Litigation in Europe and North America*, SUSTAINABLE DEV. L. & POL’Y, Volume No. 11, Issue No. 2, Winter 2011, at 34).



*F. Australia*

Australia is a common law jurisdiction which inherited its legal system from the United Kingdom.<sup>179</sup> Throughout the whole jurisdiction, the common law of torts is said to be uniform and, in various states and territories of Australia, the existing statutory frameworks “are identical in many respects.”<sup>180</sup> Generally speaking, tort law in the Australian legal system is derived from common law, though there exist statutory bases which are analogous to torts.<sup>181</sup> Torts being recognized as a legal wrong “protect fundamental liberties, such as personal liberty, and fundamental rights, such as property rights, and provide protection from interferences by other people or entities[.]”<sup>182</sup> Australian courts have much flexibility in operating its torts framework,<sup>183</sup> given that common law, especially in the area of torts, “has demonstrated remarkable adaptability in addressing novel environmental threats and in innovating to protect environmental values and incentivize ecologically-sustainable development of natural resources.”<sup>184</sup>

Perceivably, the common law torts of negligence and nuisance may possibly be raised in relation to climate change, “although it is important to note that ... litigation having a connection to climate change may take many other forms.”<sup>185</sup> Nevertheless, scholars have argued that pursuing a climate change suit based on the tort of negligence is problematic due to various

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179. See generally Alex C. Castles, *The Reception and Status of English Law in Australia*, 2 ADELAIDE L. REV. 1 (1963) & Liam Boyle, *An Australian August Corpus: Why There is Only One Common Law in Australia*, 27 BOND L. REV. 27 (2015).

180. Ross Abbs, et al., *Australia*, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE, *supra* note 136, at 86 n. 82.

181. AUSTRALIAN LAW REFORM COMMISSION, TRADITIONAL RIGHTS AND FREEDOMS—ENCROACHMENTS BY COMMONWEALTH LAWS 108 (2014) (citing 3 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND (1765) & 2 FREDERICK POLLOCK & FREDERIC MAITLAND, THE HISTORY OF ENGLISH LAW BEFORE THE TIME OF EDWARD I (1968)).

182. AUSTRALIAN LAW REFORM COMMISSION, *supra* note 181, at 107.

183. Roselyn G. Atkinson, Retired Justice of the Supreme Court of Queensland, *Tort Law Reform in Australia: Speech to the Australian Plaintiff Lawyers Association Queensland State Conference*, Address at the Hyatt Regency, Sanctuary Cove (Feb. 7, 2003) (transcript available at <http://www5.austlii.edu.au/au/journals/QldJSchol/2003/9.pdf> (last accessed May 5, 2019)).

184. David Grinlinton, *The Continuing Relevance of Common Law Property Rights and Remedies in Addressing Environmental Challenges*, 62 MCGILL L.J. 633, 633 (2017).

185. Abbs, et al., *supra* note 180, at 85-86.

reasons — including difficulties in establishing and proving such cases in court.<sup>186</sup> Meanwhile, as regards nuisance,

Australian private and public nuisance ‘law is poorly adapted to dealing with the consequences of large-scale industrial activity, and has rarely ventured beyond cases involving close geographical propinquity.’ So, ‘while the law of nuisance might have the potential to short-circuit some of the complications associated with the law of negligence, it has severe limitations and raises a number of doctrinal hurdles of its own.’<sup>187</sup>

Withal, it has been opined that

[i]t would be premature to conclude that tort litigation seeking to prevent or redress climate change impacts in Australia is bound to fail. However, ... it is reasonable to expect that such litigation will raise a host of practical problems and prove difficult to accommodate under existing substantive law. Indeed, it is arguable, on a general level, that private law processes are ill-adapted to dealing with a problem in the nature of climate change.<sup>188</sup>

### G. Brazil

Brazil is a civil law jurisdiction whose legal system was heavily influenced by the colonization of the Portuguese.<sup>189</sup> The Constitution of Brazil itself, in

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186. Blomquist, *supra* note 124, at 1064-65 (citing Abbs, et al., *supra* note 180, at 85-86). Scholars have said that

the tort of negligence under relevant Australian law, would be problematic because: (1) plaintiffs would likely have difficulties establishing duty of due care; (2) there would be issues of foreseeability; (3) there is conservative precedent regarding legal policy reasons to recognize a duty; (4) proximate causation problems would surface; (5) there would be standard of care and breach of duty barriers stemming from multiple and diffuse sources of [GHGs] and the social usefulness of carbon-intensive industrial and mining activities; (6) causation proof problems would erupt; and (7) there would be scope of liability limitations.

Blomquist, *supra* note 124, at 1064-65 (citing Abbs, et al., *supra* note 180, at 86-98).

187. Blomquist, *supra* note 124, at 1065 (citing Abbs, et al., *supra* note 180, at 98 & 99).

188. Abbs, et al., *supra* note 180, at 102.

189. The Library of Congress, The Legal System of Brazil, *available at* <https://www.loc.gov/law/help/legal-research-guide/brazil-legal.php> (last accessed May 5, 2019).

Article 225, Section 3, provides for the legal basis for the imposition of civil liability arising from environmental damage, to wit —

[T]he conduct and activities considered harmful to the environment shall subject the offender, individuals[,] or legal entities, to criminal and administrative sanctions, regardless of the obligation to repair the damage caused.<sup>190</sup>

Under Brazilian law, there are “two general clauses, one pertaining to fault liability[, as seen in] Art[icle] 927 in conjunction with Art[icles] 186 and 187 [of the Brazilian Civil Code (BCC),] and another to strict liability[, as contained in Art. 927, Section único of the same Code].”<sup>191</sup> It has been submitted that Article 186, which refers to fault, is significantly akin to the concept of negligence, which is “neither defined here in the context of a civil wrong, nor ... elsewhere in the BCC.”<sup>192</sup> Meanwhile, the clause on strict liability as in Article 927 of the BCC was clearly established and further developed by Article 14, Section 1 of Law No. 6938 of 1981, *viz* — “[N]otwithstanding the application of the penalties provided in this article, the polluter is required, regardless of fault, to repair or indemnify the damage caused to the environment and to third parties as a result of its activities ... [.]”<sup>193</sup> The scope of protection under fault-based liability does not differ from risk-based (i.e., strict) liability as pecuniary losses and non-pecuniary losses may be adjudicated pursuant to Article 927, Section único.<sup>194</sup> With these laws in place, legal scholars have opined that

this strict liability regime [in Brazil] represents the best way to meet society’s needs and to help ensure through civil liability that present and

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190. Yanko Marcius de Alencar Xavier, *Brazil*, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE, *supra* note 136, at 615 (citing BRAZ. CONST. art. 225, § 3).

191. Gert Brüggemeier, *Meeting the Challenge: Codifying Civil Liability Law. The Examples of China, Brazil And Russia*, OP. J., Volume No. 1, 2015, at 10 (citing Brazilian Code of 2002 [BRAZ. CIVIL CODE], Law No. 10.406, arts. 927, 186, & 187 (2002)).

192. Brüggemeier, *supra* note 191, at 11. Notably, “[u]nlawfulness is ... not explicitly mentioned as a pre-requisite of negligence liability.” *Id.*

193. de Alencar Xavier, *supra* note 190, at 616. (citing Environmental Policy Act No. 6.938, art. 14, § 1 (1981) (Braz.)).

194. Brüggemeier, *supra* note 191, at 12.

future generations can enjoy a healthy environment and ecologically balanced world.<sup>195</sup>

#### H. *United States*

The U.S., a country comprised of one federal district and 50 states,<sup>196</sup> is a common law jurisdiction at the federal level, as well as in all states, except for Louisiana which maintains a civil law system.<sup>197</sup> It has been said that “[U.S.] tort scholarship is generally much more oriented towards viewing tort law as a tool for regulating individual and, especially, corporate [behavior.]”<sup>198</sup> Indeed, although the U.S. “does not constitutionally or statutorily [recognize] a right to a non-polluted environment[.]” the legal framework of the U.S. generally allows parties to file suits based on torts.<sup>199</sup> Being derived from common law, torts are primarily classified broadly into three categories: intentional torts, negligent torts, and strict liability torts.<sup>200</sup> Within the context of climate change, there are two specific kinds of torts which have recently been advanced by scholars: (1) public nuisance and (2) fraudulent misrepresentation.<sup>201</sup>

Public nuisance, on the national level, has common law as its basis, as no national statute defines such term.<sup>202</sup> On the other hand, on the state level, public nuisance can possibly be either defined by the court or by the

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195. de Alencar Xavier, *supra* note 190, at 616 (citing E. Milaré, *O Ministério Público e a responsabilidade civil do profissional nas atividades modificadoras do meio ambiente*, REVISTA DOS TRIBUNAIS, 1987, at 31 & R. Stoco, *Tratado de Responsabilidade Civil*, EDITORA REVISTA DOS TRIBUNAIS, 2004, at 840).

196. Michael R. McCurdy & Jason B. Robinson, Tort Law in the United States, *available at* <https://www.fwlaw.com/news/186-tort-law-united-states> (last accessed May 5, 2019).

197. U.S. Central Intelligence Agency, Field Listing: Legal System, *available at* <https://www.cia.gov/library/publications/the-world-factbook/fields/308.html#US> (last accessed May 5, 2019).

198. Peter Cane, *Reforming Tort Law in Australia: A Personal Perspective*, 27 MELB. U. L. REV. 649, 653 (2003).

199. Michael B. Gerrard, *United States of America*, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE, *supra* note 136, at 579–80.

200. Cornell Law School, Tort, *available at* <https://www.law.cornell.edu/wex/tort> (last accessed May 5, 2019).

201. Gerrard, *supra* note 199, at 579–80.

202. *Id.* at 580.

legislature.<sup>203</sup> Though the appreciation of what “public nuisance” is indeed may vary slightly between and among states, public nuisance generally refers to “unreasonable interference with a right common to the general public” which includes “significant interference with the public health, safety, morals, peace, or comfort, as well as conduct ‘of a continuing nature’ that is detrimental to a public right.”<sup>204</sup> Following common law, public nuisance is regarded as “a no-fault tort, meaning that no maliciousness or negligence need be shown to establish liability.”<sup>205</sup> In the U.S., state-level courts have applied the common law doctrine of public nuisance to compensate the victims of pollution when there is a lack of sufficient environmental protections.<sup>206</sup>

On the other hand, there have been attempts to invoke the tort based on fraudulent misrepresentation, usually linked with conspiracy, against GHG emitters.<sup>207</sup> Under this tort claim, GHG emitters are accused of fraudulently misrepresenting themselves to the government as well as to the public for their own private business gain.<sup>208</sup> Although there is no federal cause of action for this case, many states have their own causes of action which makes use of a variation of this general test, to wit —

One who: (1) fraudulently makes a misrepresentation of fact, opinion, intention, or law; (2) for the purpose of inducing another to act or to refrain from action in reliance upon it; (3) is subject to liability to the other in deceit for pecuniary loss caused to him [or her]; and, (4) by his [or her] justifiable reliance upon the misrepresentation.<sup>209</sup>

In addition to these elements, some states qualify that the statement must be “material”<sup>210</sup> or, in other words, that the element of reliance need not be

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203. *Id.*

204. *Id.* (citing RESTATEMENT (SECOND) OF TORTS §§ 821A & 821B. (1979)).

205. Gerrard, *supra* note 199, at 580.

206. *Id.* (citing BRUCE YANDLE, COMMON SENSE AND COMMON LAW FOR THE ENVIRONMENT: CREATING WEALTH IN HUMMING BIRD ECONOMIES 88–89 (1997); & Tom Kuhnle, *The Rebirth of Common Law Actions for Addressing Hazardous Waste Contamination*, 15 STAN. ENV'TL. L.J., 187, 193 (1996)). See *United States v. Hooker Chems. & Plastics Corp.*, 722 F. Supp. 960, 963–70 (W.D.N.Y. 1989) (U.S.) (as a modern example).

207. Gerrard, *supra* note 199, at 587.

208. *Id.*

209. *Id.* (citing RESTATEMENT (SECOND) OF TORTS § 525 (1979) (element demarcation added)).

210. Gerrard, *supra* note 199, at 587.

justified, in the event that the party representing himself or herself has reason to know that the plaintiff is likely to regard it as important in the decision-making process.<sup>211</sup> Moreover, such fraudulent misrepresentation must “concern fact rather than mere opinion, judgement, expectation, or probability.”<sup>212</sup> This tort may likewise be weaponized as an alternative for holding individuals or entities liable for misinformation campaigns relating to climate change.<sup>213</sup> In the past, “[p]laintiffs have used fraudulent misrepresentation and conspiracy claims ... as part of an effort to hold industries accountable for alleged attempts to misdirect scientific research on an important issue for financial gain. The most famous example comes from a series of lawsuits against the tobacco industry.”<sup>214</sup>

On another note, in relation to jurisdiction over foreign activities by U.S. entities, there is the so-called Alien Tort Claims Act (ATCA) of 1789,<sup>215</sup> which provides that “[t]he [federal] district courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the [U.S.] [ ].”<sup>216</sup> While, on its face, the ATCA may potentially be used in tort-based climate change litigation, scholars have warned that ATCA, within the context of climate change,

is limited in at least two ways. First, it only applies to treaties and customary law that the [U.S. recognizes], which explicitly excludes, for example, any climate liability established by the Kyoto Protocol. Second, the Supreme Court [of the U.S.] has expressed ‘great caution’ in allowing cases to be brought under the ATCA, and specifically has limited its applicability to violations [recognized] in 1789, and some reasonable number of new claims of similar character and specificity as that original list. These limitations would make it very difficult to use the ATCA as a jurisdictional hook to impose carbon liability.<sup>217</sup>

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211. *Id.*

212. *Id.*

213. *Id.* at 587–88.

214. *Id.* (citing *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504 (1992)).

215. Alien Torts Claims Act, 28 U.S.C. § 1350 (2006).

216. Gerrard, *supra* note 199, at 598 (citing Alien Tort Claims Act, 28 U.S.C. § 1350 (2006)).

217. Gerrard, *supra* note 199, at 599. (citing *Sosa v. Alvarez-Machain*, 542 U.S. 692, 725 & 728 (2004)). See generally *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013) (where the Supreme Court of the United States ruled that the

In any case, scholars opine that “[t]he [U.S.] has a strong history of enforcing domestic judicial decisions, giving its judicial system a particularly large amount of power in the overall government structure.”<sup>218</sup> Furthermore, upon reflecting on the American experience on tort-based litigation, one legal scholar observes, “it seems that at least some tort-based climate change suits have strong legal merits and may be capable of succeeding. Like sea level and temperatures, the number of such cases likely will continue to rise over the next several years.”<sup>219</sup>

#### V. THE POTENTIAL OF TORT LAW FOR CLIMATE JUSTICE

The eight national legal torts regimes the Authors reviewed for this Article are diverse, with some — like the U.S., E.U., and Australia — as fairly advanced while others are still at earlier stages of development. There are, however, common themes in these systems that might provide openings or, conversely, set up obstacles, at the international and domestic planes, for the law on torts to be successfully employed to address accountability and liability for climate change.

*First*, all the tort systems reviewed have strict rules on causation. Courts do not take lightly the proposition that for torts to be declared and for liability and compensation to arise, there must be a proximate, if not direct, relationship between the acts of the person or corporation and the loss and/or damage caused by said acts. For climate change, this is a scientific matter that thankfully no longer requires a leap in scientific logic as the science for showing how GHG emissions result in climate change impacts has become robust with every assessment report of the IPCC.<sup>220</sup> At the same time, tort cases should not be filed without being accompanied by rigorous scientific study that clearly identifies and roots loss and damage to climate

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Alien Tort Claims Act does not apply extraterritorially, but left the issue on corporate liability of an alleged company tortfeasor unresolved).

218. Gerrard, *supra* note 199, at 599.

219. Jeffrey W. Stempel, *Insurance and Climate Change Litigation*, in *ADJUDICATING CLIMATE CHANGE: STATE, NATIONAL, AND INTERNATIONAL APPROACHES* 229 (William C.G. Burns & Hari M. Osofsky eds., 2005).

220. For reference, the Assessment Reports are conducted by the Intergovernmental Panel on Climate Change every five years, which has narrowed down the uncertainties with every iteration. See Intergovernmental Panel on Climate Change Reports, available at <https://www.ipcc.ch/reports> (last accessed May 5, 2019) (click the options under the filter tab, “Assessment Report” to access the Assessment Reports).

change. No one should file a climate litigation case without the support of credible and competent scientists.

*Second*, uniform also is the rule on the responsibility of the polluter and the corporation or the individual with the deepest pockets. Although this is well-developed in the U.S. with its experience on plaintiff litigation, all the tort systems reviewed do have a bias to pinning accountability and liability on those mainly responsible for the pollution. The polluter pays principle, already considered as customary under public international law, and widely accepted and integrated into national environmental legal systems, would be helpful in this respect.

*Third*, all tort systems have some version of strict liability that is imposed on the most significant actors that operate businesses with inherent risks. There is an argument for extending the concept of strict liability to the big carbon emitters as they are, in fact, in businesses which generate huge profits, but with enormous impacts on planet and people. Similar to the role of the polluter pays principle, the precautionary principle can also be invoked to justify strict liability.

*Fourth*, it is important in all systems that the plaintiff or those who seek redress do not contribute to their own vulnerability to the impacts of climate change. This can be tricky especially for those whose adaptation options are limited.

*Fifth*, and finally, all the national tort systems reviewed in this Article allow, in principle, class action, but the scope and facility of pursuing such a path differs from country to country, with the developed countries again having more advanced procedures that would allow such lawsuits to prosper. Class suits are the most practical way for climate litigation given the nature of the impacts and the shared experience of many of such impacts.

## VI. CONCLUSION AND RECOMMENDATIONS

This Article is an early effort to prod the development of tort law, at the national and domestic levels, so that it can be employed to achieve the objectives of climate justice. The first objective is redress — as a vehicle by those affected by climate change as well as those who suffer loss and damage, to obtain compensation from those primarily responsible for such impacts. The second objective is to change the behavior of corporations and individuals that might be profiting from activities that result in climate change. As in the case of tobacco companies and gun manufacturers, among others, the expectation is that pinning down fossil fuel, agriculture, and chemical companies, among others, with massive climate footprints would



hold them more accountable. With these companies and individuals becoming aware that they could be faced with significant pecuniary responsibilities, they may be incentivized or even compelled to change their behavior.

Overall, the Authors conclude that the national legal systems on torts do have the potential of becoming an instrument for climate change. But this will not happen automatically and overnight. Some procedural rules of courts and even legislation might be necessary. Certainly, the further development of the Loss and Damage Mechanism established in the Paris Agreement will be helpful to improve tort law at the national level. And, most of all, test cases must be filed in different countries so that theories and strategies can be scrutinized and refined.