From Bali to Paris: The Global Regime on Climate and Tropical Forests and its Implications on the Philippines

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I. INTRODUCTION

This Article describes and analyzes the evolution of the global regime on climate and tropical forests. The Authors explain how the climate and tropical forest agenda became part of the processes of the United Nations Framework Convention on Climate Change (UNFCCC)[1] — from its

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marginal role in the Clean Development Mechanism created by the Kyoto Protocol on Climate Change,[2] to the central role it played in the UNFCCC agenda with the emergence of the approach called 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+).[3] The Article then proceeds to present how the issue of forests and other carbon sinks are dealt with in the

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the Philippine Biofuels Act, 53 ATENEO L.J. 1004 (2009) and *Reducing Uncertainty, Advancing Equity: Precaution, Trade, and Sustainable Development*, 53 ATENEO L.J. 957 (2009). He also co-wrote *A Take on Ecofeminism: Putting an Emphasis on the Relationship between Women and the Environment*, 53 ATENEO L.J. 1124 (2009) with Rita Marie L. Mesina.

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Both Authors were active in the REDD+ and Paris Agreement negotiations as members of the Philippine Delegation. However, the views reflected in this Article are their own and have no official or formal character.

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1. United Nations Framework Convention on Climate Change, *adopted* May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].
2. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *opened for signature* Mar. 16, 1998, 2303 U.N.T.S. 162 [hereinafter Kyoto Protocol].
3. The sections on 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+) are based on a working paper written by the Authors and commissioned by the Center for Global Development. *See* Antonio G.M. La Viña & Alaya de Leon, Two Global Challenges, One Solution: International Cooperation to Combat Climate Change and Tropical Deforestation, *available at* https://www.cgdev.org/sites/default/files/CGD-Climate-Forest-Paper-Series-14-LaVina-DeLeon-International-Cooperation_0.pdf (last accessed Jan. 26, 2018) [hereinafter La Viña & de Leon, One Solution].

Paris Agreement.[4] The Authors conclude by identifying the Philippine interest in these issues and how the country could benefit from the global regime on climate and forests that has emerged in the climate negotiations from Bali to Paris.

Both the UNFCCC and the Kyoto Protocol acknowledge the importance of tropical forests in greenhouse gases (GHG) mitigation and adaptation. These were the two main pillars of the UNFCCC,[5] although mitigation was the priority in the 1990s, the first decade of its adoption. Adaptation matured as an agenda between 2001-2005[6] while, currently, under the Paris Agreement, climate justice has emerged as a new priority for the climate regime.[7] In all these three pillars, tropical forests and the rights of peoples and communities in those forests are critical.

As the Authors have pointed out in another publication,[8] "[l]arge quantities of carbon are stored in land-based ecosystems: in vegetation ([i.e.,] living biomass), dead organic matter in litter and soils, and old soil carbon in wetland and permafrost soils. Land-based ecosystems, although very variable, are among the most significant sinks [GHGs]."[9] In fact, "the highest

4. Paris Agreement under the United Nations Framework Convention on Climate Change, *opened for signature* Apr. 22, 2016 [hereinafter Paris Agreement].

5. United Nations Framework Convention on Climate Change, Fact sheet: The need for mitigation at 1, *available at* https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_mitigation.pdf (last accessed Jan. 26, 2018).

6. *See* United Nations Framework Convention on Climate Change, Brief history to the current adaptation agenda, *available at* http://unfccc.int/adaptation/workstreams/implementing_adaptation/items/2535.php (last accessed Jan. 26, 2018).

7. Paris Agreement, *supra* note 4, pmbl., para. 13.

8. Antonio G.M. La Viña & Alaya de Leon, *Conserving and Enhancing Sinks and Reservoirs of Greenhouse Gases, including Forests (Article 5)*, *in* THE PARIS AGREEMENT ON CLIMATE CHANGE: ANALYSIS AND COMMENTARY (Daniel Klein, et al. eds., 2017) [hereinafter La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*].

9. *Id.* at 166 (citing Intergovernmental Panel on Climate Change Climate Change 2013: The Physical Science Basis (Carbon and Other Biogeochemical Cycles of the Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change) at 470 *available at* https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter06_FINAL.pdf (last accessed Jan. 26, 2018).

contribution of carbon dioxide (CO_2) emissions, after those from the use of fossil fuels and cement production, stems from land use and land-use changes, particularly from deforestation and agriculture."[10] "The agriculture, forestry, and other land use sector (AFOLU) comprises about 24% of anthropogenic GHG emissions globally."[11] Complicating this is the fact "that AFOLU activities can act as both sources and sinks of emissions."[12] That this sector is "important for food security and sustainable development"[13] should also be noted.

In the context of climate change, "forests are particularly important[.]"[14] Among others, "[f]orests absorb 2.6 billion [tons] of CO_2 annually, [equivalent] to one-third of the amount released from fossil fuel use."[15] Well-planned and executed forest programs contribute to both mitigation and adaptation. "Forests and tree-based ecosystems have been found to lessen social vulnerability to climate change in a number of case studies, particularly in developing countries." [16] "[F]orests and trees provide livelihoods, livelihood resilience, and multiple ecosystem services supporting food production and security."[17] They are critical to human survival and

10. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 166 (citing Ciais, et al., *supra* note 8, at 474).

11. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 166 (citing Intergovernmental Panel on Climate Change Climate Change 2014: Mitigation of Climate Change (Agriculture, Forestry and Other Land Use (AFOLU) of the Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change) at 816 *available at* https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter06_FINAL.pdf (last accessed Jan. 26, 2018).

12. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 166.

13. *Id*. at 167.

14. *Id*.

15. *Id*. (citing Center for International Forestry Research, Forests and Climate Change, *available at* http://www.cifor.org/forests-and-climate-change (last accessed Jan. 26, 2018)).

16. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 167 (citing Emilia Pramova, et al., *Forests and trees for social adaptation to climate variability and change*, 3 WIREs CLIM CHANGE 581, 589 (2012)).

17. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 167 (citing Food and Agriculture Organization, FAO, Forests and Climate Change: Working with Countries to Mitigate and Adapt to Climate Change

ways of life. "These ecosystem services then contribute to *resilience and adaptive capacity*. Moreover, forests possess important spiritual and cultural values for many indigenous peoples and local communities living in and around them."[18]

Under the UNFCCC, all countries are obliged to promote the conservation and enhancement of GHG sinks and reservoirs, including biomass and forests, and to cooperate on this endeavor.[19] Forests in developing countries are highlighted in several provisions, with a mandate to protect and rehabilitate areas affected by drought and desertification, particularly in Africa.[20] The need for Parties — presumably developed countries[21] — to "give full consideration" to meeting the needs of developing countries related to climate change, especially those with "forested areas and areas liable to forest decay[,]"[22] is also emphasized.

> The Kyoto Protocol on Climate Change, adopted in 1997, included provisions on land use, land use change[,] and forestry (LULUCF) activities in developed countries (Annex 1 parties), allowing them to credit to their reduction or stabilization targets what they were/are doing in the LULUCF sector. Tropical forests in developing countries were[,]

Through Sustainable Forest Management at 3, *available at* www.fao.org/docrep/017/i2906e/i2906e00.pdf (last accessed Jan. 26, 2018)). The Food and Agriculture Organization said —

> Forests support the livelihoods of more than a billion people living in extreme poverty worldwide and provide paid employment for over 100 million people. They are home to more than 80[%] of the world's terrestrial biodiversity and help protect watersheds that are critical for the supply of clean water to most of humanity.

Food and Agriculture Organization, *supra* note 17, at 3.

18. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 167 (citing Food and Agricultural Organization, Submission by the Food and Agriculture Organization of the United Nations (FAO) to the United Nations Framework Convention on Climate Change (UNFCCC) on Issues relating to agriculture: adaptation measures, *available at* https://unfccc.int/files/documentation/submissions_from_non-party_stakeholders/application/pdf/595.2.pdf at 7 (last accessed Jan. 26, 2018)) (emphasis supplied).
19. UNFCCC, *supra* note 1, art. 4 (1) (d).
20. *Id*. art. 4 (1) (e).
21. *Id*. art. 4 (8) (c).
22. Dieter Schoene & Maria Netto, The Kyoto Protocol: what does it mean for forests and forestry?, *available at* http://www.fao.org/docrep/009/a0413e/a0413E02.htm (last accessed Jan. 26, 2018).

> however[,] excluded from the LULUCF agreement because developing countries did not have economy-wide or any type of legally binding mitigation targets under the Kyoto Protocol.
>
> Notwithstanding the exclusion of tropical forests from LULUCF, the Clean Development Mechanism (CDM), created under the [Kyoto] Protocol, provided options for developed countries to meet their emission reduction targets by investing in 'offset projects' in developing countries. Afforestation and reforestation, which both have to do with [planting forests and increasing forest carbon stocks] — are the [two] types of carbon sequestration projects that [may be undertaken under CDM]. Those related to forest conservation, i.e.[,] avoiding or reducing deforestation and forest degradation, are not currently eligible.[23]

The exclusion of avoided deforestation and forest degradation from CDM-eligible projects was based on the view that allowing offsets to be generated from these activities would weaken the emission reduction targets of developed countries.[24]

> Governments, [non-government organizations (NGOs)], and scientists were concerned that 'forest conservation could be an action without effect in terms of benefits to the atmosphere,' mainly because of 'serious methodological concerns pertaining to additionality, permanence[,] and leakage.' In other words, there was insufficient guidance and technology

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23. La Viña & de Leon, One Solution, *supra* note 3, at 18 (citing Kyoto Protocol, *supra* note 2, art. 3 (3) & (4); Schoene & Netto, *supra* note 22; & Paulo Moutinho, et al., *Why ignore tropical deforestation? A proposal for including forest conservation in the Kyoto Protocol*, UNASYLVA, Volume No. 56, Issue No. 222, at 27-30 (2005)). *See also* Kyoto Protocol, *supra* note 2, art. 2 (1) (a) (ii) & Seventh Conference of the Parties (COP7) to the United Nations Framework Convention on Climate Change, Marrakesh, Morocco, Oct. 29-Nov. 10, 2001, *Report of the Conference of the Parties on its seventh session, held at Marrakesh from 29 October to 10 November 2001. Addendum. Part two: Action taken by the Conference of the Parties. Volume I*, at 58, ¶ (A) (1) (a), U.N. Doc. FCCC/CP/2001/13/Add.1 (Jan. 21, 2002) [hereinafter *Marrakesh Accords Addendum*]. The Annex talks about "definitions, modalities, rules[,] and guidelines relating to land use, land-use change[,] and forestry activities under Articles 3, 6, and 12 of the Kyoto Protocol" but nowhere in the definition of "forest" does it include a category for tropical forests. *Marrakesh Accords Addendum*, *supra* note 23, at 57, ¶ 4.

24. *See* Michael Köhl, et al., Reduced emissions from deforestation and forest degradation (REDD): a climate change mitigation strategy on a critical track, *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786908 (last accessed Jan. 26, 2018).

> available to measure and validate emission reductions and ensure environmental integrity.
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> [...]
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> Opponents of offsetting through avoided deforestation and forest degradation activities also expressed the view that factors driving deforestation are complex and are not so easily solved by 'throwing more money at the problem.'[25]

For some, though, excluding these activities from the Kyoto Protocol resulted in a missed opportunity to address deforestation in countries with big tropical forest.[26] Countries like Brazil

> may have narrow opportunities to engage in other CDM-eligible projects such as afforestation, reforestation[,] and clean energy [—] and[,] for that matter[,] other mechanisms under the Kyoto Protocol [—] and yet 'access to resources is disallowed' for reducing and avoiding deforestation [...] Also cited was the fact that these activities are cost-effective and foster materials that store carbon 'as is' [...] Bettelheim, [for example, asks,] 'How can it be a drawback that forestry is cheaper than any technological solution? [...] That just means [it is] available now, because as soon as a tree starts to grow, it is storing carbon dioxide, while it takes considerably longer for a power plant to be transformed for new renewable energy.'[27]

A. The Stern Review

In their working paper, the Authors said —

25. La Viña & de Leon, One Solution, *supra* note 3, at 19-20 (citing Moutinho, et al., *supra* note 23; Chukwumerije Okereke & Kate Dooley, *Principles of justice in proposals and policy approaches to avoided deforestation: Towards a post-Kyoto climate agreement*, 20 GLOBAL ENVTL. CHANGE 82 (2010); Louise Aukland, et al., *A conceptual framework and its application for addressing leakage: the case of avoided deforestation*, 3 CLIMATE POL'Y. 123 (2003); Steve Zwick, Carbon and Avoided Deforestation: The Road to Bali, *available at* http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=5436&section=home (last accessed Jan. 26, 2018); & Rhett A. Buttler, Are we on the brink of saving rainforests?, *available at* http://news.mongabay.com/2009/0722-redd.html (last accessed Jan. 26, 2018)).

26. La Viña & de Leon, One Solution, *supra* note 3, at 20 (citing Márcio Santilli, et al., *Tropical Deforestation and The Kyoto Protocol: An Editorial Essay*, 71 CLIMATIC CHANGE 267, 273 (2005)).

27. La Viña & de Leon, One Solution *supra* note 3, at 20 (citing Moutinho, et al., *supra* note 23, at 28 & Zwick, *supra* note 25).

> [The Stern Review on the Economics of Climate Change (Stern Review)] has been described as 'the most comprehensive and powerful document to date on the portfolios of policies required to address the climate change problem,' and 'comes down very strongly on the side of undertaking decisive [—] and expensive [—] measures starting now to reduce CO2 and other [GHG] emissions.'
>
> [According to the Stern Review,] more tha[n] 18% of global emissions are from land use change/deforestation, producing much greater emissions than the transport sector, and is the second largest contributor to global GHG emissions. [The Stern Review] stressed 'action to preserve the remaining areas of natural forest' as an urgent need, which must be undertaken at large scale 'combining national action and international support.' [It] recommended that forested countries undertake country-led initiatives to address deforestation, while receiving support from the international community for the benefit it receives from the national efforts of those countries. It also identified as important considerations in this process: defining property rights to forestland, determining rights and responsibilities of stakeholders, involvement of local communities[,] and respect for informal rights and structures, in the context of achieving development goals.[28]

The Stern Review also concluded that "global action needed to become 'more ambitious,'" and that "[a]mong the 'key elements of future international frameworks' on climate change were actions to reduce deforestation."[29]

B. Bali Road Map

The Authors also discussed in their working paper —

> In 2007, the 13th [Conference of Parties (COP)] produced the Bali Road Map to guide negotiations towards reaching a new climate agreement by 2009 in Copenhagen, with the goal of ensuring that a new agreement would be in place by the time the Kyoto Protocol ended in 2012. The

28. La Viña & de Leon, *supra* note 3, at 23-24 (citing Klaus Hasselmann & Terry Barker, *The Stern Review and the IPCC fourth assessment report: implications for interaction between policymakers and climate experts. An editorial essay*, 89 CLIMATIC CHANGE 219, 220 (2008); Martin L. Weitzman, *A Review of the Stern Review on the Economics of Climate Change*, 45 J. ECON. LIT. 703, 704 (2007); NICHOLAS STERN, THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW xxv-xxvi & 171 (2007 ed.); Okereke & Dooley, *supra* note 25, at 90; & *Executive Summary* to STERN, *supra* note 28, at xxv-xxvi).

29. La Viña & de Leon, One Solution, *supra* note 3, at 24 (citing STERN, *supra* note 28, at vi-xi).

road map [is] a set of decisions identifying negotiating 'tracks' or key areas of work for the Parties. It includes the Bali Action Plan, which provides 'a comprehensive process to enable the full, effective[,] and sustained implementation of the [UNFCCC] through long-term cooperative action,' prompting the establishment of the Ad Hoc Working Group on Long-term Cooperative Action [ ] under the UNFCCC, working in parallel with the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol[.]

The Bali Action Plan provides five [ ] 'building blocks' around which the Parties' future work would revolve (outside the Kyoto Protocol): shared vision, mitigation, adaptation, technology transfer, and finance. The mitigation track includes 'policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests[,] and enhancement of forest carbon stocks in developing countries.' At this point, however, the last three items were not yet explicitly considered among the activities in tropical forests that could be compensated. It was only in Copenhagen that the semicolon separating REDD from the last three activities was dropped, thus expanding the scope of 'eligible' forest conservation activities and adding the 'plus' to make REDD+.

There was considerable anticipation for how the issue of incentives for reducing deforestation and forest degradation would be treated in Bali. This was in the context of the unprecedented attention to climate change brought about by the release of the 4th Assessment Report of the [Intergovernmental Panel on Climate Change (IPCC)] in 2007 and the panel's receipt of the Nobel Peace Prize together with Al Gore, whose *An Inconvenient Truth* had already won an Oscar Award. Avoided deforestation in relation to carbon markets was also an ongoing debate, tracing back to its exclusion from the CDM of the Kyoto Protocol and the fact that these types of projects already existed in voluntary markets.

It was thus a promising step that among the agreements reached in Bali was Decision 2/CP.13 on 'Reducing emissions from deforestation in developing countries: approaches to stimulate action,' which established a work program on REDD and showed 'Parties' commitment to include REDD in a post-2012 climate agreement.' Aside from encouraging support for activities, exploring actions and options, mobilization of resources[,] and use of the most recent IPCC guidelines in undertaking REDD-related activities, Parties were asked to make submissions on

methodological issues, prompting the 'proliferation' of views from Parties and observer organizations.[30]

C. Failure in Copenhagen, Success in Cancun

The 2009 COP in Copenhagen was disappointing for failing to complete a legally-binding instrument to take effect by the end of the Kyoto Protocol, and to cover other areas of agreement set out in the Bali Road Map.[31] Although the REDD+ negotiations, chaired by the Philippines,[32] were successful, the rest of the package was not approved. Instead of a legally binding agreement, the Parties adopted a political one (the Copenhagen Accord), not without rancor.

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30. La Viña & de Leon, One Solution, *supra* note 3, at 25-26 (citing Raymond Clémençon, *The Bali Roadmap: A First Step on the Difficult Journey to a Post-Kyoto Protocol Agreement*, 17 J. ENVT. & DEV. 70, 70, 72, & 80 (2008); United Nations Framework Convention on Climate Change, Now, up to and beyond 2012: The Bali Road Map, *available at* https://unfccc.int/key_steps/bali_road_map/items/6072.php (last accessed Jan. 26, 2018); United Nations Framework Convention on Climate Change, The Ad hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), *available at* http://unfccc.int/bodies/body/6431.php (last accessed Jan. 26, 2018) (emphasis omitted); United Nations Framework Convention on Climate Change, Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), *available at* http://unfccc.int/bodies/body/6409.php (last accessed Jan. 26, 2018); Thirteenth Conference of Parties (COP13) to the United Nations Framework Convention on Climate Change, Bali, Indonesia, Dec. 3-15, 2007, *Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007. Addendum. Part Two: Action taken by the Conference of the Parties at its thirteenth session*, Decision 1/CP.13, ¶ 1 (b) (iii) & Decision 2/CP.13, U.N. Doc. FCCC/CP/2007/6/Add.1 (Mar. 14, 2008); Vivienne Holloway & Esteban Giandomenico, Carbon Planet White Paper: The History of REDD Policy at 14, *available at* http://redd.unfccc.int/uploads/2_164_redd_20091216_carbon_planet_the_history_of_redd_carbon_planet.pdf (last accessed Jan. 26, 2018); & Okereke & Dooley, *supra* note 25, at 83).

31. BBC News, Why did Copenhagen fail to deliver a climate deal?, *available at* http://news.bbc.co.uk/2/hi/8426835.stm (last accessed Jan. 26, 2018).

32. Professor Antonio G.M. La Viña was the facilitator of the REDD+ consultations in Copenhagen. *See* Antonio G.M. La Viña, Ways Forward after Copenhagen: Reflections on the Climate Change Negotiating Processes by the REDD-plus Facilitator, *available at* http://www.forestcarbonportal.com/news/ways-forward-after-copenhagen-reflections-climate-change-negotiating-processes-redd-plus-fac (last accessed Jan. 26, 2018).

While Parties merely took note of the Copenhagen Accord, it did recognize the "crucial role" of REDD and of enhancing the function of forests in removing GHGs from the atmosphere, in the context of the provision of positive incentives through the establishment of a REDD+ mechanism, among others.[33]

It was only a year later, in Cancun, Mexico in 2010 that

> the requirements for REDD+ as a mechanism, i.e.[,] the elements and standards that need to be in place, were laid out, and the first 'requirements' associated with REDD+ were agreed. [Identified were] [...] five REDD+ activities and the elements that developing country [P]arties who want to participate in REDD+ need to develop: a national strategy or action plan, national forest reference emission level and/or forest reference level (FREL/FRL), national forest monitoring system, and a safeguard information system (SIS). Related issues were also identified[:] drivers of deforestation and forest degradation, land tenure, forest governance, gender considerations, and the safeguards[,] which need to be addressed in the strategies and action plans to be developed.[34]

The Cancun Agreements adopted seven REDD+ safeguards, which aim to address risks associated with REDD+ and "ensure not only environmental integrity, but also transparent governance, respect for human rights[,] and protections of social well-being[,]"[35] including respect for the rights of indigenous peoples.

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33. Fifteenth Conference of Parties (COP15) to the United Nations Framework Convention on Climate Change, Copenhagen, Denmark, Dec. 7-19, 2009, *Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009. Addendum. Part Two: Action taken by the Conference of the Parties at its fifteenth session*, Decision 2/CP.15, ¶ 6, U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010).

34. La Viña & de Leon, One Solution, *supra* note 3, at 29 (citing United Nations Framework Convention on Climate Change, Cancun Climate Change Conference-November 2010, *available at* http://unfccc.int/meetings/cancun_nov_2010/meeting/6266.php (last accessed Jan. 26, 2018) & Sixteenth Conference of Parties (COP16) to the United Nations Framework Convention on Climate Change, Cancún, 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*]).

35. La Viña & de Leon, One Solution, *supra* note 3, at 29. *See also Cancun Agreements Addendum*, *supra* note 34, Decision 1/CP.16, art. I.

Parties recognized that setting up REDD+ in each country should be undertaken in phases,[36] until developing countries are able to produce emissions reduction results from their forests that are fully measured, reported, and verified. In every phase, countries also need to ensure that the safeguards are promoted and supported, and developed countries in particular were urged to provide support to developing countries undertaking these activities. A priority issue was to "explore financing options for the full implementation of the results-based actions[.]"[37]

D. Warsaw Agreements

International guidance on all the fundamental elements of REDD+ was completed in Warsaw in 2013, eight years after formal negotiations were launched in Bali.[38] The Warsaw Framework for REDD+ consisted of seven decisions that compiled the "package" of REDD+ rules and procedures needed to get results-based actions and payments off the ground.[39]

> Together with previous agreements on methodological issues, policy approaches[,] and positive incentives, these decisions provide a complete set of guidance for countries on the elements and standards that need to be developed for REDD+ [—] for developing countries aiming to produce and report on emissions reduction results on the one hand, and modes and mechanisms for how these efforts may be supported and their results financed or incentivized.
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> [...]
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> Agreements [around] REDD+ safeguards and non-carbon benefits under the results-based finance decision were especially encouraging.
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> First, the [...] link between the provision of information on safeguards implementation [...] and access to results-based finance [...] was a major step in recognizing the central role of safeguards in ensuring the sustainability of REDD+ outcomes, in that countries may only benefit from their CO2 emission reductions if they are able to demonstrate how

36. *Cancun Agreements Addendum*, *supra* note 34, Decision 1/CP.16, ¶ 73.

37. *Id.* Decision 1/CP.16, ¶ 77.

38. United Nations Framework Convention on Climate Change, Warsaw Framework for REDD-plus, *available at* http://unfccc.int/land_use_and_climate_change/redd/items/8180.php (last accessed Jan. 26, 2018) [hereinafter UNFCCC, Warsaw Framework for REDD-plus].

39. *Id.*

> they have sought to address the social, governance[,] and environmental aspects of their REDD+ activities.[40]

Earlier agreement "on the timing and frequency of the provision of safeguards information [—] which leaves the 'when' and 'what channel' of reporting up to Parties [—] did not provide sufficient clarity that safeguards implementation and reporting are pre-requisite to results-based payments."[41]

The language in the Warsaw Decision on results-based finance did away with this potential misperception.[42]

> Second, the [agreement on results-based finance] 'recognizes the importance of incentivizing non-carbon benefits [NCBs] for the long-term sustainability of the implementation of the [REDD+ activities], and [notes] the work on methodological issues' that has to be carried out regarding NCBs. [Considering that] [i]ncentives for NCBs (and NCBs themselves) are a recent introduction into the REDD+ discussions, and were met with [some] resistance [at the start —] due to the current lack of clarity on what they are, what they entail[,] and how they are measured, among other reasons [—] [their recognition in the recent agreement] is quite progressive [and] ensures that attention to the [issue], and their link to finance, are carried forward.[43]

II. THE POLITICS OF CLIMATE AND FORESTS, INCLUDING THE ROLE OF THE PHILIPPINES

The politics of climate and forests have been complicated. [44] Both governments and NGOs engaged in this issue have seen their positions evolved through the years. It is these "changes in positions and alignments

40. La Viña & de Leon, One Solution, *supra* note 3, at 31 & 34 (citing UNFCCC, Warsaw Framework for REDD-plus, *supra* note 38 & Nineteenth Conference of Parties (COP19) to the United Nations Framework Convention on Climate Change, Warsaw, Poland, Nov. 11-23, 2013, *Work programme on results-based finance to progress the full implementation of the activities referred to in decision 1/CP.16, paragraph 70. Proposal by the President*, ¶ 24, U.N. Doc. FCCC/CP/2013/L.5 (Nov. 22, 2013) [hereinafter *Warsaw Mechanism Work Programme*]).

41. La Viña & de Leon, One Solution, *supra* note 3, at 34.

42. *See* La Viña & de Leon, One Solution, *supra* note 3, at 34.

43. La Viña & de Leon, One Solution, *supra* note 3, at 34 (citing *Warsaw Mechanism Work Programme*, *supra* note 40, ¶ 22).

44. *See* Antonio G.M. La Viña, et al., *History and Future of REDD+ in the UNFCCC: issues and challenges*, *in* RESEARCH HANDBOOK ON REDD+ AND INTERNATIONAL LAW (Christina Voigt ed. 2016).

among parties [and interests] in recent years [that] have been key to arriving at [a point of consensus] in the REDD+ negotiations, which can truly be considered a model for cooperation and consensus-building in international environmental negotiations."[45]

As the Authors said in a previous publication,

> [t]he Philippines, consistent with its strong position on [the] safeguards, co-benefits, and REDD+ in the broader context of sustainable development, worked to ensure that consideration of [the] safeguards was not lost or neglected in the more technical discussions. It was one of the few active voices on these issues, especially among developing countries, and [it] pushed for a link between safeguards compliance and reporting[.][46]

The country has

> also played a key role in bringing non-carbon benefits for REDD+ within the finance discussion, and their inclusion in [Subsidiary Body on Scientific and Technical Advice's] current agenda. Other developing countries, some of which have historically been wary of the imposition of additional guidelines or processes related to safeguards, have become more receptive [of] these proposals in the last couple of years.[47]

III. THE PARIS AGREEMENT: FORESTS, HUMAN RIGHTS, AND ECOSYSTEM INTEGRITY

It was on 12 December 2015, after years of negotiations, that the landmark Paris Agreement was adopted by the 21st Conference of Parties (COP21).[48] The Paris Agreement provides the mandate for all countries to collectively work together to limit the global temperature rise to well below 2 degrees Celsius and further cap it to 1.5 degrees Celsius above pre-industrial levels.[49]

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45. La Viña & de Leon, One Solution, *supra* note 3, at 42.

46. *Id.* at 43.

47. *Id.* at 43-44.

48. United Nations, Climate change affects everyone, *available at* http://www.un.org/sustainabledevelopment/climatechange (last accessed Jan. 26, 2018).

49. Twenty-first Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change, Paris, France, Nov. 30-Dec. 11, 2015, *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum. Part two: Action taken by the Conference of the Parties at its twenty-first session*, Decision 1/CP.21, pmbl., para. 9, U.N. Doc. FCCC/CP/2015/10/Add.1 (Jan. 29, 2016) [hereinafter *Paris Agreement Addendum*].

The deal may not be perfect, but embedded in it is guidance on how to undertake climate actions while ensuring socially and ecologically sustainable outcomes.

Certainly, the Paris Agreement is progressive in its inclusion of human rights and climate justice among its principles. It is not the panacea for all the issues intertwined with climate change. But it is the best, and the most, everyone can get now. Thankfully, the Paris Agreement is not the least common denominator. Certainly, it is progressive in its inclusion of human rights[50] and climate justice[51] among its principles. While legally-binding targets for all countries would have been ideal for ensuring the objectives of the Paris Agreement are achieved, a bottom-up, country-level differentiated approach is the best that can be done for now. At the same time, monitoring and reporting obligations under the Paris Agreement provide openings for reviewing compliance with countries' nationally-determined contributions.[52]

It is worth highlighting that this crucial endeavor will be done within the context of protecting human rights and ensuring ecosystem integrity.[53] This is the Philippines' key contribution to the Paris Agreement, being among the countries that led efforts and steered alliances to ensure, first, that the Paris Agreement would provide guidance on how climate actions could be done properly and sustainably and, that it would veer away from "carbon-centric."[54]

Valuing rights and ecosystems imbues the Paris Agreement with a holistic perspective, one that is needed to avoid "wrong" climate actions. The Preamble of the Paris Agreement states that countries should, "respect, promote[,] and consider their respective obligations on human rights[;] the right to health[;] the rights of indigenous peoples, local communities, migrants, children, persons with disabilities[,] and people in vulnerable situations[;] and the right to development, as well as gender equality, empowerment of women[,] and intergenerational equity[.]"[55] It also

50. Paris Agreement, *supra* note 4, pmbl., para. 11.

51. *Id.* pmbl., para. 13.

52. *See* Paris Agreement, *supra* note 4, art. 7 (7) (a) & (9) (d).

53. *See* Paris Agreement, *supra* note 4, pmbl., paras. 11 & 13.

54. Antonio G.M. La Viña, Ramos, Duterte, and the Paris Agreement, *available at* https://www.rappler.com/thought-leaders/151242-ramos-duterte-paris-agreement (last accessed Jan. 26, 2018).

55. Paris Agreement, *supra* note 4, pmbl., para. 11.

recognized the "importance of the conservation and enhancement, as appropriate, of sinks and reservoirs of the [GHGs] referred to in the Convention"[56] and noted "the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity[.]"[57]

This Preamble is considered revolutionary because human rights, the rights of indigenous peoples, and ecosystem integrity were not included in the UNFCCC or the Kyoto Protocol.[58] The new climate change deal affords indigenous peoples a clear role in battling climate change,[59] and tasks countries with ensuring "the integrity of *all* ecosystems, including oceans, and the protection of biodiversity [...] when taking action to address climate change[.]"[60]

This finds even stronger footing in Article 5 (1) of the Paris Agreement, discussed in more detail below, which states that "[p]arties *should* take action to conserve and enhance, as appropriate, sinks and reservoirs of [GHGs,]"[61] i.e., "biomass, forests[,] and oceans, as well as other terrestrial, coastal[,] and marine ecosystems[.]"[62] Taking this together with the Preamble, the Paris Agreement states loud and clear that all countries, both developing and developed, are mandated to conserve and enhance the integrity of ecosystems in a way that also respects human rights and the rights of indigenous peoples and protects biodiversity.

The next step in the climate negotiations will set the stage for countries to give substance to these references to the protection of human rights, the rights of indigenous peoples, and ecosystem integrity. The coming years will be a test of countries' will to ensure that the "revolutionary Preamble" effects real changes. The Paris Agreement provides the right signal; with global resolve and political will, countries can work together to turn this signal into effective climate actions.

The scope of Article 5 of the Paris Agreement is the conservation and enhancement of sinks and reservoirs of all GHGs, including biomass, forests,

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56. *Id.* pmbl., para. 12.

57. *Id.* pmbl., para. 13.

58. *Compare* Kyoto Protocol, *supra* note 2 *with* Paris Agreement, *supra* note 4, pmbl., paras. 11 & 13.

59. *Id.*

60. Paris Agreement, *supra* note 4, pmbl., para. 13 (emphasis supplied).

61. *Id.* art. 5 (1) (emphasis supplied).

62. UNFCCC, *supra* note 1, art. 4 (1) (d).

and oceans as well as other terrestrial, coastal, and marine ecosystem.[63] Thus, its first paragraph provides, "Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of [GHGs] as referred to in Article 4, paragraph 1 (d), of the Convention, including forests."[64]

It also provides specific encouragement to Parties to implement and support the existing framework under the UNFCCC with regard to REDD+ and alternative policy approaches.[65]

> Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the UNFCCC for: policy approaches and positive incentives for activities relating to 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; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.[66]

As the Authors have pointed out,

> [e]ven without an explicit reference to 'land use' [...] [,] [citing] the Convention and its language on terrestrial ecosystems accomplishes the same objective [—] '[b]y cross-referencing the UNFCCC, past UNFCCC decisions, and the existing framework related to developing country forests, Article 5 of the Paris Agreement incorporates land-based mitigation and adaptation actions in a comprehensive way, zeroes in on the central role of forests, and creates openings for new approaches to such actions.
>
> The emphasis on forests in Article 5 is notable not only in substance, [i.e.,] what it means for forests as a sector, but also in the manner in which they are emphasized. [Article 5 (1) of the Paris Agreement] refers to [Article 4 (1) (d)] of the UNFCCC (which lists forest ecosystems among the GHG sinks and reservoirs to be conserved and enhanced), followed by the phrase 'including forests[.'] While seemingly redundant, it is safe to assume that this reiteration was not accidental, considering that this has been a focus of attention in the [climate change] process for a long time.

63. Paris Agreement, *supra* note 4, art. 5 (1).

64. *Id.*

65. *See* Paris Agreement, *supra* note 4, art. 5 (2).

66. Paris Agreement, *supra* note 4, art. 5 (2).

> Rather, when coupled with [Article 5 (2)] on forest-specific approaches to mitigation and adaptation, [Article 5 (1)] points directly to the crucial importance of maintaining and strengthening actions in the forest sector, with its double-edged role in contributing both to GHG emissions in the atmosphere as well as to their reduction.
>
> In a presentation on forest-related outcomes in the Paris Agreement, the UNFCCC secretariat expounded on the functions of this 'stand-alone' article on forests, which:
>
> (1) sends a strong political signal on the importance of ecosystems, in particular forests in implementing the new Agreement[;]
>
> (2) reassures Parties and other stakeholders that the implementation of existing climate change mitigation approaches in the forest sector and [REDD+] is encouraged and recognized[; and,]
>
> (3) has limited operational implications for the on-going activities.[67]

The Authors have also pointed out that

> [n]ot only is Article 5 significant [politically], indicating both stability and perhaps even increased attention to forests ([e.g.,] regarding provision of support), but [it] also [has] practical [implications] in that the work done to date on forests will not be lost or weakened, whether at the level of international guidance or national-level implementation.[68]

The Paris Agreement builds on the REDD+ work earlier discussed in this Article.

> The Paris Agreement puts in place a work program under the Ad Hoc Working Group on the Paris Agreement (APA) to establish a 'common system' of transparency of action and support by 2018, which will include land-use accounting and reporting, as part of the new measurement, reporting, and verification system. Building on the current rules, a convergence and harmonization of the existing LULUCF and [REDD+]

67. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 171 (citing Paris Agreement, *supra* note 4, art. 5 (1); UNFCCC, *supra* note 1, art. 4 (1) (d); & Dirk Nemitz, Outcomes of UNFCCC COP21 related to forests (Presentation of the UNFCCC's Secretariat dated 24 March 2016) at 12, *available at* www.unece.org/fileadmin/DAM/timber/meetings/20160323/Thurs/2016-jwpfsem-item6-1-1-unfccc.pdf (last accessed Jan. 26, 2018)).

68. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 172. *See also* Nemitz, *supra* note 67, at 13.

> rules might be desirable, ensuring transparency, comparability, and environmental integrity as the most important considerations.[69]

Finally, "the inclusion of social, environmental, and governance safeguards" in the land use sector, as well as "transparency and environmental integrity, particularly through governance and accounting, should be paramount[.]"[70] In the Authors' view,

> [l]and use must be treated separately, with the importance of ecological integrity, governance, and rights as enabling conditions. This requires, as indicated in various parts of the Paris Agreement and the accompanying Decision 1/CP.21, recognizing the full participation of civil society, indigenous peoples, local communities, and women, ensuring the recognition and legal enforcement of rights, including participation, human rights, and land tenure, and of the importance of traditional knowledge and indigenous knowledge, in accordance with good governance, as part of a rights-based approach to climate action.[71]

IV. LESSONS LEARNED FROM THE CLIMATE AND FOREST NEGOTIATIONS

The story of REDD+ is about how it evolved from what was supposed to be just a carbon agreement around forests into something broader and more holistic. With its safeguards, REDD+ has become an approach that tackles human rights, social justice, and development as well. Within 10 years from the introduction of REDD+ into the UNFCCC, the safeguards had been firmly established with these characteristics: they are tied to receiving results-based finance; they involve reporting requirements and a system for providing a summary of information on how the safeguards are promoted and supported; and their implementation is contextualized within national circumstances, according it with flexibility. The safeguards thus provide a viable basis for embedding social and environmental principles in the land

69. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 176 (citing Paris Agreement, *supra* note 4, pmbl., para. 11 & arts. 4 (13) & 13 (13) & *Paris Agreement Addendum*, *supra* note 49, Decision 1/CP.21, ¶¶ 31, 91, 92 (c) & (g), & 93-98).

70. La Viña & de Leon, *Conserving and Enhancing Sinks and Reservoirs*, *supra* note 8, at 176.

71. *Id.* (citing Paris Agreement, *supra* note 4, pmbl., para. 11 & arts. 7 (5) & 12 & *Paris Agreement Addendum*, *supra* note 49, Decision 1/CP.21, pmbl., paras. 7, 14, & 15, & ¶ 135).

use sector, and extend lessons for the Green Climate Fund, which is developing its own safeguards.[72]

> What lessons can be learned in looking back and analyzing how [the global regime on climate and forests] has evolved throughout the years?
>
> First, the progress of negotiations has to be able to adapt to the progress in science and technological advancements. While technical issues prevented avoided deforestation from inclusion in the CDM, subsequent developments in available technology and new methodological systems bolstered the appeal of a mitigation mechanism around forest when it was re-introduced as REDD+ later on.
>
> [...]
>
> Second, it is important to highlight gains and milestones as the negotiating process moves along, and to protect these gains as talks move on to unresolved topics [—] make progress where progress can [already] be made. These have to do with prioritizing and managing the time dedicated to certain agenda items, and encouraging Parties to keep moving forward and take advantage of momentum around items on which agreement has been reached.[73]

Third, negotiations must really take stock of experiences and lessons learned from pilot/demonstration activities to ensure that policies on REDD+ respond to on-the-ground realities. This is especially important in REDD+ because it impacts the lives of communities, and can provide so many co-benefits apart from emission reductions.[74]

> [Fourth,] because it is not always possible to control the speed or pace of negotiations, Parties and other stakeholders must remain creative and proactive in establishing arrangements parallel to [United Nations] processes, to respond to the urgent need to undertake mitigation and

72. Green Climate Fund, About the Fund, *available at* http://www.greenclimate.fund/who-we-are/about-the-fund (last accessed Jan. 26, 2018).

73. La Viña & de Leon, One Solution, *supra* note 3, at 48. *See also* Paris Agreement, *supra* note 3, pmbl., para. 11 & arts. 7 (5) & 12 & *Paris Agreement Addendum*, *supra* note 49, Decision 1/CP.21, pmbl., paras. 7, 14 & 15, & ¶ 135.

74. *See* Paris Agreement, *supra* note 4, pmbl., para. 11 & arts. 7 (5) & 12 & *Paris Agreement Addendum*, *supra* note 49, Decision 1/CP.21, pmbl., paras. 7, 14 & 15, & ¶ 135.

> adaptation actions. [The Authors] have previously referred to this as a multi-track approach to climate multilateralism and action.[75]

V. IMPLICATIONS ON THE PHILIPPINES

For the Philippines, climate change is not only an environmental problem, but a serious threat to the national economy; to such important development sectors such as agriculture and energy; and, to public health and safety.[76] At the same time, it is not a domestic issue alone, but a global challenge, caused by activities in all countries with impact felt in all countries. But here is the catch — the responsibility for climate change and the weight of its impact fall unequally, with the poorest countries (such as small island States and least developed countries) contributing the least but suffering the most. The Philippines' contribution to the problem is also small though significant — it is still among the top 40 countries in gross emissions annually.[77] Nonetheless, its people are destined to be among the biggest victims. In the future, it is likely that Filipinos will be emitting more. Filipinos cannot afford to be in a situation where they are contributing to their own destruction.

Although climate change is a complex problem that requires a combination of solutions, the Philippine response must have sustainable development at its core. As the country has made substantial progress in institutionalizing laws and policies that aim to promote sustainable development, the main predicament and challenge lies in serious gaps and deficits in implementation. Indeed, at the heart of solutions to climate change is good governance. Good governance requires designing, adapting, and implementing a coherent approach to climate change.

An integrated adaptation-mitigation framework is a right step in that direction. These include the following pillars:

> *First,* [*the Philippines*] *must integrate climate change adaptation and disaster risk reduction and implement them synergistically and effectively*.

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75. La Viña & de Leon, One Solution, *supra* note 3, at 49. *See also* Paris Agreement, *supra* note 4, art. 13 (5).

76. Oxford Business Group, The Philippines confronts climate change, *available at* https://oxfordbusinessgroup.com/analysis/plan-action-confronting-threat-posed-climate-change-will-be-vital-long-term-viability-country (last accessed Jan. 26, 2018).

77. *See* World Resources Institute, CAIT - Country Greenhouse Gas Emissions Data, *available at* http://www.wri.org/resources/data-sets/cait-country-greenhouse-gas-emissions-data (last accessed Jan. 26, 2018).

> The country is one of the most vulnerable to climate change in the world, with the negative effects on livelihood, health, food security, and impacts on our lives becoming far-reaching and extreme. That the Philippines is ranked so high in the World Risk Index may actually seem both fitting and ironic. It is fitting because given the country's high exposure to the risks brought about by climate change, the government must respond quickly by putting in place policies aimed at addressing these risks.
>
> Ironically[,] however, while [the Philippines has] enacted climate change and disaster risk reduction laws quickly as a result of [its] recent climate disasters, [its] laws have not been very effective. This is because [it does] not have an integrated approach to climate change adaptation and disaster risk reduction and management (DRRM). Unless [it addresses] this dichotomy, [its] climate change and DRRM institutions will continue to fail [the people].[78]

It should also be noted that climate change is not just about disasters. The Philippines' Climate Change Commission Secretary Mary Ann Lucille Sering made this statement during the body's budget hearing —

> We have no idea what an increase in temperature will do to our food security. In areas that we went to, local communities have already cited incidents where their crops are decreasing or wilting. Aside from human activities like overfishing, [they are] seeing a reduction in fish yield. We do not have thorough studies on this yet. The Department of Agriculture [ ] has been targeting production without looking at the impact of weather and the increase in temperature.[79]

For their second point, the Authors said that

> [doing mitigation cannot be avoided, and it can be done] by being serious in moving toward a clean energy future. [The citizens] need to push [ ]

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78. Antonio G.M. La Viña, 7 national priorities on climate change, *available at* https://www.rappler.com/thought-leaders/69799-national-priorities-climate-change (last accesssed Jan. 23, 2018). *See also* Integrated Research on Disaster Risk, World Risk Index, *available at* http://www.irdrinternational.org/2016/03/01/word-risk-index (last accessed Jan. 26, 2018) & An Act Mainstreaming Climate Change into Government Policy Formulations, Establishing the Framework Strategy and Program on Climate Change, Creating for this Purpose the Climate Change Commission, and for Other Purposes [Climate Change Act of 2009], Republic Act No. 9729 (2009) (as amended).

79. La Viña, *supra* note 78 (citing Pia Ranada, Climate Change Commission unveils first climate change map, *available at* https://www.rappler.com/nation/39057-climate-change-commission-cdo-map (last accessed Jan. 26, 2018)).

> politicians and public officials, and private sector leaders as well, to address the need to mitigate [GHG] emissions by increasing investments in renewable energy.[80]

Unfortunately, the Philippines is still allowing coal power plants to be built.[81]

> Coal emits more carbon dioxide than other fossil fuels such as oil and gas. Aside from environmental hazards, it also poses health risks.
>
> In shaping the energy path for the country, public officials need to provide the specifics of a plan that will make the Philippines transition to an energy future that minimizes fossil fuel use. While recognizing the looming power and energy crisis, [the Philippines] must not make the mistake of being wedded to a fossil fuel pathway that is both expensive and destructive. [The Philippines] will also lose [its] moral high ground if [it insists] on following such a pathway.
>
> [...]
>
> *Third, the climate change impacts on land use* [—] *agriculture, forestry*[,] *and biodiversity* [—] *must be emphasized; at the same time, opportunities for mitigation in these land use sectors should be identified and maximized.*
>
> It is imperative to examine the actions and policies of government, especially the Department of Environment and Natural Resources (DENR), in agricultur[e], mining[,] and forestry, and address climate change in terms of both adaptation and mitigation. Citizens must ask [—] where does the conservation of natural resources and biodiversity fit in the development strategy? The country already has national action plans on biodiversity and climate change, for example, and citizens could ask how these action plans can be implemented more effectively. This scrutiny could promote continuity and coherence in the steps taken by the government, in maximizing opportunities provided by these land use sectors for climate change adaptation and mitigation.[82]

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80. La Viña, *supra* note 78.

81. *See* Tarra Quismundo, *Why is PH building 25 more coal-powered plants*?, PHIL. DAILY. INQ., Mar. 15, 2016, *available at* http://newsinfo.inquirer.net/773681/why-is-ph-building-25-more-coal-powered-plants (last accessed Jan. 26, 2018).

82. La Viña, *supra* note 78. *See also* Antonio La Viña, et al., Striking a Balance: Coal-Fired Power Plants in the Philippines' Energy Future (Policy Brief), *available at* http://strikingabalance.wixsite.com/ateneopolicybrief2 (last accessed Jan. 26, 2018); Antonio G.M. La Viña, et al., Getting our Act Together, *available at* http://www.ateneo.edu/aps/asog/goat (last accessed Jan. 26, 2018); & Climate Change Commission, National Climate Change Action Plan

"One area the Philippines could excel in is on reducing emissions from [REDD+]"[83] and using Article 5 of the Paris Agreement as discussed in this Article.

Indeed, the Philippines must be serious about protecting and enhancing our forests.

> [It] already [has] a total log ban on cutting of natural forests, imposed by President [Benigno S.] Aquino [III] through Executive Order No. 23 issued in 2011. Should the ban now be extended to cutting of trees for infrastructure and real estate development? Should it be extended to cutting off of industrial forests, to trees planted specifically for harvesting? [If this is to be done, it must be ensured that the people] know the environmental benefits retained versus the economic impacts. If there are serious economic impacts, but the benefits are immense, [the Philippines] can still proceed with the ban but [it has to] make sure [that the economic consequences will be mitigated] with targeted strategies.
>
> For sure, a ban on cutting of trees for roads, rail systems, and buildings is doable as these projects can be designed integrating and around existing trees. But stopping harvesting of industrial trees has livelihood and investment consequences. It will also result perversely in incentives for illegal logging as there would be a sharp diminution of wood supply in the country.[84]

The Authors also noted that "*Congress must enact a national land use policy that supports climate change adaptation and mitigation as soon as possible. Time is of the essence as the impacts of climate change become more insidious.*"[85]

(Executive Summary), *available at* http://www.dilg.gov.ph/PDF_File/reports_resources/DILG-Resources-2012116-d7b64f9faf.pdf (last accessed Jan. 26, 2018).

83. La Viña, *supra* note 78.

84. Antonio G.M. La Viña, Good work by Duterte on climate change, MANILA STAND., Feb. 4, 2017, *available at* http://www.manilastandard.net/opinion/columns/eagle-eyes-by-tony-la-vina/228422/good-work-by-duterte-on-climate-change.html (last accessed Jan. 26, 2018). *See also* Office of the President, Declaring a Moratorium on the Cutting and Harvesting of Timber in the Natural and Residual Forests and Creating the Anti-Illegal Logging Task Force, Executive Order No. 23, Series 2011 [E.O. No. 23, s. 2011] (Feb. 1, 2011).

85. La Viña, *supra* note 78 (emphasis supplied).

VI. CONCLUSION

"Climate change has long been treated as a tug-of-war between developed nations, dictated by first-world politics and ivory-tower planning. The stark reality is that it is everyone's battle, most especially of developing nations."[86]

In the earlier days, mitigating climate change was simplistically reduced to transforming the energy system from one based on fossil fuels to renewables. While this is still a priority, there is a broad consensus that doing right by our forests and all landscapes is also imperative.

Rainier Maria Rilke, the great German poet, once said —

> Everything is far and long gone by. I think that the star glittering above me has been dead for a million years [...] I would like to step out of my heart and go walking beneath the enormous sky. I would like to pray. And surely of all the stars that perished long ago, one still exists. I think that I know which one it is[.][87]

"It is [the country's] hope, that because [its people] cared and took action, centuries from now, [future generations] too would come out and walk beneath the sky and say[,] ['the] planet still exists.[']"[88]

86. Antonio G.M. La Viña & Hannah Tablan, The power of truth: The U.S., Philippines, and the Paris Agreement, *available at* https://www.rappler.com/thought-leaders/178726-power-of-truth-united-states-philippines-paris-agreement (last accessed Jan. 26, 2018).

87. Rainer Maria Rilke, Lament, *available at* https://www.poemhunter.com/poem/lament-3 (last accessed Jan. 26, 2018).

88. Antonio G.M. La Viña, *Earth Day and the Paris Agreement*, MANILA STAND. TODAY, Apr. 23, 2016, *available at* http://manilastandard.net/opinion/columns/eagle-eyes-by-tony-la-vina/204176/earth-day-and-the-paris-agreement.html (last accessed Jan. 26, 2018).