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RIDDING PES SYSTEMS OF THE “PAY TO POLLUTE” PRINCIPLE: PES OPTIMIZATION STRATEGIES

By Kelly Carlson

With a stronger call to action on political and international relation fronts, the time to take meaningful action and to implement any necessary reform pertaining to climate change mitigation and adaptation strategies is now.¹ In fact, upcoming annual climate change negotiations led by the United Nations Framework Convention on Climate Change (UNFCCC) make for the most sensible platform to re-evaluate climate change proposals and contemplate areas needing reform.²

At the center of these climate change negotiations and the UNFCCC work are country commitments.³ Country commitments are either hard or soft—meaning that they are either hard number commitments to reduce pollutant emissions by a certain amount or that they are commitments to implement various programs and strategies designed to reduce emissions in the aggregate.⁴ Countries making hard commitments in furtherance of the often cited two-degree goal are skeptical of those countries only willing to address climate change in the form of soft commitment pledges.⁵ The skepticism might be warranted, especially for programs such as Payment for Environmental Services (PES), which have a questionable impact on climate change mitigation goals.⁶ PES as a mitigation scheme and its ability to effectively address climate change as currently leveraged, is the focus of this Article.

The traditional PES program operates as follows: a farmer or landowner agrees to manage their land, either taking or abating specific action, to provide an ecological service (e.g. biodiversity conservation, carbon sequestration, or ecotourism promotion); payments to the farmers and landowners operate as incentives, making this system, in its traditional form, most similar to other market-based strategies.⁷ Variations of this general scheme have developed, especially to cover other natural resources in need of conservation, namely watersheds.⁸ No matter the form a PES program may take, one constant remains— all PES schemes propagate the oft criticized “pay to pollute” concept.⁹ Countries implementing PES and other “pay to pollute” projects in less developed countries are negating emissions reductions realized by the countries receiving the financial support because they continue to pollute on their own home fronts, failing to create any positive change in the aggregate.¹⁰

PES, having been implemented in various forms for decades, has proven effective in certain ways: helping landowners realize economic benefits in conserving the land rather than harvesting it, stimulating local economies and effectively redistributing wealth, and enabling the achievement of conservation goals, at least locally.¹¹ Despite these positives, current PES programs

come up short on meeting true conservation goals devoid of deceptive payor and service provider practices.¹² Vast improvement is necessary if society and climate change negotiators are to start viewing climate change strategies under a renewed lens—one that scoffs at promoting the “pay to pollute” concept in all its forms.

This Article argues that there are ways to achieve a more pure PES scheme, accurately reflecting conservationist goals, and devoid of the bad taste some of these soft commitment strategies leave in the mouths of fellow climate change negotiators.¹³ Five strategies for dissociating the “pay to pollute” concept currently intertwined with PES programs, and for realizing greater conservation gains include:

- 1 Decouple the payments from market value**—This objective aims to recover the PES goals of stewardship and accountability. Traditionally, payments for environmental services, such as conservation of forest hectares are determined by assessing the value of timber on the open marketplace.¹⁴ To posit that forests only have inherent value as timber, a mere commodity is to detract from the very reason PES was introduced as a conservation method. Ideologically, true conservationism and pollution mitigation are in direct contention with market and economic based incentives. Instead of lost opportunity in the marketplace,¹⁵ conservation payments should reflect the opportunity cost of keeping the environment and ecological systems intact should harvesting of the land’s resources occur. Though not a currently contemplated payment scheme, it draws parallels to restoration cost accounting conducted after hazardous substance and oil spills in United States.¹⁶
- 2 Rid of the voluntary off-sets payment scheme**—Paying PES providers for the carbon offsets created and for revenues generated from the sale of carbon credits provides them with a renewed license to pollute and negates any positive change realized from PES programs.¹⁷ For example, the Australian Afforestation Pty. Ltd. entails creating a timber plantation and carbon sinks for carbon credits so that Toyota can turn around and continue emitting carbon dioxide in its manufacturing process, operations, and the product it produces.¹⁸
- 3 Target developed countries** - This objective refocuses efforts away from traditional PES targets—undeveloped countries¹⁹ toward more sound prospects—developed countries with stronger socioeconomic posture.

These countries are better positioned to realize the environmental benefits of PES, without giving way to the volatility that PES projects might instigate.²⁰ Developed countries are more likely to have reliable governance structures and reporting mechanisms in place to ensure the ancillary problems associated with PES are kept at bay, including leakage, slippage, and sham agreements.²¹ Developed countries are also more likely to attribute greater value to conservation,²² rather than placing products in the marketplace, so they will not be tempted to engage in corruptive PES practices.

4 Target community property regimes—This objective contemplates that land held communally may be more suitable for PES projects for a number of reasons. When land is held communally, there are more accountable parties to the contract, more watchful eyes, and are innately better designed for governance purposes because reporting of progress is centralized.²³ Ownership rights of lands held communally are less confusing and create less opportunity for individualized ulterior motives when compared to individually owned property, which can be “owned” in a variety of ways (i.e. access, use, exclusion, and management rights).²⁴ Collective management may be the answer to a more productive and self-governing PES provider profile.

5 Focus on financial integrity—This objective recognizes that not all funding sources are created equal due to lack of governance, control, and transparency. These shortcomings can be found in both private investment scenarios and investment banking undertakings. There is less governance and visibility overall when private investors are simply paying for ad-hoc projects to abate the effects of their pollution activity.²⁵ Without a central reporting mechanism, these agreements are merely contracts between private parties with uncontrolled externalities.²⁶ Investment banking PES implementations tend to institute more safeguards, but governance is still left to the banks’ discretion in most cases. The European Investment Bank (EIB) is an example of governance headed in the right direction.²⁷ It has reporting

and enforcement safeguards in place to ensure its project funds are being used effectively and as intended.²⁸ It also practices holistic project evaluation before backing funding by ensuring unintended consequences that might actually harm the objective of the project are evaluated.²⁹

Implementing all five objectives in one fell swoop may prove difficult. However, some countries have already figured out how to implement the meat of these strategies using nationally based PES systems. Though not perfect, nationally based systems remain leaders in effective conservation strategies. Mexico, for example, launched its national program, Program for Payments of Environmental Services (PSAB), in 2003, which is centrally funded, leverages strong institutional arrangements, and makes use of the communal property regime.³⁰ Payments are made annually only after progress and compliance are verified through site visits and remote sensing.³¹ Monitoring procedures are implemented by the National Forestry Commission (CONAFOR), which delegates PSAB enforcement responsibilities to a sub-committee.³² Because the sub-committee is comprised of stakeholders covering all facets of PES projects,³³ transparency is easily accomplished.

As a result, Mexico boasts more forested areas today; in 2010, as compared to 2000, Mexico is now deforesting less than 155 hectares per year as compared to 354 hectares annually.³⁴ As deforestation continues to fall steadily in Mexico, PSAB has increased the value of forests to the community through enhanced carbon stocks.³⁵

Overall, PES systems today are flawed and present opportunities for improvement using the five strategies described and the Mexican system as a framework for successful implementation. National PES systems are more effective and true to conservation efforts because they are better positioned to implement the five optimization strategies.³⁶ Changing the way countries think about soft commitments in climate change negotiations will prove important for upcoming UNFCCC conferences where a greater sense of social and environmental responsibility is likely expected from both developing and developed countries.³⁷ So long as true conservationism is placed on the forefront of climate change agendas, the once pervasive “pay to pollute” sentiment should fall to the wayside.



ENDNOTES: RIDDING PES SYSTEMS OF THE “PAY TO POLLUTE” PRINCIPLE: PES OPTIMIZATION STRATEGIES

¹ See generally *Climate Change Mitigation and Adaptation*, Global Greenhouse Warming, <http://www.global-greenhouse-warming.com/climate-mitigation-and-adaptation.html> (last visited Nov. 6, 2015) (defining climate change mitigation versus adaptation components to climate change agreements); see *Climate Change and President Obama’s Action Plan*, The White House, <https://www.whitehouse.gov/climate-change> (last visited Nov. 6, 2015) (describing the components and objectives of the Clean Power Plan—a plan setting a carbon dioxide emissions reduction target to 32% below 2005 levels by 2030, creating first-ever standards for existing power plants); Mark Landler, *U.S. and*

China Reach Climate Accord After Months of Talks, N.Y. TIMES (Nov. 11, 2014), http://www.nytimes.com/2014/11/12/world/asia/china-us-xi-obama-apec.html?_r=0 (reporting on the coined “landmark” reciprocal agreement between the United States and China to curb carbon emissions by 2025 and 2030, respectively).

² The UNFCCC is a conglomerate of signee countries to an international treaty focused on mitigating, adapting to, and abating the impacts of climate change detrimentally impacting ecology and the environment. The focus of

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¹²⁴ See UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *supra* note 106, at 11 (referencing Milwaukee’s zoning code Section 295-203-14, including “cows, cattle, horses, sheep, swine, goats, chickens, ducks, turkeys, [and] geese” in the definition of livestock).

¹²⁵ See *id.*

¹²⁶ See *id.* at 1535-40.

¹²⁷ See *id.* at 1535-36.

¹²⁸ See *id.* at 1538.

¹²⁹ *Supra*, Part II A (discussing how aquaponics systems work).

¹³⁰ See Mogk, *supra* note 103, at 1540 (stating that “agriculture in an urban setting introduces a competitor for clean water).

¹³¹ See *supra* Part II B at 8 (discussing water needs for aquaponics system).

¹³² See IBC, INTERNATIONAL CODE COUNCIL (2012), available at http://publicecodes.cyberregs.com/icod/ibc/2012/icod_ibc_2012_intro.htm (referencing the Preface to the code) (last visited Nov. 20, 2015) [hereinafter IBC].

¹³³ See Nancy J. King & Brian J. King, *Creating Incentives for Sustainable Buildings: A Comparative Law Approach Featuring the United States and the European Union*, 23 VA. ENVTL. L.J. 397, 409 (2005).

¹³⁴ See IBC, *supra* note 133, at Preface.

¹³⁵ See *id.*

¹³⁶ See *id.* at § 101.2.

¹³⁷ See *id.* at § 312.1.

¹³⁸ See *id.*

¹³⁹ See *id.*

¹⁴⁰ See *id.* at § 202 (defining “agricultural building” as “[a] structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products. This structure shall not be a place of human habitation or a place of employment where agricultural products are processed, treated or packaged, nor shall it be a place used by the public).

¹⁴¹ See *id.* at § 3401.1-3401.6.

¹⁴² See *id.* at § 3401.2.

¹⁴³ See *id.* at § 3401.3.

¹⁴⁴ See King, *supra* note 134, at 409.

¹⁴⁵ See, e.g., PHOENIX, ARIZ., 2012 PHOENIX BUILDING CONSTRUCTION CODE AMENDMENTS (2012), available at <https://www.phoenix.gov/pdd/devcode/buildingcode> (last visited Nov. 20, 2015).

¹⁴⁶ *Id.*

¹⁴⁷ See generally, King, *supra* note 134, at 397-402 (discussing the benefits of green building standards and how municipalities can incentivize green development).

¹⁴⁸ See *id.*

¹⁴⁹ See *id.*

¹⁵⁰ See IBC, *supra* note 133, at § 312.1.

¹⁵¹ See *id.*

¹⁵² See CITY OF PHOENIX, INDOOR AGRICULTURE OCCUPANCY CLASSIFICATIONS (2013), available at https://www.phoenix.gov/pddsite/Documents/dsd_trt_pdf_00756.pdf (last visited Nov. 21, 2015).

¹⁵³ See *id.*

¹⁵⁴ See IBC, *supra* note 133, at § 202.

¹⁵⁵ See CITY OF PHOENIX, *supra* note 153.

¹⁵⁶ See *id.* (demonstrating potentially using F-1 Factory Industrial Moderate-hazard and Mercantile classifications for Indoor Agricultural Facilities).

¹⁵⁷ See *id.*

¹⁵⁸ See IBC, *supra* note 133, at § 306.2.

¹⁵⁹ See CITY OF PHOENIX, *supra* note 153.

¹⁶⁰ See *id.*

¹⁶¹ See IBC, *supra* note 133, at § 302.1 (stating that “structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below.”).

¹⁶² See CITY OF PHOENIX, *supra* note 153.

¹⁶³ See *id.*

¹⁶⁴ See *supra* Part IV A (discussing how current building codes function).

¹⁶⁵ See *supra* Part II A (giving a background on how an aquaponics farm works).

¹⁶⁶ See IBC, *supra* note 133, at § 202.

¹⁶⁷ See *id.*

¹⁶⁸ See *id.*

¹⁶⁹ See *supra* Part II B (referencing the cost of water and sixteen to eighteen hours of light each plant needs).

¹⁷⁰ See Wells, *supra* note 4 (discussing renewables in aquaponics farms).

¹⁷¹ See *supra* Part II B (noting the energy requirements discussed earlier in the Article, and that operations will be required to connect to the grid if they are unable to produce enough renewable energy themselves).

¹⁷² See *supra* Part II B (discussing how aquaponics farms do not require fertilizers).

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the UNFCCC is on stabilizing greenhouse gas (GHG) concentrations in the atmosphere to a less volatile and more sustainable level. See *Background on the UNFCCC: The International Response to Climate Change*, http://unfccc.int/essential_background/items/6031.php (last visited Nov. 13, 2015) [hereinafter “*Background on the UNFCCC*”].

³ See *id.*; see also *Kyoto Protocol*, United Nations Framework Convention on Climate Change, http://unfccc.int/kyoto_protocol/items/2830.php (last visited Nov. 6, 2015) (describing the role of the Kyoto Protocol was to set internationally binding emissions reduction targets).

⁴ See generally *id.* (discussing hard number commitments); *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)*, UNFCCC Int., http://unfccc.int/land_use_and_climate_change/redd/items/7377.php (last visited Nov. 14, 2015) (discussing the REDD program which involves other countries helping to finance and provide technical support to developing countries to abate and reverse the effects of deforestation).

⁵ See generally RICHARD B. STEWART ET AL., *CLIMATE FINANCE: KEY CONCEPTS AND WAYS FORWARD 1-2*, available at http://belfercenter.ksg.harvard.edu/files/Stewart_Final_2.pdf (last visited Nov. 13, 2015).

⁶ PES is known by other names including Payment for Ecosystem Services and Green Growth Strategies, but each refers to the same basic type of agreement in which there is a service provider—the landowner, and there is a payor—the person, private company, non-profit, or governmental entity paying for conservation efforts. See generally ORG. FOR ECON. COOPERATION AND DEV., *GREEN GROWTH AND DEVELOPING COUNTRIES: CONSULTATION DRAFT*, 10-11, Org.

for Econ. Co-Operation and Dev., (June 2012), available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&ved=0CEwQFjAFahUKEwiY18CB143JAhVB5iYKHUP9AbE&url=http%3A%2F%2Fwww.oecd.org%2Fenvironment%2Fenvironment-development%2F50559116.pdf&usq=A FQjCNFe2PpRR14wvhO5o85MQA_RfBJ2cw [hereinafter “*Green Growth*”] (“Choosing not to bring more land under cultivation because of the high environmental costs will be difficult for a country with high levels of poverty.”).

⁷ See *Markets and Payments for Environmental Services*, Int’l Inst. for Env’t and Dev., <http://www.iied.org/markets-payments-for-environmental-services> (last visited Nov. 6, 2015) [hereinafter “*Markets and Payments for Environmental Services*”]. These payments are similar, incentive-wise to subsidies and taxes on land for the purposes of achieving conservation goals.

⁸ See *id.*; see also KATOOMBA GRP. AND UNEP, *PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED: A PRIMER 5, 26* (2008), available at http://www.unep.org/pdf/PaymentsForEcosystemServices_en.pdf [hereinafter *PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED*] (discussing how payment for watershed services currently exists in Costa Rica, Ecuador, Bolivia, India, South Africa, Mexico, and the United States).

⁹ Alternatively, many support the contention that PES is instead characterized by the “common but differentiated” principle because historically, developed countries fund PES projects in less developed countries to promote an identified conservation goal, thereby reducing activity responsible for producing climate change effects in exchange for a fee. Therefore, the common purpose is served: reducing climate change impacts. See NATURAL RES. MGMT. AND ENV’T DEP’T FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, *PAYMENTS FOR ENVIRONMENTAL SERVICES WITHIN THE CONTEXT OF THE GREEN ECONOMY 4* (Sept. 2010),

available at <http://www.fao.org/docrep/013/al922e/al922e00.pdf> [hereinafter PAYMENTS FOR ENVIRONMENTAL SERVICES].

¹⁰ Even commitments operating under a guise of true hard commitments to mitigate emissions fall prey to the “pay to pollute” concept because even the Kyoto Protocol allows for carbon credits and trading schemes. See PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED, *supra* note 8, at 5.

¹¹ See *id.* at 3, 5, 10.

¹² See *id.* at 11, 12 (describing the problems associated with PES including: leakage wherein service providers merely shift unsustainable land management operations to other areas not covered by the agreement; lacking institutional capacity and transparency; land ownership issues and lacking property rights regimes).

¹³ See generally John M. Broder, *At Meeting on Climate Change, Urgent Issues but Low Expectations*, N.Y. TIMES (Nov. 27, 2011), http://www.nytimes.com/2011/11/28/science/earth/nations-meet-to-address-problems-of-climate-change.html?_r=0 (noting how the United States and other countries with similar stances adamantly oppose making unilateral binding emission target commitments); Mike McDonald, *US debt helps Costa Rica save planet*, TICO TIMES (Nov. 29, 2010), <http://www.ticotimes.net/2010/11/30/us-debt-helps-costa-rica-save-planet> (reporting on how the United States funded five Costa Rican forest conservation initiatives by forgiving a portion of Costa Rican debt).

¹⁴ See generally *Markets and Payments for Environmental Services*, *supra* note 7.

¹⁵ See generally *id.* (discussing PES as a market-based conservation strategy).

¹⁶ Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Oil Pollution Act (OPA), both statutory bodies allow for the restoration of natural resources lost in the spill or leakage. See CERCLA, 42 U.S.C. § 107(a)(4)(C) (“damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release”); 33 U.S.C. § 1012(a)(2). The measure of damages is the cost of restoring injured resources to their baseline condition. See 43 CFR Part 11; 15 CFR Part 990.

¹⁷ INT’L BANK FOR RECONSTRUCTION AND DEV./WORLD BANK, LESSONS LEARNED FOR REDD+ FROM PES AND CONSERVATION INCENTIVE PROGRAMS 79 (2012), available at <http://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/Documents/Full%20version%20of%20PES%20Lessons%20for%20REDD+%20March%202012.pdf> [hereinafter LESSONS LEARNED FOR REDD+].

¹⁸ CONVENTION ON BIOLOGICAL DIVERSITY, CASE STUDIES OF BIODIVERSITY MARKETS FOR FOREST ENVIRONMENTAL SERVICES 10, available at <https://www.cbd.int/financial/pes/several-pes-iiid.pdf> (last visited Nov. 18, 2015).

¹⁹ See *Markets and Payments for Environmental Services*, *supra* note 7.

²⁰ See PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED, *supra* note 8, at 11, 12.

²¹ See *id.*

²² See generally GREEN GROWTH, *supra* note 6, at 10 (“Choosing not to bring more land under cultivation because of the high environmental costs will be difficult for a country with high levels of poverty.”).

²³ See generally PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED, *supra* note 8, at 45-46 (indicating that each member of the communally owned property has property transfer rights, and therefore some decision making capacity). Also, communal property regimes are more common in developing countries, which makes this strategy congruent with strategy number three: targeting developing countries. See *id.* at 10 (citing that as many as twenty percent of forests formally recognized as communally owned); David Bray, *Mexican Common Property Forest Governance*, http://p2pfoundation.net/Mexican_Common_Property_Forest_Governance (last updated July 18, 2013) (indicating that democratic land management such as communal property ownership is effective in the context of PES implementations because there are lower transaction costs, a sense of kinship and mutual knowledge, and easier governance, including self-governance using community leaders and an elected assembly that has decision making and contract monitoring capacity).

²⁴ See PAYMENTS FOR ENVIRONMENTAL SERVICES, *supra* note 8, at 9.

²⁵ SISSEL WAGE, INVESTING IN THE FUTURE: AN ASSESSMENT OF PRIVATE SECTOR DEMAND FOR ENGAGING IN MARKETS & PAYMENTS FOR ECOSYSTEM SERVICES, 6 (Mar. 2007), available at http://www.katoombagroup.org/documents/tools/FT-FAO_Private%20Sector%20Buyers%20Report%20_Mar%202007.pdf (explaining that the majority of PES transactions for private investors are in the realms of mitigation and carbon credit trading).

²⁶ See PAYMENTS FOR ECOSYSTEM SERVICES GETTING STARTED, *supra* note 8, at 15, 16, 50 (citing negative externalities such as leakage).

²⁷ See generally *Environmental and Social Safeguards*, European Inv. Bank, (June 19, 2006), <http://www.eib.org/infocentre/press/news/all/environmental-and-social-safeguards.htm> [hereinafter *Environmental and Social Safeguards*] (discussing the necessity of conducting environmental and biodiversity impact assessments prior to securing funding for a project and the Natural Capital Financing Facility (NCFF) which supports ecosystem service projects and requires the same safeguards as other projects facilitated by the EIB).

²⁸ See EUROPEAN INV. BANK, THE EIB STATEMENT OF ENVIRONMENTAL AND SOCIAL PRINCIPLES AND STANDARDS 11 (2009), available at http://www.eib.org/attachments/strategies/eib_statement_esps_en.pdf (describing that one of the EIB’s objectives is to monitor the environmental and social performance of the projects it finances, including the specific obligations described in the Financing Contract with the entity receiving funding to encourage transparency, participation and consultation, and integrated planning).

²⁹ See *Environmental and Social Safeguards*, *supra* note 27.

³⁰ See LESSONS LEARNED FOR REDD+, *supra* note 17, at xvii. PSAB is currently funded through a conglomerate of federal sources, “amounting to approximately \$100 million USD of project funds per year, distributed through the Mexican Forest Fund” and currently covers 2.2 million hectares of forest. Most of the Mexican Forest Fund’s budget comes from the CONAFOR and international donors such as the World Bank. See *id.* at 115-16. The communal property system is comprised of two structures: Mexican ejidos and comunidades; the former entails farmers without a land title, whereas the latter are indigenous people holding territories tracing back to the Spanish crown; see David Bray, *Mexican Common Property Forest Governance*, http://p2pfoundation.net/Mexican_Common_Property_Forest_Governance (last visited Nov. 15, 2015).

³¹ See LESSONS LEARNED FOR REDD+, *supra* note 17, at 16. Remote sensing is scanning the Earth by satellite or aircraft to gather information about the surface, atmosphere, and water.

³² See *id.* at 49. Conservation responsibilities are also doled out to independent government entities, such as the Ministry of Environment, leading to environmental goals that are more likely to remain at the forefront of priorities and reporting and enforcement mechanisms are readily available. See *id.* at 2-3.

³³ See *id.* (The national ProArbol Technical Committee is a sub-committee comprised of representatives from the federal government, civil society, indigenous and rural communities, and the timber industry).

³⁴ JARROD RUSSELL, PAYMENTS FOR ENVIRONMENTAL SERVICES: A MARKET MECHANISM PROTECTING LATIN AMERICAN FORESTS, EVIDENCE AND LESSONS FROM LATIN AMERICA 5, available at http://ella.practicalaction.org/wp-content/uploads/files/131112_ENV_TheGreEco_BRIEF4.pdf (last visited Nov. 13, 2015).

³⁵ See generally LESSONS LEARNED FOR REDD+, *supra* note 17, at 79.

³⁶ See generally *id.* at xvii.

³⁷ See generally *Meetings: Upcoming Sessions*, United Nations Framework Convention on Climate Change, https://unfccc.int/meetings/upcoming_sessions/items/6239.php (last visited Nov. 6, 2015) (noting CoP 21 scheduled Paris France for November and December 2015).