Zainab Mirza May 6, 2018

From International Framework to Domestic Law: The Translation of REDD+ into National Forestry Legislation

Abstract

How do international frameworks transform national laws? More specifically, what are the effects of REDD+ Framework on the national forestry laws of Brazil and Papua New Guinea? The failure to manage land appropriately and sustainably is causing widespread consequences to the human environment. To combat land mismanagement and deforestation, the United Nations Framework Convention on Climate Change (UNFCCC) created the Reducing Emissions from Deforestation and Forest Degradation (REDD+) Framework. REDD+ is a global initiative to reduce carbon emissions related to deforestation in developing countries. REDD+'s mission goes beyond its name; the 'plus' is used to represent three other goals that were added in later negotiations of the program. The shift from RED to REDD+ between 2005 and 20015 is an example of mission creep, where programs become expansionary in their objectives. In this study, I examine two cases, Brazil and Papua New Guinea, both states are strongly committed to the initiative. This case selection allows for generalizability to the other 65 REDD+ countries as well as other international policy. I analyzed each country's forestry legislation, the reports submitted by each country to the REDD+ process, and the work of national-level REDD+ committees. I evaluate the successfulness of international policy by comparing national forestry laws and their resemblance to the language of REDD+ policy. I further examined to see if mission creep played a role in policy transformation. This structured methodology can be replicated in further research for a variety of cases. In previous literature concerning land mismanagement, there is a concern about the best methods to practice managing land effectively and sustainably. Although my initial expectations were that REDD+ will have significant influences on forestry laws of states who are deeply engaged in REDD+ negotiations that did not seem to hold true. Furthermore, the role of mission creep seems to have had limited influences on national forestry legislation. Despite this, REDD+ does seem to have an influence on the forms of governance of both countries because national REDD+ committees were present in both cases. Environmental sustainability and consciousness must be a global priority as the effects of climate change are increasing, therefore, understanding the effectiveness of environmental policy is critical.

Introduction

REDD+ is an international forestry protection framework that has been recently enacted to financially incentivize developing countries to preserve land. For REDD+, (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries), to function as an effective mechanism for forestry protection, the international framework must be translated in a meaningful fashion into domestic laws and practices. ¹ A timely translation of international language would indicate that there is, in fact, a top-down influence which signifies the importance of international environmental policy.

REDD+ came to be through the United Nations Framework Convention on Climate Change (UNFCCC), a treaty which was ratified by 197 countries known as the Parties to the Convention.² The goal of the UNFCCC is to decrease anthropogenic causes of climate change which includes that of "Land Use and Climate Change."³ The Conference of the Parties (COP), the governing body of the UNFCCC, developed the "Warsaw Framework for REDD+."⁴ The original goal was to "reduce emissions from deforestation" (RED) which then developed over the next ten years to its final form, REDD+, "Reducing Emissions from Deforestation and Forest Degradation (in developing countries) +."⁵ The 'plus' represents three related goals concerning forest carbon stocks and sustainability.⁶ I began examining the documents of the UNFCCC and REDD+ Platform to understand exactly what the goals of the program are.⁷ At COP-11 (Montreal, 2005) and COP-13 (Bali, 2007) the focus was on RED initiatives however at COP-14

¹ "REDD+ Web Platform," United Nations Framework Convention on Climate Change, 2017, <u>http://redd.unfccc.int/</u> ² UNFCCC, "UNFCCC Essential Background," United Nations Framework Convention on Climate Change, 2018, http://unfccc.int/essential_background/convention/items/6036.php ³ Ibid

⁴ UNFCCC, "UNFCCC Land Use and Climate Change," *United Nations Framework Convention on Climate Change*, 2017, http://unfccc.int/land_use_and_climate_change/items/8792.php.

⁵ Timothy Laing, Luca Taschini and Charles Palmer. "Understanding the Demand for REDD+ Credits," *Environmental Conservation* 43, no. 4 (2016), 390.

⁶ Ibid.

⁷ "REDD+ Web Platform," 2017

(Poznan, 2008) there was a pivotal change to incorporate more goals and thus REDD+ became the new initiatives.⁸ The broadening of the initial goals of RED can be best described as an instance of mission creep. Mission creep has historically referred to the broadening of militaristic goals, however, has since evolved to consider the evolution of goals of non-profit and nongovernmental organizations.⁹

The literature review that I conducted categorizes the existing scholarship that examines similar puzzles relating to land management mechanisms into three distinct schools of thought. I have established the following; national mismanagement of land, pricing of the environment and global governance. I detail each study as they relate to each other and the existing theories they propose. This background and the literature that was examined has lead me to propose the following research question: What are the effects of REDD+ Framework on the national forestry laws of Brazil and Papua New Guinea (PNG)? I hypothesize that REDD+ goals would be included in the national forestry policies of countries that are signatories to the agreement. However, I find that softer forms of governance emerged, specifically the establishment of REDD+ national committees.

To reach this conclusion and understand the lack of translation of REDD+ from the international to the domestic contexts and furthermore the presence of mission creep, I employed a cross-case study analysis from John Gerring's framework.¹⁰ I specifically investigated the language of REDD+ as it appears (or fails to appear) in the forestry protection codes of Brazil and PNG. Brazil and PNG are both highly committed countries to REDD+. Furthermore,

⁸ "The REDD Desk," Global Canopy Programme, 2017, https://theredddesk.org/what-redd#table-of-contents

⁹ "Mission Creep," Merriam-Webster.com, https://www.merriam-webster.com/dictionary/mission creep, (Accessed March 1, 2018).

¹⁰John, Gerring. *Case Study Research: Principles and Practices*, 2d ed. (Massachusetts: Cambridge University Press, 2012).

REDD+ is a very specific framework that requires states to be immersed in the process so that individual countries can have the highest possible benefit of the program that fits their unique region. Despite this, the paper finds that as of May 2018, the REDD+ framework has not led to an identifiable change in the forestry codes.

Literature Review

Introduction

The literature regarding environmental degradation is complex due to the inherent interconnectivity of the topic. The schools of thought that I have established have educated my decision to research elite and official sources to understand the effects of policy expansion and mission creep. The first school of thought I examine is national land mismanagement. Scholars in this school of thought are concerned with the ineffectiveness of land usage on the national level. The next school of thought, pricing of the environment, is a highly debated as some scholars see it as a mechanism for forest maintenance and others are concerned with ethical ramifications of this practice. Lastly, global governance scholars have theorized that international institutions fail to meet their goals. These schools of thought are valued in my analysis as they mostly support my findings.

National Mismanagement of Land

Scholars in the national land mismanagement school of thought explain puzzles like this by emphasizing that managing the land at a national level has proven to be ineffective. A central cause of environmental degradation is the mismanagement of land. It would be worthwhile to mention that REDD+ is the first international mechanism for directly addressing land management, however, it puts the work on individual countries. Therefore, scholars have mainly examined national policies that have failed to adequately combat land exploitation.

In a case study of Madagascar, the government made a commitment to increase the area of protected land from 1.7 to 6 million hectares (ha) through a community-based initiative, KoloAla, a USAID program.¹¹ Outdated management mechanisms were introduced into new regions and the implementation of "cookie-cutter" solutions failed.¹² In 2015, the Boreal Leadership Council in Canada proposed a framework to conserve and manage land.¹³ The framework is specific to Canada's domestic land management problem, however, has yet to reach the goals that were set by the Council in 2010.¹⁴ In both cases of Madagascar and Canada, the national initiatives for adequate land management are failing. These cases are highlighting that national programs and policies are implemented, however, the outcomes fall short of success.

To investigate factors that result in ineffective land management, a study in Germany examined stakeholder's perceptions of sustainability.¹⁵ Stakeholders similarly prioritized economic value.¹⁶ This study is meant to suggest a common ground for sustainable land management; a market of sustainability needs to be profitable to insight change.¹⁷ In the policy

¹¹ Zora Lea Urech and Jean-Pierre Sorg, "Challenges for the Community-Based Forest Management in the KoloAla Site Manompana," *Environmental Management* 51, (2013), 602.

¹² *Ibid*, 612

¹³ Matthew Carlson, "Balancing the Relationship Between Protection and Sustainable Management in Canada's Boreal Forest," *Conservation and Society* 13, no.1 (2015), 17.

¹⁴ *Ibid*, 17

¹⁵ Andrej Lange, Rosemarie Siebert and Tim Barkmann, "Sustainability in Land Management: An Analysis of Stakeholder Perceptions in Rural Northern Germany," *Sustainability* 2015, no.7 (2015), 683.

¹⁶ *Ibid* 693.

¹⁷ *Ibid*, 701.

examples of Madagascar and Canada, stakeholder's priorities were not explicitly identified and may serve to be useful. This study stressed the importance of the REDD+ safeguards during my case selection. In the Mediterranean, the degradation of land due to the failure of managing various human pressures has lead economic difficulties.¹⁸ If this continues, policymakers can expect pressure to prepare 'timeless' policy to ensure the long-term health of the environment.

Pricing of the Environment

Scholars in the pricing the environment school of thought have clarified why there may be pushback to a REDD+ initiative. Two theories that arise; pro-pricing the environment and anti-pricing the environment. "Pricing the environment" is the intentional monetization of natural resources to understand the value of them.¹⁹ This is a highly debated concept because environmentalist believe that natural resources are in fact too valuable to price. Philip McMichael argues that those who encourage this action have "privileged monetary relations and measures often at the cost of the non-monetary resources."²⁰ Essentially, privileged actors are making economic decisions on a broad scale that the bottom 50% would not prioritize or agree with.²¹

On the other hand, other scholars believe valuation allows for a human understanding of the worth of natural resources.²² Cruz et al. theorize that the next phase of international development will focus on the relationship between sustainability and economic incentive.²³ In

 ¹⁸S. Bajocco, A. De Angelis, L. Perini, A. Ferrara and L. Salvati, "The Impacts of Land Use/Land Cover Changes on Land Degradation Dynamics: A Mediterranean Case Study," *Environmental Management*, 49, (2012) 980-981.
¹⁹ M. Jacobs, Sustainable Development: Greening the Economy, *Fabian Society*, 1990, 6-8.

²⁰ Philip McMichael. *Development and Social Change: A Global Perspective*, 5th edition. (New Delhi: SAGE, 2012).

²¹ *Ibid*, 251-283.

²² Wilford Cruz, Mohan Monasinghe and Jeremy Warford. "Greening Development: Environmental Implications of Economic Policies," *Environment* 38, no.5 (1996), 6.

²³ *Ibid.*, 6.

the case of countries with small economies, there have been increases in the rate of subsidies and taxes on commodities that relate to environmental issues.²⁴ As exploitation becomes unprofitable, natural resources have a stronger likelihood of regrowth.²⁵ Cruz et al. examined eleven cases that were selected by the World Bank and studied the relationship between economics and environmental protection.²⁶ They concluded that through environmental exploitation, developing countries can increase their wealth.²⁷ A solution would be to increase sustainable development practices and commit to economy-wide reforms.²⁸ REDD+ strives to do exactly this, however, the economic benefits of deforestation still outweigh those of protection and conservation.²⁹

This model may not even be enough for the private sector anymore due to generally low profitability.³⁰ In "pricing" the environment with REDD+, it may be the case that after some time of continued preservation, exploitation is inevitable. This idea makes a strong case for expanding REDD+ policy, to avoid the extreme of degradation. By focusing on the economic value of land, will society be able to move past using monetary value to judge the importance of a resource or will it be too late? This school of thought focuses on how researchers understand the foundation of environmental policy.

Global Governance

²⁴Yasuhiro Nakamoto and Koichi Futagami. "Dynamic Analysis of Renewable Resource in a Small Open Economy: The Role of Environmental Policies for the Environment," *Environmental Resource Economics* 2016, no.64 (2015), 393.

²⁵ *Ibid*, 394.

²⁶ Cruz, et al., 6.

²⁷ *Ibid*, 37.

²⁸ *Ibid.*, 6.

²⁹ As of May 6, 2018

³⁰Laing, 390.

The scholars in the global governance school of thought emphasize that on an international level, positive change is unlikely. International institutions themselves do not provide enough structure to make sustainable changes for the environment. Global governance refers to the shift in history when global institutions assumed a more powerful governing role.³¹ This allows actors to be able to address multiregional concerns.³² Some scholars established that there is an international will to 'save the environment,' from complete degradation, however, international institutions have an unfortunate precedent of lacking concrete plans, being poorly set-up, and failing to motivate locals.³³ Robbins et al. found that the initial fears are that laws poorly match ecological systems and norms fail to materialize because of the constantly evolving environmental conditions.³⁴ Ideas are present but there is a failure to follow through.³⁵ The UN (specifically regarding the environment, the UNFCCC) is at the head of the table mobilizing governments of concerned states, however, they are failing to incorporate local concerns. This leads scholars such as Suiseeya to be concerned that global governance will "exacerbate injustices."³⁶ These studies ultimately display failure because it is difficult to instill policy on a broad spectrum especially when the system itself disregards lower socio-economic classes.

From 1985 to 2010, there was a push to decentralize forest management in developing countries to allow for locals to manage land at a grassroots level. However, due to the introduction of REDD+, several scholars worry that the benefits from decentralization may be

³¹ McMichael, 127.

³² *Ibid*, 129.

³³ Stephanie Mansourian, "Understanding the Relationship Between Governance and Forest Landscape Restoration," *Conservation and Society* 14, no.3 (2016), 267.

³⁴Paul Robbins, John Hintz and Sarah A. Moore. *Environment and Society: A Critical Introduction*, (Oxford: Wiley-Blackwell, 2010), 53.

³⁵ *Ibid*, 268.

³⁶ Kimberly Suiseeya, "Contesting Justice in the Global Forest Governance: The Promises and Pitfalls of REDD+," *Conservation and Society* 15, no.2 (2017), 189

undermined.³⁷ Thales West is fearful that increased REDD+ initiatives in Brazil will diminish grassroots organizing.³⁸ REDD+ stems from the same system that has established most international environmental agreements and programs, therefore, it is widely believed that the need for REDD+ to be "different" than the past is based on the history of failed policy.

Clapp and Dauvergne discuss how the initial momentum from the Stockholm Conference in 1972 was energizing but in 1992 at Rio +20 "Johannesburg," individual countries failed to meet environmental goals due to lack of accountability.³⁹ Global institutions are increasing their presence, yet still do not seem to meet their objectives. If communities had a central role in environmental programming, the increase in morale and cooperation may be possible.

Conclusion

Authors have criticized methods of land management, the ideology of environmental pricing, and the role of transnational actors. Mismanagement of land is a universal issue and REDD+ challenges this school of thought because it is a mechanism that that balances a bottomup approach. However, the sheer role of the UNFCCC may compromise progress. Researchers who study global governance have agreed that international power dynamics are being challenged. I am especially concerned with national land mismanagement and global governance because REDD+ itself attempts to falsify these two schools of thought. This literature has strengthened my understanding regarding the evolution of land management policy and has

³⁷ Jacob Phelps, Edward L Webb and Arun Agrawal, "Does REDD+ Threaten to Recentralize Forest Governance?" *Science* 328, no.5976 (2010), 312-313.

³⁸Thales A. P. West, "Indigenous Community benefits from a de-centralized approach to REDD+ in Brazil," *Climate Policy* 16, no.7 (2018), 925.

³⁹Jennifer Calpp and Peter Dauvergne, "Brief History of International Environmental Cooperation," in *Global Environmental Politics: Person to Planet*, ed. Paul Wapner and Simon Nicholson (New York: Routledge, 2015), 124-129.

allowed me to conduct an in-depth cross-case analysis to understand the translation and effects of environmental policy.

Methodology

Historical Context & Justification of Methodology

The international conversation on environmental sustainability was formally initiated in 1972 with the United Nations Conference on the Human Environment (UNCHE) in Stockholm, Sweden.⁴⁰ This conference and those that followed focused on governments' role in monitoring and establishing an environmentally conscious framework for human activities. Prior to the 2005 REDD+ negotiations, there was a lull within the environmental community with respect to forestry and land management.⁴¹ REDD+ is one of the first international documents specifically designed to address deforestation. REDD+ offers a mechanism for economic incentives to preserve land and practice environmental sustainability.⁴² In the early negotiations of the REDD+ platform, there was a focus on land protection, which has since evolved to consider protection of the land's health and quality as well as sustainable management and carbon stocks.⁴³ This is an example of mission creep, the gradual broadening or shift of the original goal after an action has begun.⁴⁴ This instance of mission creep occurred within the context of a multilateral institution during policy negotiations from 2005 to 2015. The language shift of

⁴⁰ United Nations. "United Nations Conference on Human Environment," 2018. <u>http://www.un-documents.net/unche.htm</u>

⁴¹E. O. Nuesiri, "Feigning Democracy: Performing Representation in the UN-REDD Funded Nigeria-REDD Programme," *Conservation and Society* 15 no.4 (2017), 384-399.

⁴² REDD-UNFCCC. "Fact Sheets, Warsaw Framework for REDD," *REDD-UNFCCC*, 2018, http://redd.unfccc.int/fact-sheets/warsaw-framework-for-redd.html

 ⁴³ "The REDD Desk," Global Canopy Programme, 2017, https://theredddesk.org/what-redd#table-of-contents
⁴⁴ "Mission Creep," March 1, 2018.

REDD+ negotiations is an instance of mission creep; therefore, this study will examine the degree to which the evolving language at the international level is reflected in national forestry law. REDD+ is an instrument to encourage individual developing states to take initiatives to reduce emissions associated with the five forestry related goals.⁴⁵

REDD+ is also one of the few international documents that resemble 'hard law.'⁴⁶ International law, specifically within the environmental community, tends to be rather informal and offer amendments and reservations. International laws and treaties themselves tend to be "for show" and yet REDD+ requires signers to comply with very specific regulations and standards. Considering REDD+ aligns itself to a more binding nature, it would be expected that parties would be committed enough to incorporate these goals into their national practices.

The cross-case study analysis offers an approach to provide a detailed explanation of multiple cases. In a cross-case study, detail is important but not as necessary as it would be in a single case study.⁴⁷ A cross-case study is often rooted in qualitative approaches that allow for similarities and differences to be easily identified across cases through visual displays, such as charts.⁴⁸ 65 parties have agreed to the REDD+ platform and this study will compare two cases, Brazil and PNG, to develop a detailed analysis in line with the methodological literature. ⁴⁹ Specific to this research, official documents were analyzed to understand the translation of international frameworks into national laws. After the individual cases were examined, the cases were "crossed" to note any similarities and differences. This approach offers further replication opportunity to understand the commitment levels of other parties to REDD+ and their national

 ⁴⁵ REDD-UNFCCC. "Fact Sheets National Strategy," 2018, http://redd.unfccc.int/fact-sheets/national-strategy.html
⁴⁶ Kenneth W. Abbott and Duncan Snidal, "Hard and Soft Law in International Governance," *International*

Organization, 54, no.3, (2000), 421-456.

⁴⁷ Gerring, 30.

 ⁴⁸ Sandra Mathison. "Cross-Case Analysis in Encyclopedia of Evaluation," (SAGE Publications, 2005), 96-97.
⁴⁹ *Ibid.*

response. The cross-case study approach offers an opportunity to shed light on more cases, specifically, the other 65 REDD+ parties.⁵⁰ Furthermore, this methodology could be replicated in research of other international agreements beyond REDD+. Also, it is possible to use a historical approach which will provide a more holistic view as to why or why not there are agreements between international and national goals. This research methodology provides the opportunity to produce generalized claims which can also be replicated with a larger case selection. Due to the component of mission creep, it is best to analyze official documents, agendas, and decisions that may reflect the effects over time. These are accessible through published documents by the UN, other international bodies, and the individual governments of Brazil and PNG.

Case Selection

The cases that will be examined are two 'best case scenario' countries, Brazil and PNG.⁵¹ There are 65 parties to REDD+ and 57 of them have produced some type of national strategy submission to the UNFCCC.⁵² I will once again note that though REDD+ is a mechanism for developing countries, five of these submissions come from 'developed' countries. These five countries submit proposals to detail how they will make efforts to incorporate sustainable management practices as well as how they will institute a process to fund REDD+.⁵³ Four developing countries have officially completed submissions of their REDD+ national goals; Brazil, Chile, Ecuador, and Malaysia. Of these four, Chile is the only party that has failed to submit the environmental and social safeguards for their REDD+ implementation strategy.⁵⁴

⁵⁰ *Ibid*, 31.

⁵¹ Gerring, 132.

 ⁵² REDD-UNFCCC. "REDD Submissions," *REDD-UNFCCC*, 2018, <u>http://redd.unfccc.int/submissions.html</u>.
⁵³ Ibid.

⁵⁴REDD-UNFCCC, "Fact Sheets Safeguards," *REDD-UNFCCC*, 2018, <u>http://redd.unfccc.int/fact-sheets/safeguards.html</u>.

Limitations in my case selection arose from language barriers and lack of access to official documents necessary for analysis, therefore, I am unable to use some cases such as Ecuador and Malaysia.

The Ministry of the Environment in Brazil has submitted the necessary documentation to become REDD+ certified.⁵⁵ Furthermore, the government has taken action to establish The National REDD+ Committee as well as the Working Group of Technical Experts on REDD+.⁵⁶ Brazil has a vested interest in land management policies considering over 60% of their exports are land-based.⁵⁷ REDD+ was developed by research institutes in Brazil prior to becoming a formal proposal headed by PNG and Costa Rica.⁵⁸ Brazil began to voice a formal opinion on RED in 2006 when the government submitted a proposal for a solution to deforestation.⁵⁹ Brazil is an eager participant it REDD+ and therefore it is important to examine if this eagerness is reflected in their specific national policies and guidelines. The second case is PNG. PNG was one of the two parties to introduce RED to the UNFCCC during the 2005 COP in Montreal.⁶⁰ PNG has clear vested interest in RED from the beginning, however, it is uncertain if they are complying with all requirements because they have failed to submit an appropriate amount of

⁵⁵ Ministry of the Environment of Brazil. "ENREDD+ National REDD+ Strategy: Brazil Submission," *Government of Brazil*, 2016, http://redd.mma.gov.br/images/publicacoes/enredd_english_web.pdf

⁵⁶ Ministry of the Environment of *Brazil. "REDD+ Brasil" Government of Brazil,* 2018, http://redd.mma.gov.br/en/ ⁵⁷ AJG Simones, and C.A. Hidalgo, *The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development.* Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence, 2011, https://atlas.media.mit.edu/en/profile/country/bra/

⁵⁸ M. Skutsch, "Evolution of International Policy on REDD+," *Oxford Research Encyclopedias: Climate Science*, 2017.

⁵⁹ Brazil. "Brazilian Submission on Issues Relating to Reducing Emissions from Deforestation in Developing Countries," 2006, http://unfccc.int/resource/docs/2006/sbsta/eng/misc05.pdf

⁶⁰ UNFCCC Secretariat. "Key Decisions Relevant for Reducing Emissions from Deforestation and Forest Degradation in Developing countries (REDD+)," *UNFCCC*, 2016.

http://unfccc.int/files/land_use_and_climate_change/redd/application/pdf/compilation_redd_decision_booklet_v1.2. pdf . 2.

work to begin the process. PNG also has a rising deforestation issue. Greenpeace UK recently discovered massive deforested land sites that have been initiated by various corporations.⁶¹

I recognize that REDD+ may be examined at multiple levels, from international to local. However, I have determined that it is in the best interest of this research to focus on the macrolevel because of the influence that international policies hold. In theory, signing international agreements will translate to stronger compliance. Compliance can be measured in a variety of ways. For the instances of Brazil and PNG, both long-time proponents of REDD+, it would be expected that they hold their individual countries to REDD+ standards. This, the presence of REDD+ in national laws measure compliance. If any state were to be influenced by REDD+ to make changes domestically, I see it to be these two cases most likely to do so. I have measured this influence by using the REDD+ language as an indicator.

Variables

The variables for this study will be measured on a nominal scale. The influence of mission creep will be categorized through my independent variable. Each goal represents an instance of mission creep.

Reducing emissions from deforestation

2005 – COP 11, Montreal; The initial goal of this program, proposed by the governments of Papua New Guinea and Costa Rica.⁶² To reduce emissions associated with deforestation, a country must be committed to controlling the number of trees that are forcibly removed. Other emissions associated with deforestation may include the actual process.

Reducing emissions from forest degradation

2007 – COP 13, Bali; This goal was brought into the conversation because the UNFCCC recognized that forest degradation also contributes to increased emissions.

Conservation of forest carbon stocks

⁶¹ Angela Glienicke, "Massive Deforestation Linked Major Consumer Brands," *Greenpeace UK*, May 2, 2018, https://www.greenpeace.org.uk/pictures-massive-deforestation-linked-major-consumer-brands/. ⁶² *Îbid*

2010 – COP 16, Cancun; Forests are massive carbon sinks/stocks and by preserving the current forests, carbon is maintained.

Sustainable management of forests

2010 - COP 16, Cancun; Sustainable management allows humans to use forests in a way that they continue to be a renewable and reliable resource.

Enhancement of forest carbon stocks

2010 - COP 16, Cancun; Reforestation efforts can increase carbon stocks/sinks and remove carbon that is in the air. This will have many positive effects including the reduction of overall air pollution.

The national forestry laws will be the dependent variable. This study is tracing the language presence and when it was incorporated into national forestry legislations. I will use the specific language from each of the REDD+ goals to determine if it is present or absent in the national forestry laws. In both cases of Brazil and PNG, I expect that their will changes in national policies and the inclusion of REDD+ goals will be present.

Data Sources

In gathering data for analysis, I have drawn on official and elite sources. The official documents, agendas, decisions, and policy of REDD+ is the basis of this research. In addition, I will use online REDD+ specific websites to cross-reference data from the international documents.⁶³ I will rely on official documents produced by the governments of Brazil and PNG. I will have access to these via the official government websites of these countries. I will also use the "Forestry Legality" web platform to ensure that any laws that refer to forestry are examined.

⁶³ These websites include coderedd.org, redd.unfccc.int, theredddesk.org, and unfcc.int

Causal Model



Hypothesis 1: Highly committed countries to REDD+ will share REDD+ goals in the national forestry laws of Brazil and Papua New Guinea.

Hypothesis 2: The phenomena of mission creep at the international level will result in changes of national forestry laws of Brazil and Papua New Guinea.

Conclusion

Gerring's cross-case study has allowed me to deeply analyze two similar cases, Brazil and PNG. Both countries have displayed a deep commitment to REDD+ and therefore should reflect similar goals nationally. The independent variable is measured on a nominal scale, REDD+ language. The dependent variable, national forestry laws, was subject to access and availability. My dependent variable was contingent on my case selection, access to forestry legislation was prioritized in determining the cases. REDD+ has officially been in effect since 2015, however, it was in the works for the preceding ten years, and that provides an ample amount of time for states to incorporate their international commitments to their national policies.

Analysis of Data

The REDD+ Program, a clear example of mission creep, has a limited contribution to the national forestry laws of Brazil and PNG. Furthermore, the role of mission creep seems to have

had limited influences on national forestry laws. However, REDD+ does seem to have an influence on the government structure of both countries.

The problem of deforestation is the common factor for the developing countries that REDD+ is attempting to address, however responses to the issue are varying, even amongst the most committed countries. The expansion of REDD+ to include forest degradation, sustainable management of forests and conservation and enhancement of forest carbon stocks may be beneficial because it allows room for more developing countries with diverse land-related issues to be involved with the efforts to mitigate climate change. On the other hand, when there is a lack of a clear goal, the tangible response may be weakened. The five REDD+ goals were not seen to have provided *significant* national value to either case of Brazil or PNG. In the following section, a discussion of these factors will be carried out in relation to the findings, or lack thereof, regarding the inclusion of REDD+ goals in national forestry law. Furthermore, I will explain that I did not discover any significant role of mission creep in the formation and evolution of national forestry laws.

	Reducing Emissions from deforestation (2005)	Reducing emissions from forest degradation (2007)	Conservation of forest carbon stocks (2010)	Sustainable management of forests (2010)	Enhancement of forest carbon stocks (2010)
Brazil – Ministry of the Environment	No Implementing Language Found	No Implementing Language Found	-Article 1 section 1 (2012) "preservation of its forests" ⁶⁴	- Article 1 section 3 (2012) "sustainable use of forests" ⁶⁵ - Article 1 section 5 (2012)	No Implementing Language Found

The Presence of REDD+ in National Forestry Laws

⁶⁴ Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs. Law N 12.727 Forestry Codes. 17 October 2012. <u>http://www.fiapng.com/forestry_act_1991.html</u>

⁶⁵ Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs, October 2012.

Mirza	18
-------	----

				"promote scientific and technical research [for] recovery and preservation of forests"66	
PNG	No Implementing Language Found	No Implementing Language Found	No Implementing Language Found	No Implementing Language Found	No Implementing Language Found ⁶⁷

Table 1: Presents country cases and their implementation of the five REDD+ goals. Noted are the national forestry laws of Brazil and PNG where REDD+ initiatives are present only after 2005.⁶⁸ Both Brazil and PNG have dedicated national committees to REDD+, therefore in that respect, all five goals are present in their national discussion of land management.

Case Analysis: Brazil

Brazil has recognized an issue of deforestation throughout the country.⁶⁹ The Ministry of

the Environment of Brazil holds a strong recognition of and devotion to REDD+ policies. Brazil

was even one of the major leaders in bringing forth the REDD+ goals relating to carbon sinks.⁷⁰

Their commitment is exemplified by the government's submission of the necessary

documentation required by REDD+ to reach the implementation stage.⁷¹ Brazil is one of the four

countries that has provided specific emission goals and the social and environmental safeguards

⁷¹Ministry of the Environment of Brazil. 2014,

⁶⁶ *Ibid*, 2012

⁶⁷ Section 30(1) states "to make recommendations to the Chairman of the Provisional Forestry Committee on... (f) reforestation..." Reforestation is a measure to enhance forest carbon stocks, however, this was written in the 1996 Forestry Laws of PNG.; Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs, October 2012.; Section 135subsection x.

⁶⁸ 2005 is the year that REDD+ was introduced and therefore any legislation prior to this would not indicate that REDD+ could have had an impact on the legislation

⁶⁹ Brett Smith, "Brazil: Environmental Issues, Policies and Clean Technology," *AZO CleanTech*, June 25, 2015, <u>https://www.azocleantech.com/article.aspx?ArticleID=547</u>

⁷⁰ UNFCCC. "Issues relating to reducing emissions from deforestation in developing countries and recommendations on any further process." *UNFCCC*, 2006,

http://unfccc.int/resource/docs/2006/sbsta/eng/misc05.pdf

http://redd.mma.gov.br/en/images/Publicacoes/Brazil%20and%20the%20implementation%20of%20the%20Warsaw %20Framework%20for%20REDD_24nov2014_final.pdf

for the program.⁷² Despite a positive face to the international community, their national policies reveal that this may not be as big of a national priority as it seemed.

In an in-depth examination of the governing documents regarding forest management, the Forestry Codes of 2012 (which were written in May and amended in October), there are a couple of indications that REDD+ language is relevant.⁷³ The major "mission expansion" phase to REDD+ was introduced in 2010, and some of the wording from the international framework is being used in the Brazilian Codes of 2012.⁷⁴ For example, REDD+ language is present in the Forestry Codes of 2012 in requiring the sustainable use of forests.⁷⁵ The Forestry Codes also value conservation of forest stocks because they want to "preserve" their forests.⁷⁶ However, the Codes do not once mention anything regarding GHG or air pollution. These codes were completed in 2012 after REDD+ was formalized in its current form. REDD+ mission creep did not play a role in the evolution of forestry laws in Brazil. They do specifically mention 'carbon' in Article 3, in which the concept of 'carbon trading' is included.⁷⁷ In Article 5, section 14, subsection 6 of the Commissions for the Management of Public Forests, the government approves the use of carbon credits.⁷⁸ However, the principle of carbon trading is not relevant to REDD+. REDD+ strives to cut the amount of emissions from the root cause, deforestation, and carbon trading will not achieve that goal in as of a timely fashion as compared to the REDD+ program. The national laws of Brazil go against the international goals that the country has advocated for.

⁷²*Ibid*.

⁷³ Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs. Law N 12.651 Forestry Codes, May 25, 2012, http://www.planalto.gov.br/ccivil 03/ Ato2011-2014/2012/Lei/L12651.htm ⁷⁴ Presidency of the Republic of Brazil, October 2012.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ The "Commissions for the Management of Public Forest" Tab of the "Ministry of the Environment of Brazil" cannot be found at this moment. 2 April 2018.

During the early negotiations of the framework in 2005, Brazil states in their recommendations for RED: "Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol..."79 This similar language was not only included by Brazil but also by Austria, Japan, Malaysia, Peru, and others.⁸⁰ Subsequently, Brazil fails to incorporate such consensus directly into their national forestry law. Not only does Brazil fail to display consideration for REDD+ priorities, the inclusion of 'carbon trading' suggests that Brazil may be at odds with REDD+. Both the carbon market and the REDD+ idea of reducing sinks strive to use the market as a tool, however one allows for continued pollution and the other seeks to stop it.⁸¹ These two goals support the theories regarding pricing the environment. Both carbon trading and the REDD+ mechanism price the environment yet one allows for continued pollution and the later seeks for preservation. They both support the theory that pricing the environment is a viable solution to reducing environmental degradation. It would be worth it for Brazil to embody the goal of "enhancement of forest carbon stocks" into their national forestry law.⁸² Why does it seem that Brazil is reluctant to embed REDD+ goals, especially when they were one of the top contributors to the development of the framework?

REDD+ Implications on Government Structure

On December 2, 2015, Brazil established, directly under the Ministry of the Environment, The National REDD+ committee, "ENREDD+."⁸³ This committee is set up specifically to

⁷⁹ UNFCCC, 2006.

⁸⁰ Ibid.

⁸¹ Presidency of the Republic of Brazil, October 2012.

⁸² Brazil has a detrimental issue of illegal logging and rapid deforestation. This goal should be a priority for a state that is rapidly losing forest cover.

⁸³ The Ministry of the Environment of Brazil. "REDD+ Brazil: The National REDD+ Strategy," 2016, <u>http://redd.mma.gov.br/en/the-national-redd-strategy</u>.

coordinate with the UN-REDD+ Program and achieve all the goals associated with it.⁸⁴ The Brazilian government has many forest management mechanisms set up, including the Commissions for the Management of Public Forests, the National Forest Commission, the Control and Prevention of Deforestation, Sustainable Forest Management, National Forest Program, the Program for the Protection of Tropical Forests, Project BR-163, and the National Policy for the Recovery of Native Vegetation.⁸⁵ REDD+ seems to be just another chapter of the Ministry of the Environment. If this is the case, then it is difficult to see how seriously Brazil takes REDD+. It is interesting regarding the concept of mission creep in a possibly a new light, "bureaucratic creep." Whereas mission creep at the international level did not officially seem to affect national forestry law, the emergence of the REDD+ National Committee is a new factor. Brazil has many national committees that broadly share goals of REDD+ and yet, there was an emergence of an entire committee to address REDD+.⁸⁶

Case Analysis: Papua New Guinea

Considering PNG's international commitment to REDD+, it would have been appropriate for the country to incorporate goals that they deemed important for the international community into their national policies. PNG should, at the very least, have current legislation considering their deep involvement with land management discussions. PNG's policy regarding forestry is

⁸⁴ Ibid.

⁸⁵ Ministry of the Environment of Brazil. 2014,

http://redd.mma.gov.br/en/images/Publicacoes/Brazil%20and%20the%20implementation%20of%20the%20Warsaw %20Framework%20for%20REDD_24nov2014_final.pdf

⁸⁶"Control and Prevention of Deforestation," "Sustainable Forest Management," and "National Forest Program" address some aspects of REDD+. These offices have similar goals as REDD+ however, as of May 5, 2018, the "Forestry" section of the Brazilian Government website has been made unavailable. Rather, their environmental focuses are "Water," "Conservation," and "Waste Management." Therefore, I am unable to access the documents that govern these offices. Brazil has many offices dedicated to forestry and still preceded to add the National Committee on REDD+. Further examination of these offices must be made when the documents are made available.

primarily reflected in The Forest Act, which was written in 1991 and amended in 1993, 1996 and 2000.⁸⁷ PNG's other forestry laws are also out of date, some even have expired.⁸⁸ In 2013, PNG began to draft a National Forest Plan, however, it received poor review and there have been no updates since.⁸⁹ PNG worked with Costa Rica to propose RED to the UNFCCC, however, I find that they have failed to seriously implement REDD+ strategies in domestic policy considering no official changes have been recorded in 18 years.⁹⁰ This failure is not going unnoticed because PNG is facing criticism from the international community.⁹¹ Furthermore, it is generally upsetting to see this in a country that desperately needs land management policy.⁹² PNG does not have the national infrastructure to combat deforestation, which completely supports the theory of the "National Land Mismanagement" school of thought. REDD+ brings together the international framework and individualized national commitments for a new approach. However, with an international framework to provide steps for states to preserve land, PNG would greatly benefit from this international guidance.

Two of the "Priority Projects" established by PNG's Federal Government are "Environment and Climate Change" and "Forestry."⁹³ However, there is very limited information given on the details of these projects. For the first project, they hope to improve the Climate Change sector of the department and have the goal of "preservation of natural forests, [the] fauna and flora, and [the] ability to access [the] carbon markets."⁹⁴ Regarding the

⁸⁷ Papua New Guinea Forest Industries Association (Inc). "Forestry Act 1991 Independent State of Papua New Guinea," 2000, <u>http://www.fiapng.com/forestry_act_1991.html</u>

⁸⁸ Forest Legality Initiative, "Papua New Guinea," April 2013, <u>https://forestlegality.org/risk-tool/country/papua-new-guinea</u>.

⁸⁹ Ibid

⁹⁰ As of April 18, 2018

 ⁹¹ The REDD Desk. "REDD in Papua New Guinea," 2012, https://theredddesk.org/countries/papua-new-guinea
⁹² Andrew Thomas, "Papua New Guinea's Forests are Being Destroyed," January 12, 2018,

https://www.aljazeera.com/news/2018/01/papua-guineas-forests-destroyed-180112120748640.html ⁹³ Papua New Guinea. "Priority Projects," <u>http://www.pm.gov.pg/priority-projects/</u>

⁹⁴ Papua New Guinea. "Environment and Climate Change," <u>http://www.pm.gov.pg/project/environment-and-climate-change/</u>

"Forestry" priority, which is detailed in a few short sentences, they hope to reduce log exports and strongly align forestry goals with the upcoming "Climate Change Policy" that is to be presented to Parliament in the "near future."⁹⁵ PNG is lacking transparency with the international community and failing to make strides regarding a program they introduced.

Despite the apparent lack of concern given to combat environmental destruction, PNG has established *PNGREDDPLUS.ORG.PG* devoted to REDD+.⁹⁶ In the government of PNG, REDD+ is an entity within the Climate Change Development Authority. The website devoted to REDD+ describes much of the state's goals for the program.⁹⁷ In a section entitled "What Needs to Be Done" the discussion focuses on the four elements in designing REDD+ programs and how PNG has set goals to comply with REDD+.⁹⁸ The section is concluded with the statement "Papua New Guinea has taken initial steps in reviewing existing policies, laws and regulations to identify how well they cover the REDD+ safeguards."⁹⁹ REDD+ objectives have not appeared in any official documents or websites since 2005. These broad statements that fail to detail PNG's steps to become "REDD+ Ready" show a lack of commitment to the program. To be such an advocate for REDD+ and then fall through is concerning considering the immediate need for environmental action.

PNG was focused on emissions relating to deforestation and during the 2006 COP, Austria submitted a recommendation on their behalf which included "mission creep" -esque goals related to sustainable management and carbon stocks.¹⁰⁰ There is no concern for the

⁹⁵ Papua New Guinea. "Forestry," http://www.pm.gov.pg/project/forestry/

⁹⁶ "PNG REDD+," pngreddplus.org.pg.

 ⁹⁷Papua New Guinea. "REDD+ in PNG," 2017. <u>http://www.pngreddplus.org.pg/index.php/png-and-redd</u>
⁹⁸ Ibid.

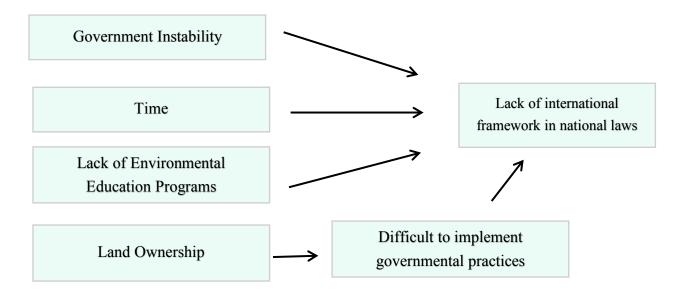
⁹⁹ Ibid.

¹⁰⁰ UNFCCC, 2006.

influence of mission creep in the case of PNG because PNG has not made significant updates or improvements to their national forestry laws since 2000.

Proposing A New Casual Model

What is in the way of REDD+ having an impact on national forestry laws? I propose a different casual model be considered.



Both Brazil and PNG have questionable government stability. I initially assumed that the passing of REDD+ in 2015, three years ago, would have provided ample time for countries to begin making commitments, specifically those who have been involved for the previous ten years. Furthermore, environmental issues are extremely time-sensitive, and therefore I believed that Brazil and PNG would prioritize this policy. Environmental education is another possible

factor. Environmental solutions require collective action.¹⁰¹ To build collective action, environmental education needs to spread and be prioritized.¹⁰²

Summary: In Both Cases, Results are Disappointing

Brazil displayed limited inclusion of REDD+ goals within their national forestry legislation and PNG none. The emergence of softer forms of governance was present in both cases. Both countries were committed to REDD+, either through becoming involved in the early negotiations or sponsoring the program itself, respectively. They both continued to be at the table by proposing official submissions and amendments from 2005-2008 (and then irregularly from 2008-2015).¹⁰³ Both countries have serious environmental concerns to address regarding deforestation and yet there have been limited to none prioritization of international goals. These countries are the foundation of this program. PNG has only submitted a reference level as of 2017. ¹⁰⁴ On initial review, PNG's "commitments" to REDD+ seem to be remarkable, however, there is an obvious lack of initiative to fully engage with REDD+. Brazil has done even more than PNG regarding submissions, but ultimately may be doing even worse by focusing efforts on carbon trading. They both have established national committees to work on the REDD+ framework, but considering they have been involved since 2005, they have failed to commit substantial ongoing changes to national forestry laws. Through these national committees, Brazil

https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii.

¹⁰²Angela Mooney D'Arcy, "Decolonizing Environmental Education: Building Relationships with Indigenous Peoples," *YouTube Webinar*, Moderated by Kristen Kunkle. March 2, 2017,

<u>https://www.youtube.com/watch?v=VPz0qYoS008&feature=youtu.be</u>.; Indigenous communities have the highest rates of environmental education and this needs to spread throughout the developed, "modern" world.

Mirza 25

¹⁰¹ Bill McKibben, "A World at War," The New Republic, August 15, 2016,

 ¹⁰³ UNFCCC. "UNFCCC documents in relation to reducing emissions from deforestation and forest degradation in developing countries," 2018, http://unfccc.int/land_use_and_climate_change/lulucf/items/6917.php
¹⁰⁴ UNFCC. "Papua New Guinea Submissions," 2017, http://redd.unfccc.int/submissions.html?country=png

and PNG, to a degree, may be displaying signs of greenwashing.¹⁰⁵ This claim is based on the lack of commitments that the national committees display.

44% of Brazil's economy relies on land and forest structure.¹⁰⁶ This number is 85% for PNG.¹⁰⁷ Economic incentives to halt deforestation (and the related goals) are admirable, however, is it possible for developed nations to fund 44% and 85% of Brazil and PNG's economy? REDD+ cannot possibly fund that of two countries, nor is it realistic to completely halt deforestation practices. How do the results of this effect the livelihood of people? The thought of physically changing the way of life for millions of people is a daunting and difficult task. The task also brings in the question of ethics. How can governments change the livelihood of their peoples? Both Brazil and PNG are dominated by rural areas, and the logistics of undocumented or illegal forestry are hardly considered. This contributes to the reasons of greenwashing; the international community has just not provided enough structure and a general lack of ideas in how REDD+ will restructure the economy and way of life. Yet, developing countries want to be part of the solution, is REDD+ the best avenue?

Conclusion

REDD+ was a promise to a future of a cleaner and stable future, yet just after its completion, we find submissions from only four countries. The two founding parties of REDD+, Costa Rica and PNG, have yet to submit their action plans. International agreements should be reflected with national laws if a country is truly committed to making the changes that are being

¹⁰⁵ The instance of making an organization appear to be environmentally responsible and conscious for a stronger public image.

¹⁰⁶ Simones, "Brazil," <u>https://atlas.media.mit.edu/en/profile/country/bra/</u>

¹⁰⁷ Simones. "PNG," <u>https://atlas.media.mit.edu/en/profile/country/png/1</u>

sought. REDD+ is the most timely and relevant international environmental policy piece to this date.

There are a few limitations to the research that was conducted. There may be a concern as to how much policy one can discover, however, I addressed this through a database that tracks forest legislation.¹⁰⁸ There is a limitation in accessing unofficial documents and conversations. It may be possible that much of the decisions occur on a micro-political level and there is more content in unofficial documents that I do not have records of. However, it is important to look at what each government adds to their agendas, vote on, and mandate as critical information for the well-being of the state. I will note that REDD+ is a very relevant document and the legal system involves a lengthy process, so it may be that the lack of updated national policies is due to a lack of time.¹⁰⁹ As suggested earlier, there may be other reasons as to why REDD+ has not yet been prioritized, each of these reasons are challenging enough and allow for in their own individual research projects to develop in the near future.

This study on REDD+ has led to me consider broader questions about the framework itself. First, is REDD+ an example of greenwashing? This relates back to global governance scholars who find that international agreements have very little strength. Environmental issues are a rising concern. REDD+ displays an initiative to confront the issue and yet only four countries have made submissions to the framework. Furthermore, I question if REDD+ perpetuates a false narrative that developing countries significantly contribute to increased CO2 emissions. Through the implementation of a program for developing countries to reduce emissions, the possibility to reduce emissions from developed countries, where emissions are exponentially high, decrease. I suggest that further research into the implementation of carbon

¹⁰⁸ "Forest Legality," <u>https://forestlegality.org/</u>, 2018.

¹⁰⁹ As of May 5, 2018

trading be addressed and compared to REDD+ and its implementations. This may offer a stronger understanding of the length of time it takes until national laws should be expected to implement international measures. This understanding will allow for governments to make a more streamlined process for passing and enacting necessary legislation.

Lastly, in the environmentalist framework, if states are falsely committing to international agreements, is there any hope for an environmentally conscious and sustainable future? If REDD+ is successful, the future is looking bright, however, if REDD+ repeats the failures of earlier international environmental policy, such as the Kyoto Protocol, international environmental policy will have to reconsider the best approach to protect our future.

References

- Abbott, Kenneth W., and Snidal, Duncan. "Hard and Soft Law in International Governance." (2000); 54, No. 3. *International Organization*. 421-456.
- Bajocco, S., A. De Angelis, L. Perini, A. Ferrara, L. Salvati. "The Impacts of Land Use/Land Cover Chnages on Land Degradation Dynamics: A Mediterranean Case Study." *Environmental Management*, 49 (2012) 980-989.
- Brazil. "Brazilian Submission on Issues Relating to Reducing Emissions from Deforestation in Developing Countries. 2006. http://unfccc.int/resource/docs/2006/sbsta/eng/misc05.pdf
- Carlson, Matthew. "Balancing the Relationship Between Protection and Sustainable Management in Canada's Boreal Forest," *Conservation and Society* 13, 1 (2015).
- Clapp, Jennifer and Peter Dauvergne. "Brief History of International Environmental Cooperation." In *Global Environmental Politics: Person to Planet*, edited by Paul Wapner and Simon Nicholson, 124-29. New York: Routledge, 2015.
- Cruz Wilford, Mohan Monasinghe and Jeremy Warford. "Greening Development: Environmental Implications of Economic Policies," *Environment* 38, 5 (1996).
- D'Arcy, Angela Mooney. "Decolonizing Environmental Education: Building Relationships with Indigenous Peoples." *YouTube Webinar*. Moderated by Kristen Kunkle. March 2, 2017. <u>https://www.youtube.com/watch?v=VPz0qYoS008&feature=youtu.be</u>.
- Forest Legality," https://forestlegality.org/, 2018.
- Forest Legality Initiative, "Papua New Guinea," April, 2013, https://forestlegality.org/risk-tool/country/papua-new-guinea.
- Glienicke, Angela. "Massive Deforestation Linked Major Consumer Brands." *Greenpeace UK*. May 2, 2018. https://www.greenpeace.org.uk/pictures-massive-deforestation-linkedmajor-consumer-brands/
- Global Canopy Programme. "The REDD Desk," *The REDD DESK*, 2017, <u>https://theredddesk.org/what-redd#table-of-contents</u>.
- Jacobs, M. Sustainable Development: Greening the economy. Fabian Society. London, 1990.
- Laing, Timothy, Luca Taschini and Charles Palmer. "Understanding the Demand for REDD+ Credits," *Environmental Conservation* 43, 4 (2016), 390-418
- Lange, Andrej Rosemarie Siebert and Tim Barkmann, "Sustainability in Land Management: An Analysis of Stakeholder Perceptions in Rural Northern Germany," *Sustainability* 2015, 7 (2015), 683-704.
- Mathison, Sandra. "Cross-Case Analysis in Encyclopedia of Evaluation," (SAGE Publications, 2005).
- McKibben, Bill. "A World at War." *The New Republic*. August 15, 2016. <u>https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii</u>.
- McMichael, Philip. "Development and Social Change: A Global Perspective," 5th edition. New Delhi: SAGE, 2012.

- Ministry of the Environment of Brazil. "ENREDD+ National REDD+ Strategy: Brazil Submission," *Government of Brazil*, 2016,
- http://redd.mma.gov.br/images/publicacoes/enredd_english_web.pdf Ministry of the Environment of Brazil. 2014.

http://redd.mma.gov.br/en/images/Publicacoes/Brazil%20and%20the%20implementation %20of%20the%20Warsaw%20Framework%20for%20REDD_24nov2014_final.pdf

The Ministry of the Environment of Brazil. "REDD+ Brazil: The National REDD+ Strategy." 2016. <u>http://redd.mma.gov.br/en/the-national-redd-strategy</u>.

- Ministry of the Environment of *Brazil. "REDD+ Brasil" Government of Brazil,* 2018, http://redd.mma.gov.br/en/ Mission Creep," Merriam-Webster.com,
- https://www.merriam-webster.com/dictionary/mission creep, (Accessed March 1, 2018). Nakamoto, Yasuhiro and Koichi Futagami. "Dynamic Analysis of Renewable Resource in a

Small Open Economy: The Role of Environmental Policies for the Environment." *Environmental Resource Economics* 2016, 64 (2015) 373-399.

Nuesiri E. O., Feigning Democracy: Performing Representation in the UN-REDD Funded Nigeria-REDD Programme," *Conservation and Society* 15 no.4 (2017) 384-399.

Papua New Guinea. "Environment and Climate Change."

http://www.pm.gov.pg/project/environment-and-climate-change/

- Papua New Guinea Forest Industries Association (Inc). "Forestry Act 1991 Independent State of Papua New Guinea." 2000. <u>http://www.fiapng.com/forestry_act_1991.html</u>
- Papua New Guinea. "Forestry" http://www.pm.gov.pg/project/forestry/
- Papua New Guinea. "Priority Projects." http://www.pm.gov.pg/priority-projects/
- Papua New Guinea REDD+. "REDD+ in PNG." 2017.

http://www.pngreddplus.org.pg/index.php/png-and-redd

- Phelps, J., Webb, E. L. and A. Agrawal. "Does REDD+ Threaten to Recentralize Forest Governance?," *Science*, 328 (5976), 312-313. (2010).
- PNG REDD+." pngreddplus.org.pg

Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs. Law N 12.651 Forestry Codes. 25 May 2012 <u>http://www.planalto.gov.br/ccivil_03/_Ato2011-</u> <u>2014/2012/Lei/L12651.htm</u>

- Presidency of the Republic of Brazil Civil House Sub-Office for Legal Affairs. Law N 12.727 Forestry Codes. 17 October 2012. <u>http://www.fiapng.com/forestry_act_1991.html</u>
- "The REDD Desk," Global Canopy Programme, 2017, <u>https://theredddesk.org/what-redd#table-of-contents</u>
- The REDD Desk. "REDD in Papua New Guinea." 2012. https://theredddesk.org/countries/papua-new-guinea
- Andrew Thomas, "Papua New Guinea's Forests are Being Destroyed," January 12, 2018, https://www.aljazeera.com/news/2018/01/papua-guineas-forests-destroyed-180112120748640.html
- REDD-UNFCCC. "Fact Sheets National Strategy," 2018, http://redd.unfccc.int/factsheets/national-strategy.html
- REDD-UNFCCC. "Fact Sheets, Warsaw Framework for REDD," *REDD-UNFCCC*, 2018, http://redd.unfccc.int/fact-sheets/warsaw-framework-for-redd.html

- REDD-UNFCCC, "Fact Sheets Safeguards," *REDD-UNFCCC*, 2018, <u>http://redd.unfccc.int/fact-sheets/safeguards.html</u>.
- REDD-UNFCC. "REDD Submissions," *REDD-UNFCCC*, 2018, http://redd.unfccc.int/submissions.html
- "REDD+ Web Platform," United Nations Framework Convention on Climate Change, 2017, <u>http://redd.unfccc.int/</u>
- Robbins, Paul, John Hintz and Sarah A. Moore. "Environment and Society: A Critical Introduction." Oxford: Wiley-Blackwell, 2010.
- Simones, AJG, Hidalgo C.A. *The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development*. Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence. 2011. <u>https://atlas.media.mit.edu/en/profile/country/bra/</u> and <u>https://atlas.media.mit.edu/en/profile/country/png/1</u>
- Skutsch, M. "Evolution of International Policy on REDD+." Oxford Research Encyclopedias: *Climate Science*. 2017.
- Smith, Brett "Brazil: Environmental Issues, Policies and Clean Technology." *AZO CleanTech*. June 25, 2015. <u>https://www.azocleantech.com/article.aspx?ArticleID=547</u>
- Stephanie Mansourian, "Understanding the Relationship Between Governance and Forest Landscape Restoration," *Conservation and Society* 14, 3(2016).
- Suiseeya, Kimberly. "Contesting Justice in the Global Forest Governance: The Promises and Pitfalls of REDD+," *Conservation and Society* 15, 2 (2017), 189
- UNFCCC, "UNFCCC Essential Background," United Nations Framework Convention on Climate Change, 2018,

```
http://unfccc.int/essential_background/convention/items/6036.php
```

- UNFCCC. "Issues relating to reducing emissions from deforestation in developing countries and recommendations on any further process." *UNFCCC*, 2006, http://unfccc.int/resource/docs/2006/sbsta/eng/misc05.pdf
- UNFCCC. "Papua New Guinea Submissions." 2017. http://redd.unfccc.int/submissions.html?country=png
- UNFCCC. "UNFCCC Land Use and Climate Change." United Nations Framework Convention on Climate Change. 2017.

http://unfccc.int/land_use_and_climate_change/items/8792.php.

- UNFCCC Secretariat. "Key Decisions Relevant for Reducing Emissions from Deforestation and Forest Degradation in Developing countries (REDD+)," *UNFCCC*, 2016. http://unfccc.int/files/land_use_and_climate_change/redd/application/pdf/compilation_re dd decision booklet v1.2.pdf. 2.
- UNFCCC. "UNFCCC documents in relation to reducing emissions from deforestation and forest degradation in developing countries." 2018.

http://unfccc.int/land_use_and_climate_change/lulucf/items/6917.php ited Nations "United Nations Conference on Human Environment" 2018 http://

- United Nations. "United Nations Conference on Human Environment," 2018. <u>http://www.un-documents.net/unche.htm</u>
- Urech, Zora Lea Jean-Pierre Sorg. "Challenges for the Community-Based Forest Management in the KoloAla Site Manompana." *Environmental Management* 51 (2013), 602

West, Thales A.P. "Indigenous Community Benefits from a De-Centralized Approach to REDD+ in Brazil." *Climate Policy.* 16, 7 (2018). 924-939.

Appendix: Acronym List

CO2- Carbon Dioxide COP- Conference of the Parties GHG- Greenhouse Gas MRV- Measure, report and verify NGO- Non-Governmental Organizations PNG – Papua New Guinea RED – Reducing Emissions from Deforestation REDD – Reducing Emissions from Deforestation and Forest Degradation REDD+ - 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. UN – United Nations UNFCCC – United Nations Framework Convention on Climate Change